

**DEPARTMENT OF VETERANS  
AFFAIRS**

**38 CFR Parts 3 and 4**

**RIN 2900-AE91**

**Schedule for Rating Disabilities; the  
Musculoskeletal System**

**AGENCY:** Department of Veterans Affairs.

**ACTION:** Proposed rule.

**SUMMARY:** The Department of Veterans Affairs (VA) is proposing to amend that portion of its Schedule for Rating Disabilities that addresses musculoskeletal conditions. The intended effect is to update this portion of the rating schedule to ensure that it uses current medical terminology and unambiguous criteria, and that it reflects medical advances that have occurred since the last review. We also propose to make nonsubstantive editorial changes throughout this portion of the Schedule.

**DATES:** Comments must be received on or before April 14, 2003.

**ADDRESSES:** Mail or hand-deliver written comments to: Director, Office of Regulatory Law (02D), Department of Veterans Affairs, 810 Vermont Ave., NW., Room 1154, Washington, DC 20420; or fax comments to (202) 273-9289; or e-mail comments to [OGCRegulations@mail.va.gov](mailto:OGCRegulations@mail.va.gov). Comments should indicate that they are submitted in response to "RIN 2900-AE91." All comments received will be available for public inspection in the Office of Regulatory Law, Room 1158, between the hours of 8 a.m. and 4:30 p.m., Monday through Friday (except holidays).

**FOR FURTHER INFORMATION CONTACT:** Caroll McBrine, M.D., Consultant, Regulations Staff (211A), Compensation and Pension Service, Veterans Benefits Administration, Department of Veterans Affairs, 810 Vermont Ave., NW., Washington, DC 20420, (202) 273-7210.

**SUPPLEMENTARY INFORMATION:** As part of its first comprehensive review of the rating schedule since 1945, VA published in the **Federal Register** of December 28, 1990 (55 FR 53315), an advance notice of proposed rulemaking advising the public that it was preparing to revise and update the portion of VA's Schedule for Rating Disabilities (the rating schedule) that addresses the musculoskeletal system. On June 3, 1997, we published in the **Federal Register** a final rule (62 FR 303235) revising § 4.73, which addresses muscle injuries. This proposed rule addresses the remainder of the musculoskeletal system, § 4.71a, which addresses

primarily bone and joint disabilities. In the document revising § 4.73, we stated our intent to designate the remainder of the musculoskeletal system as the orthopedic system. However, because some of the provisions of § 4.71a also apply to muscle injuries, and some of the conditions are rheumatologic, rather than orthopedic, conditions, we now propose to retain the current designation, musculoskeletal system.

In response to the advance notice of proposed rulemaking, we received two comments, one from the American Legion and one from a physician in the Department of Orthopedics at the University of Washington.

One commenter recommended that this revision include revisions of the rating and examination guidelines in 38 CFR 4.40 to 4.70 as they relate to musculoskeletal disabilities. We are proposing to make many changes to these sections, and they are discussed in detail below.

The same commenter stated that the current rating schedule does not reflect the use of new diagnostic methods, such as computed tomography (CT) and magnetic resonance imaging (MRI) scans, or reflect new operative procedures for joint replacements. We agree that the schedule is outdated in these areas and propose changes to update the schedule for many disabilities. For example, we propose to accept not only X-ray findings, but also reports from other imaging procedures (such as MRI or CT scans), as evidence of arthritis and other musculoskeletal conditions.

The commenter also recommended that there be a review of the Veterans Health Administration's "Physician's Guide for Disability Evaluation Examinations" (a manual no longer in use that gave guidance to examining physicians who do compensation and pension examinations). The commenter felt that medical advances present an increased need for the examiner to provide specific findings and detailed measurement and assessment of disabling conditions. This comment is no longer pertinent because the former "Physician's Guide" is no longer in existence. (A new Clinician's Guide or handbook for examiners is, however, under development.) In place of the former Physician's Guide, VA developed a series of disability examination worksheets for various individual conditions or groups of conditions to assure that examiners provide all information necessary for rating. These worksheets, which are periodically updated as medical advances or rating needs arise, are now in use.

A second commenter provided a set of guidelines for evaluating spine disabilities. We are revising certain parts of the current musculoskeletal portion of the rating schedule separately. These include ankylosis and limitation of motion of the digits of the hand, disabilities of the spine, and intervertebral disc syndrome (published as a proposed rule in the **Federal Register** of February 24, 1997 (62 FR 8204)). Since these disabilities are not included in this proposed rule, this comment concerning the evaluation of spine disabilities will be addressed in the separate proposed rule providing criteria for evaluating disabilities of the spine.

In addition to publishing an advance notice, we also hired an outside contract consultant to recommend changes to the evaluation criteria to ensure that the schedule uses current medical terminology and unambiguous criteria, and that it reflects medical advances that have occurred since the last review. The consultant convened a panel of non-VA specialists to review the portion of the rating schedule dealing with the musculoskeletal system in order to formulate recommendations. We are proposing to adopt many, although not all, of the recommendations the contractor submitted. In some cases, evaluations based on the revised criteria will be lower, in some cases, higher, and, in some cases, unchanged.

Sections 4.40 through 4.46, 4.57 through 4.59, 4.61 through 4.64, and .66 through 4.71 in subpart B of 38 CFR part 4 deal with a variety of issues, including circulatory disturbances, osteomyelitis, loss of use of both buttocks, painful motion, foot deformities, dominant hand, and examination and assessment of the bones and joints. Much of the information in these sections was originally included in rating schedules of 1925, 1933 or 1945 to provide background medical information that was not otherwise available. We propose to consolidate and reorganize these sections and to delete the parts that are simply statements of medical fact rather than substantive rules of general applicability, statements of general policy, or interpretations of general applicability that raters must follow. A regulation is an agency statement of general applicability and future effect, which the agency intends to have the force and effect of law, that is designed to implement, interpret, or prescribe law or policy, or to describe the procedure or practice requirements of an agency (5 U.S.C. 551(4)). General medical information that is available in standard textbooks and other material that neither prescribes VA policy nor

establishes procedures a rater must follow fall outside of those parameters, and are therefore not appropriate in a regulation. We propose to retain, with editorial and sometimes substantive changes, §§ 4.40, 4.42, 4.45, 4.46, 4.59, 4.67, 4.68, 4.69, 4.71, and 4.71a. We propose to delete §§ 4.41, 4.43, 4.44, 4.57, 4.58, 4.61, 4.62, 4.63, 4.64, 4.66, and 4.70. The proposed changes are explained in detail below.

In addition, we are proposing to make a number of editorial changes throughout this portion of the rating schedule to condense and clarify the schedule in the interests of efficiency, ease of use, and elimination of ambiguity.

Introductory §§ 4.40 through 4.45 are directed in part at examiners and in part at raters. Much of the material is medical information, some of it outdated, about musculoskeletal diseases. We propose to remove the nonregulatory material, that is, material that does not prescribe VA policy or establish procedures a rater must follow, and the material directed toward examiners because this material is not appropriate in a regulation.

Section 4.40, currently titled “Functional loss,” describes disability of the musculoskeletal system as primarily the inability, due to damage or infection in parts of the system, to perform the normal working movements of the body with normal excursion, strength, speed, coordination and endurance. It states that it is essential that the examination on which ratings are based adequately portray the anatomical damage and functional loss with respect to all of these elements. It also states that weakness is as important as limitation of motion, and that a part that becomes painful on use must be regarded as seriously disabled. The intent of this section appears to be to provide a general description of musculoskeletal disability and guidelines to examination rather than a specific method for evaluating these functions in musculoskeletal disabilities. As discussed above, there are disability examination worksheets that provide examiners with detailed requirements for musculoskeletal examinations. The current criteria for musculoskeletal diseases do not always call for a rating commensurate with “serious” disability when there is pain on use of a joint. (See, for example, fibromyalgia, diagnostic code 5025 in § 4.71a, a condition that, by definition, includes widespread musculoskeletal pain, and flatfoot, diagnostic code 5276.) Pain is, in fact, almost the hallmark of musculoskeletal disease. We therefore propose to revise § 4.59, to be

titled “Evaluation of pain in musculoskeletal conditions,” and to provide criteria for the evaluation of pain, if appropriate, when pain is not taken into account in the evaluation criteria for a particular condition. Although pain is a subjective complaint, the more severe it is, the more likely there are to be correlative physical or laboratory findings, and this fact is the basis of the criteria in § 4.59.

Of the other characteristics of musculoskeletal disability listed in § 4.40—impairment of normal excursion, strength, speed, endurance, and coordination—speed and endurance are not readily measurable in the setting of a medical examination, and there is no method of evaluating them consistently. They are therefore less useful than limitation of motion as measures of the extent of disability. Coordination is an issue in only a limited number of musculoskeletal conditions, being seen more often in neurological conditions, and is unlikely to occur due to musculoskeletal disorders in the absence of other findings, such as weakness, atrophy, or limitation of motion. In summary, the information in § 4.40 does not prescribe VA policy or establish clear procedures a rater must follow. It is therefore not appropriate in a regulation, and we propose to delete it.

We propose to retitle § 4.40 “Evaluation of musculoskeletal disabilities” and to state that, except for application of the pain scale in § 4.59 when appropriate, the evaluation criteria provided under the diagnostic codes are to be the sole basis of evaluation. Factors such as fatigability and impairment of coordination, speed, and endurance, are common in musculoskeletal disabilities, and § 4.40 would state that disability due to those functions is encompassed by the evaluation criteria that are provided. An evaluation based on one of these factors over and above what is called for under the evaluation criteria will therefore not be assigned. This change would eliminate the need to assess functions that cannot be consistently or readily assessed and would therefore promote consistency of evaluations in musculoskeletal conditions. To promote consistency in assessing muscle strength, we propose to address the evaluation of muscle strength in § 4.46.

Because § 4.41, “History of injury,” is a restatement of parts of §§ 4.1, 4.2, 4.6, and 4.9, we propose to delete it.

Section 4.42, “Complete medical examination of injury cases,” discusses the importance of a complete initial examination, rephrasing basic rating principles that are stated in 38 CFR 4.1

and 4.2 and reflected in the examination worksheets. This material is therefore redundant, and we propose to delete it.

We propose to retitle § 4.42 “Examination of joints”. It would state that the range of motion of a joint will be determined by measurement with a goniometer and indicate that, for VA rating purposes, the normal ranges of motion for major joints and the spine are provided on plates in § 4.71a.

Current § 4.43, “Osteomyelitis,” outlines the principles of evaluating osteomyelitis. It states that osteomyelitis will be regarded as a continuously disabling process and will be entitled to a permanent rating unless the affected part is removed by amputation. This information is not consistent with modern medical knowledge; osteomyelitis can often be treated and cured without resort to amputation, and continuous disability is not always the aftermath. We are proposing revised guidelines for the evaluation of osteomyelitis under diagnostic code 5000 that we believe are clear and comprehensive enough to require no additional guidelines. The proposed criteria are also based on contemporary medical knowledge. We therefore propose to delete this section.

Current § 4.44, “The bones,” states that osseous abnormalities due to injury or disease should be depicted by study and observation of all available data from time of injury, through treatment, convalescence, progress of recovery, and permanent residuals. It also discusses the effect of angulation and deformity of bone, including the effect on other joints, which are medical facts or judgment. Sections 4.2 and 4.6 regulate interpretation of examination reports and the evaluation of evidence which § 4.44 attempts to restate. Since § 4.44 does not prescribe VA policy or establish procedures a rater must follow, is redundant with §§ 4.2 and 4.6, and is not based on current medical knowledge, we propose to delete it.

Section 4.45, “The joints,” lists some of the functional effects of joint disability, including whether there is less movement than normal, more movement than normal, weakened movement, excess fatigability, incoordination, impaired ability to execute skilled movements smoothly, pain on movement, swelling, deformity, or atrophy of disuse, but does not address how to evaluate them. Since modern information about joint disability is available from numerous medical sources, and this portion of the section does not prescribe VA policy or establish procedures a rater must follow, we propose to delete this material. We propose to provide clear criteria for

evaluating specific conditions affecting joints under specific diagnostic codes and in § 4.59, as discussed later in this document.

Section 4.45 also defines major and minor joints and their rating significance. It states that for the purpose of rating disability from arthritis, the shoulder, elbow, wrist, hip, knee, and ankle are considered major joints, and that multiple involvements of the interphalangeal, metacarpal, and carpal joints of the upper extremities, the interphalangeal, metatarsal and tarsal joints of the lower extremities, the cervical vertebrae, the dorsal vertebrae, and the lumbar vertebrae, are considered groups of minor joints, ratable on a parity with major joints. It also states that the lumbosacral articulation and both sacroiliac joints are considered to be a group of minor joints, ratable on disturbance of lumbar spine functions.

Since this information is necessary for rating, we propose to retain regulatory definitions of major and minor joints for purposes of evaluating arthritis, but to revise them for clarity. We propose to retitle this section "Major and Minor Joints for Arthritis Evaluations," which better describes the content. We propose to include two paragraphs, with paragraph (a) (Major joints) stating that for purposes of rating disability from arthritis, each shoulder, elbow, wrist, hip, knee and ankle joint is a major joint, and all other joints are minor joints. Paragraph (b) (Groups of minor joints) would state that a group of minor joints with arthritis will be rated as a major joint. A group of minor joints is defined as any combination of three or more interphalangeal or metacarpophalangeal joints of a single hand, any combination of three or more interphalangeal, metatarso-phalangeal, tarso-metatarsal, or tarso-tarsal (or intertarsal) joints of a single foot; any combination of two or more cervical vertebral joints; any combination of two or more thoracolumbar vertebral joints; or a combination of the lumbosacral joint and both sacroiliac joints. This revision would resolve ambiguity in the current language by clearly indicating, for example, that the combination of minor joints in different parts of the body, such as two interphalangeal joints of one hand and a single cervical or thoracolumbar intervertebral joint, does not constitute a major joint and that the combination of one interphalangeal, one metatarso-phalangeal, and one intertarsal joint of a single foot would constitute a group of minor joints. These issues have been a source of confusion in applying the current schedule. This revision would also remove the vague

term "multiple involvements" and specify the number of minor joints in various areas that would constitute a group of minor joints. The revision would also name specific joints, rather than naming bones, in order to eliminate confusion about determining, for example, whether or not the term "carpal joints" includes the radiocarpal joint (between the radius and the carpal bones) the carpo-carpal (or intercarpal) joints (between two or more carpal bones), and the carpo-metacarpal joints (between the carpals and the metacarpals). Since all of these joints are involved in wrist motion, we propose to consider them all part of the wrist joint, and therefore part of a major joint.

Section 4.46, "Accurate Measurement," points out the importance of accurate measurements of the length of stumps, excursion of joints, and dimensions and locations of scars with respect to landmarks, in the disability examination process. It also states that a goniometer is indispensable in measuring limitation of motion. The importance of an adequate examination, which this section attempts to set forth, is already stated in § 4.2, "Interpretation of examination reports". Disability examination worksheets for examiners give detailed guidelines for examining and measuring in the musculoskeletal system. We propose to put the requirement for use of a goniometer to measure joint range of motion in revised § 4.42. We therefore propose to delete the contents of § 4.46 because the material is redundant.

We propose to retitle § 4.46, "Evaluation of muscle strength," and to state that, for VA rating purposes, muscle strength or weakness will be evaluated using a standard muscle grading table that is provided in paragraph (a). This will assure that assessment of muscle strength will be consistent and based on the system recommended by the consultants as the system used most widely by orthopedic surgeons, neurologists, physiatrists, and physical therapists. This system uses six levels of muscle grading: Absent (0): No palpable or visible muscle contraction; Trace (1): Palpable or visible muscle contraction, but muscle produces no movement, even with gravity eliminated; Poor strength (2): Muscle produces movement only when gravity is eliminated; Fair strength (3): Muscle produces movement against gravity but not against any added resistance; Good strength (4): Muscle produces movement against some, but no more than moderate, resistance; and Normal strength (5): Muscle produces movement against full or "normal"

resistance. This system is derived from "Aids to the Investigation of the Peripheral Nervous System," published by the Medical Research Council of Great Britain in 1945. The consultants pointed out that, although it is largely subjective, it has some objectivity in measuring strength by using gravity resistance in the assessment, and the term "normal" resistance is generally understood in medical usage. This table can be used for assessing both muscle and (motor) nerve disability. For convenience of use in assessing both musculoskeletal and neurologic disabilities, we also plan to add the table to the neurologic portion of the rating schedule when it is revised. We propose to add a second paragraph to § 4.46 to provide a guide to the use of the results of the muscle grading system in assessing loss of muscle function, as follows: complete, no motor function (muscle grading system 1 or 0); incomplete, severe, marked weakness associated with muscle atrophy (muscle grading system 2); incomplete, moderate, weakness (muscle grading system 3); and incomplete, mild, weakness (muscle grading system 4). In our judgment, this material would assist raters in making consistent determinations of muscle strength or weakness, based on the muscle grading system, and it is in general accord with the recommendations of the consultants.

Section 4.57, "Static foot deformities," discusses in detail how to clinically differentiate flatfoot (pes planus) that is congenital from flatfoot that is acquired and discusses when flatfoot should be service-connected. Material that pertains more to a determination of service connection than to evaluation is not appropriate in the rating schedule, which is a guide to the evaluation of disabilities, and we propose to delete this material. Section 4.57 also states that in the absence of trauma or other definite evidence of aggravation, service connection is not in order for pes cavus, a foot deformity that is typically a congenital or juvenile disease. Differentiating congenital from acquired foot deformities is more of a medical determination than a rating determination. None of the information in this section is pertinent to how raters should evaluate flatfeet or pes cavus, and we therefore propose to delete this section.

Current § 4.58, "Arthritis due to strain" discusses when it is appropriate to service connect, on a secondary basis, arthritis of joints that are subject to direct strain when there has been amputation or shortening of a lower extremity, or amputation or injury of an upper extremity. This material also

addresses the issue of service connection rather than evaluation. In addition, the determination of whether arthritis in a particular joint is secondary to another condition often requires a medical opinion. Since this material is not a guide to evaluation, and therefore is not appropriate in the rating schedule, and in addition is more of a medical than an adjudicatory decision, we propose to delete this section.

Current § 4.59, "Painful motion," states that painful motion is an important factor of disability and that the intent of the schedule is to recognize painful motion with joint or periarticular pathology as productive of disability. It states that painful, unstable, or malaligned joints are entitled to at least the minimum compensable rating for the joint, and indicates how joints should be tested. However, the instructions for evaluating pain are ambiguous and subject to individual interpretation, for example, in that they direct the examiner to note facial expression, wincing, etc., on pressure or manipulation. Furthermore, the current rating schedule does not always follow these guidelines. For example, a zero-percent evaluation is assigned for lumbosacral strain (under diagnostic code 5295) when there are slight subjective symptoms (which would almost always include pain); for degenerative arthritis (under diagnostic code 5003) when there is limitation of motion due to pain unless there is objective confirmation; and for a fracture of the humerus (under diagnostic code 5202) when there is malunion that is less than moderate. The instructions also fail to provide a way for raters to assign higher evaluations for extreme pain, which can be totally disabling in some cases. We propose to delete the current information in this section because it does not provide clear and objective instructions to raters on how to assess pain nor does it indicate how pain due to musculoskeletal conditions other than joint disability should be assessed. This follows the recommendation of the consultants, who felt that the additional disability resulting from pain may not be adequately considered in the current schedule and that we may wish to include more information on the evaluation of pain. They did not make specific recommendations about how to do this. Based in part on consultation with a committee of orthopedic surgeons from the Veterans Health Administration (the VHA Orthopedic Committee), we propose to change the name of this section to "Evaluation of

pain in musculoskeletal conditions" in order to clarify the scope of the section and propose a specific set of criteria to be used for the evaluation of pain in these conditions. We propose that when the evaluation criteria for a condition listed in § 4.71a do not take pain into account, but pain is present, that raters combine an evaluation based on the criteria under the particular diagnostic code with an evaluation for pain under § 4.59. A single (combined) evaluation for the condition would then be assigned under the appropriate diagnostic code for the condition.

We propose to provide a wide range of evaluations for pain in § 4.59, with 100-, 30-, 20-, 10-, and zero-percent evaluation levels. The evaluation criteria are based on a combination of the degree of the subjective complaint of pain, which is largely unmeasurable, and associated correlative clinical or laboratory findings that are more objective. We propose that a 100-percent evaluation for pain be assigned when there is complaint of pain that globally interferes with and severely limits daily activities, as long as the requirements for a 30-percent evaluation for pain are met, and a psychiatric evaluation has excluded other processes to account for the pain. We propose that a 30-percent evaluation for pain be assigned when there is complaint of pain at rest, with pain on minimal palpation or on attempted range of motion on physical examination, plus X-ray or other imaging abnormalities, plus abnormal findings on a vascular or neurologic special study. We propose that a 20-percent evaluation for pain be assigned when there is complaint of pain on any use, with pain on palpation and through at least one-half of the range of motion on physical examination, plus X-ray or other imaging abnormalities. We propose that a 10-percent evaluation for pain be assigned when there is complaint of pain on performing some daily activities, with pain on motion (through any part of the range of motion) on physical examination, plus X-ray or other imaging abnormalities. We propose that a zero-percent evaluation for pain be assigned when there is complaint of mild or transient pain on performing some daily activities, with correlative finding(s) on physical examination (for example, pain on palpation or pain on stressing the joint), but without X-ray or other imaging abnormalities. Establishing these criteria for pain evaluation would assure that pain is taken into consideration in all cases where it is present, either under the criteria in § 4.59 or in the criteria under the

diagnostic code specific to the condition (if pain is part of those criteria). By linking the complaints of pain with objective findings, it will promote the consistent evaluation of pain. It would also provide a 100-percent level of evaluation for pain that severely limits all daily activities, an effect that is not addressed in the current rating schedule.

We also propose to add two notes to § 4.59. The first would direct that a rater not combine a 100-percent evaluation under this section with any other evaluation for the same condition. The second would state that the provisions of § 4.68, "Limitation of combined evaluation of musculoskeletal and neurologic disabilities of an extremity," will apply to the evaluation of conditions evaluated wholly or partly under § 4.59, except for a 100-percent evaluation, that is, this will allow assignment of a 100-percent evaluation based on pain even if it would exceed the limits of an evaluation under the provisions of § 4.68 (Limitation of combined evaluation of musculoskeletal and associated neurologic disabilities of an extremity).

This set of criteria would replace all the current material in § 4.59, which we propose to delete.

Current § 4.61, "Examination," discusses the need for a thorough examination of all major joints, including the need to examine Haygarth's and Heberdon's nodes, in order to properly evaluate a claimant's disability due to arthritis. However, the presence or absence of these nodes has no bearing on evaluation. Furthermore, the term "Haygarth's nodes," which means a swelling of joints related to rheumatoid arthritis, is no longer in common medical use. The examiner determines the type of arthritis that is present based on many factors, such as which joints are affected, the history, laboratory and imaging studies, physical findings, etc. Guidance for examiners in providing information sufficient to allow raters to evaluate joint disease is contained in disability examination worksheets. Since the material in this section is not pertinent to the evaluation of arthritis, is outdated, and is similar to material in §§ 4.1 and 4.2, we propose to delete it.

Current § 4.62, "Circulatory disturbances," reminds the rater not to overlook circulatory disturbances, especially of the lower extremity following injury to the popliteal space, and to rate them generally as phlebitis. Medical records should make it clear when a vascular injury is associated with a lower extremity injury. Evaluation will depend on the findings

on examination in the particular case. In our judgment, this section is unnecessary because it does not prescribe VA policy nor establish procedures a rater must follow, and we propose to delete it.

Current § 4.63, "Loss of use of hand or foot," and § 4.64, "Loss of use of both buttocks," are duplicates of 38 CFR 3.350(a)(2) and 3.350(a)(3), portions of VA's adjudication regulations that implement statutory requirements for entitlement to special monthly compensation (SMC). Since this material addresses requirements for SMC rather than evaluating disabilities, it is not appropriate in part 4, and we propose to delete it.

Current § 4.66, "Sacroiliac joint," describes disability of the sacroiliac joints. For example, it describes the clinical findings of sacroiliac joint disability, the X-ray findings of arthritis of the sacroiliac joints, and other material more pertinent to examiners than to raters. This medical information neither prescribes VA policy nor establishes procedures a rater must follow, and we propose to delete it. The section also includes a direction to consider the lumbosacral and sacroiliac joints as one anatomical segment. Section 4.45(b) states that the lumbosacral articulation and both sacroiliac joints are to be rated together as a group of minor joints. The § 4.45 statement is a clearer explanation of the relationship of these joints than the statement in § 4.66, and is more pertinent to the needs of raters. We therefore propose to delete all of § 4.66.

