

# PATIENT EDUCATION



The American College of  
Obstetricians and Gynecologists  
WOMEN'S HEALTH CARE PHYSICIANS

## Nutrition During Pregnancy

Eating well is one of the best things you can do during pregnancy. Good nutrition helps you handle the extra demands on your body as your pregnancy progresses. The goal is to balance getting enough nutrients to support the growth of your *fetus* and maintaining a healthy weight.

### You Need to Know

- the key vitamins and minerals
- how to plan healthy meals
- the five food groups
- how much weight to gain during pregnancy

### What Healthy Eating Means

The popular saying is that pregnant women “eat for two,” but now we know that it’s dangerous to eat twice your usual amount of food during pregnancy. Instead of “eating for two,” think of it as eating twice as healthy.

#### *How many calories should I be taking in?*

If you are pregnant with one fetus, you will need to consume a little more than 300 extra *calories* per day. That’s roughly the calorie count of a glass of skim milk and half a sandwich. Women carrying twins should consume about 600 extra calories a day, and women carrying triplets should take in 900 extra calories a day.

### Key Vitamins and Minerals During Pregnancy

Vitamins and minerals play important roles in all of your body functions. Eating healthy foods and taking

a prenatal vitamin every day should supply all the vitamins and minerals you need during pregnancy.

#### *How many prenatal vitamins should I take each day?*

Take only one serving of your prenatal supplement each day. Read the bottle to see how many pills make up one daily serving. If your *obstetrician-gynecologist (ob-gyn)* or other *obstetric care provider* thinks you need an extra amount of a vitamin or mineral, he or she may recommend it as a separate supplement.

#### *Can I take more prenatal vitamins to make up for a deficiency?*

No, do not take more than the recommended amount of your prenatal vitamin per day. Some multivitamin ingredients, such as vitamin A, can cause *birth defects* at higher doses.

### What vitamins and minerals do I need during pregnancy?

During pregnancy you need **folic acid**, iron, calcium, vitamin D, choline, omega-3 fatty acids, B vitamins, and vitamin C. See Table 1 for recommended amounts.

#### What is folic acid?

Folic acid, also known as folate, is a B vitamin that is important for pregnant women. Folic acid may help prevent major birth defects of the fetus's brain and spine called **neural tube defects (NTDs)**.

#### How much folic acid should I take?

When you are pregnant you need 600 micrograms (mcg) of folic acid each day. Since it's hard to get this much folic acid from food alone, you should take a daily prenatal vitamin with at least 400 mcg starting at least 1 month before pregnancy and during the first 12 weeks of pregnancy. Women who have had a child with an NTD should take 4 milligrams (mg) of folic acid each

day as a separate supplement at least 3 months before pregnancy and for the first 3 months of pregnancy. You and your ob-gyn or other obstetric care provider can discuss whether you need to supplement with more than 400 mcg daily.

#### Why is iron important during pregnancy?

Iron is used by your body to make the extra blood that you and your fetus need during pregnancy. Women who are not pregnant need 18 mg of iron per day. Pregnant women need more, 27 mg per day. This increased amount is found in most prenatal vitamins.

#### How can I make sure I'm getting enough iron?

In addition to taking a prenatal vitamin with iron, you should eat iron-rich foods such as beans, lentils, enriched breakfast cereals, beef, turkey, liver, and shrimp. You also should eat foods that help your body absorb iron, including orange juice, grapefruit, strawberries, broccoli, and peppers.

