

Nutrition During Pregnancy



A balanced diet is a basic part of good health at all times in your life. During pregnancy, your diet is even more important. The foods you eat are the main source of nutrients for your baby. Healthy eating during pregnancy may take a little effort, but it will be a major benefit for you and your baby. If you have not been eating a healthy diet, pregnancy is a great time to change old habits and start healthy new ones.

This pamphlet explains

- starting a healthy diet before pregnancy
- basic and extra nutrients you will need
- planning healthy meals
- healthy weight gain
- special nutrition concerns

Before You Become Pregnant

The best time to begin eating a healthy diet is before you become pregnant. Eating well before pregnancy will help you and your baby start out with the nutrients you both need.

If you are planning to become pregnant, it is a good idea to visit your health care provider. As part of your visit, you will be asked about your family life, work, and lifestyle, including your diet. You and your health care provider will discuss how to eat right before and during your pregnancy and which nutrients are especially important, such as folic acid.

Basic Nutrients

Every diet should include proteins, carbohydrates, vitamins, minerals, and fat. Dietary reference intakes (DRIs) are recommended amounts an individual should consume daily of certain nutrients, vitamins, and minerals. During pregnancy, the DRIs are higher for many nutrients (Table 1).

You do not have to eat the DRI for each nutrient every day. Try to eat a variety of foods and eat the recommended amounts from the basic food groups. If you do, chances are good that you and your baby are getting the right amounts of nutrients (see box “How Much Should You Eat?”).

<i>Nutrient (Dietary Reference Intake [DRI])</i>	<i>Why You and Your Baby Need It</i>	<i>Best Sources</i>
Calcium (1,000 milligrams)	Helps build strong bones and teeth.	Milk, cheese, yogurt, sardines
Iron (27 milligrams)	Helps red blood cells deliver oxygen to your baby.	Lean red meat, dried beans and peas, iron-fortified cereals, prune juice
Vitamin A (770 micrograms)	Forms healthy skin and helps eyesight. Helps with bone growth.	Carrots; dark, leafy greens; sweet potatoes
Vitamin C (85 milligrams)	Promotes healthy gums, teeth, and bones. Helps your body absorb iron.	Citrus fruit, broccoli, tomatoes, strawberries
Vitamin D (200 international units; some experts recommend 400 international units during pregnancy)	Helps build your baby’s bones and teeth.	Sunlight exposure; vitamin D fortified milk; fatty fish such as salmon
Vitamin B ₆ (1.9 milligrams)	Helps form red blood cells. Helps body use protein, fat, and carbohydrates.	Beef, liver, pork, ham; whole-grain cereals; bananas
Vitamin B ₁₂ (2.6 micrograms)	Maintains nervous system. Needed to form red blood cells.	Liver, meat, fish, poultry, milk (found only in animal foods—vegetarians who do not eat any animal foods should take a supplement)
Folate (600 micrograms)	Needed to produce blood and protein. Helps some enzymes function.	Green, leafy vegetables; liver; orange juice; legumes and nuts

Extra Nutrients

Pregnant women need extra iron and folic acid. To get these extra nutrients, a prenatal vitamin supplement is recommended for most women. These supplements contain all the recommended daily vitamins and minerals you will need during your pregnancy, such as vitamins A, C, and D; folic acid; and minerals, such as zinc and copper. Talk to your health care provider about the vitamins that you are already taking before taking a prenatal vitamin supplement. Excess amounts of some vitamins or minerals during pregnancy can be harmful.

How Much Should You Eat?

How much you eat is just as important as what you eat. If you are a normal weight before pregnancy, you need only an average of 300 extra calories per day to fuel your baby's growth and keep you healthy during pregnancy—the amount in a glass of skim milk and half a sandwich. During the first trimester, you need less than 300 extra calories per day. During the third trimester, you will need slightly more.

Having healthy snacks that you can eat during the day is a good way to get the nutrients and extra calories you need. You may find it easier to eat snacks and small meals throughout the day rather than three big meals a day.

If you are overweight or obese, you will need to pay close attention to how much you eat during pregnancy. Smaller amounts of weight gain or even a small weight loss may be recommended to ensure a safe pregnancy and a healthy baby ([see "Pregnancy and Weight Gain"](#)).

Folic Acid

Folic acid is a B vitamin that is also known as folate. Before pregnancy and during the first 12 weeks of pregnancy, you need 0.4 milligrams (or 400 micrograms) of folic acid daily in order to reduce the risk of **neural tube defects**. Folic acid is added to certain foods (breads, cereal, pasta, rice, and flour) and is found in leafy dark-green vegetables, citrus fruits, and beans. However, it may be hard to get all of the folic acid you need from food sources alone. For this reason, all women of childbearing age should take a multivitamin supplement containing 0.4 milligrams of folic acid a day.