Section 4.67, "Pelvic bones" directs that pelvic bone fractures be evaluated based on faulty posture, limitation of motion, muscle injury, painful motion of the lumbar spine manifest by muscle spasm, mild to moderate sciatic neuritis, peripheral nerve injury, or limitation of hip motion. We propose to revise the title to more clearly indicate the subject matter of the section by changing it to "Pelvic bone fractures." We also propose to provide clearer and more succinct instructions on evaluation by directing that pelvic fractures be evaluated based on the specific residuals, such as "limitation of motion of the spine or hip, muscle injury, or sciatic or other peripheral nerve neuropathy."

Current § 4.68, "Amputation rule," states that the combined rating for disabilities of an extremity will not exceed the rating for the amputation at the elective level, were amputation to be performed. Although this section is included in the musculoskeletal subdivision of the rating schedule, there has been confusion about whether it

applies to disabilities of body systems other than the musculoskeletal system that might affect the extremities, such as the neurologic, skin, and cardiovascular systems. Therefore, we propose to revise it to clarify that the amputation rule applies to only musculoskeletal and associated neurological disabilities of an extremity. There are several nonmusculoskeletal disabilities of an extremity in the current rating schedule that can be evaluated at a level higher than an amputation at a comparable level would be evaluated. For example, in § 4.104 in the cardiovascular section of the rating schedule, arteriosclerosis obliterans (diagnostic code 7114), thrombo-angiitis obliterans (diagnostic code 7115), varicose veins (diagnostic code 7120), and post-phlebitic syndrome (diagnostic code 7121) can all be evaluated at percentages that could exceed the percentage evaluation for amputation. Arteriosclerosis obliterans of a single lower extremity can be evaluated at 100 percent if there is ischemic limb pain at rest and either deep ischemic ulcers or an ankle/brachial index of 0.4 or less. There is no requirement that the arteriosclerosis obliterans affect a particular extent of a lower extremity for this evaluation to apply. Therefore, a 100-percent evaluation could be assigned when only the lower two-thirds of the extremity is affected, although an amputation of the extremity through even the upper one-third of the thigh warrants only an 80-percent evaluation. Section 4.68 currently states that painful neuroma of a stump after amputation shall be assigned the evaluation for the elective site of reamputation. This represents an exception to the rule based on the presence of a neurologic condition. In view of these facts, plus the fact that the amputation rule is located in the musculoskeletal system portion of subpart B (Disability Ratings) of the rating schedule rather than in subpart A, which addresses general rating policies, VA originally intended this rule to apply only to musculoskeletal disabilities. Injuries of an extremity may involve muscles, nerves, ligaments, joints, etc. The effects of these injuries are commonly inseparable. Nerve injuries, for example, may affect muscle strength and motion and produce effects almost identical to those of a muscle injury in the same area. We intend the rule to assure that the evaluation of the combined effects of even a severe musculoskeletal injury (including neurologic damage) will not exceed the evaluation for amputation, because, in general, all of these problems would be superseded or removed if an amputation

were to be performed. However, § 4.68 does not limit evaluations for the cardiovascular conditions mentioned above, nor would it be reasonable for it to do so, since an amputation might not "cure" or remove the disability. We therefore propose to clarify this section by stating that the combined rating for musculoskeletal and neurologic disabilities of an extremity will not exceed the rating that would be assigned for an amputation of the extremity at the level that would remove the affected areas, unless the evaluation criteria for a particular disability allow a higher evaluation. We also propose to revise the title of this section for further clarity to "Limitation of combined evaluation of musculoskeletal and associated neurologic disabilities of an extremity." We propose to retain, but edit, the portion of the current section pertaining to a painful stump neuroma that develops following amputation.

Current § 4.69, "Dominant hand," was revised in 1997. The revision modernized the terms "major" and "minor" to "dominant" and "nondominant," which are now the preferred terms. We propose only editorial changes in this section.

We propose to delete § 4.70, "Inadequate Examinations," from this section of the schedule as redundant since its provisions are not limited to the musculoskeletal system and are similar to material in §§ 4.1 and 4.2, which apply to all VA disability examinations.

Section 4.71, "Measurement of ankylosis and joint motion," explains Plates I and II in the schedule, which show standard anatomical positions of the joints of the upper and lower extremities and their ranges of motion. It also describes the exceptions to using the anatomical position as the zero baseline for joint measurement. The section also mentions Plate III, bones of the hand, and explains how to measure limitation of motion of the fingers, which is information provided in the part of the schedule that addresses the evaluation of ankylosis and limitation of motion of the fingers. We propose to delete the redundant reference to measurement of motion of the fingers, but propose no other substantive change to this section. We do propose to revise the title to "Baseline for joint motion measurement."

We propose to retain the illustrations currently in Plates I and II, demonstrating the normal range of motion of the upper and lower extremities. These plates are important for the evaluation of disabilities of the joints because they provide a

standardized description of joint measurements.

Current Plate III, showing bones of the hand, and current Plate IV, showing bones of the foot, are incomplete and outdated, so we propose to remove them and replace them with updated Plates III and IV.

We propose to add one additional plate to the musculoskeletal section of the rating schedule to illustrate range of motion of the cervical and dorsolumbar (thoracolumbar) spine (Plate V). This will be included with the separate regulation that would revise the portions of the musculoskeletal system that address disabilities of the spine.

In the current rating schedule, next to the percentage evaluations following diagnostic codes 5054, 5104 through 5130, 5160 through 5167, 5250, and 5275, superscripts are included directing that entitlement to special monthly compensation be considered. We are replacing the numbered superscript with asterisks that will refer to a single footnote containing similar information that will follow diagnostic code 5275, at the end of the area of the schedule that addresses shortening of the lower extremity, which is the last area of the musculoskeletal system in which special monthly compensation might be applicable. We propose to add a note at the beginning of § 4.71a, preceding the coded evaluations of disabilities, instructing raters to refer to § 3.350 whenever they rate an injury that has resulted in anatomical loss or loss of use of a limb. We believe that this will adequately notify the rater to ensure that there is a complete review for special monthly compensation. There is a footnote at diagnostic codes 5126 through 5130 indicating that entitlement to special monthly compensation is established if there is amputation of the thumb and any three fingers of a hand, since this is equivalent to the loss of use of one hand. This is not explicitly stated in § 3.350, which is the regulation that addresses special monthly compensation (SMC). However, it is not appropriate in part 4, because it addresses SMC rather than the evaluation of disabilities, and we therefore propose to remove this rule from part 4 and add it to 38 CFR 3.350.

Current table II, "Ratings for multiple losses of extremities with dictator's rating code and 38 CFR citation," was prepared for use by raters when dictating a rating decision for transcription, but the codes are out of date. The updated codes, which are not regulatory, are located in Appendix A of VA's Adjudication Procedures Manual, M21-1. The codes are not needed for

disability evaluation, and we therefore propose to delete Table II.

### Osteomyelitis

The current evaluation criteria for osteomyelitis, diagnostic code 5000, provide ratings of 100 percent for osteomyelitis of the pelvis, vertebrae, or extending into major joints, or with multiple localization or with long history of intractability and debility, anemia, amyloid liver changes, or other continuous constitutional symptoms; 60 percent for frequent episodes, with constitutional symptoms; 30 percent if there is definite involucrum or sequestrum, with or without discharging sinus; 20 percent if there is a discharging sinus or other evidence of active infection within the past 5 years; and 10 percent if the infection is inactive, following repeated episodes, without evidence of active infection in past 5 years. There are also two complex notes under this diagnostic code.

The current evaluation criteria are complex and difficult to apply consistently, and do not reflect the effectiveness of modern treatment techniques, such as aggressive antibiotic therapy and microsurgery. Although the consultants suggested no major changes to the current criteria, we propose substantial revisions for the sake of clarity, ease of use, and consistency of evaluations. We propose to restructure the criteria based on which bone or bones are affected, whether the infection is active or inactive, whether or not there are debilitating complications (such as anemia, septicemia, or amyloidosis), and the number of recurrences, if any, within the past 5 years.

We propose to provide a 100-percent evaluation for chronic intractable osteomyelitis of any site when it is associated with debilitating complications such as anemia and amyloidosis. These criteria better define when chronic osteomyelitis is so disabling that it warrants a 100-percent evaluation. We also propose to evaluate osteomyelitis of the spine, pelvis, shoulder, elbow, wrist, hip, knee or ankle, or of two or more non-contiguous bones, when active or acute, with constitutional signs and symptoms, such as fever, fatigue, malaise, debility, and septicemia, at 100 percent. We propose to evaluate osteomyelitis at one of these sites that is inactive or chronic at 60 percent, if there were two or more recurrent episodes of active infection (following the initial infection) within the past 5 years; at 30 percent if there was one recurrent episode of active infection (following the initial infection) within the past 5 years; and at zero

percent if there were no recurrent episodes of active infection within the past 5 years.

We propose to evaluate osteomyelitis that does not involve the spine, pelvis, shoulder, elbow, wrist, hip, knee or ankle, does not involve two or more non-contiguous bones, and does not involve only a finger or toe, at 40 percent if osteomyelitis is active or acute; at 30 percent if the infection is inactive or chronic, with two or more recurrent episodes of active infection (following the initial infection) within the past 5 years; at 20 percent if the infection is inactive or chronic and there was one recurrent episode of active infection (following the initial infection) within the past 5 years; and at zero percent if there were no recurrent episodes of active infection within the past 5 years.

We propose to evaluate osteomyelitis of a single finger or toe at 10 percent when the infection is active or acute, at 10 percent when the infection is inactive and chronic, with two or more recurrent episodes of active infection (following the initial infection) within the past 5 years, and at zero percent when the infection is inactive or chronic, with one or no recurrent episodes of active infection (following the initial infection) within the past 5 years. These evaluations would be assigned even when they exceed the evaluation for amputation of a finger or toe, as is the case in the current schedule. The proposed criteria, although similar in scope to the current criteria, are clearer, less complex, and more objective and would promote more consistent evaluations. The proposed criteria are also more in keeping with disability due to osteomyelitis under modern medical treatment.

We also propose to revise the notes under diagnostic code 5000. The current first note states that a rating of 10 percent, as an exception to the amputation rule, is to be assigned in any case of active osteomyelitis where the amputation rating for the affected part is no percent. It goes on to say that this 10-percent rating and the other partial ratings of 30 percent or less are to be combined with ratings for ankylosis, limited motion, nonunion or malunion, shortening, *etc.*, subject, of course, to the amputation rule, and that the 60-percent rating, as it is based on constitutional symptoms, is not subject to the amputation rule. Finally, it states that a rating for osteomyelitis will not be applied following cure by removal or radical resection of the affected bone.

The second note states that the 20-percent rating on the basis of activity within the past 5 years is not assignable

following the initial infection of active osteomyelitis without subsequent reactivation, that two or more episodes following the initial infection are required to assign a 10-percent rating, and that the 10- or 20-percent rating will be assigned only once to cover disability at all sites of previously active infection with a future ending date for the 20-percent rating. These notes are so complex that they have become not only a source of confusion, they are also inconsistently interpreted and applied. We propose to remove both notes and substitute two new notes, with similar information, but in clearer language. Note (1) would direct the rater, subject to the provisions of § 4.68, to combine an evaluation for inactive or chronic osteomyelitis under diagnostic code 5000 with an evaluation for chronic residuals, such as limitation of motion, ankylosis, *etc.*, and for pain (under § 4.59) when appropriate, under the appropriate diagnostic code. Note (2) would direct the rater to evaluate, after removal or resection of the infected bone, under the diagnostic code most appropriate for evaluating the residuals, such as amputation, shortening, limitation of motion, *etc.*, but not under the criteria for diagnostic code 5000. Removing the ambiguities and providing instructions for rating in more succinct and clearer language would promote consistency of ratings.

### Arthritis

Rheumatoid arthritis, diagnostic code 5002, is currently evaluated either as an active process or on the basis of chronic residuals. For active arthritis, a 100-percent evaluation is assigned if there are constitutional manifestations and active joint involvement, and the condition is totally incapacitating. A 60-percent evaluation is assigned when the criteria for a 100-percent evaluation are not met, but there are weight loss and anemia productive of severe impairment of health, or severely incapacitating exacerbations occurring four or more times a year, or a lesser number over prolonged periods. A 40-percent evaluation is assigned for symptom combinations productive of definite impairment of health objectively supported by examination findings or if there are incapacitating exacerbations occurring three or more times a year. A 20-percent evaluation is assigned if there are one or two exacerbations a year in a well-established diagnosis. Alternatively, chronic residuals, such as limitation of motion or ankylosis, favorable or unfavorable, are rated under the appropriate diagnostic codes for the specific joints involved. When the limitation of motion of the specific

joints is noncompensable, 10 percent is assigned for each major joint or group of minor joints with limitation of motion, and these are combined. A note states that ratings for the active process will not be combined with the residual ratings for limitation of motion or ankylosis.

The consultants suggested minor changes under diagnostic code 5002, such as listing specific constitutional manifestations that might occur. However, because the current criteria contain language that is subjective and undefined, such as “severe” and “definite” impairment of health, “severely incapacitating” and “incapacitating” exacerbations, we propose to replace them with more objective criteria that are in accord with the consultants’ recommendations. We propose that a 100-percent evaluation be assigned based on constant or near-constant debilitating signs and symptoms due to a combination of inflammatory synovitis (pain, swelling, tenderness, warmth, and morning stiffness in and around joints) and destruction of multiple joints, plus extra-articular (other than joint) manifestations. These are findings that represent the most severe, advanced form of rheumatoid arthritis. We propose that evaluations other than 100 percent be based on the frequency and total duration of incapacitating exacerbations or flares of rheumatoid arthritis. The 60-percent evaluation would require incapacitating exacerbations or flares with a total duration of at least six weeks during the past 12-month period due either to inflammatory synovitis and destruction of multiple joints, or to a combination of joint problems and extra-articular manifestations. The 40-percent evaluation would require exacerbations or flares with a total duration of at least 4 weeks, but less than 6 weeks, during the past 12-month period due to inflammatory synovitis, weakness, and fatigue. The 20-percent evaluation would require incapacitating exacerbations or flares with a total duration of at least 2 weeks but less than 6 weeks during the past 12-month period due to inflammatory synovitis, weakness, and fatigue. The 10-percent evaluation would require incapacitating exacerbations or flares with a total duration of at least 1 week but less than 2 weeks during the past 12-month period due to inflammatory synovitis, weakness, and fatigue. These criteria are similar to those in the current schedule and to those recommended by the consultants, and are also consistent with the evaluation levels we have provided

for other conditions characterized by incapacitating episodes, such as hepatitis C, diagnostic code 7354, in the digestive portion of the rating schedule.

We propose to add four notes under diagnostic code 5002 to further assist evaluation. Note (1) would direct that rheumatoid arthritis be evaluated based either on the evaluation criteria under diagnostic code 5002 or on the combined evaluation of chronic residuals of affected joints, whichever method results in a higher evaluation. This is similar to instructions in a current note.

Note (2) would direct that when evaluating based on chronic joint residuals, each affected major joint or group of minor joints will be evaluated on findings such as limitation of motion, ankylosis, joint instability, *etc.*, under the appropriate diagnostic code, and each will be combined with an evaluation for pain under § 4.59 when appropriate. We propose to remove the current provision requiring that 10 percent be assigned for each major joint or group of minor joints with limitation of motion that is less than 10-percent disabling, because painful motion would be assessed under the provisions of § 4.59, and limitation of motion otherwise will be evaluated at the same level as limitation of motion due to other conditions. This would promote both internal consistency in the rating schedule and consistency in rating veterans with similar degrees of disability due to different conditions. Proposed note (3) would direct raters to separately evaluate extra-articular manifestations of rheumatoid arthritis, such as pulmonary fibrosis; pleural inflammation; weakness or atrophy of muscles; emaciation; anemia; vasculitis (of skin or systemic); neuropathy, such as peripheral nerve neuropathy, entrapment neuropathy, and cervical myelopathy; pericarditis; Sjogren’s syndrome (dry eyes and mouth); and eye complications (such as scleritis and episcleritis), under the appropriate diagnostic code, unless they have been used to support an evaluation at 60 or 100 percent under diagnostic code 5002. This will assure that all disabling manifestations of rheumatoid arthritis are appropriately evaluated, while also avoiding evaluating the same disability twice (see proposed § 4.14, “Avoiding overlapping of evaluations”). The current schedule does not provide directions for evaluating extra-articular manifestations.

Proposed note (4) would define an incapacitating exacerbation or flare as one requiring bedrest or wheelchair use and treatment by a health care provider. This is similar to the definition of

incapacitating episodes we have provided for evaluating chronic liver disease without cirrhosis (diagnostic code 7345) and hepatitis C (diagnostic code 7354) in § 4.114 of the rating schedule.

We propose to change the heading of diagnostic code 5003 from "Arthritis, degenerative (hypertrophic or osteoarthritis)" to "Osteoarthritis (degenerative or hypertrophic arthritis)," as recommended by the consultants, because the disease is now most commonly referred to as osteoarthritis. Osteoarthritis established by X-ray findings is currently evaluated on the basis of limitation of motion under the appropriate diagnostic codes for the specific joint or joints involved. When the limitation of motion of the specific joint or joints is noncompensable, a rating of 10 percent is assigned for each major joint or group of minor joints with limitation of motion, and this 10 percent is combined, not added, under diagnostic code 5003. The limitation of motion must be objectively confirmed by findings such as swelling, muscle spasm, or satisfactory evidence of painful motion. There are additional directions: (1) In the absence of limitation of motion, when there is X-ray evidence of involvement of 2 or more major joints or 2 or more minor joint groups as the sole finding, with occasional incapacitating exacerbations, 20 percent will be assigned, and (2) with X-ray evidence of involvement of 2 or more major joints or 2 or more minor joint groups as the sole finding, 10 percent will be assigned. Two notes address how to apply these ratings based on X-ray findings and state that they will not be used to rate conditions under diagnostic codes 5013 to 5024. The consultants suggested no substantive change to these criteria.

The current provisions concerning evaluation of osteoarthritis are complex and have sometimes been misinterpreted. The criteria based on limitation of motion, including a noncompensable degree of limitation of motion, are the same as the current instructions for evaluating the chronic residuals of rheumatoid arthritis, and we propose changes similar to those we are proposing for rheumatoid arthritis, and for the same reasons. We propose to replace the current evaluation criteria for osteoarthritis with a direction to separately evaluate each major joint or group of minor joints affected with osteoarthritis based on limitation of motion, ankylosis, joint instability, etc., under the appropriate diagnostic code and to combine that evaluation with an

evaluation for pain under § 4.59 when appropriate.

Osteoarthritis tends to be a steadily progressive disease (although it may be better or worse at times), rather than being subject to the incapacitating exacerbations or flares that are common in rheumatoid arthritis, and we therefore do not propose evaluation criteria based on exacerbations or incapacitating episodes. As with rheumatoid arthritis, we propose to remove evaluations based on noncompensable limitation of motion, because pain is the most common symptom of osteoarthritis, and we are proposing to combine an evaluation based on other disabling findings with an evaluation for pain. In our judgment, limitation of motion in osteoarthritis that does not reach the level of a compensable evaluation would not warrant a higher evaluation than a comparable degree of limitation of motion due to other conditions, and pain would be assessed under the provisions of § 4.59, the same as pain due to any other type of musculoskeletal condition.

We also propose to remove the evaluations based on X-ray findings alone or on X-ray findings plus incapacitating exacerbations because abnormal X-ray findings in the absence of signs or symptoms do not justify a compensable evaluation, as there would be no functional impairment. In fact, most people with X-ray evidence of osteoarthritis are asymptomatic (without any symptoms) ("Osteoarthritis: Presentation, Pathogenesis, and Pharmacologic Therapy," Paulette C. Hahn, M.D. and Lawrence Edwards, M.D., Clin. Rev. Summer: 9-13, 1998). More than 90 percent of people over the age of 40 have X-ray evidence of osteoarthritis in weight-bearing joints, but only 30 percent are symptomatic ("Harrison's Principles of Internal Medicine" Eugene Braunwald, M.D., et al eds., ch. 322, 5, 15th ed. 2001). When pain is present, an evaluation under § 4.59 would appropriately compensate the individual. In addition, since incapacitating exacerbations are not characteristic of osteoarthritis, they are not an appropriate basis of evaluation, and we propose to remove that criterion as well. The proposed criteria are clearer and easier to apply than the current criteria, and would promote internal consistency within the rating schedule and consistency in ratings among veterans with similar disabling effects from different musculoskeletal conditions.

We also propose to add three notes. The first note would require that the diagnosis of osteoarthritis of any joint be

confirmed (one time only) by X-ray or other imaging procedure. Modern imaging procedures such as magnetic resonance imaging, computed tomography, and bone scans may be used in some cases instead of or in addition to conventional X-rays, and the proposed note would assure that these more sophisticated procedures will be equally accepted for diagnosing osteoarthritis for VA disability compensation purposes.

There is currently no regulatory guidance on whether osteoarthritis is or is not a systemic generalized disease. This has implications for compensation claims because if service-connected osteoarthritis is regarded as a generalized or systemic disease, osteoarthritis developing in other joints in the future would be considered part of the same disease process, and subject to additional compensation. The lack of guidance on this issue has led to inconsistency in rating. Having consulted with the VHA Orthopedic Committee and reviewed the medical literature, we propose to clarify this issue by establishing guidelines about generalized and localized osteoarthritis in two more notes.

Current medical thinking is that osteoarthritis is a group of overlapping distinct diseases. One classification is based on whether the disease is localized or generalized, with indications that the generalized type is a distinct subtype that often affects the hands, hips, knees, and spine. Some clinicians consider osteoarthritis to be generalized only if three extra-spinal (other than spine) joints are affected. The concept of localized and generalized osteoarthritis is also discussed in a recent book on osteoarthritis ("Diagnosis and Nonsurgical Management of Osteoarthritis" by Kenneth D. Brandt, M.D., 1996), which states that idiopathic osteoarthritis is divided into localized and generalized types and that the generalized type involves three or more joint groups. The book references a 1952 classic article in the *British Medical Journal* ("Generalized Osteoarthritis and Heberden's Nodes," J. H. Kellgren, F.R.C.P., F.R.C.S. and R. Moore, M.R.C.P., *British Medical Journal*, 1952. 1:181-187), which also described generalized osteoarthritis as involving three or more joint groups. A new standard medical textbook (Harrison's, ch. 322, 1) also differentiates between localized and generalized osteoarthritis, indicating that primary localized osteoarthritis is present when there is involvement of the hands, feet, knees, hips, spine, or other single sites, such as the glenohumeral (shoulder) joint,

sacroiliac joints, or temporomandibular joints and that primary generalized osteoarthritis is characterized by involvement of three or more joints or groups of joints (distal interphalangeal and proximal interphalangeal joints are counted as one group each). The VHA Orthopedic Committee also suggested that we consider osteoarthritis to be the generalized type if there is positive evidence of osteoarthritis on X-ray or other imaging procedure and on physical examination of at least three joints during service.

Therefore, with the generalized type of osteoarthritis, we propose that additional joints that later develop osteoarthritis would be recognized as part of the same generalized systemic process. If less than three joints have positive evidence of osteoarthritis on X-ray or other imaging procedure and on physical examination, the condition would be considered localized osteoarthritis, and joints later developing osteoarthritis would not be considered part of the same process. Since arthritis is a chronic condition subject to presumptive service condition under the provisions of 38 CFR 3.309(a), meaning that osteoarthritis of a joint is presumed to be service-connected if it manifests to at least a 10-percent level of disability within 1 year of the date of separation from service, we propose to include the 1-year period for presumptive service connection in our guidelines that determine when generalized osteoarthritis is present. We propose to add a second note titled "Generalized osteoarthritis," which states that if osteoarthritis is diagnosed on the basis of positive X-ray or other imaging procedure and positive physical findings in three or more joints (major joints, groups of minor joints, or both) during service or within 1 year following the date of separation from service, the condition will be considered to be generalized osteoarthritis and recognized as a systemic condition. It also says that once generalized osteoarthritis has been established based on these criteria, all joints subsequently diagnosed with osteoarthritis will be considered to be part of the same condition.

We propose to add a third note titled "Localized osteoarthritis" that would state that osteoarthritis diagnosed on the basis of positive X-ray or other imaging procedure and positive physical findings in fewer than three joints (major joints, groups of minor joints, or both) during service or within 1 year following the date of separation from service will be considered to be localized osteoarthritis rather than a systemic condition. It also says that

with localized osteoarthritis, any joints subsequently diagnosed with osteoarthritis will not be considered to be part of the same condition. Adding notes (2) and (3) would promote more consistent determinations about when joints with osteoarthritis diagnosed after service and the 1-year period following separation from service will and will not be considered to be part of the osteoarthritis already related to service, and this guidance is consistent with current medical thinking.

