

What Happens To Your Body When You Go On A Diet

When talking about fueling your body, it helps to think of it as a vehicle. Each part needs a certain amount of fuel and water depending on its size and weight, and how often you take your vehicle out for a spin. However, the fuel type and intake rate can affect performance and alter the body's needs, either positively or negatively. Be aware, when you go on a short-term diet to lose weight fast, you run the risk of denying your body some essential fuel or nutrient that it needs for healthy operation.

Firstly, let's have a look at a fuel source that a lot of diets will cut out or drastically reduce: carbohydrates. Put simply, carbs are the main source of active fuel for your body, clocking in at four calories per gram. Whatever isn't used during the day is stored as glycogen in your liver (up to 100g for keeping your blood sugar levels steady) and your muscles (up to 400g to fuel physical activity). These stores must be replenished daily, and excess is stored as fat.

When a diet reduces carb intake drastically - for example, [phase one of Atkins 20 \[1\]](#) limits intake to 20-25g a day - you burn up the glycogen stores. As you store 3g of water for every 1g of glycogen, rapid weight loss occurs. The problem is, you're losing energy useful for activity and water too. As the glycogen in your muscles is used up, this leads to muscle fatigue and [catabolism \[2\]](#). This means you are breaking down muscle protein as fuel, losing muscle and therefore lowering your metabolism. Your body will start to burn fat as fuel ([ketosis \[3\]](#)), but your blood sugar levels will be erratic. Mood swings, fatigue, cravings and possibly headaches will follow.

Very Low Calorie Diets can have even further effects. These are usually formulated, such as a soluble powder meal replacement. They provide minerals and vitamins, fatty acids and some protein, and either have low or zero carbs. They operate on the principle of calorie intake versus expenditure: low amount of calories consumed + higher amount of calories burned = weight loss. Like a low-carb diet, water is lost from depleted glycogen stores, meaning rapid weight loss.

However, because the body is expending a lot more calories than it has taken in, energy levels drop. Immunity suffers, and you are more susceptible to illness. Your body is not in the business of repair, but of deconstruction and hibernation, as your body's starving security system kicks in. Your heart rate goes up as your blood sugar levels - which should be regulated with low GI carbohydrates, that break down slowly and provide a steady level of blood glucose - dip down. Sweat will break out often, and you might become anxious and/or dizzy and faint. In some cases, a [VLCD diet can cause \[4\]](#) nausea, gallstones, electrolyte imbalances, heart problems, anaemia, and/or gout. These extreme diets should only be carried out with medical supervision, and are usually for weight loss in cases of obesity where the person's health is critical.

Fats, then. That must be the ticket, the clue is right there in the name, isn't it? It's not that simple. We need fat. It's to do with being a great fuel source for cells for important parts of your body, like your brain and your nerves. It's also a great insulator, and does a bunch of other tasks like transport vitamins, help to create hormones and pad the organs.

With a low-fat diet, lots of healthy foods are off-limits or greatly reduced. This means access to lots of fat-soluble vitamins, minerals and antioxidants is reduced. Hair and skin might start to lose vitality and the diet can lower your HDL cholesterol, also known as the good one. Energy dense fats (coming in at nine calories per gram) are replaced with less dense carbohydrates. Overstocking on carbs from hunger, or because the "low-fat" label wasn't being [strictly honest \[5\]](#) with you, leads to glycogen being stored

as... fat! By eating less fat, you might actually create more fat on your own body.

There is no quick and easy fix for a healthy body, and diets are not substitutes for a healthy and nutritious lifestyle. They can be effective in the very short term, but overall well balanced eating habits win out. Aim for steady weight loss through plans for smart eating, calorie management and exercise. The results will be better achieved through healthier means, and your vehicle will run better.

1 - <http://www.atkins.com/how-it-works/atkins-20>

2 - <http://en.wikipedia.org/wiki/Catabolism>

3 - <http://en.wikipedia.org/wiki/Ketosis>

4 - http://www.vanderbilt.edu/AnS/psychology/health_psychology/LiquidDiets.htm

5 -

<http://www.fda.gov/Food/GuidanceRegulation/GuidanceDocumentsRegulatoryInformation/LabelingNutrition/ucm064911.htm>