
Healthy Eating for Pregnancy and Lactation

Pregnancy can be a very exciting time. Nutrition is not only important to your unborn baby, but is also important to your current and future health status.

Weight gain

Your baby's birth weight is influenced by the weight you gain during pregnancy. Low birth weight babies are at greater risk for developmental difficulties and illness. Women who gain a healthy amount of weight during pregnancy have fewer problems than those who gain too little or too much.

Normal weight gain:

- Small women (BMI* < 19) = 28-40 lbs.
- Average women (BMI* 19-24) = 25-35 lbs.
- Heavy women (BMI* > 25) = 15-25 lbs.
- Pregnant teens = weight gain per M.D.
- Twin pregnancies = 35-45 lbs.

*BMI (body mass index) is a number resulting from the calculation of your weight in kilograms divided by your height in meters squared. A healthy BMI is between 19-24, underweight is a BMI under 19, and overweight is a BMI over 25.

The rate of weight gain during pregnancy is important. During the first trimester (12 weeks), weight gain should be slow and of small amounts. Expect a 1-4 pound total weight gain during the first trimester. During the second and third trimesters weight gain should increase to an average of ½ - 1 lb. each week.

If your weight gain is too rapid during any trimester of your pregnancy, use these guidelines to manage your weight:

- Use low-fat dairy products, including skim or 1% milk, low-fat cheeses, and yogurt.
- Use only lean meats, poultry, and fish.
- Bake, broil, grill, or stir-fry vs. frying foods.
- Cut back on high-calorie, low-nutrient foods such as cakes, candy, pastries, and soda.
- Increase physical activity as approved by your health care provider.
- DO NOT DIET!

Calorie requirements and weight gain

To support the rapid growth of the fetus during the second and third trimester, an additional 300 calories a day above pre-pregnant caloric needs may be required. This is approximately the same amount of calories supplied by 2.5 cups of low-fat milk or a tuna fish sandwich. The amount of extra calories needed each day can be determined by following your appetite and keeping within your weight gain goals. Some women may attain their weekly weight gain goals by eating less than 300 extra calories a day; this may be the case for sedentary women. For most women, 2500-2700 total calories daily will meet pregnancy needs.

Spend your "extra calories" on foods that also supply a healthful dose of nutrients.

300 extra calories can look like any of the following combinations of food:

- 1 cup skim milk, 1 serving dry cereal, and 1 banana or
- 3 oz. lean meat and 1 slice of bread or
- 2 oz. lean meat or cheese and 2 slices of bread

Special nutrient needs during pregnancy

The 1989 Recommended Dietary Allowance (RDA) is a recommendation for the average amount of a nutrient that should be consumed daily over a period of time by healthy people. The 1997 Dietary Reference Intake (DRI) is a newer guideline to ensure health.

Either guideline can be used to indicate the healthful level of intake of a nutrient for a majority of people. RDA/DRI below is for women between 19 and 50 years of age.

If the requirement is higher for pregnancy or lactation, this is noted. DRI's also include Upper Limits (UL) for many nutrients, which is the maximum level of daily nutrient intake that is likely to pose no risk of adverse effects. UL's are especially important if supplements are taken. The Adequate Intake (AI) is the recommended intake value for healthy people based on an observed group.

Folate (also known as Folic Acid, Folacin)

DRI = 400 micrograms/day (mcg/d)

Pregnant = 600 mcg/d (some practitioners may recommend a higher intake)

Lactating = 500 mcg/d

An adequate amount of folic acid is essential before and during pregnancy. Folic acid is essential for cell division and organ formation that takes place in the first trimester of pregnancy. Therefore, it is an extremely important nutrient for women of reproductive age. Folic acid intake of at least 400 mcg/day for at least three months prior to pregnancy and 600 mcg/day during pregnancy is known to decrease the risk of birth defects.

Good sources of folic acid: green leafy vegetables (such as spinach, broccoli, collard or turnip greens, okra, brussel sprouts, asparagus and cantaloupe), whole-grain breads, enriched grains (such as breads, cereals/pasta), citrus fruits, citrus juice, nuts, seeds, dried beans/peas, lentils, avocado, bananas and omega-3 eggs.

It is sometimes difficult to achieve an intake of 600 micrograms of folic acid by diet alone. Your doctor may recommend supplementation along with a diet rich in folic acid to meet the recommendation.

Calcium

RDA = 1,000 milligrams/day (mg/d)

Pregnant or lactating = 1,000 mg/d

UL = 2,500 mg/d

It is important to get enough calcium for you and your baby. If you don't consume enough calcium, your body gives your baby the calcium that is available and takes calcium from your bones stored to meet your needs. This can cause your bones to become weak. Not taking in enough calcium during pregnancy can lead to osteoporosis later in life.

