

Very Low-calorie Diets

U.S. Department of Health
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WIN *Weight-control Information Network*

A very low-calorie diet (VLCD) is not just any diet that is low in calories. It is a special type of diet that replaces all of your meals with prepared formulas, often in the form of liquid shakes.

A VLCD may be used for a short time to promote quick weight loss among some people who are considered to be obese. The diet requires close care from your doctor and is usually combined with other ways to lose weight (see box).

This fact sheet will tell you more about the risks and benefits of this type of diet. **Do not go on a VLCD on your own.** If you need to lose weight, talk to your health care provider about the approaches that may work best for you.

How is obesity treated?

Obesity is treated using one or more of these strategies:

- a diet low in calories
- increased physical activity
- behavior therapy
- prescription medications
- weight-loss surgery

For more information, see the WIN fact sheet *Weight Loss for Life*, listed under Resources.

What is a VLCD?

A VLCD is a special diet that provides up to 800 calories per day. VLCDs use commercial formulas, usually liquid shakes, soups, or bars, which replace all your regular meals. These formulas are not the same as the meal replacements you can find at grocery stores or pharmacies, which are meant to replace one or two meals a day.

Depending on a number of factors, healthy adults need different amounts of calories to meet their daily energy needs. A standard amount is about 2,000 calories. VLCDs provide far fewer calories than most people need to maintain a healthy weight. This type of diet is used to promote quick weight loss, often as a way to jump-start an obesity treatment program.

VLCD formulas are designed to provide all of the nutrients you need while helping you lose weight quickly. However, this type of diet should only be used for a short time—usually about 12 weeks.

Should I use a VLCD to lose weight?

Most people who need to lose weight should not use a VLCD. For many of them, a low-calorie diet (LCD) may work better (see box on next page).

VLCDs may be used to promote rapid weight loss among adults who have obesity. Health care providers must review risks and benefits on a case-by-case basis.

In general, VLCDs are not appropriate for children. In a few cases, they may be used with some adolescents who are being treated for obesity.

The Low-calorie Diet (LCD)

An LCD limits calories, but not as much as a VLCD. A typical LCD may provide

- 1,000–1,200 calories/day for a woman
- 1,200–1,600 calories/day for a man

The number of calories may be adjusted based on your age, weight, and how active you are.

An LCD usually consists of regular foods, but could also include meal replacements. As a result, you may find this type of diet much easier to follow than a VLCD.

In the long term, LCDs have been found to lead to the same amount of weight loss as VLCDs.

Not much is known about the use of VLCDs to promote weight loss among older adults. Some people over age 50 may have medical issues that may not make them good candidates for this type of diet.

What are the health benefits of a VLCD?

A VLCD may allow you to lose about 3 to 5 pounds per week. This may lead to an average total weight loss of 44 pounds over 12 weeks. Such a weight loss can rapidly improve medical conditions linked to obesity, including diabetes, high blood pressure, and high cholesterol.

The rapid weight loss experienced by most people on a VLCD can be very motivating. Patients who participate in a VLCD program that also includes lifestyle changes may lose about 15 to 25 percent of their initial weight during the first 3 to 6 months. They may maintain a 5 percent weight loss after 4 years if they adopt a healthy eating plan and physical activity habits.

What are the health risks of a VLCD?

Doctors must monitor all VLCD patients regularly—ideally every 2 weeks in the initial period of rapid weight loss—to be sure patients are not experiencing serious side effects.

Many patients on a VLCD for 4 to 16 weeks report minor side effects such as fatigue, constipation, nausea, or diarrhea. These conditions usually improve within a few weeks and rarely prevent patients from completing the program.

The most common serious side effect is gallstones. Gallstones, which often develop in people who are obese, especially women, may be even more commonly developed during rapid weight loss. Some medicines can prevent gallstones from forming during rapid weight loss. Your health care provider can determine if these medicines are appropriate for you. For more information, see the WIN fact sheet on dieting and gallstones, listed under Resources.

Will I regain the weight?

Although the long-term results of VLCDs vary widely, weight regain is common. To prevent weight regain, the VLCD should always be combined with other ways to lose weight and with an active follow-up program.

For most people who have obesity, the condition is long term and requires a lifetime of attention even after formal methods to treat the obesity end. You may need to commit to permanent changes of healthier eating, regular physical activity, and an improved outlook about food.

Research

The National Institute of Diabetes and Digestive and Kidney Diseases (NIDDK) conducts and supports a broad range of basic and clinical obesity research. More information about obesity research is available at <http://www.obesityresearch.nih.gov>.

Participants in clinical trials can play a more active role in their own health care, gain access to new research treatments before they are widely available, and help others by contributing to medical research. For more information, visit <http://www.clinicaltrials.gov>.

Resources

Additional Reading from the Weight-control Information Network

The following publications are available online at <http://www.win.niddk.nih.gov/publications> and also by calling WIN toll-free at 1-877-946-4627:

- **Active at Any Size** explains the benefits of regular physical activity and describes activities that people who are overweight or obese can enjoy safely.
- **Better Health and You: Tips for Adults** helps adults plan steps toward eating healthier and being more physically active. This brochure also explains the benefits of getting healthy and the harmful effects of being overweight.
- **Choosing a Safe and Successful Weight-loss Program** offers guidelines to help readers talk with their health care providers about weight-loss programs.
- **Dieting and Gallstones** answers common questions about the causes, effects, and treatment of gallstones.
- **Weight Loss for Life** discusses the benefits of weight loss and ways to develop healthy eating and physical activity plans. In addition, the differences between the two types of formal weight-loss programs—clinical and nonclinical—are discussed.

Additional Resources

- **2008 Physical Activity Guidelines for Americans**
<http://www.health.gov/paguidelines/guidelines>
- **Dietary Guidelines for Americans, 2010**
<http://health.gov/dietaryguidelines>
- **National Diabetes Education Program**
<http://yourdiabetesinfo.org>

Inclusion of resources is for information only and does not imply endorsement by NIDDK or WIN.

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The Weight-control Information Network (WIN) is a national information service of the National Institute of Diabetes and Digestive and Kidney Diseases (NIDDK), part of the National Institutes of Health (NIH). WIN provides the general public, health professionals, and the media with science-based, up-to-date, culturally relevant materials and tips. Topics include healthy eating, barriers to physical activity, portion control, and eating and physical activity myths. Publications produced by WIN are carefully reviewed by both NIDDK scientists and outside experts.

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