**Table 1: Key Vitamins and Minerals During Pregnancy**

Nutrient (Daily Recommended Amount)	Why You and Your Fetus Need It	Best Sources
Calcium (1,300 milligrams [mg] for ages 14 to 18 years; 1,000 mg for ages 19 to 50 years)	Builds strong bones and teeth	Milk, cheese, yogurt, sardines, dark green leafy vegetables
Iron (27 mg)	Helps red blood cells deliver <b>oxygen</b> to your fetus	Lean red meat, poultry, fish, dried beans and peas, iron-fortified cereals, prune juice
Iodine (220 micrograms [mcg])	Essential for healthy brain development	Iodized table salt, dairy products, seafood, meat, some breads, eggs
Choline (450 mg)	Important for development of your fetus's brain and spinal cord	Milk, beef liver, eggs, peanuts, soy products
Vitamin A (750 mcg for ages 14 to 18 years; 770 mcg for ages 19 to 50 years)	Forms healthy skin and eyesight Helps with bone growth	Carrots, green leafy vegetables, sweet potatoes
Vitamin C (80 mg for ages 14 to 18 years; 85 mg for ages 19 to 50 years)	Promotes healthy gums, teeth, and bones	Citrus fruit, broccoli, tomatoes, strawberries
Vitamin D (600 international units [IU])	Builds your fetus's bones and teeth Helps promote healthy eyesight and skin	Sunlight, fortified milk, fatty fish such as salmon and sardines
Vitamin B6 (1.9 mg)	Helps form red blood cells Helps body use protein, fat, and carbohydrates	Beef, liver, pork, ham, whole-grain cereals, bananas
Vitamin B12 (2.6 mcg)	Maintains nervous system Helps form red blood cells	Meat, fish, poultry, milk (vegetarians should take a supplement)
Folic acid (600 mcg)	Helps prevent birth defects of the brain and spine Supports the general growth and development of the fetus and placenta	Fortified cereal, enriched bread and pasta, peanuts, dark green leafy vegetables, orange juice, beans. Also, take a daily prenatal vitamin with 400 mcg of folic acid.

### ***What is calcium?***

Calcium is a mineral that builds your fetus's bones and teeth. Women who are age 18 or younger need 1,300 mg of calcium per day. Women who are 19 or older need 1,000 mg per day.

### ***What foods contain calcium?***

Milk and other dairy products, such as cheese and yogurt, are the best sources of calcium. If you have trouble digesting milk products, you can get calcium from other sources, such as broccoli, fortified foods (cereals, breads, and juices), almonds and sesame seeds, sardines or anchovies with the bones, and dark green leafy vegetables. You also can get calcium from calcium supplements.

### ***What does vitamin D do in the body?***

Vitamin D works with calcium to help the fetus's bones and teeth develop. Vitamin D also is essential for healthy skin and eyesight. All women, pregnant or not, need 600 international units of vitamin D a day.

### ***What foods contain vitamin D?***

Good sources of vitamin D include fortified milk and breakfast cereal, fatty fish (salmon and mackerel), fish liver oils, and egg yolks.

### ***How will I know I'm getting enough vitamin D?***

Many people do not get enough vitamin D. If your ob-gyn or other obstetric care provider thinks you may have low levels of vitamin D, a test can be done to check the level in your blood. If it is below normal, you may need to take a vitamin D supplement.

### ***What is choline?***

Choline plays a role in your fetus's brain development. It also may help prevent some common birth defects. Experts recommend that pregnant women get 450 mg of choline each day.

### ***What foods contain choline?***

Choline can be found in chicken, beef, eggs, milk, soy products, and peanuts. Although the body produces some choline on its own, it doesn't make enough to meet all your needs while you are pregnant. It's important to get choline from your diet because it is not found in most prenatal vitamins.

### ***What are omega-3 fatty acids?***

Omega-3 fatty acids are a type of fat found naturally in many kinds of fish. Omega-3s may be important for brain development before and after birth.

### ***How much fish should I eat to get the omega-3 fatty acids that I need?***

Women should eat at least two servings of fish or shellfish per week before getting pregnant, while pregnant, and while breastfeeding. A serving of fish is 8 to 12 ounces (oz).

### ***Which types of fish should I avoid?***

Some types of fish have higher levels of mercury than others. Mercury is a metal that has been linked to birth

defects. Do not eat bigeye tuna, king mackerel, marlin, orange roughy, shark, swordfish, or tilefish. Limit white (albacore) tuna to only 6 oz a week. You also should check advisories about fish caught in local waters.

### ***What other foods contain omega-3 fatty acids?***

Flaxseed (ground or as oil) is a good source of omega-3s. Other sources of omega-3s include broccoli, cantaloupe, kidney beans, spinach, cauliflower, and walnuts.

### ***What are B vitamins?***

B vitamins, including B1, B2, B6, B9, and B12, are key nutrients during pregnancy. These vitamins

- give you energy
- supply energy for your fetus's development
- promote good vision
- help build the *placenta*

### ***What can I eat to get enough B vitamins?***

Your prenatal vitamin should have the right amount of B vitamins that you need each day. Eating foods high in B vitamins is a good idea too, including liver, pork, chicken, bananas, beans, and whole-grain cereals and breads.