Other types of arthritis are currently evaluated under diagnostic code 5004 (Arthritis, gonorrheal), 5005 (Arthritis, pneumococcic), 5006 (Arthritis, typhoid), 5007 (Arthritis, syphilitic), 5008 (Arthritis, streptococcic), 5009 (Arthritis, other types (specify)), 5010 (Arthritis, due to trauma, substantiated by X-ray findings), and 5017 (Gout or pseudogout), with directions that all but traumatic arthritis are to be rated as rheumatoid arthritis. Since the specific infectious types of arthritis are uncommon, we propose to combine them all under diagnostic code 5004, to be retitled "Infectious arthritis (gonorrheal, pneumococcic, typhoid, syphilitic, streptococcic, etc.)." We propose to retitle diagnostic code 5009 as "Other types of noninfectious inflammatory arthritis (including ankylosing spondylitis, Reiter's syndrome, psoriatic arthritis, arthritis associated with inflammatory bowel disease, and other seronegative types of arthritis)." We propose to retitle diagnostic code 5017, currently "Gout," as "Gout or pseudogout" to make it clear that it encompasses both conditions. These changes will provide the rater with clear instructions on evaluating each of these disabilities. The groupings are possible because of the similar effects of each of these groups of arthritis.

Infectious arthritis is currently evaluated on the same basis as rheumatoid arthritis. However, infectious arthritis is ordinarily an acute condition involving only one joint. In about 60 percent of cases, the infection will heal without residuals if treatment is prompt and adequate, particularly with the use of modern antibiotics. However, some cases of infectious arthritis involve multiple joints, and some are intractable to treatment and leave severe joint disability. Infectious arthritis is therefore unlike rheumatoid arthritis, which is a chronic disease affecting multiple joints, and the current direction to evaluate as rheumatoid arthritis is not ideal. Infectious arthritis is somewhat similar in behavior to osteomyelitis. We therefore propose to provide two bases of evaluation that are

similar to those for osteomyelitis, with one set of criteria to be used for evaluation during the active infection and for three months following cessation of therapy for active infectious arthritis, with the evaluation depending on which joint or joints are infected, as with osteomyelitis. The other set of criteria would be used for evaluating the chronic residuals of infectious arthritis after the three-month period following the cessation of therapy for the active infection has ended. We propose that active infectious arthritis of the spine, the pelvis, or a major joint be evaluated at 100 percent during and for three months following cessation of therapy; that active infectious arthritis not involving the spine, the pelvis, or a major joint, and not limited to a single finger or toe be evaluated at 40 percent during and for three months following cessation of therapy; and that active infectious arthritis of a single finger or toe be evaluated at 10 percent during and for three months following cessation of therapy. While the course may be prolonged, there are not usually multiple recurrences as with osteomyelitis, and we do not propose to use evaluation criteria based on recurrences as we have for osteomyelitis. We propose to add a note under diagnostic code 5004 directing that raters separately evaluate chronic residuals, if any, of each joint affected with infectious arthritis, based on limitation of motion, ankylosis, joint instability, post-surgical residuals (such as arthroplasty), *etc.*, under the appropriate diagnostic code, and combine the evaluation for chronic residuals of each joint with an evaluation for pain under § 4.59 when appropriate, subject to the limitations of § 4.68. This method of evaluating residuals is proposed because, although many active infections heal without residuals, some result in destruction of a joint resulting in arthritis, instability, *etc.*, and some lead to such severe residuals that arthroplasty is required. These proposed criteria are more specific to the effects of infectious arthritis than the current criteria and provide a broad range of objective evaluations for both the active stage of infection and any chronic disability that might develop.

We propose to retitle diagnostic code 5009, "Arthritis, other types," as "Other types of noninfectious inflammatory arthritis (including ankylosing spondylitis, Reiter's syndrome, psoriatic arthritis, arthritis associated with inflammatory bowel disease, and other seronegative types of arthritis)" for clarity. There is currently a direction to

evaluate the types of arthritis specified under diagnostic codes 5004 through 5009 as rheumatoid arthritis (5002). We propose to continue evaluating other types of noninfectious arthritis under the same criteria and range of evaluation as rheumatoid arthritis, except for providing a list of extra-articular manifestations more specific to these types of arthritis, namely, fever, eye problems (such as conjunctivitis, iritis, uveitis), genitourinary or gynecologic problems (such as urethritis, cystitis, prostatitis, cervicitis, salpingitis, vulvovaginitis), or heart problems (pericarditis, aortic valvular disease, heart block), in a note. We also propose to add four notes similar to those under diagnostic code 5002.

For traumatic arthritis, diagnostic code 5010, we propose to remove from the current title the reference to a requirement for X-ray evidence and add a note stating that the diagnosis of traumatic arthritis of any joint must be confirmed (one time only) by X-ray or other imaging procedure. X-ray evidence of traumatic arthritis is currently required by the schedule, but newer imaging procedures are now often substituted for X-rays and provide comparable or better information about the presence of arthritis, so this provision is in keeping with current medical practice. Once traumatic arthritis has been demonstrated, there is no need for repeat X-rays or other imaging procedures, so we are requiring confirmation by imaging procedure only once to avoid unnecessary imaging studies. We also propose to add to the title the term "secondary osteoarthritis" because traumatic arthritis can occur, due not only to trauma, but also to other diseases, such as tuberculosis or gout, deformity of other joints, or stress due to amputation. Traumatic arthritis is currently evaluated as degenerative arthritis. We propose to continue this method of evaluation, since the findings clinically and on X-ray of traumatic and osteoarthritis are usually indistinguishable. For the convenience of raters, we propose to repeat the evaluation criteria for osteoarthritis under diagnostic code 5010.

#### **Caisson Disease, Benign and Malignant Bone Neoplasms, Osteomalacia, Osteoporosis**

We propose to update the title of diagnostic code 5011, "Bones, caisson disease of," to "Caisson disease (residuals of decompression sickness or "the bends")" and to broaden its scope by providing rating instructions for the evaluation of residuals other than those affecting bone. We propose that evaluation be made under an

appropriate diagnostic code based on the actual residuals, such as aseptic necrosis or delayed osteoarthritis of the shoulder or hip or neurologic manifestations (such as weakness or paraplegia of lower extremities, vestibular dysfunction with vertigo, or paresthesias of the extremities). These are the most common disabling long-term effects of Caisson disease, and there is no other appropriate diagnostic code under which to rate them.

We propose to modernize the title of diagnostic code 5012 from "Bones, new growths of, malignant" to "Malignant neoplasm of bone." The current schedule provides a 100-percent evaluation for one year following surgery or the cessation of antineoplastic therapy. This provision is applied at the time of rating by assigning a one-year total evaluation with a prospective reduction consistent with the protected or minimum evaluation. In our judgment, evaluating based on impairment of function due to the actual residuals found is the most accurate and equitable basis for evaluating residuals of malignancy, so, as we have done in the revisions of other portions of the rating schedule, for example, diagnostic code 7528 in § 4.115b, "Malignant neoplasms of the genitourinary system," we propose to continue a 100-percent rating following the cessation of surgical, X-ray, antineoplastic chemotherapy or other therapeutic procedure. Six months after discontinuance of such treatment, the appropriate disability evaluation shall be determined on the basis of a VA examination, or on available medical records if sufficient for evaluation. Before any reduction in evaluation based upon the examination can be made, the provisions of § 3.105(e) (which would provide notice of any proposed reduction and afford claimants the opportunity to present evidence showing that a proposed reduction should not be made) must be implemented. Evaluation is then made on residuals if there has been no metastasis or recurrence.

The current schedule evaluates "Osteoporosis, with joint manifestations" (diagnostic code 5013) based on limitation of motion of affected parts as degenerative arthritis. Osteoporosis is an age-related condition characterized by decreased bone mass and structural deterioration of bone tissue, leading to bone fragility and an increased susceptibility to fractures—especially of the vertebral bodies of the spine, the hip (particularly the neck and intertrochanteric regions of the femur), and the wrist (distal radius). It is ordinarily asymptomatic until a fracture

occurs. Joint manifestations are not always present; vertebral fractures, for example, may result primarily in neurologic complications. We therefore propose to revise the title to "Osteoporosis" and direct the rater to evaluate under the appropriate diagnostic code based on a combination of the residuals of fractures (such as shortening, deformity, limitation of motion, osteoarthritis) with an evaluation for pain (under § 4.59) when appropriate, and to evaluate separately any secondary complications, such as neurologic manifestations, pulmonary restriction due to thoracic deformity from vertebral fractures, *etc.* These criteria would provide more specific and accurate guidance to raters concerning the disabling effects of osteoporosis.

Diagnostic code 5014, "Osteomalacia," is currently evaluated based on limitation of motion as osteoarthritis (diagnostic code 5003). Osteomalacia is a form of metabolic bone disease resulting from vitamin D deficiency. In children, the same condition is called rickets. In adults, osteomalacia is characterized by easy fatigability, malaise, poorly defined or localized bone pain, often with bone tenderness, and sometimes muscle weakness. Pathological fracture (due to weakened bone) or aseptic (avascular) necrosis of a bone may occur and be the initial evidence of the condition. Most cases are associated with chronic renal disease, but osteomalacia may also be associated with diseases of the gastrointestinal tract or other body systems. X-rays will usually show evidence of the condition. We propose to provide more detailed guidance on evaluation by directing the rater to evaluate under the appropriate diagnostic code, based on aseptic necrosis, residuals of fracture (such as shortening, deformity, limitation of motion, osteoarthritis), to be combined with an evaluation for bone pain (under § 4.59) when appropriate. Constitutional manifestations, such as malaise and easy fatigability, would be evaluated as part of the underlying metabolic disease, such as renal or gastrointestinal disease, that has caused the osteomalacia.

As with malignant neoplasms of bone, we propose to update the title of diagnostic code 5015, "Bones, new growths of, benign," to "Benign neoplasm of bones." The current schedule directs that these neoplasms be evaluated as degenerative arthritis based on limitation of motion. That method of evaluation would be appropriate when the neoplasm involves a joint, but many do not. At

times bone pain or pathologic fracture is the major problem. Many are asymptomatic and discovered as an incidental finding when a bone is X-rayed for another problem. We therefore propose to expand the directions to include evaluation under the appropriate diagnostic code based on osteoarthritis (diagnostic code 5003), residuals of fracture (such as shortening, limitation of motion), *etc.*, to be combined with an evaluation for bone pain (under § 4.59) when appropriate.

#### **Paget's Disease, Gout and Pseudogout**

We propose to update the title of diagnostic code 5016, currently "Osteitis deformans" to the modern name for this disease, "Paget's disease." Paget's disease is currently evaluated based on limitation of motion as osteoarthritis. It is a disease characterized by enlarged, heavily calcified, and often deformed, but also weak, bones in any area of the body, most commonly the pelvis, femur, tibia, skull, vertebrae, clavicle, and humerus. The most common symptom is bone pain, and deformity, arthritis, and fractures may occur. Pressure on cranial nerves due to enlargement of the skull by the disease can lead to impaired hearing or vision. We therefore propose to provide a broader set of evaluation criteria that encompass more of the disabling effects of Paget's disease by directing raters to evaluate it based on osteoarthritis or residuals of fracture, combined with an evaluation for pain (under § 4.59) when appropriate, and to separately evaluate complications such as impaired hearing or vision.

"Gout" (diagnostic code 5017), which we propose to retitle "Gout or pseudogout," is currently evaluated as rheumatoid arthritis. However, there are major differences between rheumatoid arthritis and gout. Gout, for example, which is a type of arthritis in which uric acid crystals are deposited around joints, usually involves acute inflammation of only a single joint at a time, rather than the widespread joint involvement common in rheumatoid arthritis. Also, gout is not associated with the same types of extra-articular manifestations as rheumatoid arthritis, and there may be none at all except late in the course of the disease when tophi (deposits of sodium urate that develop in gout) have been deposited in tissues other than joint areas. Pseudogout (caused by deposits of calcium pyrophosphate crystals in joint tissues) has manifestations that are similar to gout, but usually milder. We therefore propose to provide a modified version of the rheumatoid arthritis evaluation criteria for evaluating gout and

pseudogout. We propose not to provide a 100-percent evaluation level for gout or pseudogout, since neither condition is likely to be totally disabling. We propose to retain 60-, 40-, and 20-percent evaluation levels and to add a 10-percent evaluation level for gout and pseudogout based on inflammatory synovitis with such findings as weakness and fatigue, acute pain, swelling, heat, tenderness, or limitation of motion. The 60-percent level would require incapacitating exacerbations or flares with a total duration of at least 6 weeks during the past 12-month period requiring treatment by a health care provider, due to inflammatory synovitis with such findings as weakness and fatigue, acute pain, swelling, heat, tenderness, or limitation of motion of multiple joints. The 40-percent level would be the same except that it requires incapacitating exacerbations or flares of multiple joints with a total duration of at least 4 weeks but less than 6 weeks during the past 12-month period. The 20-percent level would require incapacitating exacerbations or flares with a total duration of at least 2 weeks but less than 4 weeks during the past 12-month period of multiple joints. The 10-percent evaluation would require incapacitating exacerbations or flares with a total duration of at least 1 week but less than 2 weeks during the past 12-month period of a single joint or multiple joints. This would provide appropriate criteria to evaluate the acute attacks of inflammation of either single or multiple joints. We propose to provide notes similar to those under diagnostic code 5002 (rheumatoid arthritis). The first note would direct that evaluation be made either on the basis of incapacitating exacerbations or flares under the criteria for diagnostic code 5017 or on the combined evaluation of chronic residuals of gout or pseudogout, whichever results in the higher evaluation. The second note would direct that if not evaluating under the criteria under diagnostic code 5017, chronic residuals of each major joint or group of minor joints with gout or pseudogout will be separately evaluated based on limitation of motion, ankylosis, joint instability, *etc.*, under the appropriate diagnostic code. It further directs that an evaluation for chronic residuals of each major joint or group of minor joints be combined with an evaluation for pain under § 4.59 when appropriate. The third note would direct that manifestations of gout other than joint disease, such as urinary tract calculi or gouty nephropathy, be separately evaluated. The fourth note would define an incapacitating

exacerbation or flare as one requiring bedrest or wheelchair use and treatment by a health care provider. The proposed criteria are more specific to gout and pseudogout than the current criteria and will therefore promote consistent and appropriate evaluations in veterans with one of these joint diseases.

#### **Joint Effusion, Bursitis, Tenosynovitis, Synovitis, Myositis, Periostitis, Myositis Ossificans**

Diagnostic code 5018 is titled "Hydrarthrosis, intermittent," which means fluid occurring in a joint from time to time. This finding may be a sign of various joint diseases and does not indicate a specific diagnosis. We propose updating the title of this code to "Joint effusion," which is the current medical term for this condition. The current schedule directs that evaluation be based on limitation of motion as osteoarthritis. Since osteoarthritis is one of the conditions that may result in joint effusion, it is more likely that osteoarthritis would be evaluated as joint effusion than vice versa. Joint effusion, being a nonspecific response to injury or disease of a joint, may result from any number of types of injury, both bone and soft tissue; from almost any type of arthritis, including infectious arthritis; from osteomyelitis; from surgery in or near a joint; *etc.* The criteria for evaluation under this diagnostic code would be used in evaluating musculoskeletal conditions where joint effusion is the predominant finding. We propose that evaluation of joint effusion be based on limitation of motion, a common concomitant of joint effusion, and this evaluation would be combined with an evaluation for pain under § 4.59 when appropriate. The current schedule requires that the joint effusion be "intermittent," but does not define "intermittent". To promote consistency, we propose to add a statement that a joint effusion that is present constantly, or nearly so, or if intermittent, that occurred at least two times during the past 12-month period, may be evaluated under this diagnostic code and that evaluation will be based on limitation of motion, to be combined with an evaluation for pain under § 4.59 when appropriate. We require at least two episodes of joint effusion because a single episode would represent only an acute condition that might never recur. These criteria are both more objective and more specific to joint effusion than the current criteria.

"Bursitis," diagnostic code 5019, is currently evaluated based on limitation of motion as osteoarthritis, as are all the conditions in diagnostic codes 5013 through 5024 except gout. Bursae are

fluid-filled structures that assist motion between adjacent structures (skin, bones, muscles, tendons) by decreasing friction. Bursitis is an inflammation of the lining of the bursa, which is a sac made up of synovial tissue, the same tissue that lines joints. Bursitis is commonly due to chronic overuse or an injury, although it may also be associated with systemic diseases such as rheumatoid arthritis or scleroderma. The bursae in the area of the hip, patella or other knee area, shoulder, and olecranon process of the ulna are common sites of bursitis. Signs and symptoms of bursitis include pain, tenderness, redness, heat, swelling, and limitation of motion. We therefore propose to revise the evaluation criteria to base evaluation on limitation of motion, to be combined with an evaluation for pain under § 4.59 when appropriate.

The causes of, and findings in, tenosynovitis, diagnostic code 5024, and synovitis, diagnostic code 5020, are similar to those for bursitis, and they may also be infectious in origin. Tenosynovitis (also called tendinitis) is an inflammation of the tendon and tendon sheath and may result in pain, limitation of motion, tenderness, and swelling. Synovitis is an inflammation of the synovial (joint-lining) tissue only. We propose to provide the same evaluation criteria for synovitis and tenosynovitis as for bursitis.

Myositis (diagnostic code 5021) is an inflammation of muscles with pain, tenderness, and sometimes swelling. It may be due to trauma or a virus, or may be drug-related. We propose that it be evaluated based on limitation of motion, to be combined with an evaluation for pain under § 4.59 when appropriate. There is another category of more widespread myositis that includes systemic autoimmune connective tissue diseases like polymyositis, dermatomyositis, and inclusion body myositis. They are diseases that may also affect joints, the heart, lungs, intestines, and skin. Because these types of myositis affect multiple body systems, they are more appropriately evaluated in the "Infectious Diseases, Immune Disorders and Nutritional Deficiencies (Systemic Conditions)" portion of the rating schedule, perhaps analogous to systemic lupus erythematosus (diagnostic code 6350), rather than under this diagnostic code.

Periostitis (diagnostic code 5022) is another inflammatory condition (of the periosteum or outer covering of a bone) that may develop as a result of overuse or infection. At times it follows severe tenosynovitis. Periostitis is one of the causes, along with stress fractures and

tenosynovitis, of shin splints (pain in the lower leg that occurs during exercise) or posterior tibial stress syndrome or lower leg stress. Tennis elbow (periostitis of the lateral epicondyle of the humerus, often following tendinitis of the extensor carpi radialis brevis in the area of the lateral epicondyle), golfer's elbow (periostitis of the medial epicondylitis of the humerus often following tendinitis of the flexor pronator muscles), and osteitis pubis are other common types of periostitis. We propose to evaluate this condition based on limitation of motion, and to combine this with an evaluation for pain under § 4.59 when appropriate.

Myositis ossificans, diagnostic code 5023, is a condition in which there is ossification (bone formation) in soft tissues such as muscle and tendons. It most often results from trauma or repetitive stress, sometimes representing an ossified intramuscular hematoma. In many cases, the cause is unknown. It may result in pain, tenderness, redness, heat, a palpable mass, and decreased range of motion. We therefore propose to evaluate it based on limitation of motion, and to combine this with an evaluation for pain under § 4.59 when appropriate.

Other than terminology changes, which we are proposing to adopt, the consultants offered few suggestions for changes under diagnostic codes 5011 to 5024. One exception was osteoporosis (diagnostic code 5013), for which they suggested evaluation levels of zero, 20, 50, and 100 percent, based on such criteria as X-ray evidence of "some" "moderate," "severe" demineralization, on the severity of spine pain ("mild," "moderate," or "disabling"), and on the history of fractures (requiring a history of two fractures for 50 percent, and three or more fractures for 100 percent). These criteria would require subjective determinations of various degrees of spine pain and X-ray findings. In addition, in our judgment, how many fractures have occurred is not as significant as how disabling the residuals of those fractures are. We therefore propose to evaluate based on the actual residuals of fractures and any secondary complications, as discussed above. We believe these criteria would provide an evaluation that presents a truer picture of disability and would promote consistent evaluations by correlating evaluations with disabling residuals of fractures rather than simply with numbers of fractures.

#### Prosthetic Joint Implants

The diagnostic codes for prosthetic joint implants (joint replacements or

arthroplasties) (5051 through 5056) currently provide a 100-percent evaluation for one year of convalescence following hospital discharge. This provision is applied at the time of rating by assigning a 100-percent evaluation for one month under § 4.30 ("Convalescent ratings"), followed by a 100-percent evaluation with a prospective reduction one year later based on medical findings. As the consultants recommended, we propose to continue the 100-percent evaluation indefinitely from date of hospital admission and to examine the veteran six months following discharge from the hospital, because almost all individuals are stabilized within six months of implant. Any reduction in the 100-percent evaluation would be effected under 38 CFR 3.105(e) in the same manner as proposed under diagnostic code 5012 (malignant neoplasm of bone). This would ensure that a veteran receives advance notice of any reduction and has the opportunity to submit additional evidence showing that the reduction is not warranted. We also propose to state that the same method of evaluation will be applied when an arthroplasty is revised or redone, since this procedure is at least as disabling as the original arthroplasty.

The consultants suggested deleting separate evaluations for dominant and nondominant upper extremity joint replacements. We do not propose to do so, because joint replacements of a dominant side—that is, the side normally used for writing, feeding, grooming, and other important tasks—would clearly be more disabling to an individual than joint replacement of the less used nondominant side.

Diagnostic code 5051, "Shoulder replacement (prosthesis)" is currently evaluated at 100 percent for one year following implantation; at 60 or 50 percent (for dominant or nondominant side) if there are chronic residuals consisting of severe, painful motion or weakness in the affected extremity; analogous to diagnostic codes 5200 (ankylosis of scapulohumeral articulation) and 5203 (impairment of clavicle or scapula) if there are intermediate degrees of residual weakness, pain, or limitation of motion; and at 30 or 20 percent as a minimum evaluation. The consultants suggested no change. We propose to revise and update the title to "Total or partial shoulder arthroplasty or replacement (with prosthesis)" and to make similar changes to the titles of arthroplasty of all major joints, elbow (diagnostic code 5052), wrist (diagnostic code 5053), hip (diagnostic code 5054), knee (diagnostic code 5055), and ankle (diagnostic code

5056). These changes would indicate that evaluation is the same whether the entire joint or only one side of the joint has been replaced, (and whether this is an initial or a revision arthroplasty, as the note preceding the prosthetic implants diagnostic codes states) since complications and residuals may be the same. We also propose to revise the criteria to remove subjective language such as "severe" painful motion or weakness and "intermediate" degrees of weakness, pain, or limitation of motion, which could be subject to different interpretations by different individuals.

We propose to replace these criteria with more objective criteria in order to promote consistent ratings. For example, we propose that 60 or 50 percent be assigned if abduction (movement of the arm away from the body) is not possible beyond 45 degrees; and that the minimum evaluation of 30 or 20 percent following arthroplasty be unchanged. We also propose to add a note directing that if there is ankylosis of the glenohumeral joint, evaluation is to be made under diagnostic code 5200 (ankylosis of glenohumeral articulation (shoulder joint)). There may be neurologic or other complications following arthroplasty. We therefore propose to add a second note directing that complications, such as peripheral neuropathy, causalgia (a severe burning pain that occasionally occurs following injury to a nerve), and reflex sympathetic dystrophy (soft tissue and bony changes that accompany causalgia), be separately evaluated under an appropriate diagnostic code and combined with an evaluation under diagnostic code 5051 that is less than total, as long as limitation of abduction is not used to support an evaluation for a complication. We propose to add a third note directing that an evaluation under diagnostic code 5051 be combined with an evaluation for pain under § 4.59 when appropriate.

Elbow replacement (diagnostic code 5052), following the initial 100-percent evaluation, is currently evaluated at 50 or 40 percent if there is severe painful motion or weakness; by analogy to diagnostic codes 5205 through 5208 (which provide evaluation criteria for ankylosis or limitation of motion of the elbow) if there are intermediate degrees of residual weakness, pain or limitation of motion; and at 30 or 20 percent as a minimum evaluation. These criteria contain subjective language, and we propose to revise them to more objective criteria, directing the rater to evaluate based on the criteria under diagnostic codes 5205, 5206, 5207, or 5208, whichever results in the highest evaluation, combining this evaluation

with an evaluation for pain under § 4.59 when appropriate. We propose to retain the minimum evaluations of 30 (for dominant side) or 20 percent following arthroplasty.

Wrist replacement (5053) is currently evaluated under the same criteria as elbow arthroplasty, but with evaluations of 40 or 30 percent if there is severe painful motion or weakness; by analogy to diagnostic code 5214 (ankylosis of wrist) if there are intermediate degrees of residual weakness, pain or limitation of motion; and at 20 percent as a minimum evaluation. We propose to revise these criteria to make them more objective, as we have proposed for other upper extremity arthroplasties, by directing the rater to evaluate based on ankylosis (diagnostic code 5214) or limitation of motion (diagnostic code 5215), whichever results in a higher evaluation, combining this evaluation with an evaluation for pain under § 4.59 when appropriate. We propose to retain the minimum 20-percent evaluation following arthroplasty.

