

# Breakfast and Its Effect on Weight

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## Background

Over 17 million young people in the United States are overweight or obese. In 2011, 59.9 percent of women (age 18 and over) in the state of Arkansas were classified as either overweight or obese. In 2013, Arkansas was the only state in the U.S. to show an increase in obesity rates, which now makes Arkansas the third most obese state in the United States [1].

Early adulthood is a vulnerable life stage for weight gain, especially among women. The average weight gain for women between the ages of 20 and 30 is 12 to 25 pounds. Weight gain during early adulthood increases the risk of a number of chronic health conditions such as type 2 diabetes, depression, polycystic ovary syndrome and infertility. For example, after the age of 18 years, women are two times more likely to develop type 2 diabetes if they gained 10 to 16 pounds and almost three times more likely if they gained 16 to 22 pounds [2].

## The Importance of Breakfast

You've probably heard it many times before – breakfast is the most important meal of the day. It breaks-the-fast from the night before, provides fuel and sets the stage for healthy nutrient intake for the rest of the day.

A primary contributor to obesity is an increase in unhealthy eating habits, such as skipping breakfast, which has been strongly associated with overeating, weight gain and

obesity. Over the last 20 years, there has been a dramatic decline in breakfast consumption, with over 31 million Americans skipping breakfast each day. There is a clear association between breakfast consumption and age. Younger people (ages 18 to 44 years) are more likely to skip breakfast than are middle-aged and older adults [3]. Typically, people who skip breakfast are more likely to consume unhealthy foods and beverages and tend to overeat throughout the day [4-6].

Breakfast has been defined as the first meal of the day, eaten before or at the start of daily activities, within two hours of waking, typically no later than 10:00 in the morning and of an energy level between 20 and 35 percent of daily energy needs [5]. Breakfast is often considered the most important meal of the day for children, but this is also true for adults. There are many benefits associated with eating a healthy breakfast, such as higher intake of vitamins and minerals, decreased incidence of overweight and obesity, improved concentration and performance in the classroom and at work, more strength and endurance to participate in physical activity and lower cholesterol levels.

## Breakfast and Weight Control

Several studies, in both adults and children, have shown that those who eat breakfast tend to weigh less than breakfast skippers. This could be because eating a healthy breakfast

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can reduce hunger throughout the day. Studies have also shown that adults consuming ready-to-eat cereals had lower BMI and weighed less than those who rarely or never ate breakfast cereal and those who ate higher-fat breakfasts [7, 8].

One theory suggests that eating a healthy breakfast can reduce hunger throughout the day and help people make better food choices at other meals. While you might save calories by skipping breakfast, this is not an effective strategy. Typically, hunger gets the best of breakfast-skippers, and they eat more at lunch and throughout the day. Another theory behind the breakfast-weight control link implies that eating breakfast is part of a healthy lifestyle that includes making wise food choices and balancing calories with exercise. For example, consider the successful losers followed by the National Weight Control Registry, all of whom have lost at least 30 pounds and kept it off at least one year. Some 80 percent of the people in the Registry regularly eat breakfast (and also follow a calorie-controlled, low fat diet).

It's worth noting that most studies linking breakfast to weight loss looked at a healthy breakfast containing protein and/or whole grains – not meals loaded with fat and calories.

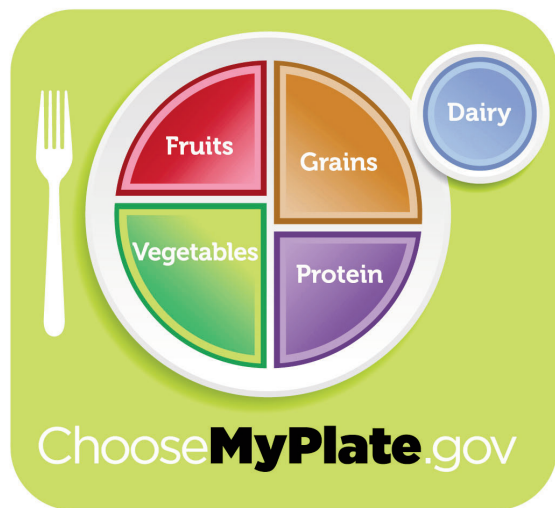
## Make Lean Protein Part of Your Breakfast

Adding a little lean protein to your breakfast may be just the boost you need to help keep you feeling full until lunchtime. A recent study found that when adults ate eggs for breakfast, they stayed fuller throughout the day [9]. Another study demonstrates that eating a protein-rich breakfast reduces hunger and decreases calorie intake at lunch [10]. In addition, a study comparing a protein-based breakfast to a carbohydrate-based breakfast found that overweight women who ate protein for breakfast five times a week for eight weeks lost 65 percent more weight and reduced their waist circumference by 83 percent more than those eating a carbohydrate-based breakfast [9].

