

Fat

Will eating fat cause you to gain body fat?

Not necessarily! Many students confuse *dietary fat* (the fat that we eat) with *adipose tissue* (the fat on our bodies). Dietary fat does not automatically stick to your waist, legs, thighs and backside. Only excess Calories from dietary fat make you gain body fat. Excess Calories from anything make you gain body fat.

If you include fat in a meal plan that contains an appropriate number of Calories, the fat in your food will be burned as energy. If you eat too many Calories (regardless of the source--carbohydrates, protein, fat, or alcohol), the excess Calories will be converted to and then stored as body fat.

There are more fat-free products today than ever before, but ironically, Americans are fatter today than ever before. Why? Fat free doesn't mean Calorie free! One fat-free Snackwell's devil's food cookie has the same number of Calories as one full-fat Oreo cookie. And we tend to eat more of the fat-free ones because they are marketed as being more "healthy."



Read on to learn...

- How dietary fat CAN become fattening.
- What's the difference between saturated and unsaturated fat.
- Which type of fat is best for achieving your energy, health, and fitness goals?

How can dietary fat become fattening?

Gram for gram, dietary fat has more than twice the Calories as protein or carbohydrate (9 Calories per gram vs. 4 Calories per gram). So, if you eat a lot of fatty foods, you will likely be eating a lot more Calories every day. This isn't a problem if you're very active and need those extra Calories. But, if you don't need those extra Calories, the excess Calories may be converted to and stored as body fat.

Also, it's easier for your body to convert excess Calories from dietary fat to body fat than it is to convert excess Calories from carbohydrate or protein to body fat. Why? It simply costs more Calories to convert excess carbohydrate or protein Calories to body fat; so fewer Calories remain for storage. For example, if you over-ate 100 Calories of carbohydrate or protein, 15-25 of those Calories would be used converting the Calories into body fat (and only 75-85 of the Calories would be stored). On the other hand, if you over-ate 100 Calories of fat, only 5 Calories would be used in the conversion (and 95 of the Calories would be stored).

TABLE 1: COMPARE CALORIES BETWEEN EQUAL PORTIONS OF HIGH FAT VS. LOW FAT FOODS.

Food Comparison	Fat	Calories
3 oz. grilled skinless chicken breast	3 g	140
3 oz. broiled hamburger patty	18 g	250
1 ladle (3 T.) Ranch salad dressing	27 g	255
1 ladle (3 T.) Red wine vinegar	0 g	23

Purpose of fat

The fat in foods and the adipose tissue on our bodies serve many important functions.

1. **In foods**, fat serves the following roles:

- **Nutrient:** Fat supplies essential fatty acids, which are needed for normal growth of infants and

children and for production of hormone-like compounds (called eicosanoids) that regulate a wide range of body functions and keep you healthy.

- **Transport:** Fat carries fat-soluble vitamins (A, D, E, and K) and assists in their absorption.
- **Sensory:** Fat contributes to the smell and taste of food.
- **Texture:** Fat helps make foods tender (especially meats and baked goods).
- **Satiety:** Fat gives food satiety, so you feel full and satisfied longer after a meal.
- **Concentrated source of Calories:** This is good if you are traveling long distances, expending a lot of energy, and carrying your own food (i.e. hiking, backpacking, hunting). It's also good for people with high Calorie needs who are trying to gain lean body mass.

2. **In the body**, fat serves the following roles:

- Fats are the body's main form of stored energy (important in times of illness and diminished food intake).
- Fats provide most of the energy to fuel muscular work.
- Fat pads internal organs and insulates our bodies against temperature extremes.
- Fats form the major material of cell membranes (especially brain and nerve cells).
- Fats are converted to many important hormones (including sex hormones).

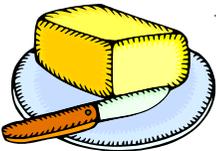
Fat is a good thing! It's only when there is too much of a good thing that it can become problematic.