Hip replacement (diagnostic code 5054) is currently evaluated at 100 percent for 1 year, as discussed above; at 90 percent if there is painful motion or weakness such as to require the use of crutches; at 70 percent if there is markedly severe residual weakness, pain, or limitation of motion; at 50 percent if there are moderately severe residuals of weakness, pain, or limitation of motion; and at 30 percent as a minimum. The consultants did not suggest substantive changes, other than to recommend that the 100-percent evaluation be reassessed six months following implantation, as for all joint prostheses.

We propose to retitle 5054 as "Total or partial hip arthroplasty or replacement (with prosthesis)". In addition to following the consultants' recommendation concerning the 100-percent evaluation, we propose other changes to make the criteria more objective, after consultation with the VHA Orthopedic Committee. For example, the consultants did not address the subjective language such as "markedly" and "moderately" severe in the current criteria. We propose to revise the criteria for the 90-percent evaluation to "requiring use of two crutches or a walker for ambulation," because a walker is equivalent to two crutches and is an indication of significant impairment in ambulation. We propose to base the next two lower levels of evaluation on the extent of need for ambulatory support, which is an objective basis of evaluation, assigning a 70-percent evaluation if one crutch or two canes are required for

most ambulation, due to pain, instability, or weakness (muscle strength grade zero to 2 out of 5), and a 50-percent evaluation if one crutch or two canes are required only for ambulating long distances (500 feet or more), due to pain, instability, or weakness (muscle strength grade 3 to 4 out of 5), since the need to use two canes or one crutch is another indication of difficulty ambulating, and they are approximately equivalent. We propose to add a 40-percent level, to be assigned if one cane is required for ambulation, due to pain, instability, or weakness, or if there is recalcitrant thigh pain of longer than 2 years' duration, and to retain a 30-percent minimum evaluation following arthroplasty. The VHA Orthopedic Committee described the residual of thigh pain as a disabling finding that is common enough to be addressed and which could be the primary residual after 2 years. We also propose to add a note directing raters not to combine an evaluation under these criteria with an evaluation for pain under § 4.59. Pain as a residual of arthroplasty is taken into account in these evaluation criteria.

Knee replacement (diagnostic code 5055) currently has the same relatively subjective criteria as other arthroplasties, with 60 percent assigned if there are chronic residuals consisting of severe painful motion or weakness in the affected extremity; rating by analogy to diagnostic codes 5256, 5261, or 5262 (the codes for ankylosis of the knee, limitation of extension of the leg, and impairment of the tibia and fibula) if there are intermediate degrees of residual weakness, pain or limitation of motion; and a minimum evaluation of 30 percent. The consultants recommended criteria that retained much of the same subjective language. After consultation with the VHA Orthopedic Committee, however, we propose to provide more objective criteria that parallel the evaluation criteria for hip arthroplasty based on ambulation, plus criteria based on the extent of limitation of the normal whole arc of motion (the full range of flexion and extension) of the knee after arthroplasty, which is 0 degrees of extension to 110 degrees of flexion. As with hip arthroplasty, we propose to assign a 90-percent evaluation for residuals requiring use of two crutches or a walker for ambulation; a 70-percent evaluation for residuals requiring the use of one crutch or two canes for most ambulation, due to pain, instability, or weakness (muscle strength grade zero to 2 out of 5) or if there is loss of more than 40 degrees of the full arc of motion; at

50 percent if requiring use of one crutch or two canes only for ambulating long distances (500 feet or more), due to pain, instability, or weakness (muscle strength grade 3 to 4 out of 5), or if there is loss of 21 to 40 degrees of the full arc of motion; and at 40 percent if residuals require the use of one cane or brace for ambulation, due to pain, instability, or weakness, or if there is loss of 10 to 20 degrees of the full arc of motion. We propose to retain a 30-percent evaluation for residuals as a minimum following arthroplasty. We also propose to add two notes, the first stating that a full arc of motion of the knee after arthroplasty is a range of motion of 0 to 110 degrees, and the second directing raters not to combine an evaluation under these criteria with an evaluation for pain under § 4.59. Pain as a residual of arthroplasty is taken into account in these evaluation criteria.

Ankle replacement (diagnostic code 5056), is currently evaluated under the same criteria as other arthroplasties, with 40 percent assigned if there are chronic residuals consisting of severe painful motion or weakness in the affected extremity; rating by analogy to diagnostic codes 5270 or 5271 if there are intermediate degrees of residual weakness, pain or limitation of motion; and a minimum evaluation of 20 percent. We propose similar changes for this arthroplasty, removing the current subjective criteria and directing that evaluation be based on ankylosis (under diagnostic code 5270) or limitation of motion (under diagnostic code 5271), whichever results in a higher evaluation, combining this evaluation with an evaluation for pain under § 4.59 when appropriate. We propose to retain the 20 percent minimum evaluation level.

#### **Anatomical Loss and Loss of Use of Hands and Feet**

The current list of potential combinations of disabilities under diagnostic codes 5104 through 5111 is incomplete because it does not include "loss of use of one hand and anatomical loss of the other hand" or "loss of use of one foot and anatomical loss of the other foot." We propose to combine "Anatomical loss of both hands" (diagnostic code 5106) and "Loss of use of both hands" (diagnostic code 5109) into one code, diagnostic code 5106, titled "Anatomical loss or loss of use of one hand and anatomical loss or loss of use of the other hand." Similarly, we propose to combine "Anatomical loss of both feet" (diagnostic code 5107) and "Loss of use of both feet" (diagnostic code 5110) into one code, diagnostic code 5107, titled "Anatomical loss or

loss of use of one foot and anatomical loss or loss of use of the other foot." These changes will make diagnostic codes 5109 and 5110 redundant, and we propose to delete them. Finally, we propose to combine "Anatomical loss of one hand and loss of use of one foot" (diagnostic code 5104), "Anatomical loss of one foot and loss of use of one hand" (diagnostic code 5105), "Anatomical loss of one hand and one foot" (diagnostic code 5108), and "Loss of use of one hand and one foot" (diagnostic code 5111) into one code, diagnostic code 5104, titled "Anatomical loss or loss of use of one hand and anatomical loss or loss of use of one foot." Diagnostic codes 5105, 5108, and 5111 will then be redundant, and we propose to delete them.

#### **Other Amputations**

Diagnostic codes 5123, 5124, and 5125 currently pertain to amputation of the forearm. Under diagnostic codes 5123, "Forearm, amputation of, above insertion of pronator teres" and 5124, "Forearm, amputation of, below insertion of pronator teres," we propose to add the alternative titles of "short, below elbow amputation" and "long, below elbow amputation," respectively, since these are terms commonly used in medical practice to distinguish levels of amputation. The insertion of the pronator teres is located at the middle one-third of the lateral surface of the radius, and, for the sake of clarity, we also propose to add that definition to the titles of diagnostic codes 5123 and 5124. We propose to revise the current title of diagnostic code 5125 from "Hand, loss of use of" to "Wrist disarticulation," because a wrist disarticulation procedure results in anatomical loss of the hand.

Under the subheading "Multiple finger amputations," we propose to edit paragraphs (a) through (f) and rename them notes, numbered one through five, consistent with the way we have designated rating instructions throughout this section. We also propose to move the notes from their current position following the diagnostic codes for multiple finger amputations to the beginning of the applicable diagnostic codes, for clarity and ease of reference. The last of these paragraphs defines loss of use of the hand. This is a duplication of § 3.350 (a)(2), and we propose to delete it as unnecessary. We propose to change the term middle finger to long finger for disabilities resulting from finger amputations and ankylosis of the fingers because this is the current medical term for this finger.

We propose to retitle diagnostic code 5160, now titled "Disarticulation, with loss of extrinsic pelvic girdle muscles" under amputation of thigh, to "Disarticulation of hip, with loss of extrinsic pelvic girdle muscles" for the sake of clarity about the site of amputation.

We propose to make editorial changes in the language of diagnostic codes 5163, 5164, and 5165, regarding leg amputations and diagnostic codes 5172 and 5173, regarding amputation of toes, for clarity. No substantive change is intended.

#### **Shoulder and Arm**

Ankylosis of the shoulder is currently rated under diagnostic code 5200, which is titled "Scapulohumeral articulation, ankylosis of." Since the common term for the shoulder joint is the glenohumeral, rather than the scapulohumeral joint, we propose to change the heading of diagnostic code 5200 and other references to the joint accordingly. For the sake of clarity, we propose to change the word "piece" to "unit" when referring to the scapula and humerus in the evaluation criteria under diagnostic code 5200. The current criteria for ankylosis of the shoulder are 50 and 40 percent (dominant and nondominant sides) for unfavorable ankylosis with abduction limited to 25 degrees from side; 40 and 30 percent for intermediate ankylosis between favorable and unfavorable; and 30 and 20 percent for favorable ankylosis, with abduction to 60 degrees, can reach mouth and head.

The consultants suggested an 80-percent evaluation for unfavorable ankylosis, defined as abduction limited to 25 degrees from side, and a 40-percent evaluation for favorable ankylosis, defined as abduction of 60 degrees, can reach mouth and head. The consultants suggested removing the intermediate level because ankylosis is either favorable or unfavorable and suggested elevating the unfavorable ankylosis to 80 percent and the favorable to 40 percent based on the same criteria for favorable and unfavorable as the current criteria. We consulted further with the VHA Orthopedic Committee, however, and the Committee indicated that an intermediate level is possible. We therefore propose to retain evaluations of 40 and 30 percent for intermediate ankylosis, which we propose to define as ankylosis with abduction limited to between 26 and 59 degrees, and to retain evaluations of 50 and 40 percent for unfavorable ankylosis and 30 and 20 percent for favorable ankylosis, retaining the current criteria. This

would encompass those with limited motion of a degree that does not meet the criteria for either favorable or unfavorable. We also do not propose to adopt the higher levels suggested, as the consultants did not specify why they believe this condition is more disabling than it is currently evaluated.

We propose to change the title of diagnostic code 5201 from "Arm, limitation of motion of" to "Limitation of active abduction of shoulder" to indicate that the criteria under this code are limited to the evaluation of active abduction of the shoulder rather than limitation of arm motion in general. The consultants suggested no other change. We propose no change other than to objectively specify in degrees the movements currently designated by reference to side and shoulder positions, that is, by changing "Midway between side and shoulder" to "to between 26 degrees and 89 degrees from side" and changing "At shoulder level" to "to shoulder level (90 degrees)". This more objective measurement of the disability will promote more consistent evaluations.

Diagnostic code 5202 is currently called "Humerus, other impairment of." For the sake of clarity, we propose to change the title to "Residuals of fracture of humerus and residuals of dislocation of glenohumeral (shoulder) joint," because these are the specific conditions covered under this diagnostic code. In the current evaluation criteria, the term "flail shoulder" is a parenthetical expression after loss of head of humerus. However, we propose to delete the reference to flail shoulder joint because this is a neurological condition due to paralysis of shoulder motion from such things as brachial plexus or other nerve injuries or poliomyelitis, and is properly evaluated under the neurological section of the rating schedule. The level of evaluation for the paralysis would depend on the extent of loss of function. The term "false flail joint" is currently a parenthetical expression after nonunion of a fracture of the humerus. That term is rarely used medically, and we propose to delete it and replace it with "nonunion of head of humerus with motion at fracture site" because that phrase describes the disability in correct and commonly used medical terms. The current criteria include evaluation percentages of 80 and 70 (for dominant and nondominant side) for loss of head of humerus (flail shoulder), 60 and 50 for nonunion of humeral head (false flail joint), and 50 and 40 for fibrous union of humeral head. We propose to reduce the rating for loss of the head from 80 and 70 to 60 and 50 percent because the

consultants stated that this impairment is more amenable to treatment under modern medical techniques. We propose to retain the same evaluation percentages for nonunion and fibrous union.

This diagnostic code (5202) also contains criteria for evaluating recurrent dislocation at the scapulohumeral (glenohumeral) joint, providing 30 and 20 percent for frequent episodes and guarding of all arm movements and 20 and 20 percent for infrequent episodes and guarding of movement only at shoulder level. We propose to change the subtitle to "Recurrent dislocation of glenohumeral (shoulder) joint," which is the more common, current term, and to retain the percentage evaluations for frequent and infrequent episodes. We do, however, plan to specify what is meant by frequent (every 2 months or more frequently) and infrequent (less often than every 2 months, but at least once per year) episodes and to add a 10-percent level for evaluation when there has been at least one recurrence. We propose to add guarding of external rotation to the evaluation of infrequent dislocations under this code because this is a clearer description of the disability. These criteria are more clearly defined and will promote consistency.

Diagnostic code 5202 also includes evaluation criteria for malunion of the humerus, with evaluations of 30 and 20 percent for "marked" and 20 and 20 percent for "moderate." The consultants indicated that malunion is disabling only if it is symptomatic or there is functional impairment. We therefore propose to follow their recommendation and provide an evaluation level of 30 and 20 percent if the malunion is symptomatic and there is more than 45 degrees of angulation in the anterior-posterior plane or varus-valgus plane and a level of 20 percent if the malunion is symptomatic and there is 30 to 45 degrees of angulation in the anterior-posterior plane or varus-valgus plane. These criteria are less subjective and better define the degree of deformity and indicate that symptoms are required. These changes would promote consistency of evaluations.

Current diagnostic code 5203, "Clavicle or scapula, impairment of," provides evaluations of 20 and 20 percent (for dominant and nondominant sides) for dislocation, 20 and 20 percent for nonunion with loose movement, 10 and 10 percent for nonunion without loose movement, and 10 and 10 percent for malunion. The consultants said that the impairments from these conditions are less than current criteria would indicate, and suggested a 10-percent

evaluation for any of the following: acromioclavicular separation with chronic pain, sternoclavicular separation with chronic pain, and nonunion of the clavicle and scapula with chronic pain. Because their suggested criteria were no more objective than the current criteria, we consulted with the VHA Orthopedic Committee, who suggested the following more objective criteria, which we propose to adopt: For resection of the end of the clavicle; nonunion of the clavicle or scapula; or malunion of the clavicle or scapula with skin breakdown, skin irritation, or thoracic outlet syndrome, 20 and 10 percent; for dislocation of the acromioclavicular joint with pain and osteoarthritis; or painful sternoclavicular anterior dislocation, 10 and 10 percent; for malunion of the clavicle or scapula zero and zero percent unless skin breakdown, skin irritation or thoracic outlet syndrome is present. The thoracic outlet is an area behind each clavicle where an artery, a vein, and nerves cross over the first rib. Upper extremity symptoms, known as the thoracic outlet syndrome, can develop on one or both sides when the nerves or blood vessels in this area are compressed by any of several causes, including an abnormal position or shape of the clavicle after an injury. The symptoms may include pain, numbness, tingling, weakness, and aching of an arm or hand, and there also may be swelling and enlarged veins.

Untreated sternoclavicular posterior dislocations will be evaluated separately, on the basis of complications, such as from pressure on blood vessels or trachea. We propose to add a note stating that these criteria encompass pain, so an evaluation under diagnostic code 5203 is not to be combined with an evaluation for pain (under § 4.59). We propose to add a second note to explain what is meant by a thoracic outlet syndrome and to indicate that it can be separately evaluated if not used to support an evaluation under diagnostic code 5203. These objective criteria are more clearly related to the likely functional impairment of these various conditions, based on orthopedic experience.

We propose to add a new diagnostic code, 5204, for "Rotator cuff dysfunction and impingement syndrome," two common shoulder disabilities that warrant a separate diagnostic code because they may currently be rated under a variety of existing codes and therefore may not be rated consistently. The rotator cuff is a group of 4 muscles (the subscapularis, supraspinatus, infraspinatus, and teres minor, all originating from the scapula)

and their tendons that surround the glenohumeral (shoulder) joint. These structures stabilize the shoulder joint and allow the arm to rotate ("Essentials of Musculoskeletal Care" 114 (Robert K. Snider, M.D., ed., 1999)). The rotator cuff may become symptomatic as a result of bursitis, tendinitis, or a tear or sprain affecting structures in the area. Both repetitive activity and acute injury can lead to rotator cuff damage. The major symptoms are pain, weakness, and loss of motion. Rotator cuff dysfunction is often associated with impingement syndrome, which is a condition in which the acromion or coracoacromial process of the scapula, the coracoacromial ligament, and the acromioclavicular joint press on the underlying bursa, biceps, tendon, and rotator cuff (Snider, 108). Impingement may lead to rotator cuff damage. Pain, weakness, and loss of function are possible outcomes of impingement syndrome. Because the effects of rotator cuff dysfunction and impingement syndrome are similar, and they often occur together, they can be rated under the same set of criteria. The consultants suggested adding impingement syndrome to the schedule with a single evaluation level of 10 percent for either side, based on the presence of the diagnosis and a positive impingement sign (a clinical test of arm movement that indicates the impingement syndrome is present). We propose to follow their suggestion for a 10-percent evaluation but to add an evaluation level of 20 and 20 percent for those with limitation of motion of internal rotation, external rotation, flexion, and abduction, since this limitation of motion would be more disabling than the presence of a positive impingement sign alone would warrant. Furthermore, since limitation of abduction alone may be rated under diagnostic code 5201 (limitation of active abduction of shoulder) at higher levels, we propose to add a note directing that evaluation be made under diagnostic code 5201 if a higher evaluation could be assigned based on limitation of abduction, but this evaluation may not be combined with an evaluation under diagnostic code 5204. We also propose to add a note directing the rater to combine an evaluation based on the criteria under diagnostic code 5204 with an evaluation for pain under § 4.59 when appropriate, since pain may be the predominant symptom. These criteria would take into account the usual manifestations of these conditions in an objective way, and also take into account any pain that is present under a standardized method of evaluation.

### Elbow and Forearm

Current diagnostic code 5205, "Elbow, ankylosis of," has evaluation levels of 60 and 50, 50 and 40, and 40 and 30 percent, based on whether the ankylosis is unfavorable, at an angle of less than 50 degrees or with complete loss of supination or pronation; intermediate, at an angle of more than 90 degrees or between 70 degrees and 50 degrees; or favorable, at an angle between 90 degrees and 70 degrees. The consultants recommended that all degrees of elbow ankylosis be rated at 80 percent because elbow ankylosis is very disabling regardless of position and it is impossible to distinguish between levels of disability. The VHA Orthopedic Committee also felt that the current criteria for unfavorable ankylosis would be equivalent to an above elbow amputation and agreed that a rating of 80 (for dominant) and 70 (for non-dominant) percent for unfavorable elbow ankylosis, at an angle of less than 50 degrees, or with complete loss of supination or pronation, is appropriate. They also felt that the intermediate and favorable ankylosis evaluations should be elevated, but not to the level that is equivalent to an amputation above the elbow. We therefore propose to retain the same criteria for elbow ankylosis, with editorial changes, but to elevate the evaluations for each level to 80 and 70 percent for unfavorable, 60 and 50 percent for intermediate, and 50 and 40 percent for favorable ankylosis. These evaluation levels are more consistent with the extent of disability these degrees of ankylosis produce, based on orthopedic experience and judgment.

Diagnostic codes 5206, 5207, and 5208 currently refer to limitation of flexion and extension of the forearm. Because extension and flexion are actually functions of the elbow joint, we propose to change the word "forearm" to "elbow" in the headings of diagnostic codes 5206, 5207, and 5208. We propose to retain the same criteria except for two nonsubstantive changes under diagnostic code 5207 that we are making because of language that has been a source of confusion. We propose to change the phrase "extension limited to X degrees" to "extension is limited to minus X degrees (lacks X degrees of full extension)" because full extension is zero degrees, and if less than full extension is possible, a negative number is required, since the range of extension is zero to minus 145 degrees. For example, if there is 110 degrees of limitation of extension (or, extension is limited by 110 degrees), it means that only minus 35 degrees of full extension is possible or that extension is limited

to minus 35 degrees. For the sake of clarity, we propose to revise this language, using zero degrees as the reference point for full extension, as Plate I indicates is correct. Also currently, a 10-percent evaluation is provided both for limitation of extension to 60 degrees and for limitation of extension to 45 degrees. We propose to revise the criteria for a 10-percent level of evaluation to encompass both, by proposing a 10-percent evaluation if extension is limited to between minus 45 and minus 74 degrees (extension lacks at least 45 but less than 75 degrees of full extension). This eliminates the need for two sets of criteria for the 10-percent evaluation level. Similarly, for diagnostic code 5208, we propose to change the current language of the title (and evaluation criteria) from "Forearm, flexion limited to 100 degrees and extension to 45 degrees" to "Flexion of elbow is limited to 100 degrees, and extension is limited to minus 45 degrees (lacks 45 degrees of full extension).

Diagnostic code 5209, "Elbow, other impairment of," calls for evaluations of 60 and 50 percent for a flail joint, and of 20 and 20 percent for joint fracture, with marked cubitus varus or cubitus valgus deformity or with ununited fracture of head of radius. The consultants recommended no changes. However, we propose to remove the criterion of "flail joint" from this section, since it refers to complete paralysis at the elbow, a neurologic condition that would be more appropriately evaluated under § 4.124a in the neurologic portion of the rating schedule. The specific diagnostic code and evaluation would depend on the exact findings. Complete paralysis of the shoulder and elbow due to upper radicular (fifth and sixth cervical nerves) impairment would warrant a 70- or 60-percent evaluation (for dominant and non-dominant side, respectively). If only the middle radicular cervical nerve group is impaired, the evaluation for complete paralysis of adduction, abduction, and rotation of arm, plus flexion of elbow and extension of wrist would also warrant a 70- or 60-percent evaluation. It is unlikely that elbow movements alone would be completely paralyzed in a given situation because the same nerves that innervate the muscles about the elbow innervate muscles that affect the movement of other parts of the arm. The VHA Orthopedic Committee stated that the normal position of the elbow is 10–15 degrees of valgus and that any degree of cubitus varus (*i.e.*, any degree of varus greater than zero degrees) will greatly

interfere with positioning of the hand and would be considered "marked." They also indicated that marked cubitus valgus essentially doesn't occur. They also suggested we add an evaluation level of 10 percent for excision of the radial head and add malunion of radial head at the 20-percent level. Based on this information, we propose to revise the criteria for the 20 and 20 percent level to "Joint fracture with cubitus varus deformity; or ununited or malunited head of radius" and to add a level of 10 and 10 percent for "excised radial head."

We propose no change to diagnostic code 5210, "Radius and ulna, nonunion of with flail false joint" except for revising the title to "Nonunion of radius and ulna, with motion at the fracture site," since the term "false flail joint" is seldom used medically, and the revised title would adequately describe the disability.

We propose to revise the criteria for diagnostic codes 5211, "Ulna, impairment of" and 5212, "Radius, impairment of," for the sake of clarity and in order to provide guidance on evaluating nonunion in the upper half of the ulna or the lower half of the radius with false movement when there is either deformity or loss of bone substance, but not both. Currently 40 or 30 percent is assigned under diagnostic code 5211 for nonunion in the upper half of the ulna with false movement with loss of bone substance and marked deformity, and 30 or 20 percent is assigned for nonunion in the upper half of the ulna without loss of bone substance or deformity. There is no guidance on evaluating an intermediate condition where either deformity or loss of bone substance, but not both, is present. We propose to retain the 40 or 30 percent with the same criteria, but to assign 30 or 20 percent if there is either deformity or loss of bone substance and 20 percent if neither deformity nor loss of bone substance is present. Providing a third method of evaluating nonunion in the upper half of the ulna would promote consistent evaluations for those who have the intermediate level of disability.

We propose to provide a similar intermediate evaluation under diagnostic code 5212, with 30 or 20 percent assigned if there is nonunion of the lower half of the radius with false movement and either deformity or loss of bone substance and 20 percent if neither deformity nor loss of bone substance is present. For both diagnostic code 5211 and 5212, we propose to change the current criterion for 10 percent from "Malunion of, with bad alignment" to "Malunion of,

symptomatic" because disability from these types of injuries is related to function rather than position of the joint. We also propose to add a note under each diagnostic code (5211 and 5212) directing that, alternatively, malunion (of the ulna or the radius) be evaluated based on limitation of motion if that would result in a higher evaluation. We also propose, for both diagnostic codes 5211 and 5212, to remove the word "marked" which currently precedes "deformity" in the evaluation criteria at the 40- and 30-percent level. This disability level will be distinguished from the next lower one by whether or not both deformity and loss of bone substance are present.