## Breakfast Ideas

A healthy breakfast meal should contain a variety of foods from at least three of the MyPlate food groups, including fruits, vegetables, whole grains, low fat or nonfat dairy and lean protein. If you aren't very hungry, include a couple of food groups and add another for a mid-morning snack. Some quick and healthy choices include:

- A veggie omelet and a piece of whole-wheat toast (three food groups).



- A whole-wheat English muffin with low fat cheese, a scrambled egg and slice of tomato or lean ham (four food groups).
- Smoothie made with fruit and low fat yogurt (two food groups).
- Salmon on half of a whole-grain bagel with light cream cheese (two food groups).
- Whole-grain cereal with fresh fruit and low fat milk (three food groups).
- Oatmeal made with skim milk, raisins and nuts, with 4 ounces of orange juice (four food groups).
- Low fat yogurt with granola and a piece of fresh fruit (three food groups).
- Yogurt smoothie and breakfast bar (three food groups).
- Hard-boiled egg, a banana and fat-free milk (three food groups).
- A whole-grain tortilla, a scrambled egg, low fat cheese and salsa (four food groups).
- Whole wheat tortilla, peanut butter and apple slices wrap (three food groups).

### Try these recipes for a quick and healthy breakfast:

#### **Savory Pancakes**

Yield: 12 small pancakes

Serving Size: 2 per person

#### **Ingredients**

- ½ cup whole-wheat flour
- ½ cup all-purpose flour
- 1 teaspoon baking powder
- ½ teaspoon baking soda
- 2 teaspoons sugar
- 3 eggs, beaten
- 2 tablespoons chopped chives (fresh or dried)
- 16 ounces low fat (1%) cottage cheese
- 2 tablespoons unsalted-butter, melted, or vegetable oil
- ½ teaspoon garlic powder

### Directions

Preheat oven to 375°F. In a mixing bowl, combine dry ingredients (both flours, baking soda, baking powder and sugar). In a separate bowl, mix eggs, chives and cottage cheese and mix until smooth. Combine egg and flour mixtures. Add butter or oil and garlic powder and mix. Drop batter by spoonfuls on a baking pan sprayed with nonstick vegetable spray. Bake 20 to 25 minutes, or until golden brown. Flip cakes once after 12 to 15 minutes. If you prefer, you can drop cottage cheese mixture by spoonfuls into a skillet sprayed with nonstick vegetable spray. Cook until bottoms are set and tops have small bubbles, about 1 minute. Turn pancakes and cook until just firm in the center, 1 to 3 minutes more.

### Nutrition Information

Calories: 95	Fat: 3g
Carbohydrate: 10g	Fiber: 1g
Cholesterol: 42mg	Sodium: 206mg
Protein: 7g	

## Scrambled Eggs in a Cup

### Ingredients

- 2 eggs
- 2 tablespoons low fat or fat-free milk
- 2 tablespoons shredded Cheddar cheese
- Salt and pepper or other favorite seasoning

### Directions

Stir together eggs and milk in a microwave-safe coffee cup that has been sprayed with vegetable cooking spray. Microwave on high for 30 to 45 seconds, stir and microwave another 30 to 45 seconds. Top with low fat cheese. Serve with whole wheat toast and orange juice.

### Nutrition Information

Calories: 215	Cholesterol: 389mg
Total Fat: 15g	Sodium: 244mg
Saturated fat: 6g	Carbohydrates: 2g
Polyunsaturated fat: 2g	Dietary Fiber: 0g
Monounsaturated fat: 5g	Protein: 17g

## Slow Cooker Oatmeal

This is an easy way to have breakfast ready when you get up.

### Ingredients

- 2 cups low fat or fat-free milk
- ¼ cup brown sugar
- ¼ teaspoon salt
- 1 cup rolled oats, regular
- 1 cup chopped apple
- ½ cup raisins (optional)

### Directions

Spray or butter the inside of crockpot. Put ingredients into crockpot and stir. Cover and cook on low overnight. Serve with milk.  
Yield: 4 servings

### Nutrition Information

Calories: 246	Carbohydrates: 54g
Fat: 2g	Protein: 8g
Sodium: 206mg	Fiber: 4g

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