### ***What is vitamin C?***

Vitamin C is important for a healthy immune system. It also helps build strong bones and muscles. During pregnancy, you should get at least 85 mg of vitamin C each day if you are older than 19, and 80 mg if you are younger than 19.

### ***What foods contain vitamin C?***

You can get the right amount of vitamin C in your daily prenatal vitamin, and also from citrus fruits and juices, strawberries, broccoli, and tomatoes.

### ***How can I get enough water during pregnancy?***

Drink throughout the day, not just when you are thirsty. Aim for 8 to 12 cups of water a day during pregnancy.

## ***How to Plan Healthy Meals During Pregnancy***

There are many tools that can help you plan healthy meals. One useful tool is the MyPlate food-planning guide from the U.S. Department of Agriculture. The MyPlate website, [www.choosemyplate.gov](http://www.choosemyplate.gov), can help you learn how to make healthy food choices at every meal.

### ***How can MyPlate help me plan healthy meals?***

The MyPlate website, [www.choosemyplate.gov](http://www.choosemyplate.gov), offers a MyPlate Plan, which shows how much to eat based on how many calories you need each day. The MyPlate Plan is personalized based on your

- height
- prepregnancy weight
- physical activity level

The MyPlate Plan can help you learn about choosing foods from each food group to get the vitamins and minerals you need during pregnancy. The MyPlate Plan also can help you limit calories from added sugars and saturated fats.

## The Five Food Groups

### What are the five food groups?

- Grains
- Fruits
- Vegetables
- Protein foods
- Dairy foods

### What are grains?

Bread, pasta, oatmeal, cereal, and tortillas are all grains. Whole grains are those that haven't been processed and include the whole grain kernel. Oats, barley, quinoa, brown rice, and bulgur are all whole grains, as are products made with those grains. Look for the words "whole grain" on the product label. When you plan meals, make half of your grain servings whole grains.

### What types of fruit should I eat?

You can eat fresh, canned, frozen, or dried fruit. Juice that is 100 percent fruit juice also counts in the fruit category. Make half your plate fruit and vegetables during mealtimes.

### What types of vegetables should I eat?

You can eat raw, canned, frozen, or dried vegetables or 100 percent vegetable juice. Use dark leafy greens to make salads. Make half your plate fruit and vegetables during mealtimes.

### What are protein foods?

Meat, poultry, seafood, beans and peas, eggs, processed soy products, nuts, and seeds all contain protein. Eat a variety of proteins each day.

### What are dairy foods?

Milk and milk products, such as cheese, yogurt, and ice cream, make up the dairy group. Make sure any dairy foods you eat are pasteurized. Choose fat-free or low-fat (1 percent) varieties.

### What part do oils and fats play in a healthy eating plan?

Oils and fats are another part of healthy eating. Although they are not a food group, they do give you important nutrients. During pregnancy, the fats that you eat provide energy and help build the placenta and many fetal organs.

### What are healthy sources of oils and fats?

Oils in food come mainly from plant sources, such as olive oil, nut oils, and grapeseed oil. They also can be found in certain foods, such as some fish, avocados, nuts, and olives. Most of the fats and oils in your diet should come from plant sources. Limit solid fats, such as those from animal sources. Solid fats also can be found in processed foods.

## Weight Gain During Pregnancy

Weight gain depends on your health and your **body mass index (BMI)** before you were pregnant. If you were underweight before pregnancy, you should gain more weight than a woman who had a normal weight before pregnancy. If you were overweight or obese before pregnancy, you should gain less weight. The amount of weight gain differs by **trimester**. See Table 2 for recommended weight gain during pregnancy.

### How much weight should I gain during the first trimester?

During your first 12 weeks of pregnancy—the first trimester—you might gain only 1 to 5 pounds or none at all.