Impairment of supination and pronation of forearm, diagnostic code 5213, is currently evaluated at 40 or 30 percent (for dominant and nondominant side, respectively) if there is bone fusion and the hand is fixed in supination or hyperpronation; at 30 or 20 percent if the hand is fixed in full pronation; and at 20 percent if the hand is fixed near the middle of the arc or moderate pronation. For limitation of pronation, 30 or 20 percent is assigned if motion is lost beyond the middle of the arc, and 20 percent is assigned for motion lost beyond the last quarter of the arc, the hand does not approach full pronation. For limitation of supination, 10 percent is assigned for supination to 30 degrees or less. We propose to clarify the evaluation criteria by specifying in degrees what is meant by currently used terms such as "hyperpronation", "Motion lost beyond middle of arc," etc., in order to remove any ambiguity. We propose that when there is bone fusion, an evaluation of 40 or 30 percent be assigned when the hand is fixed in supination (between one and 85 degrees of supination) or in hyperpronation (in greater than 80 degrees of pronation); of 30 or 20 percent be assigned when the hand is fixed in full pronation (at 80 degrees of pronation); and of 20 percent when the hand is fixed at 40 to 45 degrees of pronation. We propose to evaluate limitation of pronation at 30 or 20 percent when pronation is limited to 40 degrees and at 20 percent when pronation is limited to 60 degrees. We propose to evaluate limitation of supination at 10 percent when supination is limited to 30 degrees. We also propose to edit the note that currently says that in all forearm and wrist injuries, codes 5205 through 5213, multiple impaired finger movements due to tendon tie-up, muscle or nerve injury, are to be separately rated and combined not to exceed rating for loss of use of hand. We propose instead to

have the note say that evaluations for forearm and wrist injuries, diagnostic codes 5205 through 5213, will be combined with separate evaluations for limitation of motion of the fingers, subject to the provisions of § 4.68 (which limits the combined evaluation of musculoskeletal and associated neurologic disabilities of an extremity).

#### Wrist

The consultants suggested no changes for diagnostic code 5214, "Wrist, ankylosis of," except for suggesting that we add a second note stating that bilateral wrist ankyloses are more functional if one wrist is in a flexed position and the other is in an extended position. We propose no change based on this comment. We propose to continue rating each wrist separately as though only one is impaired, a method that would in general be more beneficial to the veteran, and a method that the VHA Orthopedic Committee believe to be appropriate. It seems unlikely, in any case, that more than a few veterans would be service-connected for ankylosis of both wrists. There is currently a note under 5214 stating that extremely unfavorable ankylosis will be rated as loss of use of hands under diagnostic code 5125, but the note does not define "extremely unfavorable ankylosis." We propose to remove this instruction because there is already a provision in § 3.350 (a)(2) of this chapter (the criteria for determining when loss of use of a hand or foot is present) that indicates that special monthly compensation is payable when no effective function of the hand remains. This applies, whatever the cause, and need not be repeated here. We also propose editorial changes for clarity.

We propose to revise the evaluation criteria under diagnostic code 5215, "Wrist, limitation of motion of," by changing the current criteria for a 10-percent evaluation, "Dorsiflexion less than 15 degrees" or "Palmar flexion limited in line with forearm" to "Dorsiflexion limited to 14 degrees, or palmar flexion limited to zero degrees (no palmar flexion possible)". These are clarifying, rather than substantive, changes.

#### Upper Extremity Digit Ankylosis and Limitation of Motion, Fractures of Hand and Feet Phalanges, Metacarpals, and Metatarsals

Revised criteria and guidance for the evaluation of upper extremity digit ankylosis and limitation of motion (diagnostic codes 5216 through 5227) will be addressed in a separate rulemaking, so they are not being addressed in this proposed rule.

There are currently no diagnostic codes in the rating schedule for the evaluation of disability due to fractures of the phalanges of the hand or foot or of the metacarpals of the hand or carpals of the wrist. These disabilities must now be rated by analogy to other conditions. Since they are such common injuries in veterans, we propose to add three new diagnostic codes: 5231 for residuals of fracture of a phalanx of finger or thumb, 5232 for residuals of fracture of a carpal or metacarpal bone, and 5233 for residuals of fracture of a phalanx of a toe (residuals of fractures of the tarsals and metatarsals can be evaluated under diagnostic code 5283, "Malunion or nonunion of tarsal or metatarsal bones (except talus and calcaneus)"). We propose that each of these fractures be evaluated based on the specific residuals, such as limitation of motion or ankylosis, under the appropriate code(s), to be combined with an evaluation for pain under § 4.59 when appropriate.

#### Hip and Femur

Diagnostic code 5250, "Hip, ankylosis of," currently provides for an evaluation of 90 percent if the ankylosis is extremely unfavorable, with the foot not reaching the ground and crutches necessary; an evaluation of 70 percent if the ankylosis is intermediate; and an evaluation of 60 percent if the ankylosis is favorable, in flexion at an angle between 20 degrees and 40 degrees, with slight adduction or abduction. The consultants suggested that we remove the intermediate level because there is no middle ground with this disability. They also suggested we revise the criteria for favorable ankylosis to "in slight flexion, at an angle between 20 degrees and 40 degrees and minimal adduction or abduction, not requiring assistive devices." The VHA Orthopedic Committee indicated that unfavorable ankylosis would be present when there is more than 60 degrees of flexion so that the foot cannot reach the ground and crutches are required. We propose to adopt both suggestions in part and make the evaluation criteria more specific. For a 90-percent evaluation, we propose that the criteria be "Unfavorable ankylosis, meaning fixed in more than 60 degrees of flexion so that the foot cannot reach the ground, and crutches are required for ambulation." We propose that the criteria for a 60-percent evaluation be "Favorable ankylosis, meaning fixed in 20 degrees to 39 degrees of flexion, in slight adduction or abduction, and assistive devices are not required." These criteria are similar to the current criteria and the criteria recommended

by the consultants. This leaves ankylosis in flexion at an angle between 40 and 60 degrees undefined, and we therefore propose to retain the 70-percent level of evaluation with criteria of "Intermediate ankylosis, meaning fixed in 40 to 60 degrees of flexion, and assistive devices may be needed."

We propose to change the title of diagnostic code 5251 from "Thigh, limitation of extension of" to "Limitation of extension of hip"; the title of diagnostic code 5252 from "Thigh, limitation of flexion of" to "Limitation of flexion of hip"; and the title of 5253 from "Thigh, impairment of" to "Limitation of abduction, adduction, or rotation of hip" to reflect more clearly that these diagnostic codes refer to movement at the hip joint.

The current evaluation criteria for diagnostic code 5251, "Thigh, limitation of extension of," provide a single level of evaluation of 10 percent for limitation of extension of the thigh to five degrees. The consultants recommended no change. However, we propose to revise the criteria because the current criterion for a 10-percent evaluation does not take into account the fact that some individuals have only 10 degrees of extension normally. According to the VHA Orthopedic Committee, comparing the affected and non-affected sides would be a better indicator of the extent of disability, because some people have a small degree of limitation of extension with no symptoms. We therefore propose to assign a 10-percent evaluation if there is limitation of extension of the affected hip that is at least 10 degrees more than the limitation of extension of the non-affected hip, and there is a positive Thomas test (test for flexion contracture of the hip). The normal range of motion of the hip for flexion and extension is zero degrees (full extension) to 125 degrees (full flexion). A Thomas test shows the degree of flexion deformity (contracture) of a hip and confirms the limitation of extension (which is the equivalent of a flexion contracture, since extension is always limited to less than zero if there is a flexion contracture). In the Thomas test, the patient is supine (lying on back), with one leg flexed so that the knee touches the chest, and the angle between the other hip and the examination table represents the degree of flexion deformity or contracture (limitation of extension) that is present.

We propose no change in the criteria for limitation of flexion of the hip under diagnostic code 5252. We propose no change in the criteria for limitation of abduction, adduction, or rotation of the

hip under diagnostic code 5253, except for editorial changes.

Diagnostic code 5254 is currently titled "Hip, flail joint" with a single evaluation level of 80 percent based solely on the diagnosis. "Flail joint" is an obsolete term, and we propose to modernize the title to "Resection arthroplasty of hip (removal of femoral head and neck without replacement by a prosthesis)", as recommended by the consultants, and to continue a single evaluation of 80 percent for the condition.

We propose to change the title of diagnostic code 5255 from "Femur, impairment of" to "Residuals of fracture of femur" because that is the condition evaluated under this diagnostic code. This diagnostic code currently includes evaluation criteria for fractures of the shaft or anatomical neck with nonunion, for fracture of the surgical neck with a false joint, and for malunion with knee or hip disability. Fracture of the shaft or anatomical neck of the femur with nonunion, with loose motion (spiral or oblique fracture) is currently evaluated at 80 percent. If there is nonunion without loose motion and weightbearing is preserved with the aid of a brace, it is evaluated at 60 percent. Sixty percent is also assigned for fracture of the surgical neck of the femur with a false joint. Malunion of a fracture of the femur is currently rated at 30 percent if there is malunion and marked knee or hip disability, at 20 percent if there is moderate knee or hip disability, and at 10 percent if there is slight knee or hip disability. These criteria contain subjective adjectives such as "marked" and "moderate" and do not provide the rater with objective criteria for evaluating the disability.

The consultants suggested a reorganization and expansion of the types of fractures and residuals, and we propose to do that, as well as to remove the subjective language. They also pointed out that these conditions respond well to treatment, and impairment under current treatment is not as great as in past years, so some reductions in percentage levels are warranted. We propose to follow their recommendations. We propose that a fracture of the femoral neck, intertrochanteric area, or shaft be evaluated at 60 percent if there is symptomatic malunion or symptomatic nonunion; at 40 percent if there is asymptomatic nonunion, or if there is a fracture of the femoral head or subcapital area with excision of 25 percent or more of the weightbearing portion; and at 30 percent if there is a fracture of the femoral shaft with symptomatic malunion and either more

than 10 degrees of angulation in the varus-valgus plane or more than 15 degrees of angulation in the anterior-posterior plane. We also propose to add two notes. The first directs that a fracture of the femoral head or subcapital area with excision of less than 25 percent of the weightbearing portion be evaluated as aseptic necrosis under diagnostic code 5265. The second defines malunion of an intertrochanteric fracture as having a varus deformity, shortening, or rotation. These criteria are based on modern medical treatment and focus on the femoral impairment. Currently, additional disability of the knee or hip resulting from a femoral fracture is evaluated at 10, 20, or 30 percent, depending on whether the impairment is mild, moderate, or marked. These criteria are subjective and therefore difficult to apply consistently, and any hip or knee impairment can be separately rated as a secondary condition to the femoral shaft fracture. Therefore it is unnecessary to take into consideration impairment of the hip or knee in evaluating femoral shaft fracture, and we propose to remove those criteria.

#### Knee and Lower Leg

Ankylosis of the knee, diagnostic code 5256, is currently evaluated at 60 percent if the ankylosis is extremely unfavorable, in flexion at an angle of 45 degrees or more; at 50 percent if the ankylosis is in flexion between 20 and 45 degrees; at 40 percent if the ankylosis is in flexion between 10 and 20 degrees; and at 30 percent if the ankylosis is at a favorable angle in full extension, or flexion between zero and 10 degrees. We propose to revise the criteria to avoid the overlap of the required degrees of flexion in the current criteria by making the required flexion be more than 45 degrees for 60 percent; between 21 and 45 degrees for 50 percent; between 11 and 20 degrees for 40 percent; and in full extension, or in flexion between zero and 10 degrees for 30 percent.

Diagnostic code 5257 is currently titled "Knee, other impairment of," but the criteria are based only on the extent of recurrent subluxation or lateral instability. Thirty percent is assigned if the condition is "severe," 20 percent if it is "moderate," and 10 percent if it is "slight." We propose to change the title to "Knee instability" because this more precisely describes the content. The consultants recommended that evaluations be based on whether the instability is correctable by bracing and the extent to which it interferes with activities of daily living and athletic activities, such as running and jumping.

We propose to follow this recommendation, providing a 30-percent evaluation if there is documented instability that is not correctable by bracing and that interferes with activities of daily living; a 20-percent evaluation if there is documented instability that is correctable with bracing, but that interferes at times with activities of daily living and that prevents activities such as running and jumping; and a 10-percent evaluation if there is documented instability that is correctable by bracing and that does not interfere with activities of daily living, but at times may interfere with activities such as running and jumping. We also propose to add a note directing that an evaluation under diagnostic code 5257 may be combined with an evaluation for pain (under § 4.59) when appropriate. The proposed criteria are more objective than the current criteria, a change that will promote consistent evaluations.

Diagnostic code 5258 is currently titled "Cartilage, semilunar, dislocated, with frequent episodes of 'locking,' pain, and effusion into the joint". It provides a single evaluation level of 20 percent. The consultants suggested we change the title of diagnostic code 5258 to "Meniscus, tear with episodes of give way, locking and/or swelling". They suggested a single evaluation level of 10 percent, because they felt the impairment is not as great as in the original schedule. Diagnostic code 5259 is currently titled "Cartilage, semilunar, removal of, symptomatic," with a single evaluation level of 10 percent. The consultants suggested changing the condition to "Patellofemoral subluxation or dislocation" and to base evaluation on the frequency of episodes.

We propose to follow their suggestion in part by combining meniscus injuries, pre- or post-operatively, under diagnostic code 5258 and by changing the title to "Injury of meniscus (semilunar cartilage) of knee (pre- or post-operatively)," which is both a more current medical term and more reflective of the content. We also propose to provide a 20-percent evaluation for meniscus injury with episodes of giving way, locking, or joint effusion that interfere at times with activities of daily living and prevent activities such as running and jumping, and a 10-percent evaluation for meniscus injury with episodes of giving way, locking, or joint effusion that do not interfere with activities of daily living, but that at times interfere with activities such as running and jumping. We propose that evaluation alternatively be based on instability, degenerative arthritis, *etc.*, depending on the specific

findings, under the appropriate diagnostic code, because these are possible effects of meniscus injury or surgery. We also propose to add a note directing that an evaluation under diagnostic code 5258 be combined with an evaluation for pain (under § 4.59) when appropriate. Diagnostic code 5259 would be unnecessary under this reorganization, and we propose to remove it.

Diagnostic codes 5260 and 5261 currently pertain to limitation of flexion of the leg and limitation of extension of the leg, respectively. Because the terms extension and flexion are functions of the knee joint, we propose to change the word "leg" to "knee" in the titles of diagnostic codes 5260 and 5261. We propose to retitle diagnostic code 5260 "Limitation of flexion of knee." Flexion of the knee limited to 15 degrees is currently evaluated at 30 percent, flexion limited to 30 degrees is evaluated at 20 percent, flexion limited to 45 degrees is evaluated at 10 percent, and flexion limited to 60 degrees is evaluated at zero percent. The consultants pointed out that 30, 60, and 90 degrees are the important angles of measurement and are better measures of impairment than those in the current schedule. The VHA Orthopedic Committee agreed. We therefore propose to provide a 30-percent evaluation if flexion is limited to 30 degrees, a 20-percent evaluation if it is limited to 60 degrees, and a 10-percent evaluation if it is limited to 90 degrees.

Under diagnostic code 5261, currently "Leg, limitation of extension of," which we propose to retitle "Limitation of extension of knee," current evaluations are 50 percent if extension is limited to 45 degrees, 40 percent if it is limited to 30 degrees, 30 percent if it is limited to 20 degrees, 20 percent if it is limited to 15 degrees, 10 percent if it is limited to 10 degrees, and zero percent if it is limited to 5 degrees. The consultants pointed out that the three relevant ranges of measurement for limitation of extension are lack of extension of 5 to 15 degrees, lack of extension of 15 to 30 degrees, and lack of extension of 30 degrees or more. We therefore propose to provide evaluation levels of 50 percent if extension is limited to more than minus 30 degrees (lacks more than 30 degrees of full extension), 30 percent if extension is limited to between minus 16 and 30 degrees (lacks 16 to 30 degrees of full extension), and 10 percent if extension is limited to between minus 5 and 15 degrees (lacks 5 to 15 degrees of full extension). Reducing the number of levels of evaluation for limitation of flexion and extension to three will help simplify the

rating process and will be in accord with the consultants' recommendation about relevant ranges. These levels will also be clearer in reference to Plate II, which shows the range of motion of the knee as zero to 140 degrees (which includes both flexion and extension of the knee), and which therefore requires that less than full extension be expressed as a negative number.

Diagnostic code 5262, Tibia and fibula, impairment of, currently has evaluation criteria pertaining to residuals of fracture of the tibia or fibula. Evaluations are 40 percent if there is nonunion, with loose motion, requiring a brace, 30 percent if there is malunion with marked knee or ankle disability, 20 percent if there is malunion with moderate knee or ankle disability, and 10 percent if there is malunion with slight knee or ankle disability. The consultants suggested no change. However, we propose changes in order to eliminate the subjective terms "marked," "moderate," and "slight" and the indefinite term "ankle or knee disability." We propose to use evaluation criteria similar to those we are proposing for fractures of the femur. We propose a 40-percent evaluation if there is nonunion, with loose motion, requiring a brace; a 30-percent evaluation if there is an asymptomatic nonunion; a 20-percent evaluation if there is a symptomatic malunion with either more than 10 degrees of angulation in the varus-valgus plane or more than 15 degrees of angulation in the anterior-posterior plane; and a 10-percent evaluation if there is a symptomatic malunion with neither more than 10 degrees of angulation in the varus-valgus plane nor more than 15 degrees of angulation in the anterior-posterior plane. These would provide more objective criteria to promote consistent evaluations. We also propose to revise the title to "Nonunion or malunion of fracture of tibia or fibula," in order to better identify the content of this diagnostic code.

We propose to delete diagnostic code 5263, "Genu recurvatum," since the consultants said this diagnosis is no longer used. Some degree of genu recurvatum (which means backward curving or hyperextended knee) is normal in females, and when acquired, is a finding that occurs as part of other conditions, such as nerve paralysis or osteoarthritis, rather than being a primary diagnosis or disability. Its evaluation would be encompassed by the evaluation for the primary underlying condition.

### **Aseptic Necrosis of Femoral Head**

We propose to add a new diagnostic code, 5265, for aseptic necrosis (or avascular necrosis or osteonecrosis) of the femoral head. The consultants recommended this addition and suggested criteria similar to those we propose, although they used subjective terms that we have replaced with more objective criteria. For example, they suggested a 100-percent evaluation for a "severe" level with "severe" pain requiring use of ambulatory support, a 50-percent evaluation for a "moderate" level with "moderate" pain aggravated by activity and requiring intermittent ambulatory support, a 10-percent level for a "mild" level with previous severe or moderate disease that has stabilized, without collapse of the femoral head (at least 2 years after onset) and minimal pain; and a zero-percent evaluation for a "minimal" level with previous severe or moderate disease that has stabilized (at least 2 years after onset) with minimal residual deformity. They felt that if there is mild or minimal aseptic necrosis, there should also be an assessment of limitation of motion, with the higher rating being given.

Aseptic necrosis (or avascular necrosis or osteonecrosis) of the hip is seen commonly if there has been interference of the blood supply to the head of the femur due to trauma, metabolic disease, vascular disease, etc., with resulting bone death of part or all of the femoral head. Eventually, the affected bone collapses. It is likely that it would currently be rated analogous to fracture of the femur (diagnostic code 5255), which has current evaluations ranging from 10 to 80 percent (and for which we propose to have evaluation levels of 30 to 60 percent, as described above). The proposed new criteria under diagnostic code 5255 are not appropriate for aseptic necrosis of the femur because a fracture of the femur is not always present, and the findings are not necessarily similar. Aseptic necrosis may be painless early but then cause progressive pain with weight bearing or even at rest. Eventually, a hip replacement may be needed because of bone destruction. We propose to base evaluations on whether ambulatory support is needed and whether the femoral head is collapsed, and to evaluate pain, when present, separately under § 4.59, rather than assessing pain on the subjective criteria of whether it is "mild," "moderate," or "severe". We propose to evaluate aseptic necrosis at 60 percent if there is collapse of the femoral head and constant ambulatory support is required; at 40 percent if there is collapse of the femoral head and

intermittent ambulatory support is required; and at 10 percent if there is evidence of aseptic necrosis without collapse of the femoral head. We do not propose to include a 100-percent evaluation as the consultants suggested because their evaluation levels included subjective complaints of pain, and we propose to add a note directing that an evaluation under diagnostic code 5265 will be combined with a separate evaluation for pain under § 4.59 when appropriate. We also propose to add a note indicating that the condition may be alternatively evaluated as limitation of motion of the hip combined with an evaluation for pain when appropriate, if that would result in a higher evaluation.

### **Other Knee Conditions**

There are two relatively common areas of disability of the knee that are not addressed in the current schedule—fracture, subluxation, or dislocation of the patella and patellofemoral pain syndrome. The consultants recommended we add diagnostic codes for these conditions, and we propose to do so.

We propose to add diagnostic code 5266 as "Patellar fracture and instability." This would include subluxation and dislocation of the patella, residuals of patellectomy (removal of the patella), and patellar fracture. The consultants suggested two levels of evaluation for subluxation and dislocation of the patella, with 20 percent assigned for patellofemoral subluxation or dislocation that is "frequent," occurring more than once a month, and 10 percent for patellofemoral subluxation or dislocation that is "infrequent," occurring less than once a month. They also suggested a separate diagnostic code for patellar fracture, with a 30-percent evaluation for symptomatic nonunion and a 20-percent evaluation for patellectomy. We propose instead that all of these conditions be evaluated under a single diagnostic code with three levels of evaluation. We propose to evaluate subluxation (a partial dislocation in which the patella spontaneously goes back into normal position) based on different criteria from the more severely disabling dislocation (which requires manual replacement of the patella). We propose an evaluation of 30 percent if there is symptomatic nonunion of a fracture of the patella, or if there is patellectomy, or if there is recurrent patellar dislocation occurring six or more times during the past 12-month period. We propose a 20-percent evaluation if there is patellofemoral subluxation (partial or incomplete dislocation of the patella) occurring

three or more times per month during the past 12-month period or if there is recurrent patellar dislocation occurring three to five times during the past 12-month period. We propose a 10-percent evaluation if there is patellofemoral subluxation one to two times per month during the past 12-month period or if there is recurrent patellar dislocation occurring one or two times during the past 12-month period. The VHA Orthopedic Committee felt that patellectomy warrants a higher rating than the consultants recommended because it can result in substantial functional impairment of the knee, and we propose to follow that recommendation. We also propose to add a note indicating that the evaluation criteria for diagnostic code 5266 encompass pain, since pain is ordinarily present in these conditions, so a separate evaluation for pain under § 4.59 is not warranted.

We also propose to add diagnostic code 5267 for patellofemoral pain syndrome (chondromalacia of patella, retropatellar pain syndromes, patellofemoral syndrome). This diagnostic code includes a group of disorders characterized by anterior knee pain between the patella and the femur, especially on climbing or descending stairs or on squatting. There may be deep tenderness on palpation and pressure on the patella, crepitus on motion, a grinding sensation behind the patella, and occasionally swelling. The diagnosis may be made clinically or based on X-ray or other imaging procedure or on arthroscopic findings. We propose that the condition be evaluated based on pain, which is the main disabling effect, under the criteria in § 4.59.

#### Ankle and Foot

Diagnostic code 5270, ankylosis of the ankle, currently provides a 40-percent evaluation if the ankylosis is in plantar flexion at more than 40 degrees or in dorsiflexion at more than 10 degrees, or with abduction, adduction, inversion, or eversion deformity; a 30-percent evaluation if it is in plantar flexion between 30 and 40 degrees or in dorsiflexion between zero and 10 degrees; and a 20-percent evaluation if it is in plantar flexion at less than 30 degrees. The consultants suggested evaluations ranging from zero to 40 percent for 10 different situations that apply to foot and ankle ankylosis and fusion. For example, they suggested a 40-percent evaluation for fusion of the ankle in poor weightbearing position and a 20-percent evaluation for fusion of the ankle in good weightbearing position; a 20-percent evaluation for

fusion of the subtalar joint in poor weightbearing position and a 10-percent evaluation for fusion of the subtalar joint in good weightbearing position, *etc.* However, they did not define "good" and "poor" weightbearing positions. The VHA Orthopedic Committee indicated that good weightbearing would mean the foot is in a plantograde position, meaning it is in the proper position for walking. In our judgment, neither of these provides more objective guidance for rating than the current criteria, and we therefore propose only editorial changes.

The evaluation criteria for evaluation limitation of motion of the ankle (diagnostic code 5271) are currently divided into levels of 20 and 10 percent, based on whether the disability is "marked" or "moderate." These terms are subjective, and we propose to substitute the more objective criteria recommended by the consultants. We propose to assign 20 percent if there is less than 5 degrees passive dorsiflexion or less than 10 degrees passive plantar flexion and 10 percent if there is less than 15 degrees passive dorsiflexion or less than 30 degrees passive plantar flexion. These more objective criteria should promote consistent evaluations.

Diagnostic code 5272 is currently titled "Subastragalar or tarsal joint, ankylosis of." In order to reflect current medical terminology, we propose to change the term "subastragalar" to "subtalar" and retitle 5272 as "Ankylosis of subtalar or tarsal joint." We propose no change in the criteria except to add "no varus, no valgus" to clarify what "good weightbearing position" means and to add "not in plantograde position" to indicate what "poor weightbearing position" means.