Good sources of calcium: milk, yogurt, cheese, fortified tofu, green leafy vegetables, fortified orange juice, broccoli, fish with soft bones, some fortified cereals (such as Total) and almonds.

Protein

DRI = 46 grams/day (g/d)

Pregnant or lactating = 71 g/d

RDA = 0.8 g/ Kg of body weight/ day

Pregnant or lactating = 1.1 g of protein/Kg of body weight/ day.

Good sources of protein: meat, fish, poultry, nuts, eggs, beans, soy products, milk, cheese, and yogurt.

8 oz. milk = 8 grams protein

3 oz. meat patty = 20 grams protein

1 TBSP of peanut butter = 5 grams protein

3 oz. of tuna = 30 grams of protein

1 oz. of cereal = 6 grams of protein

1 cup of corn = 5 grams of protein

As you can see, it is easy to consume an adequate amount of protein in your diet. The diet you are currently following is probably more than adequate to meet your pregnancy needs.

If you are vegetarian or vegan and if you consume a variety of legumes, grain products, soy products, and vegetables, obtaining adequate protein should not be a problem.

Iron

DRI: 18 milligrams/day (mg/d)

Pregnant = 27 mg/d

Lactating = 9 mg/d

UL = 45 mg/d

A mother's blood volume increases during pregnancy. Iron is essential to make hemoglobin, a component of blood that carries oxygen to the cells of the body. Hemoglobin also crosses the placenta to provide oxygen for your baby.

The increase in blood volume calls for an increase in iron intake. To maintain this increased blood volume it is also important to drink adequate amounts of water (eight 8-ounce glasses per day).

Good sources of iron: meat, poultry, fish, legumes, whole grains, dried fruits, and enriched grain products.

Getting enough dietary iron to meet the demands of pregnancy can be difficult. Even though iron is widely available, it isn't absorbed readily.

Your health care provider may prescribe an iron supplement along with an iron-rich diet. For optimal absorption of an iron supplement or other non-meat iron sources, take with a good source of vitamin C. Good sources of vitamin C include orange juice, grapefruit, cantaloupe, green pepper, or broccoli.

Water

Water needs increase during pregnancy for carrying essential nutrients into the placenta. Extra water is also needed for prevention of urinary tract infection and to prevent dehydration. Dehydration in pregnancy may cause contractions and premature labor, especially in the third trimester.

AI = 2.3 – 2.7 Liters/D (L/D)

Pregnancy = 3.0 L/D

Lactation = 3.8 L/D

Prenatal multi-vitamins

- The March of Dimes recommends that all women of child bearing age take a multi-vitamin with 400 micrograms of folic acid every day, even before pregnancy, to prevent neural tube defects.
- Prenatal vitamins can cause nausea in some pregnant women. Taking the vitamin with a meal and not on an empty stomach, may decrease the nausea. Talk to your health care provider if your vitamin causes illness.

Lactation-breastfeeding

Choosing to breastfeed is a very personal choice, depending on many external factors. Breast milk is the best food you can give your baby. If you choose to breastfeed, put healthful eating at the top of your agenda both before and during breastfeeding. Unhealthy eating can cause a woman to feel tired and to be more prone to illness, so it is important to choose nutrient dense foods to help you feel more energetic.

A nursing mother should "eat to hunger." For some women this will equate to 500 calories above your pre-pregnancy intake. Mothers often feel hungrier when they are nursing, especially women who are highly active, and women should learn to trust their hunger. Along with additional nutrient dense foods, increasing your fluid intake is also important to the production of adequate amounts of breast milk.

A weight-loss regimen is not recommended when you are nursing. For many women breastfeeding helps promote weight loss and makes attaining your pre-pregnancy weight easier. However, if a woman "eats to hunger" and makes an attempt to eat nutritious foods, she should experience a safe gradual weight loss while nursing.

Remember to choose foods that are nutrient dense. Spend your extra calories wisely for added benefit for you and your baby. Calcium is again very important during lactation. If you are not taking enough in, your body takes from your own stores to give to your baby. This can lead to osteoporosis later in life.

Some babies do not tolerate certain foods that are eaten by mom, with flavors passed through to the breast milk. Chocolate, spicy foods and caffeine in some cases may be poorly tolerated by baby. The most likely foods to upset a breastfed baby are dairy products such as milk, cheese, yogurt, pudding or ice cream. Wheat, corn fish, eggs or peanuts can also upset a breastfed baby, along with foods with casein, whey or sodium caseinate,

Do not limit your diet because a baby may have a problem, but if you suspect a food eliminate it for at least one week to completely clear your system

If your baby is fussy, consider what you have eaten in the 6-24 hours prior to the baby becoming irritable.