Table 2: Weight Gain During Pregnancy

Body Mass Index (BMI) Before Pregnancy	Rate of Weight Gain in the Second and Third Trimesters* (Pounds Per Week)	Recommended Total Weight Gain With a Single Fetus (in Pounds)	Recommended Weight Gain With Twins (in Pounds)
Less than 18.5 (underweight)	1.0 to 1.3	28 to 40	Not known
18.5 to 24.9 (normal weight)	0.8 to 1.0	25 to 35	37 to 54
25.0 to 29.9 (overweight)	0.5 to 0.7	15 to 25	31 to 50
30.0 and above (obese)	0.4 to 0.6	11 to 20	25 to 42

\*Assumes a first-trimester weight gain between 1.1 and 4.4 pounds

Source: Institute of Medicine and National Research Council. 2009. Weight Gain During Pregnancy: Reexamining the Guidelines. Washington, DC: The National Academies Press.



### *How much should I gain during the second and third trimesters?*

If you were a healthy weight before pregnancy, you should gain a half-pound to 1 pound per week in your second and third trimesters.

### *How many extra calories should I eat?*

During the first trimester with one fetus, usually no extra calories are needed. In the second trimester, you will need an extra 340 calories per day, and in the third trimester, about 450 calories a day.

### *How can I get those extra calories?*

To get the extra calories during the day, have healthy snacks on hand, such as nuts, yogurt, and fresh fruit.

### *How can being overweight or obese cause problems during pregnancy?*

Excess weight during pregnancy is associated with several pregnancy and childbirth **complications**, including

- **high blood pressure**
- **preeclampsia**
- **preterm** birth
- **gestational diabetes**

Obesity during pregnancy also increases the risk of

- **macrosomia**
- birth injury
- **cesarean birth**
- birth defects, especially NTDs

### *What if I am obese or overweight?*

You and your ob-gyn or other obstetric care provider will work together to develop a nutrition and exercise plan. If you are gaining less than what the guidelines suggest, and if your fetus is growing well, gaining less than the recommended guidelines can have benefits. If your fetus is not growing well, changes may need to be made to your diet and exercise plan.

## **Your Takeaways**

1. Eating well during your pregnancy is one of the best things you can do for yourself and your fetus.
2. Women need to balance getting enough nutrients to fuel the fetus's growth with maintaining a healthy pregnancy weight.
3. A balanced diet includes key vitamins and minerals plus 8 to 12 cups of water a day.

## **Terms You Should Know**

**Birth Defects:** Physical problems that are present at birth.

**Body Mass Index (BMI):** A number calculated from height and weight. BMI is used to determine whether a person is underweight, normal weight, overweight, or obese.

**Calories:** Units of heat used to express the fuel or energy value of food.

**Cesarean Birth:** Birth of a fetus from the uterus through an incision (cut) made in the woman's abdomen.

**Complications:** Diseases or conditions that happen as a result of another disease or condition. An example is pneumonia that occurs as a result of the flu. A complication also can occur as a result of a condition, such as pregnancy. An example of a pregnancy complication is preterm labor.

**Fetus:** The stage of human development beyond 8 completed weeks after fertilization.

**Folic Acid:** A vitamin that reduces the risk of certain birth defects when taken before and during pregnancy.

**Gestational Diabetes:** Diabetes that starts during pregnancy.

**High Blood Pressure:** Blood pressure above the normal level. Also called hypertension.

**Macrosomia:** A condition in which a fetus grows more than expected, often weighing more than 8 pounds and 13 ounces (4,000 grams).

**Neural Tube Defects (NTDs):** Birth defects that result from a problem in development of the brain, spinal cord, or their coverings.

**Obstetric Care Provider:** A health care professional who cares for a woman during pregnancy, labor, and delivery. These professionals include obstetrician-gynecologists (ob-gyns), certified nurse-midwives (CNMs), maternal-fetal medicine specialists (MFMs), and family practice doctors with experience in maternal care.

**Obstetrician-Gynecologist (Ob-Gyn):** A doctor with special training and education in women's health.

**Oxygen:** An element that we breathe in to sustain life.

**Placenta:** An organ that provides nutrients to and takes waste away from the fetus.

**Preeclampsia:** A disorder that can occur during pregnancy or after childbirth in which there is high blood pressure and other signs of organ injury. These signs include an abnormal amount of protein in the urine, a low number of platelets, abnormal kidney or liver function, pain over the upper abdomen, fluid in the lungs, or a severe headache or changes in vision.

**Preterm:** Less than 37 weeks of pregnancy.

**Trimester:** A 3-month time in pregnancy. It can be first, second, or third.

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