

Introduction: At each follow-up visit the D2d study will provide you with a handout on the lifestyle changes you can make to reduce your risk for diabetes. Research shows that losing 5% to 7% of your body weight (about 10 to 14 pounds for a 200-pound person) and getting at least 150 minutes each week of physical activity can help you prevent or delay type 2 diabetes. We hope you find the information in these handouts helpful.



Tip the Calorie Balance

Calories are a measure of the energy value of food and drink. Our bodies need calories to survive because they fuel everything we do. *Calorie balance* (also called *energy balance*) means that the calories we take in through eating and drinking should equal the calories we use through physical activity and our body's other energy needs (for example, breathing, digesting food, and sleeping). When the calories we take in are more than the calories we use for our energy needs over a period of time, then we will gain weight.

Eating and being active work together. To lose weight, it is best to eat less **and** move more. Weighing yourself regularly is a great way to know how you are doing on energy balance. If the numbers go down consistently, you are consuming less energy than you are using. If your weight goes up, it is time to be a bit more careful in what you eat and strive to be more active. That way, you change both sides of the scale at once.



How is Calorie Balance Maintained?

Our CALORIES IN and CALORIES OUT don't have to balance every day. In fact it's normal for our food intake and physical activity to vary quite a lot from one day to the next. It's having a balance over time that will help us stay at a healthy weight over the long term. Our body has several ways to keep us in energy balance, and among these are the familiar signals that tell us when to eat and when to stop eating. However, as most of us have experienced, it is easier to ignore the "full" signals than it is to ignore the "hunger" signals – making it easy to gain weight over time.

About Calories

Calories and Food

The number of calories in a food or drink depends on the amount of protein, fat, carbohydrates, and alcohol it contains. The chart below shows roughly the number of calories in a gram of each calorie source. Note that **fat** is the highest in calories per gram.

	Fat	Carbohydrates	Protein	Alcohol
Calories per gram	9	4	4	7

Calories and Activity

The number of calories we use for an activity depends on the type of activity, the amount of time we are active, and how much we weigh.

A rule of thumb is that one mile of brisk walking uses about 100 calories. Most people walk a mile in 15 to 20 minutes. So you can see that it would take many miles to burn off a high-calorie meal!

Calories and Body Functions

Our bodies need a certain amount of calories just to keep us alive and to perform basic functions like breathing, keeping our heart beating and maintaining our body's tissues. For most adults, this typically accounts for about **50-70%** of the calories we use every day.

We cannot control the calories expended in our basic body functions, but we can control what we eat and drink, as well as how many calories we use through physical activity.

How many calories do I need every day?

The total number of calories a person needs each day varies depending on a number of factors, including the person's age, gender, height, weight, and level of physical activity.

Estimated average daily calorie needs for weight maintenance:

Gender	Age (years)	Physical Activity Level		
		Sedentary	Moderately Active	Active
Female	31-50	1,800	2,000	2,200
Female	51+	1,600	1,800	2,000-2,200
Male	31-50	2,200-2,400	2,400-2,600	2,800-3,000
Male	51+	2,000-2,200	2,200-2,400	2,400-2,800

Source: HHS/USDA Dietary Guidelines for Americans: 2010

How much does it take to tip the balance?

Every 1 pound of body fat stores about 3,500 calories. To lose weight, we must reduce the number of calories we take in. Slow, steady weight loss is the best way to lose body fat. About 1 to 2 pounds per week is great.

This chart shows approximately how many fewer calories are needed to lose between one and two pounds per week. The balance should be tipped by eating fewer calories, while also burning more through activity.

To lose:	Tip the balance by this number:
1 pound per week	3,500 fewer calories per week (or 500 fewer each day)
1 ½ pounds per week	5,250 fewer calories per week (or 750 fewer each day)
2 pounds per week	7,000 fewer calories per week (or 1,000 fewer each day)



NOTE: To have a healthy well-balanced diet, be sure that you do not eat fewer than 1,200 calories a day!

But what if I don't like counting calories?

Keeping track each day of what one eats can be an effective tool for weight control. However, for many people, counting calories may seem labor-intensive, and can take all the fun out of eating. The good news is you can still “tip the balance” simply by focusing on the food choices you make. The secret to painless calorie cutting – without having to count them – is to choose foods that are high in fiber, high in fluid content, and high in nutrients so you can still fill up, but on fewer calories.

Variety

Studies have shown that increasing the variety of foods at a meal tends to increase how much we eat. You can use this to your advantage by *increasing* the variety of high-fiber, *nutrient*-dense foods that you eat, such as fruits, vegetables, and whole grains, and *decreasing* the variety of *calorie*-dense foods, like snacks, desserts, and other foods that are high in fat and/or sugar and low in fiber.

Liquid Calories

Beverages such as soda, juice, and alcoholic drinks often contain lots of calories, but they don't fill us up as much as the calories that we get from food. And they usually aren't very *nutrient*-dense. So decreasing the amount of these types of beverages can be an easy way of cutting calories.



If...	Then...
You tip the balance by increasing activity and decreasing eating...	...You will lose the weight you want. And, over time, you will reach a new balance at a lower weight.
You make changes a permanent part of your <i>lifestyle</i>You will keep the weight off.

Derived from National Diabetes Prevention Program and American Diabetes Association material.