

Reduced fat and calorie diets: How low is too low? ^[1]

Dear Alice,

I am a college student and I think I have a problem. I try to consume under 900 calories a day and under seven grams of fat a day. I have lost about ten pounds in four months. I read that now my body will begin to store the calories I consume as fat. Is that true? And if it is, how can I correct it so I don't store them as fat. Also, is my metabolism affected? Thank you.

— Fearing Fat

Answer

Dear Fearing Fat,

Although you didn't mention your weight, 900 calories a day is considered a *very* low calorie diet (VLCD). VLCDs are usually diets designed for rapid weight loss that is medically supervised, and are reserved for adults with a body mass index (BMI) of 30 or higher. It is strongly recommended that people following such a diet be part of a doctor-supervised weight-loss program that includes behavioral therapy, nutrition counseling, physical activity, and formulas to ensure that they get enough essential vitamins and micronutrients. If not carried out properly, a VLCD can cause long-term nutritional deficiencies such as

- Anemia
- Bone loss
- Decreased immune function
- Amenorrhea (loss of menstrual periods)
- Infertility
- Decreased thyroid function
- Increased susceptibility to colds and infections
- Low energy levels
- Poor concentration and cognitive development
- Gum infections and poor dental health.

This isn't meant to frighten you, only to inform. All of these symptoms can be quickly remedied by eating a balanced diet sufficient in calories and essential nutrients.

In terms of your questions, your body won't store the calories you do consume as fat because you aren't taking in enough calories for any of them to be stored. Our bodies use food and energy in a way that has evolved over thousands of years with the aim of our survival in mind. During times of very low calorie consumption, such as 900 calories per day, the body naturally slows its metabolism in order to conserve energy and attempt to keep your body functioning. A slowed metabolism can be reversed through balanced nutrition — your body will actually burn more energy if you take in more calories.

No matter what a person weighs, 900 calories and seven grams of fat a day severely deprives a person of the nutrients their body requires. The UN Food and Agriculture Organization ^[2] recommends that fat be at least 15 percent of caloric intake, and for women of reproductive age it should be at least 20 percent. Body fat is crucial to the functioning of many systems of the body. It lines every cell membrane, is instrumental in production of many hormones, provides protection for the nerves, composes bone marrow, protects such organs as heart, liver, kidneys, and regulates blood pressure and body temperature. Fat is also essential in our diets for the absorption of certain fat-soluble vitamins, like A, D, E, and K. Without these vitamins, a person cannot properly absorb calcium (which leads to brittle bones), blood may not form or clot properly, nerves may malfunction, and hormone production may be affected.

Since fat is a concentrated source of energy, our bodies tend to preserve it and burn it slowly. Carbohydrates are the preferred source of energy for our bodies, and will burn first. We can also use protein for energy which means that even if a person eats enough protein, her or his body will burn the protein as energy if s/he is consuming too few calories. This leaves no protein for muscle and bone growth, repair of body tissues, and manufacture of hormones, enzymes, and antibodies. As a result, a person may feel fatigued and may get sick often. Additionally, the brain requires a certain level of glucose to maintain normal functioning. Without sufficient glucose (which comes from calories consumed) irritability, depression, dizziness, fainting, or hypoglycemia can become problems.

The big secret that many dieters and nutrition experts have been learning is that most restrictive diets don't work over the long run. Being on a diet often makes people hungry, tired, cranky, frustrated, depressed, deprived, annoyed, and anxious. Additionally, a VLCD can impair the body's hunger and satiety signals, which might cause a person to eat too much at some point down the road, leading to weight gain instead of loss.

So, what can you do to if you want to healthfully maintain a sleek figure? A well balanced diet and exercise are almost always good options for staying healthy, fit, and ensuring you have a healthy appetite that will provide you with all the nutrition you need to lead a full and active life. For a personalized eating plan to help meet healthy goals, a good source of assistance is a registered dietician. You can make an appointment with your health care provider to get a referral. Fear of fat, and consuming concerns about how we look, are common, and it might be helpful to talk through some of these concerns with a counselor. To learn more about healthy weight maintenance or loss, you can check out [Choose My Plate](#) [3] from the CDC. It will give you personalized recommendations for menu planning, calorie intake, and physical activity levels.

You can also check out the related *Go Ask Alice!* questions to learn about ways to healthfully lose and keep off weight. Big props to you for educating yourself on your body and how it works.

Alice!

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