Alcohol and nicotine are passed through breast-milk as they were through the placenta during pregnancy. Protect your baby by avoiding these substances. Additionally, you should be sure to tell your health care provider that you are breastfeeding when any medicine is being prescribed for you.

Other issues in pregnancy

Morning Sickness

Nausea and vomiting (usually resolves after the first 12 weeks of pregnancy)

Relief

- Eat frequent, small meals.
- Eat easy to digest starchy foods like plain pasta, crackers, potatoes, rice, fruit, and vegetables.
- Avoid spicy foods.
- Limit fried foods and foods with a lot of butter.
- Eat a snack before going to bed. Try foods like peanut butter on crackers or cold cereal and milk to help prevent morning sickness
- When you awaken in the morning, get up slowly.
- Drink beverages between meals rather than with meals.
- If you vomit more than twice a day talk with your health care provider.
- Get plenty of rest.
- Be careful of what you smell.
- Drink enough fluids - you could become dehydrated easily if vomiting occurs.
- Get plenty of rest.

Food Cravings

Food cravings and aversions to certain foods are common during pregnancy. There is no evidence that food cravings are the result of nutrient deficiencies, and their cause remains a mystery. There is no harm in satisfying food cravings within reason, especially when they make a nutritional contribution to the diet.

Some pregnant women have the urge to eat non-food items such as laundry starch and dirt. In some cases cravings involve consumption of large amounts of non-food items that displace food and interfere with adequate nutrient intake. You are not to eat non-food items and to discuss any non-food cravings with your health care provider.

Constipation

Recommended intake for fiber:

- DRI = 25 grams/day (g/d)
- Pregnant = 28 g/d
- Lactating = 29 g/d

You may experience occasional bouts of constipation during pregnancy. Constipation is caused by the relaxation and slowing down of your large intestine due to the continually expanding uterus.

Solutions

- Eat high fiber foods. Choose at least five daily servings of fruits and vegetables. Also try whole grain varieties of food items such as breads, cereals, rice, and pasta. Seeds, beans, lentils and nuts are also good sources of fiber.
- Drink at least eight cups of fluid per day.
- Try natural laxatives such as prunes or prune juice to alleviate symptoms.
- Only take chemical laxatives with permission from your health care provider.

Heartburn

During the final months of pregnancy, heartburn may become an issue. Heartburn becomes common as the growing baby puts pressure on the digestive organs.

Relief

- Eat small frequent meals.
- Go easy on highly seasoned, rich and fatty foods.
- Walk after eating or sit upright to promote the downward flow of gastric juices.
- Sleep with your head elevated.
- Wear comfortable clothes.

Following a healthy eating plan during pregnancy and lactation will have tremendous benefit to you and your baby. Make nutrition a top priority before, during, and after pregnancy!

Pregnancy and exercise guidelines

Many women feel the need to start an exercise program during pregnancy because of weight gain. If you did not exercise prior to pregnancy, consult with a fitness professional before you start a program.

In the absence of any complications and if you exercised prior to pregnancy, go ahead and continue with your routine. Realize that as you progress through your pregnancy, changes will have to be made for the safety of the mother and baby.

After the first trimester, avoid lying on your back. This can reduce the blood flow back to your heart.

Lactation requires a lot of energy. Many people believe that exercising while breast feeding decreases milk production and changes the composition of milk. This is not true. Milk volume, milk composition and maternal health are not affected by exercise. Breast feeding burns more calories (380-600 a day) so it is key to replace those calories with proper diet and even more so if you are doing a considerable amount of cardio workouts. Avoid eating empty calories and stick to a clean diet. DRINK LOTS OF WATER!

Mosquito Repellent During Pregnancy

Two types of Mosquito sprays have been registered with the EPA and are considered safe for pregnant and breast feeding women: DEET, Picaridin (30% concentration)

Sources:

- Babycenter.com > pregnancy > Nutrition & Weight > Eating Well
- American Pregnancy Association (americanpregnancy.org/pregnancy-health)
- Centers for Disease Control and Prevention

If you are a registered University of Illinois student and you have questions or concerns, or need to make an appointment, please call: **Dial-A-Nurse at 333-2700**

If you are concerned about any difference in your treatment plan and the information in this handout, you are advised to contact your health care provider.

Visit the McKinley Health Center Web site at: <http://www.mckinley.illinois.edu>