Diagnostic code 5273 is currently titled "Os calcis or astragalus, malunion of." We propose to update the language and retitle 5273 as "Malunion of calcaneus (os calcis) or talus." Currently, the condition is evaluated at 20 percent if there is "marked" deformity and at 10 percent if there is "moderate" deformity. These are subjective criteria that allow for different interpretations. The consultants suggested no change in the criteria. However, the VHA Orthopedic Committee offered objective criteria that we propose to adopt. They suggested that marked deformity would mean deformity of the talocalcaneal joint or spreading of the calcaneus deforming the weightbearing surface of the heel, because either deformity would interfere with walking. They also suggested a higher evaluation would be warranted for such deformities, and we propose to assign a 30-percent

evaluation for this deformity. They suggested that moderate deformity would mean malunion of either the talus or calcaneus without deformity of the subtalar joint or weightbearing surface of the heel.

Diagnostic code 5274 is currently titled "Astraglectomy." We propose to update the term "astraglectomy" to "talectomy," which is the only change suggested by the consultants. We propose to further change the title to "Total or partial talectomy without subsequent arthrodesis," as suggested by the VHA Orthopedic Committee. The Committee also suggested this is much more disabling than the current evaluation of 20 percent because it causes a severe disruption of the entire mechanism of the ankle, and we therefore propose to assign a 40-percent evaluation for talectomy.

There is currently a single diagnostic code, 5275, for "Bones, of the lower extremity, shortening of" under the heading "Shortening of the Lower Extremity." Under this diagnostic code there are six levels of evaluation between 10 and 60 percent, but the criteria overlap. For example, a 10-percent evaluation is assigned for shortening of 1¼ to 2 inches and a 20-percent evaluation for shortening of 2 to 2½ inches so that a shortening of 2 inches could be evaluated at either 10 or 20 percent. The consultants suggested eliminating all but the 10-, 20-, and 40-percent levels because they felt these levels are more precisely related to impairment than the original levels, but their suggested criteria did not remove the overlap. We propose to retain the current levels since the objectivity of the criteria allows us to readily distinguish six levels closely related to incremental degrees of shortening. The VHA Orthopedic Committee suggested no change in the current criteria. We do propose to eliminate the overlapping, for example, by assigning 10 percent if there is shortening of at least 1¼ but less than 2 inches (3.2 to less than 5.1 cm.) and 20 percent if there is shortening of at least 2 but less than 2½ inches (5.1 to less than 6.4 cm.). These represent only minimal changes in the criteria for the sake of clarity. We also propose to edit the instructions in two notes for measuring leg length and the prohibition against combining shortened leg with other evaluations for fracture or faulty union in the same extremity.

Diagnostic code 5276 is currently titled "Flatfoot, acquired." We propose to remove the term "acquired" because, as the consultants noted, it is not of assistance in distinguishing this condition, which may or may not have

preexisted service, may or may not have been congenital, and, if preexisting service, may or may not have undergone aggravation during service. Making all of those determinations is part of the rating process that decides whether the condition should be service-connected, but they are not inherent to evaluation. We also propose to add the term "pes planus" to the title, since this is the medical term for flatfoot. The current criteria provide an evaluation of 50 percent if bilateral and 30 percent if unilateral for the pronounced condition, with marked pronation, extreme tenderness of the plantar surfaces of the feet, marked inward displacement and severe spasm of the tendo achillis on manipulation, not improved by orthopedic shoes or appliances. It provides an evaluation of 30 percent if bilateral and 20 percent if unilateral for the severe condition, with objective evidence of marked deformity (pronation, abduction, etc.), pain on manipulation and use accentuated, indication of swelling on use, characteristic callosities. It provides an evaluation of 10 percent for either the unilateral or bilateral condition if it is moderate, with weightbearing line over or medial to great toe, inward bowing of the tendo achillis, pain on manipulation and use of the feet. It also provides an evaluation of zero percent if mild, with symptoms relieved by built-up shoe or arch support.

The consultants suggested only three levels of disability with deletion of the "pronounced" category, which they said was not clearly differentiated from the "severe" category. Raters have also been confused by the criteria for the "severe" and "pronounced" levels. The consultants suggested new, more detailed and comprehensive criteria ranging from 40 percent (for the bilateral condition) to zero percent. We propose to adopt their criteria, with one exception. Instead of the single evaluation level of 10 percent for unilateral or bilateral flatfeet of moderate deformity that they suggested, we propose to evaluate each foot separately at every level, since it is clearly more disabling to have deformed feet bilaterally than unilaterally, and assigning the same evaluation whether only one foot or both feet are involved is not equitable. We propose to assign a 20-percent evaluation for deformity with, on weightbearing, significant eversion of the heel, flattened arch, collapse of the midfoot structures with the talar head displaced both medial and plantar, forefoot abduction; pain in the arch; not significantly relieved by the use of appliances, orthoses, or

orthopedic shoes. We propose a 10-percent evaluation for deformity with a perpendicular position to slight eversion of the heel, the presence of a slight arch on non-weightbearing which totally collapses on weightbearing; forefoot abduction; pain in the arch and legs; partially relieved by the use of appliances, orthoses, or orthopedic shoes. We propose a zero-percent evaluation if there is deformity but a normal arch on non-weightbearing, a perpendicular heel position; tenderness in the arch or muscles and tendons attaching to the midfoot; symptoms completely relieved by, or do not require, the use of appliances, orthoses, or orthopedic shoes. We propose to add a note directing that each foot be separately evaluated, with the evaluations to be combined. This would represent a change in procedure from the current criteria and is warranted because flatfoot may be either a unilateral or bilateral condition and is clearly more disabling if both feet are affected, even at the milder level. In addition, the feet may not be at the same level of severity, and these evaluations allow an individual assessment of each foot. We propose to add a second note, for the sake of clarity, directing raters not to combine an evaluation under this diagnostic code with an evaluation for pain under § 4.59 because pain is encompassed by these evaluation criteria.

Diagnostic code 5277 is currently titled "Weak foot, bilateral." This is a vague condition. The consultants suggested a change to "Compromised (or weak) foot, bilateral" because this is how the condition is described in current medical practice and suggested it be rated based on the underlying condition, with a minimum evaluation of 10 percent. They noted that it may include single or multiple conditions affecting function, including muscle atrophy, loss, weakness, and stiffness; bone atrophy or loss; joint stiffness; vascular compromise; or neurological compromise. We propose instead to delete this diagnostic code, as suggested by the VHA Orthopedic Committee, because there are specific rating criteria under other diagnostic codes for disabilities such as arthritis, neuropathy, and vascular disease that may affect the foot, and the existing and recommended criteria under 5277 are not necessary for evaluation.

Diagnostic code 5278 is currently titled "Claw foot (pes cavus), acquired," and we propose to update it to "Pes cavus (clawfoot)," removing "acquired," because the consultants pointed out that it is difficult to distinguish an acquired pes cavus from a congenital one. It is

currently evaluated at 50 percent if bilateral and 30 percent if unilateral if there is marked contraction of the plantar fascia with dropped forefoot, all toes hammertoes, very painful callosities, and marked varus deformity. It is evaluated at 30 percent if bilateral and 20 percent if unilateral if all toes tend to dorsiflexion, and there are limitation of dorsiflexion at ankle to right angle, shortened plantar fascia, and marked tenderness under metatarsal heads. It is evaluated at 10 percent whether bilateral or unilateral if the great toe is dorsiflexed, and there are some limitation of dorsiflexion at ankle and definite tenderness under metatarsal heads. If the condition is "slight," it is evaluated at zero percent. These criteria contain several subjective terms, for example, "marked," "definite," and "slight," that inject an element of subjectivity.

The consultants recommended three levels instead of four, with 40 percent the highest level, when bilateral, comparable to other lower extremity conditions. They also suggested that 10 percent be assigned for moderate pes cavus bilaterally, because the impairment is considerably less. We propose to revise the criteria, with each foot being separately evaluated, using the most objective of the criteria related to disability as a basis of evaluation, namely, whether appliances, orthoses, or orthopedic shoes are required and whether they relieve symptoms of pain and tenderness, and callosities, if present. These criteria represent a modification of the consultants' recommendations. We propose that a 20-percent evaluation be assigned if symptoms and callosities are not significantly relieved by appliances, orthoses, or orthopedic shoes; a 10-percent evaluation if symptoms and callosities are partially relieved by appliances, orthoses, or orthopedic shoes; and a zero-percent evaluation if symptoms are completely relieved by, or do not require, the use of appliances, orthoses, or orthopedic shoes. We propose to add two notes under this diagnostic code, the first directing that each foot be separately evaluated, with the evaluations to be combined. This would allow each foot to be separately evaluated, which will be of value when the condition differs in severity from one foot to the other. We propose to add a second note stating that in the absence of trauma or other specific cause of aggravation, pes cavus is to be considered a congenital or developmental abnormality.

Diagnostic code 5279 is currently titled "Metatarsalgia, anterior (Morton's disease), unilateral, or bilateral". There

is currently a single evaluation level of 10 percent. We propose to change the title to "Metatarsalgia (including Morton's neuroma)" for clarity. Metatarsalgia is a term that refers to chronic pain in the ball of the foot from any of a variety of causes, one of which is Morton's neuroma. Morton's neuroma (or disease) is a painful neuropathy of the digital plantar nerve that usually results in pain in the ball of the foot between the third and fourth metatarsal heads. The consultants suggested no change in the evaluation criteria but did suggest we add a note saying that treatment should be attempted before the patient is given a permanent disability rating. We propose to incorporate some of this information within the revised criteria. The rating we give, however, is not necessarily a permanent one in most cases because we frequently re-evaluate veterans with disability if they have a condition that is not stable and is subject to improvement. As with pes cavus and flatfoot, the symptoms of metatarsalgia may be unilateral or bilateral, and may be relieved with appliances, orthoses, or orthopedic shoes. Occasionally, surgery is needed for relief. We propose to use this information as a basis of evaluation and to direct that each foot be evaluated separately, with the evaluations to be combined. Assigning a separate evaluation for each foot will allow more appropriate evaluation of the total disabling effects, since bilateral metatarsalgia is clearly more disabling than unilateral metatarsalgia, and the severity of the effects may not be the same in both feet when the condition is bilateral. We propose that 10 percent be assigned if there is pain in the ball of the foot not significantly relieved by the use of appliances, orthoses, or orthopedic shoes, or by surgery, if that was done, and that zero percent be assigned if there is pain in the ball of the foot largely or completely relieved by, or does not require, the use of appliances, orthoses, or orthopedic shoes, or by surgery, if that was done.

Diagnostic code 5280 is currently titled "Hallux valgus, unilateral." The consultants suggested we add "with or without bunion deformity" to the title to make the description more complete. We rely on the examiner to make the diagnosis and do not propose to add the suggested language because it would not assist in evaluation. We do propose to remove "unilateral" from the title and add, as for the other foot conditions, a note indicating that each foot is to be separately evaluated, and the evaluations combined. There are currently two criteria for a 10-percent

evaluation, the only level defined. They are "operated, with resection of metatarsal head" and "severe, if equivalent to amputation of great toe." The consultants suggested we delete the reference to resection of the metatarsal head since that is no longer done, and we propose to do so. They also suggested we add "symptomatic" to the other criterion, since not all individuals have symptoms. The major findings in hallux valgus (bunion) are pain or discomfort in the first metatarsophalangeal joint (the joint at the base of the great toe) or under the ball of the foot, deformity at that joint, and sometimes redness and swelling. The VHA Orthopedic Committee felt evaluation based on amputation was inappropriate and suggested that criteria be based on symptoms and their response to treatment. Taking both of these suggestions into account, we propose to provide a 10-percent evaluation if there are symptoms that are not significantly relieved by the use of appliances, orthoses, or orthopedic shoes, or by surgery, if that was done, and a zero-percent evaluation if symptoms are largely or completely relieved by, or not requiring, the use of appliances, orthoses, or orthopedic shoes, or by surgery, if that was done. These criteria are more appropriate to the condition than assessing whether it is equivalent to an amputation, which is likely to result in interference with walking and a gait abnormality rather than pain as a primary symptom, as in the case of hallux valgus. We propose to add a second note, for the sake of clarity, directing raters not to combine an evaluation under diagnostic code 5280 with an evaluation for pain under § 4.59, because pain is encompassed by these evaluation criteria.

Diagnostic code 5281 is currently titled "Hallux rigidus, unilateral, severe." The consultants suggested we include the term "hallux limitus," another name for the condition, in the title, and we propose to do so. Hallux rigidus is a painful degenerative arthritis with limited or no motion at the first metatarsal-phalangeal joint. We propose to add a note directing that each foot be evaluated separately, as other foot conditions are, rather than using "unilateral" in the title. It is currently evaluated as severe hallux valgus, with a 10% evaluation. At the suggestion of the VHA Orthopedic Committee, we propose to remove the current note stating that this condition is not to be combined with claw foot ratings because the condition has nothing to do with clawfoot. The consultants suggested no change from

the current evaluation. However, the VHA Orthopedic Committee felt that hallux rigidus with ankylosis of the first metatarsal-phalangeal joint warrants a 20-percent evaluation because it results in pain on any activity, such as walking or running, and may affect the gait. We therefore propose to revise the criteria to provide three levels of evaluation based on the extent of limitation of motion and extent of pain. We propose a 20-percent evaluation if there is pain with any motion of the joint, including walking, with ankylosis (no motion) of the first metatarsal-phalangeal joint and gait abnormality; a 10-percent evaluation if there is pain on walking, with limitation of motion of the first metatarsal-phalangeal joint; and a zero-percent evaluation if there is pain only on extremes of motion, with limitation of motion of the first metatarsal-phalangeal joint. These criteria are more specific to hallux rigidus than the criteria for hallux valgus and should support more consistent evaluations. We propose to delete the note that now reads "not to be combined with claw foot ratings" as unnecessary, since these conditions are unrelated and unlikely to occur together.

Diagnostic code 5282 is currently titled "Hammer toe." We propose to add "contracted or deviated toes" to the heading of hammertoe, as suggested by the consultants, in order to describe this category of disability more accurately. The condition is currently evaluated at 10 percent if all toes of one foot are affected, without clawfoot, and at zero percent if a single toe is affected. The consultants simply suggested that "clawfoot" be replaced with "pes cavus." We propose criteria that are based on signs and symptoms rather than solely on the presence of the condition, since not everyone with this condition is equally disabled. Some develop painful calluses on top of the toe or on the ball of the feet, some have occasional muscle cramping and weakness, and some require surgery because of these problems. We therefore propose criteria similar to those for other foot problems discussed above, based on symptoms and response to treatment.

We propose to assign a 10-percent evaluation if there is hammertoe with pain and calluses not relieved by the use of appliances, orthoses, or orthopedic shoes, or by surgery, if that was done; and a zero-percent evaluation if there is hammertoe with pain and calluses largely or completely relieved by, or not requiring the use of, appliances, orthoses, or orthopedic shoes, or by surgery, if that was done. These criteria better correlate with

disability from hammertoe. We propose to add a note directing that each foot, but not each toe, be evaluated separately, with the evaluations to be combined, and we propose to add a second note directing that an evaluation not be assigned both under diagnostic code 5282 and diagnostic code 5278 (pes cavus (clawfoot)) because the findings may be similar and overlapping.

Diagnostic code 5283, malunion or nonunion of the metatarsal or tarsal bones, currently provides levels of 30, 20, and 10 percent, and each percentage level is determined by whether the disability is "severe," "moderately severe," or "moderate." No criteria are provided to explain what these words are intended to mean. The consultants suggested criteria for the three levels of "extreme, not amenable to surgical correction," "severe," and "moderate." These criteria, however, would not adequately remove the subjectivity of the current criteria. The VHA Orthopedic Committee suggested we develop criteria based on symptoms interfering with activities of daily living, athletic activity, and response to treatment, and we propose to follow their suggestion. We propose that a 30-percent evaluation be assigned if there are signs and symptoms (such as pain, calluses, abnormal or limited motion of affected bones or joints) that interfere with activities of daily living and that are not significantly relieved by appliances, orthoses, or orthopedic shoes, or by surgery, if that was done; a 20-percent evaluation if there are signs and symptoms that are partly relieved by appliances, orthoses, or orthopedic shoes, or by surgery, if that was done, but that interfere at times with activities of daily living and with most athletic activity; and a ten-percent evaluation if there are signs and symptoms that are largely or completely relieved by appliances, orthoses, or orthopedic shoes, or by surgery, if that was done, and that do not interfere with activities of daily living but that may at times prevent activities such as running and jumping. These are more objective than the current criteria and provide guidelines that should promote consistent evaluations. They provide levels of 30, 10, and zero rather than 30, 20, and 10 because these levels are more fitting to these criteria and are consistent with the evaluations for malunion of the talus and calcaneus. We propose to add to the title "except talus and calcaneus" because these tarsal bones are evaluated under diagnostic code 5273. There is currently a note under diagnostic code 5283 directing

that if there is actual loss of use of the foot, the evaluation should be 40 percent. We propose to delete this note, as these criteria are adequate for evaluating this condition. Disability that approaches loss of use of a foot is likely to have neurologic or vascular compromise and would be more appropriately evaluated under another diagnostic code.

We propose to change the title of diagnostic code 5284, currently "Foot injuries, other." The category of disability this code is intended to cover is so vague, and its evaluation criteria so subjective, consisting of 30 percent for "severe," 20 percent for "moderately severe," and 10 percent for "moderate," that it is unclear what conditions would be evaluated under this code and on what basis. There are several other diagnostic codes with clear criteria under which foot injuries can be appropriately rated, but we propose to title this diagnostic code "Neurotrophic disorders of the foot" because these are common conditions that do not fall under any other specific diagnostic code, either in the orthopedic or neurologic sections of the rating schedule. This category would include Charcot's foot, diabetic neurotrophic feet, etc. The VHA Orthopedic Committee recommended its addition. We propose four levels of evaluation, with 30 percent assigned for chronic ulceration that cannot be controlled by the use of orthoses; 20 percent for recurrent ulcers that can be controlled by the use of orthoses; 10 percent for pain that is not relieved by orthoses or shoe modification; and zero percent for pain that is relieved by orthoses or shoe modification. We also propose to add a note directing that if there is osteomyelitis of the foot (which may be associated with chronic ulcers that are infected), it will be rated under diagnostic code 5000 (osteomyelitis). We propose to add a second note directing that a 20- or 30-percent evaluation under diagnostic code 5284 may be combined with an evaluation for pain under § 4.59.

#### Skull

Under the subheading of "The Skull," diagnostic code 5296 encompasses loss of part of the inner and outer tables of the skull. The current criteria are 80 percent if there is a brain hernia; and if there is not a brain hernia, 50 percent if there is an area larger than a 50-cent piece or 1.140 square inches (7.355 square centimeters); 30 percent if the area is intermediate; and 10 percent if the area is smaller than the size of a 25-cent piece or 0.716 square inches (4.619 square centimeters). We propose to

delete the references to coins and round off the measurements, which are carried out to more decimal places than are reasonably measurable or are necessary. If a skull defect has been repaired by a cranioplasty (covering of the defect by bone, metal, or other material), it is not considered disabling. For this reason, we propose to add to the title the phrase "without cranioplasty (covering of defect by bone, metal, or other material)." A current note directs that intracranial complications, such as seizures or paralysis, be rated separately. We propose to add a second note stating that skull loss covered by bone or a prosthesis will not be used in calculating the area of skull loss, because these lessen the danger of injury to the brain.

#### Ribs

We propose only minor changes, largely editorial, in diagnostic code 5297, "Ribs, removal of" under the subheading "The Ribs." A current note states that the rating for rib resection or removal is not to be applied with ratings for purulent pleurisy, lobectomy, pneumonectomy or injuries of pleural cavity. Purulent pleurisy no longer has a diagnostic code in the rating schedule, and we propose to change the note to read: "Do not combine an evaluation under diagnostic code 5297 with an evaluation under diagnostic code 6844 (post-surgical residual (lobectomy, pneumonectomy, etc.)) or 6845 (chronic pleural effusion or fibrosis)".

#### Coccyx

We propose to change the current heading of diagnostic code 5298 from "Coccyx, removal of," to "Partial or complete removal of the coccyx," and to retain a 10-percent evaluation if there are painful residuals. We propose to remove the zero-percent criterion "without painful residuals" as unnecessary (*see* § 4.31 of this part).

#### Section 4.14

We also propose, for the sake of clarity, to revise 38 CFR 4.14, "Avoidance of pyramiding," in subpart A of part 4 (General Policy in Rating) because evaluating orthopedic disabilities commonly requires application of this section, and the principles in this section have sometimes been misunderstood. Section 4.14 currently states that the evaluation of the same disability under various diagnoses is to be avoided and that both the use of manifestations not resulting from service-connected disease or injury in establishing the service-connected evaluation, and the evaluation of the same manifestation under different

diagnoses are to be avoided. This has sometimes been unclear to raters. We propose to retitle this section "Avoiding overlapping of evaluations," which more clearly reflects its intent. We propose that there be four paragraphs, with the first (a) directing raters not to use the same sign(s) or symptom(s) to support more than one evaluation (under different diagnostic codes) for a single disability. We propose that paragraph (b) direct raters not to use the same sign(s) or symptom(s) to support an evaluation for more than one disability. Paragraphs (c) and (d) would be the converse of (a) and (b), with (c) directing raters not to evaluate the same disability at the same time (under different diagnostic codes) using the same sign(s) or symptom(s) as the basis of evaluation, and (d) directing raters not to evaluate more than one disability using the same sign(s) or symptom(s) as the basis of evaluation. This section means, for example, that low back pain present in someone who has both lumbar intervertebral disc syndrome (diagnostic code 5293) and limitation of motion of the lumbar spine due to degenerative arthritis (diagnostic code 5292) cannot be used to support separate evaluations for these two back conditions, and cold injury residuals such as numbness of the toes cannot be used to support both an evaluation for cold injury under diagnostic code 7122 (cold injury residuals) and another evaluation for peripheral neuropathy with numbness due to cold injury under diagnostic code 8521 (paralysis of external popliteal nerve). In our judgment, the revised language is more straightforward and clearer and will resolve the difficulty raters have had in interpreting the current language.

#### Executive Order 12866

This regulatory amendment has been reviewed by the Office of Management and Budget under the provisions of Executive Order 12866, Regulatory Planning and Review, dated September 30, 1993.

#### Paperwork Reduction Act

This document contains no provisions constituting a collection of information under the Paperwork Reduction Act (44 U.S.C. 3501–3521).

#### Unfunded Mandates

The Unfunded Mandates Reform Act requires, at 2 U.S.C. 1532, that agencies prepare an assessment of anticipated costs and benefits before developing any rule that may result in an expenditure by State, local, or tribal governments, in the aggregate, or by the private sector of \$100 million or more in any given year.

This rule would have no consequential effect on State, local, or tribal governments.

#### Regulatory Flexibility Act

The Secretary hereby certifies that this proposed regulatory amendment would not have a significant economic impact on a substantial number of small entities as they are defined in the Regulatory Flexibility Act, 5 U.S.C. 601–612. The reason for this certification is that this proposed regulatory amendment would not directly affect any small entities. Only VA beneficiaries could be directly affected. Therefore, pursuant to 5 U.S.C. 605(b), this proposed regulatory amendment is exempt from the initial and final regulatory flexibility analysis requirements of sections 603 and 604.

The Catalog of Federal Domestic Assistance numbers are 64.104 and 64.109.

#### List of Subjects

##### 38 CFR Part 3

Administrative practice and procedure, Claims, Disability benefits, Health care, Pensions, Veterans, Vietnam.

##### 38 CFR Part 4

Disability benefits, Pensions, Veterans.

Approved: October 24, 2002.

**Anthony J. Principi,**  
*Secretary of Veterans Affairs.*

For the reasons set out in the preamble, we propose to amend 38 CFR parts 3 and 4 as set forth below:

#### PART 3—ADJUDICATION

##### Subpart A—Pension, Compensation, and Dependency and Indemnity Compensation

1. The authority citation for part 3, subpart A continues to read as follows:

**Authority:** 38 U.S.C. 501(a), unless otherwise noted.

2. In § 3.350 paragraph(a)(2)(i)(c) is added to read as follows:

##### § 3.350 Special monthly compensation ratings.

\* \* \* \* \*

(a) \* \* \*

(2) \* \* \*

(i) \* \* \*

(c) Amputation of the thumb and any three fingers of a single hand will constitute loss of use of the hand.

\* \* \* \* \*

#### PART 4—SCHEDULE FOR RATING DISABILITIES

3. The authority citation for part 4 continues to read as follows:

**Authority:** 38 U.S.C. 1155, unless otherwise noted.

##### Subpart A—General Policy in Rating

4. Section 4.14 is revised to read as follows:

##### § 4.14 Avoiding overlapping of evaluations.

(a) Do not use the same sign(s) or symptom(s) to support more than one evaluation (under different diagnostic codes) for a single disability.

