

Keto Diet for Weight Loss



The ketogenic diet is a nutritional approach of consuming **high-fat and adequate protein food products but low level of carbohydrates** for metabolic needs, thus forcing the body to use **fat as a primary fuel source**. Ketogenic diets are characterized by a reduction in carbohydrate which is usually less than **50g** in a day while increasing the proportions of **protein and fat**. After a period of fasting or a drastically reduced dietary carbohydrate content (less than 20g/day or 5% of daily energy intake) while maintaining usual energy intake through macronutrient redistribution, **glucose reserves will be depleted** and will no longer be sufficient for either normal fat oxidation or to supply energy to the brain and central nervous system (Paoli et al., 2015).

Once the body is in nutritional ketosis and is burning fats as the primary fuel, the **blood sugar and insulin levels will drop and levels of good cholesterol will increase**. Low carbohydrate intakes result in a reduction of the circulating insulin level which promotes high level of circulating fatty acids. When

carbohydrate intake is reduced to a significant amount, our body will be stimulated to maximize fat oxidation for energy needs which in return **leads to weight loss** (Adam-Perrot, 2006). The visceral fat around the vital organs, which are always linked to an increased risk of heart disease and type 2 diabetes will shrink as well. In addition, since insulin is stable on a ketogenic diet, **appetite is reduced naturally** (Vogel, 2017).

The possibility of effectiveness of ketogenic diet for weight loss may cause appetite suppression as a result of the higher satiety effect of proteins in which will affect the levels of appetite hormones (Paoli et al., 2015). The very-low-calorie ketogenic diet induced weight loss was mainly at the expense of fat mass and visceral mass while **preserving muscle mass and strength** (Gomez-Arbelaez et al., 2017). According to Saslow et al., (2017), the recommendations to follow a very low-carbohydrate ketogenic diet and to change lifestyle factors **helped overweight people with type 2 diabetes or prediabetes to improve their glycemic control and lose weight.**

Choosing Healthy Fats

Fats and their fatty acids are different due to their chemistry which determine their **characteristics and their functions in food and health** (Duyff, 2017). Healthy fats can be simplified as fats that **benefit the nutritional maintenance of the human body**, whereas unhealthy fats can be interpreted as fats that **bring adverse effect in terms of various health conditions when consumed excessively**. The healthy fats such as unsaturated fats (monounsaturated and polyunsaturated) are **high in HDL cholesterol** (good cholesterol) which actually reduce the unhealthy fats (saturated fats and trans-fat) in the body that are high in **LDL cholesterol** (Davidson & Krieger, 2016).

Fats made of saturated fatty acids are usually **solid at room temperature** and more stable. This makes them **less likely to spoil or turn rancid** than fats with more unsaturated fatty acids. Saturated fats coming from animal sources and **trans-fat predominantly found in processed food like cookies, crackers, doughnuts and fried foods** (Davidson & Krieger, 2016). On the other hand, most of the monounsaturated fatty acids (MUFA) are liquid at room temperature. **Vegetable oils** including canola, olive, peanut, high-

oleic safflower and sunflower oils **have significant amounts of MUFAs**. Avocados are high in MUFAs too. Our body can produce omega-9 if we are taking sufficient omega-3 and 6.

Heart-healthy omega-3 fatty acids and monounsaturated fats help to **promote the shrinkage of belly fat**. Besides that, they help to **cut stress levels and reduce stress hormones**. Omega-3 fatty acids are powerful fats with **anti-inflammatory** properties which promotes a positive impact on belly fat. A study found a connection between monounsaturated fats and a reduction in belly fat in which individuals with excessive belly fat were placed on three different types of calorie-reduced diets, including a diet high in saturated fat, a diet rich in monounsaturated fats and a diet rich in carbohydrates. Only the individuals in the group consuming a diet rich in monounsaturated fats were found to have a reduction in belly fat accumulation as well as both subcutaneous and visceral belly fat (Palinski-Wade, 2012; Paniaqua et al., 2007).

Polyunsaturated fats are beneficial to our body and it is good to replace saturated fat and trans fat in our diet (Duyff, 2017). Polyunsaturated fats help to reduce bad cholesterol levels in our body, **avoiding the risk of heart disease and stroke** (American Heart Association, 2017).

Inflammation, the silent culprit of weight gaining

The worldwide prevalence of obesity has been increasing at an alarming rate in all age groups along the increased incidences of type 2 diabetes. Obesity stimulates **chronic inflammation** in adipose tissue which is associated with **insulin resistance**. It has been demonstrated that obesity is associated with low-grade chronic inflammation within overweight and obesity individuals in recent years. Inflammation is the basis for virtually degenerative disease which is a huge roadblock for weight loss. Obesity and diabetes are linked to inflammation as fat cells are veritable factories for inflammatory chemicals. **Inflammation reduces the normal ability to burn calories**, making fat burning and fat loss more difficult. However, smart fats help to lower inflammation and promote weight loss (Rodríguez-Hernández et al., 2013).

Fat gives us a sense of satiation

During consumption of healthy fats, our body will produce hormones in the stomach and small intestine in which **send signals that we have eaten enough**. They play an important role in appetite regulation and satiety. Foods rich in healthy fats will help us feel satiated and reduce the triggering of insulin. Without insulin highs and lows, our **blood sugar will be more stable**, aiding our body in accessing the fuel storing in our fat cells. Our satiety and sweet cravings are strongly influenced by the secretion of gastrointestinal hormones. In a recent research (Ohlsson et al., 2017), it was proven that a breakfast with moderately low carbohydrate and high fat and protein contents rendered an **increased satiety and metabolic profile as well as a reduced sweet cravings**.

Fight against weight gain

Obesity leads to an increase in tissue inflammation particularly within the adipose fat tissue. Additionally, oxidative stress **impairs glucose uptake** in muscle and fat. Consuming beneficial dietary fat possess positive benefits in **promoting weight loss** where smart fats balance our body hormones. Omega-3 and 6 fatty acids are a group of polyunsaturated fatty acids. They help to **promote heart health** by helping to lower the total and LDL cholesterol when replacing saturated and trans fatty acids (Duyff, 2017).

The key to ketogenic success is the high intake of healthy fats. The very low carb intake forces the body to use fat for energy instead of glucose which produces a high level of ketones in the blood. Several studies demonstrated that the **efficacy of ketogenic diet on weight loss is due to lower energy intake, satiety protein-induced and low carbohydrates consumption**.

You may also be interested in [Healthy Fats for Pregnancy](#), [Why Children Need Healthy Fat](#) or [Healthy Fats for Seniors](#).

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