Women who have had a child with a neural tube defect or who are taking certain drugs need much higher doses of folic acid—4 milligrams daily. Women who need 4 milligrams should take folic acid as a separate supplement, not as part of a multivitamin.

Iron

The iron in red blood cells helps carry oxygen to your organs, tissues, and baby. Women need more iron in their diets during pregnancy to support the growth of the baby and to produce extra blood. The recommended daily amount of iron you should consume while pregnant is 27 milligrams, which can be found in most prenatal vitamin supplements. Women who do not have enough iron stored in their bodies before pregnancy may develop *anemia*. Some women may need extra iron in the form of an iron supplement. Taking an iron supplement on an empty stomach or with a source of vitamin C (such as a glass of fruit juice) helps the body absorb iron. Be sure to tell your health care provider if you are taking any other medications because some drugs should not be taken with iron.

How Much Weight Should You Gain During Pregnancy?		
<i>Prepregnancy Weight Status</i>	<i>Body Mass Index (BMI)*</i>	<i>Weight Gain (pounds)</i>
Underweight	Less than 18.5	28–40
Normal weight	18.5–24.9	25–35
Overweight	25.0–29.9	15–25
Obese	30 or more	11–20

*You can find out your BMI by going to <https://www.yourpregnancyandchildbirth.com/topics.php?page=nutrition>

Data from Institute of Medicine (US). Weight gain during pregnancy: reexamining the guidelines. Washington, DC: National Academies Press; 2009.

Planning Healthy Meals

The U. S. Department of Agriculture has a food plan called MyPlate (www.choosemyplate.gov). It includes an online interactive diet-planning program called SuperTracker (<http://www.choosemyplate.gov/SuperTracker/default.aspx>). This program gives you a personalized plan that includes the kinds of foods in the amounts that you need to eat during pregnancy.

MyPlate is based on five specific food groups. These groups are the best sources of some of the nutrients that are needed during pregnancy and breastfeeding:

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

The amount of food that you need to eat each day is calculated according to your height, prepregnancy weight, due date, and how much you exercise during the week. The amounts of food are given in standard sizes that most people are familiar with, such as cups and ounces ([Table 2 on the reverse side](#)).

Where Does the Weight Go?	
Here is how much weight an average woman gains in parts of her body during pregnancy:	
Baby	7 ½ pounds
Your breast growth	2 pounds
Maternal stores (your body's protein and fat)	7 pounds
Placenta	1 ½ pound
Your uterus growth	2 pounds
Amniotic fluid (the water around the baby)	2 pounds
Your blood	4 pounds
Your body fluids	4 pounds

Pregnancy and Weight Gain

How much weight you gain during pregnancy depends on your weight before pregnancy ([see box “How Much Weight Should You Gain During Pregnancy?”](#)). Body mass index (BMI) is a measure of body fat based on height and weight. Women with a normal BMI before pregnancy should gain between 25 and 35 pounds during pregnancy. The box [“Where Does the Weight Go?”](#) shows where all of the extra weight goes during pregnancy.

Overweight and obese women are at increased risk for several pregnancy problems. These problems include *gestational diabetes*, high blood pressure, *preeclampsia*, and cesarean delivery. Babies of overweight and obese mothers also are at greater risk for certain problems, such as *congenital* abnormalities, *macrosomia* with possible birth injury, and childhood obesity. For women with a BMI of 30 or greater, a weight gain of between 11 pounds and 20 pounds is recommended during pregnancy. For women with a BMI of 40 or greater, a modest weight loss during pregnancy may be recommended. The weight loss should not be drastic, should be individualized for each woman, and should be done only under a health care provider’s close supervision.

Special Concerns

As you plan your pregnancy diet and make decisions about what to eat, there are a few special issues to keep in mind.

Caffeine

Studies about caffeine consumption and ***miscarriage*** risk are conflicting. Because of these conflicting results, it is not possible to say whether high caffeine intake leads to miscarriage. Moderate caffeine intake (200 milligrams a day—the amount in approximately two 8-ounce cups of brewed coffee) does not appear to lead to miscarriage or preterm birth. It is not clear whether caffeine increases the risk of having a low birth weight baby.

It may be a good idea to limit your caffeine intake during pregnancy for other reasons. Excess caffeine can interfere with sleep and contribute to nausea and light-headedness. It also can increase urination and lead to dehydration.

Vegetarian Diets

If you are a vegetarian, you can continue your diet during your pregnancy. However, you will need to plan your meals with care to ensure you get the nutrients you and your baby need. Be sure you are getting enough protein. You will probably need to take supplements, especially iron, vitamin B₁₂, and vitamin D.