(b) Do not use the same sign(s) or symptom(s) to support an evaluation for more than one disability.

(c) Do not evaluate the same disability at the same time (under different diagnostic codes) using the same sign(s) or symptom(s) as the basis of evaluation.

(d) Do not evaluate more than one disability using the same sign(s) or symptom(s) as the basis of evaluation.

(Authority: 38 U.S.C. 1155)

##### Subpart B—Disability Ratings

5. Section 4.40 is revised to read as follows:

##### § 4.40 Evaluation of musculoskeletal disabilities.

The evaluation criteria provided for each condition, or to which the rater is referred for evaluating a given condition, are generally to be the sole basis of evaluation. In conditions where pain is a complaint, but pain is not addressed in the evaluation criteria under the diagnostic code for the condition, however, apply the provisions of § 4.59, combining an evaluation for pain with an evaluation under the diagnostic code for the condition. Factors such as fatigability or impaired coordination, speed, or endurance are encompassed by the evaluation criteria under each diagnostic code. An additional evaluation based on one of these factors will not be assigned.

(Authority: 38 U.S.C. 1155)

##### § 4.41 [Removed and Reserved]

6. Section 4.41 is removed and reserved.

7. Section 4.42 is revised to read as follows:

##### § 4.42 Examination of joints

For VA rating purposes, the range of motion of a joint must be determined by measurement with a goniometer. The normal ranges of motion for major joints

and the spine are provided on Plates I, II, and V in § 4.71a.

(Authority: 38 U.S.C. 1155)

**§§ 4.43 and 4.44 [Removed and Reserved]**

8. Sections 4.43 and 4.44 are removed and reserved.

9. Sections 4.45 and 4.46 are revised to read as follows:

**§ 4.45 Major and Minor Joints for Arthritis Evaluations.**

For the purpose of rating disability from arthritis, the various joints are classified as follows:

(a) *Major Joints:* Each shoulder, elbow, wrist, hip, knee and ankle joint is a major joint. All other joints are minor joints.

(b) *Groups of Minor Joints to be Rated as Major Joints:* A group of minor joints with arthritis will be rated as a major joint. Any of the following constitutes a group of minor joints:

(1) Any combination of three or more interphalangeal or metacarpophalangeal joints of a single hand.

(2) Any combination of three or more interphalangeal, metatarso-phalangeal, tarso-metatarsal, or tarso-tarsal (or intertarsal) joints of a single foot.

(3) Any combination of two or more cervical vertebral joints.

(4) Any combination of two or more thoracolumbar vertebral joints.

(5) A combination of the lumbosacral joint and both sacroiliac joints.

(Authority: 38 U.S.C. 1155)

**§ 4.46 Evaluation of muscle strength.**

(a) Evaluate muscle strength or weakness for rating purposes based on the following muscle grading system:

Muscle grading	Description
Absent (0) .....	No palpable or visible muscle contraction.
Trace (1) .....	Palpable or visible muscle contraction, but muscle produces no movement, even with gravity eliminated.
Poor strength (2) .....	Muscle produces movement only when gravity is eliminated.
Fair strength (3) .....	Muscle produces movement against gravity but not against any added resistance.
Good strength (4) .....	Muscle produces movement against some, but no more than moderate, resistance.

Muscle grading	Description
Normal strength (5) ...	Muscle produces movement against full or "normal" resistance.

(b) Evaluate loss of muscle function as follows:

(1) Complete: No motor function (muscle grading system 1 or zero).

(2) Incomplete, severe: Marked weakness associated with muscle atrophy (muscle grading system 2).

(3) Incomplete, moderate: Weakness (muscle grading system 3).

(4) Incomplete, mild: Weakness (muscle grading system 4).

(Authority: 38 U.S.C. 1155)

**§§ 4.57 and 4.58 [Removed and Reserved]**

10. Sections 4.57 and 4.58 are removed and reserved.

11. Section 4.59 is revised to read as follows:

**§ 4.59 Evaluation of pain in musculoskeletal conditions.**

When the evaluation criteria for a condition in § 4.71a are based on signs and symptoms *other than* pain, and pain is a complaint, combine (do not add) the evaluation based on criteria other than pain with an evaluation for pain based on the following scale, and assign a single (combined) evaluation for the condition under the appropriate diagnostic code:

- (a) Complaint of pain that globally interferes with and severely limits daily activities; meets the requirement for a 30-percent evaluation under this section; and a psychiatric evaluation has excluded other processes to account for the pain ..... 100
- (b) Complaint of pain at rest, with pain on minimal palpation or on attempted range of motion on physical examination; X-ray or other imaging abnormalities; and abnormal findings on a vascular or neurologic special study ..... 30
- (c) Complaint of pain on any use, with pain on palpation and through at least one-half of the range of motion on physical examination; and X-ray or other imaging abnormalities ..... 20
- (d) Complaint of pain on performing some daily activities, with pain on motion (through any part of the range of motion) on physical examination; and X-ray or other imaging abnormalities ..... 10
- (e) Complaint of mild or transient pain on performing some daily activities, with correlative finding(s) on physical examination (for example, pain on palpation or pain on stressing the joint), but without X-ray or other imaging abnormalities ..... 0

**Note (1):** Do not combine a 100-percent evaluation assigned under this section with any other evaluation for the same condition.

**Note (2):** The provisions of § 4.68, "Limitation of combined evaluation of musculoskeletal and neurologic disabilities of an extremity," will apply to the evaluation of conditions evaluated wholly or partly under § 4.59, except that a 100-percent evaluation may be assigned under § 4.59 when appropriate, regardless of the percentage evaluation allowed under a particular diagnostic code.

(Authority: 38 U.S.C. 1155)

**§§ 4.61 through 4.64 and 4.66 [Removed and Reserved]**

12. Sections 4.61 through 4.64, and 4.66, are removed and reserved.

13. Sections 4.67 through 4.69 are revised to read as follows:

**§ 4.67 Pelvic bone fractures.**

Evaluate fractures of the pelvic bones based on the specific residuals, such as limitation of motion of the spine or hip, muscle injury, or sciatic or other peripheral nerve neuropathy.

(Authority: 38 U.S.C. 1155)

**§ 4.68 Limitation of combined evaluation of musculoskeletal and neurologic disabilities of an extremity.**

Unless the evaluation criteria for a particular condition allow for a higher evaluation, the combined evaluation for musculoskeletal and neurologic disabilities of an extremity will not exceed the rating that would be assigned for an amputation of the extremity at the level that would remove the affected areas. When a painful stump neuroma develops following amputation, the amputation will be evaluated as though it had been performed one level higher (as described under the diagnostic codes for evaluation of amputations of the extremities) than the actual amputation site.

(Authority: 38 U.S.C. 1155)

**§ 4.69 Dominant hand.**

Handedness, for the purpose of assigning a dominant or nondominant rating, will be determined by the evidence of record or by testing on examination. Only one hand will be considered dominant; the other will be considered nondominant. In the case of an ambidextrous individual, the injured hand, or the more severely injured hand, will be considered the dominant hand, for rating purposes.

(Authority: 38 U.S.C. 1155)

**§ 4.70 [Removed and Reserved]**

14. Section 4.70 is removed and reserved.

15. Section 4.71 is revised to read as follows:

**§ 4.71 Baseline for joint motion measurement**

Plates I and II show the normal range of motion of joints of the upper and lower extremities. The baseline for joint range of motion measurement, or zero degrees, is the normal anatomical position (arms at side, palms forward, legs extended), with two exceptions:

(a) The zero degrees position for shoulder rotation is the arm abducted to

90 degrees, the elbow flexed to 90 degrees, and the forearm pronated to 90 degrees. The forearm is then midway between internal and external rotation of the shoulder (Plate I).

(b) The zero degrees position for forearm supination and pronation is the arm next to the body in normal anatomical position and the elbow flexed to 90 degrees. The forearm is then midway between supination and pronation (Plate I).

(Authority: 38 U.S.C. 1155)

16. Section 4.71a is amended by:  
 a. Removing Diagnostic Codes 5005 through 5008, 5105, 5108 through 5111, 5259, 5263, and 5277.

b. Revising Diagnostic Codes 5000 through 5004, 5009 through 5024, 5051 through 5056, 5104, 5106, 5107, 5120 through 5156, 5160 through 5167, 5170 through 5173, 5200 through 5203, 5205 through 5215, 5250 through 5258, 5260 through 5262, 5270 through 5276, 5278 through 5284, and 5296 through 5298.

c. Adding Diagnostic Codes 5204, 5231 through 5233, and 5265 through 5267.

The revisions and additions read as follows:

**§ 4.71a Schedule of ratings—musculoskeletal system.**

ACUTE, SUBACUTE, OR CHRONIC DISEASES

	Rating
<b>Note:</b> When evaluating any disability of the musculoskeletal system, refer to § 3.350 of this chapter to determine whether the veteran may be entitled to special monthly compensation due either to anatomical loss or loss of use of a limb or to combinations of losses with other specified disabilities.	
5000 Osteomyelitis, acute, subacute, or chronic:	
Chronic intractable osteomyelitis of any site associated with debilitating complications such as anemia and amyloidosis .....	100
Osteomyelitis of the spine, pelvis, shoulder, elbow, wrist, hip, knee or ankle, or of two or more non-contiguous bones:	
When active or acute, with constitutional signs and symptoms, such as fever, fatigue, malaise, debility, and septicemia .....	100
When inactive or chronic, with two or more recurrent episodes of active infection (following the initial infection) within the past 5 years .....	60
When inactive or chronic, with one recurrent episode of active infection (following the initial infection) within the past 5 years .....	30
When inactive or chronic, without a recurrent episode of active infection within the past 5 years .....	0
Osteomyelitis not involving the spine, pelvis, shoulder, elbow, wrist, hip, knee or ankle, not involving two or more non-contiguous bones, and not involving only a single finger or toe:	
When active or acute .....	40
When inactive or chronic, with two or more recurrent episodes of active infection (following the initial infection) within the past 5 years .....	30
When inactive or chronic, with one recurrent episode of active infection (following the initial infection) within the past 5 years .....	20
When inactive or chronic, without a recurrent episode of active infection within the past 5 years .....	0
Osteomyelitis of a single finger or toe (these evaluations apply even if they exceed the evaluation for amputation of a finger or toe, <i>i.e.</i> , they are exceptions to § 4.68):	
When active or acute .....	10
When inactive or chronic, with two or more recurrent episodes of active infection (following the initial infection) within the past 5 years .....	10
When inactive or chronic, with one or no recurrent episodes of active infection (following the initial infection) within the past 5 years .....	0
<b>Note (1):</b> Subject to the limitations of § 4.68, combine an evaluation for inactive or chronic osteomyelitis under diagnostic code 5000 with an evaluation for chronic residuals, such as limitation of motion, ankylosis, etc., under the appropriate diagnostic code and for pain (under § 4.59) when appropriate.	
<b>Note (2):</b> After removal or resection of the infected bone, evaluate under the diagnostic code most appropriate for evaluating the residuals, such as amputation, shortening, limitation of motion, etc., but not under the criteria for diagnostic code 5000.	
5001 Bones and joints, tuberculosis of, active or inactive:	
Active .....	100
Inactive: Rate under § 4.88c or 4.89, whichever is appropriate.	
5002 Rheumatoid arthritis:	
Constant or near-constant debilitating signs and symptoms due to a combination of inflammatory synovitis (pain, swelling, tenderness, warmth, and morning stiffness in and around joints), destruction of multiple joints, and extra-articular (other than joint) manifestations .....	100
Incapacitating exacerbations or flares with a total duration of at least 6 weeks during the past 12-month period, due either to inflammatory synovitis and destruction of multiple joints or to a combination of joint problems and extra-articular manifestations .....	60
Incapacitating exacerbations or flares with a total duration of at least 4 weeks but less than 6 weeks during the past 12-month period due to inflammatory synovitis, weakness, and fatigue .....	40
Incapacitating exacerbations or flares with a total duration of at least 2 weeks but less than 4 weeks during the past 12-month period due to inflammatory synovitis, weakness, and fatigue .....	20
Incapacitating exacerbations or flares with a total duration of at least 1 week but less than 2 weeks during the past 12-month period due to inflammatory synovitis, weakness, and fatigue .....	10
<b>Note (1):</b> Evaluate rheumatoid arthritis based either on the evaluation criteria under diagnostic code 5002 or on the combined evaluation of chronic residuals of affected joints, whichever method results in a higher evaluation.	

## ACUTE, SUBACUTE, OR CHRONIC DISEASES—Continued

	Rating
<b>Note (2):</b> When evaluating based on chronic joint residuals, evaluate each affected major joint or group of minor joints on findings such as limitation of motion, ankylosis, joint instability, <i>etc.</i> , under the appropriate diagnostic code, and combine each with an evaluation for pain under § 4.59 when appropriate.	
<b>Note (3):</b> Separately evaluate extra-articular manifestations of rheumatoid arthritis, such as pulmonary fibrosis; pleural inflammation; weakness or atrophy of muscles; emaciation; anemia; vasculitis (of skin or systemic); neuropathy, such as peripheral nerve neuropathy, entrapment neuropathy, and cervical myelopathy; pericarditis; Sjogren's syndrome (dry eyes and mouth); and eye complications (such as scleritis and episcleritis), under the appropriate diagnostic code(s), unless used to support an evaluation under diagnostic code 5002.	
<b>Note (4):</b> An incapacitating exacerbation or flare means one requiring bedrest or wheelchair use and treatment by a health care provider.	
5003 Osteoarthritis (degenerative or hypertrophic arthritis): Separately evaluate each major joint or group of minor joints affected with osteoarthritis based on limitation of motion, ankylosis, joint instability, <i>etc.</i> , under the appropriate diagnostic code, and combine that evaluation with an evaluation for pain under § 4.59 when appropriate, subject to the limitations of § 4.68.	
<b>Note (1):</b> The diagnosis of osteoarthritis of any joint must be confirmed (one time only) by X-ray or other imaging procedure.	
<b>Note (2): Generalized osteoarthritis.</b> If osteoarthritis is diagnosed on the basis of positive X-ray or other imaging procedure and positive physical findings in three or more joints (major joints, groups of minor joints, or both) during service or within 1 year following the date of separation from service, the condition will be considered to be generalized osteoarthritis and recognized as a systemic condition. Once generalized osteoarthritis has been established based on these criteria, consider all joints subsequently diagnosed with osteoarthritis to be part of the same condition.	
<b>Note (3): Localized osteoarthritis.</b> Osteoarthritis diagnosed on the basis of positive X-ray or other imaging procedure and positive physical findings in fewer than three joints (major joints, groups of minor joints, or both) during service or within 1 year following the date of separation from service will be considered to be localized osteoarthritis rather than a systemic condition. With localized osteoarthritis, do not consider any joints subsequently diagnosed with osteoarthritis to be part of the same condition.	
5004 Infectious arthritis (gonorrheal, pneumococcal, typhoid, syphilitic, streptococcal, <i>etc.</i> ):	
During and for 3 months following cessation of therapy for active infectious arthritis of the spine, the pelvis, or a major joint	100
During and for three months following cessation of therapy for active infectious arthritis not involving the spine, the pelvis, or a major joint and not limited to a single finger or toe	40
During and for three months following cessation of therapy for active infectious arthritis of a single finger or toe	10
<b>Note:</b> Following the three-month period after cessation of therapy, separately evaluate chronic residuals, if any, of each joint affected with infectious arthritis, based on limitation of motion, ankylosis, joint instability, post-surgical residuals (such as arthroplasty), <i>etc.</i> , under the appropriate diagnostic code, and combine the evaluation for chronic residuals of each joint with an evaluation for pain under § 4.59 when appropriate, subject to the limitations of § 4.68.	
5009 Other types of noninfectious inflammatory arthritis (including ankylosing spondylitis, Reiter's syndrome, psoriatic arthritis, arthritis associated with inflammatory bowel disease, and other seronegative types of arthritis):	
Constant or near-constant debilitating signs and symptoms, due to a combination of inflammatory synovitis (pain, swelling, tenderness, warmth, and morning stiffness in and around joints), destruction of multiple joints, and extra-articular (other than joint) manifestations	100
Incapacitating exacerbations or flares with a total duration of at least 6 weeks during the past 12-month period, due either to inflammatory synovitis and destruction of multiple joints or to a combination of joint problems and extra-articular manifestations	60
Incapacitating exacerbations or flares with a total duration of at least 4 weeks but less than 6 weeks during the past 12-month period due to inflammatory synovitis, weakness, and fatigue	40
Incapacitating exacerbations or flares with a total duration of at least 2 weeks but less than 4 weeks during the past 12-month period due to inflammatory synovitis, weakness, and fatigue	20
Incapacitating exacerbations or flares with a total duration of at least 1 week but less than 2 weeks during the past 12-month period due to inflammatory synovitis, weakness, and fatigue	10
<b>Note (1):</b> Evaluate based either on the evaluation criteria under diagnostic code 5009 or on the combined evaluation of chronic residuals of affected joints, whichever method results in a higher evaluation.	
<b>Note (2):</b> When evaluating based on chronic joint residuals, evaluate each major joint or group of minor joints with arthritis based on limitation of motion, ankylosis, joint instability, <i>etc.</i> , under the appropriate diagnostic code, and combine each with an evaluation for pain under § 4.59 when appropriate.	
<b>Note (3):</b> Separately evaluate the extra-articular manifestations of the arthritis under the appropriate diagnostic code(s), unless they have been used to support an evaluation under diagnostic code 5009. Extra-articular manifestations include such findings as fever, eye problems (such as conjunctivitis, iritis, uveitis), genitourinary or gynecologic problems (such as urethritis, cystitis, prostatitis, cervicitis, salpingitis, vulvovaginitis), and heart problems (such as pericarditis, aortic valvular disease, heart block).	
<b>Note (4):</b> An incapacitating exacerbation or flare means one requiring bedrest or wheelchair use and treatment by a health care provider.	
5010 Traumatic arthritis (secondary osteoarthritis): Separately evaluate each major joint or group of minor joints with traumatic arthritis based on limitation of motion, joint instability, ankylosis, <i>etc.</i> , under the appropriate diagnostic code, and combine that evaluation with an evaluation for pain under § 4.59 when appropriate subject to the limitations of § 4.68.	
<b>Note:</b> The diagnosis of traumatic arthritis of any joint must be confirmed (one time only) by X-ray or other imaging procedure.	
5011 Caisson disease (residuals of decompression sickness or the bends): Evaluate using the criteria under an appropriate diagnostic code based on the actual residuals, such as aseptic necrosis or delayed osteoarthritis of the shoulder or hip, or neurologic manifestations (such as weakness or paraplegia of lower extremities, vestibular dysfunction with vertigo, or paresthesias of the extremities).	
5012 Malignant neoplasm of bone	100

ACUTE, SUBACUTE, OR CHRONIC DISEASES—Continued

Rating

**Note:** A rating of 100% shall continue beyond the cessation of any surgical, X-ray, antineoplastic chemotherapy or other therapeutic procedure. Six months after discontinuance of such treatment, the appropriate disability evaluation shall be determined on the basis of a VA examination, or on available medical records if sufficient for evaluation. Any reduction in the evaluation based upon that or any subsequent examination shall be subject to the provisions of § 3.105(e) of this chapter. If there has been no local recurrence or metastasis, rate on residuals.

5013 Osteoporosis:

Evaluate under the appropriate diagnostic code based on the residuals of fractures (such as shortening, deformity, limitation of motion, osteoarthritis) and combine the evaluation based on residuals of fracture with an evaluation for pain (under § 4.59) when appropriate. Separately evaluate any secondary complications, such as neurologic manifestations, pulmonary restriction due to thoracic deformity from vertebral fractures, etc.

5014 Osteomalacia:

Evaluate under the appropriate diagnostic code, based on aseptic necrosis, residuals of fracture (such as shortening, deformity, limitation of motion, osteoarthritis), and combine with an evaluation for bone pain (under § 4.59) when appropriate. Evaluate constitutional manifestations of osteomalacia, such as malaise and easy fatigability, as part of the underlying metabolic condition, such as renal disease or gastrointestinal disease, that has caused the osteomalacia.

5015 Benign neoplasm of bones:

Evaluate under the appropriate diagnostic code based on osteoarthritis (diagnostic code 5003), residuals of fracture (such as shortening, limitation of motion), etc., and combine with an evaluation for bone pain (under § 4.59) when appropriate.

5016 Paget's disease:

Evaluate based on osteoarthritis (5003) or on residuals of fracture (such as shortening, limitation of motion, etc.) of any affected bones, and combine with an evaluation for bone pain (under § 4.59) when appropriate. Separately evaluate complications such as loss of hearing or visual impairment.

5017 Gout or pseudogout:

Incapacitating exacerbations or flares with a total duration of at least 6 weeks during the past 12-month period requiring treatment by a health care provider, due to inflammatory synovitis with such findings as weakness and fatigue, acute pain, swelling, heat, tenderness, or limitation of motion of multiple joints ..... 60

Incapacitating exacerbations or flares with a total duration of at least 4 weeks but less than 6 weeks during the past 12-month period requiring treatment by a health care provider, due to inflammatory synovitis with such findings as weakness and fatigue, acute pain, swelling, heat, tenderness, or limitation motion of multiple joints ..... 40

Incapacitating exacerbations or flares with a total duration of at least 2 weeks but less than 4 weeks during the past 12-month period requiring treatment by a health care provider, due to inflammatory synovitis with such findings as weakness and fatigue, acute pain, swelling, heat, tenderness, or limitation motion of multiple joints ..... 20

Incapacitating exacerbations or flares with a total duration of at least 1 week but less than 2 weeks during the 12-month period requiring treatment by a health care provider, due to inflammatory synovitis with such findings as weakness and fatigue, acute pain, swelling, heat, tenderness, or limitation of motion of a single joint or multiple joints ..... 10

**Note (1):** Evaluate either on the basis of the total duration of incapacitating exacerbations or flares under the criteria for diagnostic code 5017 or on the combined evaluation of chronic residuals of gout or pseudogout, whichever results in the higher evaluation.

**Note (2):** If not evaluating under the criteria under diagnostic code 5017, separately evaluate chronic residuals of each major joint or group of minor joints with gout or pseudogout based on limitation of motion, ankylosis, joint instability, etc., under the diagnostic code for that finding. Combine the evaluation for chronic residuals of each major joint or group of minor joints with an evaluation for pain under § 4.59 when appropriate.

**Note (3):** Separately evaluate manifestations of gout other than joint disease, such as urinary tract calculi or gouty nephropathy.

**Note (4):** An incapacitating exacerbation or flare means one requiring bedrest or wheelchair use and treatment by a health care provider.

5018 Joint effusion (Hydrarthrosis):

A joint effusion that is present constantly, or nearly so, or if intermittent, that occurred at least two times during the past 12-month period, may be evaluated under this diagnostic code.

Evaluate based on limitation of motion, and combine with an evaluation for pain under § 4.59 when appropriate.

5019 Bursitis:

Evaluate based on limitation of motion, and combine with an evaluation for pain under § 4.59 when appropriate.

5020 Synovitis:

Evaluate based on limitation of motion, and combine with an evaluation for pain under § 4.59 when appropriate.

5021 Myositis:

Evaluate based on limitation of motion, and combine with an evaluation for pain under § 4.59 when appropriate.

5022 Periostitis:

Evaluate based on limitation of motion, and combine with an evaluation for pain under § 4.59 when appropriate.

5023 Myositis ossificans:

Evaluate based on limitation of motion, and combine with an evaluation for pain under § 4.59 when appropriate

5024 Tenosynovitis:

Evaluate based on limitation of motion, and combine with an evaluation for pain under § 4.59 when appropriate.