Types of Fat: Saturated vs. Unsaturated

There are two general categories of fats based on their chemical structure: *saturated* and *unsaturated* fats. These fats have very different effects on your health.

1. Saturated fats

Saturated fats are generally associated with poor health. They tend to increase the “bad” cholesterol in your blood and increase your risk of heart disease. Saturated fats tend to be solid at room temperature, and



they tend to be most concentrated in animal sources of fat (including butter, cream, beef fat, chicken skin, whole fat milk, cheese, and ice cream).

***Exceptions:** Tropical oils (including coconut, palm, and palm kernel oil) are very high in saturated fats. Fatty fish are not.

2. Unsaturated fats

Unsaturated fats are generally associated with good health. They tend to lower blood cholesterol levels and decrease your risk of heart disease. Unsaturated fats tend to be liquid at room temperature, and they tend to be most concentrated in plant sources of fat (including vegetable oils, olives, avocados, nuts, and peanut butter).

***Exception:** Vegetable oils that have undergone a process called hydrogenation to make them more solid have high amounts of trans fat (i.e. margarine, shortening, and partially hydrogenated vegetable oils).

Trans fats are even worse for your health than saturated fats because they cause inflammation and lower good HDL cholesterol levels. Trans fats are hiding in many processed foods (i.e. cereals, baked goods, sports bars) and fried fast foods, so be sure to read your food labels. Intake recommendations: as little as possible (ideally none!).

There are two general subdivisions of unsaturated fats: mono and poly unsaturated fats.

- **Monounsaturated fats** are generally regarded as the most heart healthy. Good food sources include olive and canola oils, most nuts, peanut butter, avocados, and olives. For optimal health, most of the fat in your diet should come from these sources.
- **Polyunsaturated fats** include the omega 6 and omega 3 families of fat. Much of the unsaturated fat in the typical American diet is from the omega 6 family (since most food products use corn, soybean, safflower, and sunflower oils). For optimal health, however, we should try to include more omega 3 fats

in our diet. The best food source of omega 3 fat is fatty fish (like salmon and mackerel). Smaller amounts can also be found in plant foods like walnuts, flaxseeds, soy, and canola oils.

NOTE: While unsaturated fats are generally good for your heart health, they have the same number of Calories as saturated fat. So, keep portion sizes small, and use them in place of saturated and trans fats.

B O T T O M L I N E

- A healthy eating plan for most active college students contains anywhere between 20 and 35% of Calories from total fat. This amounts to 45-75 g of fat for an active woman eating a 2000-Calorie diet or 60-110 g of fat for an active man eating a 2800-Calorie diet. Given these goals, it's possible to see that even a high fat dessert (with 25 g of fat per serving) CAN fit into your healthy eating plan so long as it is balanced with other low fat choices throughout the day.
- One of the problems with some of the popular low carbohydrate diets is that they are too liberal with fat, especially the saturated variety!
- On the other hand, one good point about the popular low carbohydrate diets is that they are not as restrictive in fat as the super low fat diets that used to be popular. Super low fat diets typically contain <10% of Calories from fat (that's < 22 g of fat for a 2000 Calorie diet). When fat is too restricted, you tend to feel hungry and unsatisfied all the time. This can often lead to carbohydrate cravings, over-consumption of fat free (but high sugar and high Calorie) snacks, and weight gain. Inadequate fat consumption has also been associated with depression.
- More important than the total amount of fat you are eating is the type of fat you are choosing. If you are consuming more than 30% of total Calories from fat, make it come from mostly monounsaturated and omega 3 fats.
- For optimal health, aim to keep saturated and trans fat as low as possible (<10% of total Calories).
- Use the table below to find low fat and healthy fat alternatives to foods that contain a lot of saturated or trans fat. If the alternatives just don't satisfy you, try using less of the real thing and/or choosing the food less often.
- Remember, there is no such thing as "good" or "bad" foods. Balance your choices so that your overall eating plan is low in saturated and trans fat.

Take the Fat