Mercury

Fish and shellfish are good sources of protein, omega-3 fatty acids, and other nutrients. However, pregnant women should not eat certain kinds of fish because they contain high levels of a form of mercury that can be harmful to the developing fetus.

You should avoid eating shark, swordfish, king mackerel, or tilefish during pregnancy. These large fish contain high levels of mercury. Common types of fish that are low in mercury are shrimp, canned light tuna (not albacore, which has a higher mercury content), salmon, pollock, and catfish. You can safely eat up to 12 ounces (about two meals) of these fish per week while you are pregnant. If you want to include albacore tuna as part of your two fish meals one week, limit your intake of albacore tuna to no more than 6 ounces for that week.

Check local advisories about fish caught in local rivers and streams. If there is no advice about them, it may be safe to eat up to 6 ounces (one meal) per week of fish from local waters. During that week, do not eat any other fish.

Listeriosis

Listeriosis is an illness caused by bacteria that can occur in unpasteurized milk and soft cheese and prepared and uncooked meats, poultry, and shellfish. It can be particularly harmful to pregnant women and their babies.

Symptoms occur several weeks after you eat the food. They can include fever, chills, muscle aches, and back pain. In some cases, there may be no symptoms at all. When a pregnant woman is infected, the disease can cause miscarriage or ***stillbirth***.

Because the symptoms of listeriosis are like the flu, it can be difficult to diagnose. If you have a fever or flu-like illness, check with your health care provider who may take samples from your vagina, cervix, and blood. If the bacteria are found, you and your baby can be treated with antibiotics. If there is a chance that a newborn is infected, he or she also can be tested and treated.

To prevent listeriosis, wash all fresh fruits and vegetables before using them. While you are pregnant, do not eat the following foods:

- Unpasteurized milk or soft cheeses
- Raw or undercooked meat, poultry, or shellfish
- Prepared meats, such as hot dogs or deli meats, unless they are heated until steaming hot

Always be sure to wash your hands and any utensils, countertops, or cutting boards that have been in contact with uncooked meats.

Pica

During pregnancy, some women feel strong urges to eat nonfood items such as clay, ice, laundry starch, or cornstarch. This condition is called *pica*. Pica can be harmful to your pregnancy. It can affect your intake of nutrients and can lead to constipation and anemia. Talk with your health care provider if you have any of these urges.

	<i>First Trimester</i>	<i>Second Trimester</i>	<i>Third Trimester</i>	<i>Comments</i>
Total calories per day	1,800	2,200	2,400	
Grains*	6 ounces	7 ounces	8 ounces	1 ounce is 1 slice of bread, ½ cup of cooked rice, ½ cup of cooked pasta, 3 cups of popped popcorn, or 5 whole wheat crackers
Vegetables†	2 ½ cups	3 cups	3 cups	2 cups of raw leafy vegetables count as 1 cup
Fruits	1 ½ cup	2 cups	2 cups	One large orange, 1 large peach, 1 small apple, 8 large strawberries, or ½ cup of dried fruit count as 1 cup of fresh fruit
Milk	3 cups	3 cups	3 cups	Two small slices of swiss cheese or 1/3 cup of shredded cheese count as 1 cup
Meat and beans	5 ounces	6 ounces	6 ½ ounces	1 ½ cup of cooked beans, 25 almonds, 13 cashews, or 9 walnuts count as 2 ounces

Extras	290 calories	360 calories	410 calories	These extra calories come from high-fat and high-sugar foods, or higher amounts of foods from the five food groups
Fats and oils	6 teaspoons	7 teaspoons	8 teaspoons	Some foods are naturally high in fats and oils, such as olives, some fish, avocados, and nuts
*Make one half whole grain.				
†Make sure that you get a mixture of dark green, orange, starchy, and other vegetables, including dry beans and peas.				

Finally...

Eating right during your pregnancy is one of the best things you can do for yourself and your baby. Finding a balance between getting enough nutrients while maintaining a healthy weight is important for you and your baby's future health.

Glossary

Anemia: Abnormally low levels of blood or red blood cells in the bloodstream. Most cases are caused by iron deficiency, or lack of iron.

Congenital: Refers to a condition that is present in a baby when it is born.

Gestational Diabetes: Diabetes that arises during pregnancy.

Macrosomia: A condition in which a fetus grows very large.

Miscarriage: Early pregnancy loss.

Neural Tube Defect: A birth defect that results from incomplete development of the brain, spinal cord, or their coverings.

Pica: The urge to eat nonfood items.

Preeclampsia: A condition of pregnancy in which there is high blood pressure and protein in the urine.

Stillbirth: Delivery of a baby that shows no sign of life.

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