\* \* \* \* \*

## PROSTHETIC IMPLANTS

	Rating	
	Dominant	Nondominant
<p><b>Note:</b> The 100-percent evaluation for implantation of Prosthesis (diagnostic codes 5051 through 5056) will be assigned as of the date of hospital admission. Six months following the date of hospital discharge, the appropriate disability evaluation shall be determined on the basis of a VA examination, or on available medical records if sufficient for evaluation. Any reduction in evaluation based upon that or any subsequent examination is subject to the provisions of § 3.105(e) of this chapter. The same method of evaluation will be applied when an arthroplasty is revised or redone.</p>		
5051 Total or partial shoulder arthroplasty or replacement (with prosthesis):		
From date of hospital admission for arthroplasty, either initial or revision .....	100	100
With inability to abduct (move the arm away from the body) more than 45 degrees .....	60	50
Minimum evaluation following arthroplasty .....	30	20
<p><b>Note (1):</b> If there is ankylosis of the glenohumeral joint, evaluate under diagnostic code 5200 (ankylosis of glenohumeral articulation (shoulder joint)).</p> <p><b>Note (2):</b> Separately evaluate complications, such as peripheral neuropathy, causalgia, and reflex sympathetic dystrophy, under an appropriate diagnostic code. An evaluation for a complication may be combined with an evaluation under diagnostic code 5051 that is less than total, as long as limitation of abduction is not used to support an evaluation for a complication.</p> <p><b>Note (3):</b> Combine an evaluation under diagnostic code 5051 with an evaluation for pain under § 4.59 when appropriate.</p>		
5052 Total or partial elbow arthroplasty or replacement (with prosthesis):		
From date of hospital admission for arthroplasty, either initial or revision .....	100	100
Evaluate residuals based on ankylosis of elbow (under diagnostic code 5205), limitation of flexion of elbow (under diagnostic code 5206), limitation of extension of elbow (under diagnostic code 5207), or for limitation of flexion and extension of elbow (under diagnostic code 5208), whichever results in the highest evaluation, combining this evaluation with an evaluation for pain under § 4.59 when appropriate.		
Minimum evaluation following arthroplasty .....	30	20
5053 Total or partial wrist arthroplasty or replacement (with prosthesis):		
From date of hospital admission for arthroplasty, either initial or revision .....	100	100
Evaluate residuals based on ankylosis (under diagnostic code 5214) or limitation of motion (under diagnostic code 5215), whichever results in a higher evaluation, combining this evaluation with an evaluation for pain under § 4.59 when appropriate.		
Minimum evaluation following arthroplasty .....	20	20
5054 Total or partial hip arthroplasty or replacement (with prosthesis):		
From date of hospital admission for arthroplasty, either initial or revision .....		100
Requiring use of two crutches or a walker for ambulation .....		190
Requiring use of one crutch or two canes for most ambulation, due to pain, instability, or weakness (muscle strength grade zero to 2 out of 5) .....		70
Requiring use of one crutch or two canes only for ambulating long distances (500 feet or more), due to pain, instability, or weakness (muscle strength grade 3 to 4 out of 5) .....		50
Requiring use of one cane for ambulation, due to pain, instability, or weakness; or with recalcitrant thigh pain of longer than 2 years' duration .....		40
Minimum evaluation following arthroplasty .....		30
<p><b>Note:</b> Do not combine an evaluation under this diagnostic code with an evaluation for pain under § 4.59.</p>		
5055 Total or partial knee arthroplasty or replacement (with prosthesis):		
From date of hospital admission for arthroplasty, either initial or revision .....		100
Requiring use of two crutches or a walker for ambulation .....		190
Requiring use of one crutch or two canes for most ambulation, due to pain, instability, or weakness (muscle strength grade zero to 2 out of 5); or with loss of more than 40 degrees of the full arc of motion .....		70
Requiring use of one crutch or two canes only for ambulating long distances (500 feet or more), due to pain, instability, or weakness (muscle strength grade 3 to 4 out of 5); or with loss of 21 to 40 degrees of the full arc of motion .....		50
Requiring use of one cane or brace for ambulation, due to pain, instability, or weakness; or with loss of 10 to 20 degrees of the full arc of motion .....		40
Minimum evaluation following arthroplasty .....		30
<p><b>Note (1):</b> A full arc of motion of the knee after arthroplasty is a range of motion of 0 to 110 degrees.</p> <p><b>Note (2):</b> Do not combine an evaluation under this diagnostic code with an evaluation for pain under § 4.59.</p>		
5056 Total or partial ankle arthroplasty or replacement (with prosthesis):		
From date of hospital admission for arthroplasty, either initial or revision .....		100
Evaluate residuals based on ankylosis (under diagnostic code 5270) or limitation of motion (under diagnostic code 5271), whichever results in a higher evaluation, combining this evaluation with an evaluation for pain under § 4.59 when appropriate.		
Minimum evaluation following arthroplasty .....		20

<sup>1</sup> Review for entitlement to special monthly compensation. Refer to § 3.350 for specific instructions regarding claims involving loss of loss of use of limbs.

## COMBINATIONS OF DISABILITIES

		Rating
5104	Anatomical loss or loss of use of one hand and anatomical loss or loss of use of one foot .....	1 100
5106	Anatomical loss or loss of use of one hand and anatomical loss or loss of use of the other hand .....	1 100
5107	Anatomical loss or loss of use of one foot and anatomical loss or loss of use of the other foot .....	1 100

<sup>1</sup> Review for entitlement to special monthly compensation. Refer to § 3.350 for specific instructions regarding claims involving loss of loss of use of limbs.

## AMPUTATIONS: UPPER EXTREMITY

		Rating	
		Dominant	Nondominant
Amputation of upper extremity:			
5120	Disarticulation .....	1 90	1 90
5121	Above insertion of deltoid .....	1 90	1 80
5122	Below insertion of deltoid .....	1 80	1 70
Amputation of forearm:			
5123	Amputation of forearm above insertion of pronator teres (located at the middle one-third of the lateral surface of the radius), also called short, below elbow amputation .....	1 80	1 70
5124	Amputation of forearm below insertion of pronator teres (at the middle one-third of the lateral surface of the radius), also called long, below elbow amputation .....	1 70	1 60
5125	Wrist disarticulation .....	1 70	1 60

## Multiple Finger Amputations

**Note (1):** These ratings apply only to amputations at the proximal interphalangeal joints or through proximal phalanges.

**Note (2):** Amputation through middle phalanges will be rated as unfavorable ankylosis of the fingers.

**Note (3):** Except for negligible losses, amputations at distal joints or through distal phalanges will be rated as favorable ankylosis of the fingers.

**Note (4):** Amputation or resection of more than one-half the metacarpal bones in injuries of multiple fingers will be assigned an evaluation of 10 percent added to (not combined with) the evaluations for multiple finger amputations, subject to the provisions of § 4.68.

**Note (5):** Combinations of finger amputations at various levels, or finger amputations with ankylosis or limitation of motion of the fingers will be rated on the basis of the grade of disability, *i.e.*, amputation, unfavorable ankylosis, most representative of the levels or combinations. With an even number of fingers involved, and adjacent grades of disability, select the higher of the two grades.

5126	Amputation of five fingers of one hand .....	1 70	1 60
Amputation of four fingers of one hand:			
5133	Thumb, index and ring .....	60	50
5134	Thumb, index and little .....	60	50
5135	Thumb, long and ring .....	60	50
5136	Thumb, long and little .....	60	50
5137	Thumb, ring and little .....	60	50
5138	Index, long and ring .....	50	40
5139	Index, long and little .....	50	40
5140	Index, ring and little .....	50	40
5141	Long, ring and little .....	40	30
Amputation of two fingers of one hand:			
5142	Thumb and index .....	50	40
5143	Thumb and long .....	50	40
5144	Thumb and ring .....	50	40
5145	Thumb and little .....	50	40
5146	Index and long .....	40	30
5147	Index and ring .....	40	30
5148	Index and little .....	40	30
5149	Long and ring .....	30	20
5150	Long and little .....	30	20
5151	Ring and little .....	30	20

## Single Finger Amputations

**Note:** These single finger amputation ratings are the only ratings that may be applied to amputations of all or part of a single finger.

5152	Amputation of thumb:		
	With metacarpal resection .....	40	30
	At metacarpophalangeal joint or through proximal phalanx .....	30	20
	At distal joint or through distal phalanx .....	20	20
5153	Amputation of index finger:		
	With metacarpal resection (more than one-half the bone lost) .....	30	20
	Without metacarpal resection, at proximal interphalangeal joint or proximal thereto .....	20	20
	Through middle phalanx or at distal joint .....	10	10

AMPUTATIONS: UPPER EXTREMITY—Continued

	Rating	
	Dominant	Nondominant
5154 Amputation of long finger:		
With metacarpal resection (more than one-half the bone lost) .....	20	20
Without metacarpal resection, at or proximal to the interphalangeal joint .....	10	10
5155 Amputation of ring finger:		
With metacarpal resection (more than one-half the metacarpal bone lost) .....	20	20
Without metacarpal resection, at or proximal to the Interphalangeal joint .....	10	10
5156 Amputation of little finger:		
With metacarpal resection (more than one-half the bone lost) .....	20	20
Without metacarpal resection, at or proximal to the interphalangeal joint .....	10	10
* * * * *		
5160 Disarticulation of hip, with loss of extrinsic pelvic girdle muscles .....		190
5161 Amputation through the upper one-third of the thigh, one-third of the distance from the perineum to the knee joint measured from perineum .....		180
5162 Amputation through the middle or lower third of thigh .....		160
5163 Amputation of lower extremity, at or below knee, with defective stump, thigh amputation indicated .....		160
5164 Amputation of lower extremity below the knee at a level not permitting prosthesis controlled by natural knee action .....		160
5165 Amputation of lower extremity below the knee at a level permitting prosthesis controlled by natural knee action .....		140
5166 Amputation of forefoot proximal to the metatarsal bones (with more than one-half of the metatarsals amputated) .....		140
5167 Loss of use of foot .....		140
5170 Amputation of all toes, without metatarsal loss .....		30
5171 Amputation of great toe:		
With removal of metatarsal head .....		30
Without removal of metatarsal head .....		10
5172 Amputation of one or two toes, other than great toe:		
With removal of metatarsal head .....		20
Without removal of metatarsal head .....		0
5173 Amputation of three or four toes, without metatarsal involvement:		
Including great toe .....		20
Not including great toe .....		10

<sup>1</sup> Review for entitlement to special monthly compensation. Refer to §3.350 for specific instructions regarding claims involving loss or loss of use of limbs.

\* \* \* \* \*

HUMERUS, CLAVICLE, AND SCAPULA

	Rating	
	Dominant	Nondominant
5200 Ankylosis of glenohumeral articulation (shoulder joint):		
<b>Note:</b> The scapula and humerus move as one unit.		
Unfavorable, abduction limited to 25 degrees from side .....	50	40
Intermediate, abduction limited to between 26 degrees and 59 degrees .....	40	30
Favorable, abduction limited to 60 degrees, but can reach mouth and head .....	30	20
5201 Limitation of active abduction of shoulder:		
Abduction limited to 25 degrees from side .....	40	30
Abduction limited to between 26 degrees and 89 degrees from side .....	30	20
Abduction limited to shoulder level (90 degrees) .....	20	20
5202 Residuals of fracture of humerus and residuals of dislocation of glenohumeral (shoulder) joint:		
At least one recurrence of dislocation .....	10	10
Malunion of fracture of humerus:		
Symptomatic, with more than 45 degrees of angulation in the anterior-posterior plane or varus-valgus plane .....	30	20
Symptomatic, with 30 to 45 degrees of angulation in the anterior-posterior plane or varus-valgus plane .....	20	20
5203 Impairment of clavicle or scapula:		
Resection of the end of the clavicle; nonunion of the clavicle or scapula; malunion of the clavicle or scapula with skin breakdown, skin irritation, or thoracic outlet syndrome (upper extremity symptoms due to compression of nerves or blood vessels) .....	20	10
Dislocation of the acromioclavicular joint with pain and localized osteoarthritis; or painful sternoclavicular anterior dislocation .....	10	10
Malunion of clavicle or scapula without skin breakdown, skin irritation, or thoracic outlet problems .....	0	0
With untreated sternoclavicular posterior dislocation, separately evaluate complications, such as from pressure on blood vessels or trachea.		

## HUMERUS, CLAVICLE, AND SCAPULA—Continued

	Rating	
	Dominant	Nondominant
<b>Note (1):</b> These criteria encompass pain, so do not combine an evaluation under diagnostic code 5203 with an evaluation for pain under § 4.59.		
<b>Note (2):</b> Thoracic outlet syndrome is a group of symptoms, mainly of the upper extremity, that may include pain, weakness, numbness, and tingling of an arm or hand, as well as swelling and enlargement of veins of the arm or chest. It is due to compression of the area behind each clavicle where an artery, a vein, and nerves cross. Thoracic outlet syndrome can be evaluated separately as long as it is not used to support an evaluation under diagnostic code 5203.		
5204 Rotator cuff dysfunction and impingement syndrome:		
Limitation of internal rotation, external rotation, flexion, and abduction .....	20	20
Minimum, with positive impingement sign .....	10	10
<b>Note (1):</b> Combine an evaluation based on the criteria under diagnostic code 5204 with an evaluation for pain under § 4.59 when appropriate.		
<b>Note (2):</b> Evaluate under diagnostic code 5201 if a higher evaluation could be assigned based on limitation of abduction, but do not combine with an evaluation under diagnostic code 5204.		

## THE ELBOW AND FOREARM

	Rating	
	Dominant	Nondominant
5205 Ankylosis of elbow:		
Unfavorable, at an angle of less than 50 degrees or with complete loss of supination or pronation .....	80	70
Intermediate, at an angle of more than 90 degrees or between 70 degrees and 50 degrees .....	60	50
Favorable, at an angle between 90 degrees and 70 degrees .....	50	40
5206 Limitation of flexion of elbow:		
Flexion limited to 45 degrees .....	50	40
Flexion limited to 55 degrees .....	40	30
Flexion limited to 70 degrees .....	30	20
Flexion limited to 90 degrees .....	20	20
Flexion limited to 100 degrees .....	10	10
Flexion limited to 110 degrees .....	0	0
5207 Limitation of extension of elbow:		
Extension is limited to minus 110 degrees (lacks 110 degrees of full extension) .....	50	40
Extension is limited to minus 100 degrees (lacks 100 degrees of full extension) .....	40	30
Extension is limited to minus 90 degrees (lacks 90 degrees of full extension) .....	30	20
Extension is limited to minus 75 degrees (lacks 75 degrees of full extension) .....	20	20
Extension is limited to between minus 45 and minus 74 degrees (lacks at least 45 but less than 75 degrees of full extension) .....	10	10
5208 Flexion of elbow is limited to 100 degrees, and extension is limited to minus 45 degrees: (lacks 45 degrees of full extension) .....	20	20
5209 Other impairment of elbow:		
Joint fracture with cubitus varus deformity (any degree of varus greater than zero degrees); or ununited or malunited head of radius .....	20	20
Excised radial head .....	10	10
5210 Nonunion of radius and ulna, with motion at the fracture site .....	50	40
5211 Impairment of ulna:		
Nonunion in upper half, with false movement, deformity, and loss of bone substance (1 inch (2.5 cm.) or more) .....	40	30
Nonunion in upper half, with false movement, with either deformity or loss of bone substance (1 inch (2.5 cm.) or more) .....	30	20
Nonunion in upper half, with false movement, without deformity and without loss of bone substance (1 inch (2.5 cm.) or more); or nonunion in lower half .....	20	20
Malunion of, symptomatic .....	10	10
<b>Note:</b> Alternatively, evaluate malunion of the ulna based on limitation of motion if that would result in a higher evaluation.		
5212 Impairment of radius:		
Nonunion in lower half, with false movement, deformity, and loss of bone substance (1 inch (2.5 cm.) or more) .....	40	30
Nonunion in lower half, with false movement, with either deformity or loss of bone substance (1 inch (2.5 cm.) or more) .....	30	20
Nonunion in lower half, with false movement, without deformity and without loss of bone substance (1 inch (2.5 cm.) or more); or nonunion in upper half .....	20	20
Malunion of, symptomatic .....	10	10
<b>Note:</b> Alternatively, evaluate malunion of the radius based on limitation of motion if that would result in a higher evaluation.		
5213 Impairment of supination and pronation of forearm:		
(1) With bone fusion:		
The hand fixed in supination (between one and 85 degrees of supination) or in hyperpronation (in greater than 80 degrees of pronation) .....	40	30



## THE KNEE AND LEG

	Rating
5256 Ankylosis of knee:	
Ankylosed in more than 45 degrees of flexion .....	60
Ankylosed in flexion, between 21 and 45 degrees .....	50
Ankylosed in flexion, between 11 and 20 degrees .....	40
Ankylosed in full extension, or in flexion between zero and 10 degrees .....	30
5257 Knee instability:	
Documented instability that is not correctable by bracing and that interferes with activities of daily living .....	30
Documented instability that is correctable by bracing, but that interferes at times with activities of daily living and prevents activities such as running and jumping .....	20
Documented instability that is correctable by bracing and that does not interfere with activities of daily living, but at times may interfere with activities such as running and jumping .....	10
<b>Note:</b> Combine with an evaluation for pain (under § 4.59) when appropriate.	
5258 Injury of meniscus (semilunar cartilage) of knee (pre- or post-operatively):	
With episodes of giving way, locking, or joint effusion that interfere at times with activities of daily living and prevent activities such as running and jumping .....	20
With episodes of giving way, locking, or joint effusion that do not interfere with activities of daily living, but that at times interfere with activities such as running and jumping .....	10
Alternatively, depending on the specific findings, evaluate based on instability, degenerative arthritis, etc., under the appropriate diagnostic code.	
<b>Note:</b> Combine an evaluation under diagnostic code 5258 with an evaluation for pain (under § 4.59) when appropriate.	
5260 Limitation of flexion of knee (normal full flexion is 140 degrees):	
Flexion limited to 30 degrees .....	30
Flexion limited to 60 degrees .....	20
Flexion limited to 90 degrees .....	10
5261 Limitation of extension of knee (normal full extension is zero degrees):	
Extension is limited to more than minus 30 degrees (lacks more than 30 degrees of full extension) .....	50
Extension is limited to between minus 16 and 30 degrees (lacks 16 to 30 degrees of full extension) .....	30
Extension is limited to between minus 5 and 15 degrees (lacks 5 to 15 degrees of full extension) .....	10
5262 Nonunion or malunion of fracture of tibia or fibula:	
Nonunion, with loose motion, requiring brace .....	40
Asymptomatic nonunion .....	30
Symptomatic malunion with either more than 10 degrees of angulation in the varus-valgus plane or more than 15 degrees of angulation in the anterior-posterior plane .....	20
Symptomatic malunion with neither more than 10 degrees of angulation in the varus-valgus plane nor more than 15 degrees of angulation in the anterior-posterior plane .....	10
5265 Aseptic necrosis (or avascular necrosis or osteonecrosis) of the femoral head:	
With collapse of the femoral head, and requiring constant ambulatory support .....	60
With collapse of the femoral head, and requiring intermittent ambulatory support .....	40
Without collapse of the femoral head .....	10
<b>Note:</b> Combine an evaluation under diagnostic code 5265 with an evaluation of pain under § 4.59 when appropriate. Alternatively, evaluate as limitation of motion of the hip, combined with an evaluation for pain under § 4.59 when appropriate, if that would result in a higher evaluation.	
5266 Patellar fracture and instability:	
Symptomatic nonunion of fracture of patella; or patellectomy; or recurrent patellar dislocation occurring six or more times during the past 12-month period .....	30
Patellofemoral subluxation (partial or incomplete dislocation of the patella) occurring three or more times per month during the past 12-month period; or recurrent patellar dislocation occurring three to five times during the past 12-month period ..	20
Patellofemoral subluxation occurring one to two times per month during the past 12-month period; or recurrent patellar dislocation occurring one or two times during the past 12-month period .....	10
<b>Note:</b> The evaluation criteria for diagnostic code 5266 encompass pain, so a separate evaluation for pain under § 4.59 is not warranted.	
5267 Patellofemoral pain syndrome (chondromalacia of patella, retropatellar pain syndrome, patellofemoral syndrome):	
Evaluate based on pain under § 4.59.	

## THE ANKLE

	Rating
5270 Ankylosis of the ankle:	
Ankylosed in more than 40 degrees of plantar flexion; or ankylosed in more than 10 degrees of dorsiflexion; or ankylosed with abduction, adduction, inversion or eversion deformity .....	40
Ankylosed in 30 to 40 degrees of plantar flexion; or ankylosed in zero to 10 degrees of dorsiflexion .....	30
Ankylosed in less than 30 degrees of plantar flexion .....	20
5271 Limitation of motion of the ankle:	
Less than 5 degrees passive dorsiflexion; or less than 10 degrees passive plantar flexion .....	20
Less than 15 degrees passive dorsiflexion; or less than 30 degrees passive plantar flexion .....	10
5272 Ankylosis of subtalar or tarsal joint:	
In poor weightbearing position (not in plantograde position) .....	20
In good weightbearing position (no varus, no valgus) .....	10
5273 Malunion of calcaneus (os calcis) or talus:	
Deformity of the talocalcaneal joint or spreading of the calcaneus deforming the weightbearing surface of the heel .....	30

## THE ANKLE—Continued

	Rating
Malunion of either the talus or calcaneus without deformity of the subtalar joint or weightbearing surface of the heel .....	10
5274 Total or partial talectomy without subsequent arthrodesis .....	40

## SHORTENING OF THE LOWER EXTREMITY

	Rating
5275 Shortening of bones of lower extremity:	
Of 4 inches (10.2 cm.) or more .....	160
Of at least 3½ but less than 4 inches (8.9 to less than 10.2 cm.) .....	150
Of at least 3 but less than 3½ inches (7.6 to less than 8.9 cm.) .....	40
Of at least 2½ but less than 3 inches (6.4 to less than 7.6 cm.) .....	30
At least 2 but less than 2½ inches (5.1 to less than 6.4 cm.) .....	20
At least 1¼ but less than 2 inches (3.2 to less than 5.1 cm.) .....	10
<b>Note (1):</b> Each lower extremity will be measured from the anterior superior spine of the ilium to the internal malleolus of the tibia.	
<b>Note (2):</b> Do not combine an evaluation under diagnostic code 5275 with an evaluation for healed fracture, malunion, or nonunion of a fracture in the same extremity.	

<sup>1</sup> Review for entitlement to special monthly compensation. Refer to § 3.350 for specific instructions regarding claims involving loss or loss of use of limbs.

## THE FOOT

	Rating
5276 Flatfoot (pes planus):	
Deformity, including, on weightbearing, significant eversion of the heel, flattened arch, collapse of the midfoot structures with the talar head displaced both medial and plantar, and forefoot abduction; pain in the arch; and symptoms not significantly relieved by the use of appliances, orthoses, or orthopedic shoes .....	20
Deformity, including a perpendicular position to slight eversion of the heel, the presence of a slight arch on non-weightbearing which totally collapses on weightbearing, and forefoot abduction; pain in the arch and legs; and symptoms partially relieved by the use of appliances, orthoses, or orthopedic shoes .....	10
Deformity, but a normal arch on non-weightbearing and a perpendicular heel position; tenderness in the arch or muscles and tendons attaching to the midfoot; and symptoms completely relieved by, or not requiring, the use of appliances, orthoses, or orthopedic shoes .....	0
<b>Note (1):</b> Evaluate each foot separately and combine the evaluations.	
<b>Note (2):</b> Pain is encompassed by these evaluation criteria, so do not combine an evaluation under diagnostic code 5276 with an evaluation for pain under § 4.59.	
5278 Pes cavus (clawfoot):	
Symptoms of pain and tenderness, and callosities, if present, not significantly relieved by the use of appliances, orthoses, or orthopedic shoes .....	20
Symptoms of pain and tenderness, and callosities, if present, partially relieved by the use of appliances, orthoses, or orthopedic shoes .....	10
Symptoms of pain and tenderness, and callosities, if present, completely relieved by, or do not require, the use of appliances, orthoses, or orthopedic shoes .....	0
<b>Note (1):</b> Evaluate each foot separately and combine the evaluations.	
<b>Note (2):</b> In the absence of trauma or other specific cause of aggravation, consider pes cavus to be a congenital or developmental abnormality.	
5279 Metatarsalgia (including Morton's neuroma):	
Pain in the ball of the foot not significantly relieved by the use of appliances, orthoses, or orthopedic shoes, or by surgery, if that was done .....	10
Pain in the ball of the foot largely or completely relieved by, or does not require, the use of appliances, orthoses, or orthopedic shoes, or by surgery, if that was done .....	0
<b>Note:</b> Evaluate each foot separately and combine the evaluations.	
5280 Hallux Valgus:	
Symptoms not significantly relieved by the use of appliances, orthoses, or orthopedic shoes, or by surgery, if that was done .....	10
Symptoms largely or completely relieved by, or not requiring, the use of appliances, orthoses, or orthopedic shoes, or by surgery, if that was done .....	0
<b>Note (1):</b> Evaluate each foot separately and combine the evaluations.	
<b>Note (2):</b> Pain is encompassed by these evaluation criteria, so do not combine an evaluation under diagnostic code 5280 with an evaluation for pain under § 4.59.	
5281 Hallux limitus, hallux rigidus:	
Pain with any motion of the joint, including walking, with ankylosis (no motion) of the first metatarsal-phalangeal joint and gait abnormality .....	20
Pain on walking, with limitation of motion of the first metatarsal-phalangeal joint .....	10
Pain only on extremes of motion, with limitation of motion of the first metatarsal-phalangeal joint .....	0
<b>Note:</b> Evaluate each foot separately, regardless of number of toes affected by hammertoe, and combine the evaluations.	
5282 Hammertoe, contracted or deviated toes:	
Hammertoe with pain and calluses not significantly relieved by the use of appliances, orthoses, or orthopedic shoes, or by surgery, if that was done .....	10



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