



# Special nutrient needs

Nutrients are important for a healthy pregnancy. Growing a healthy baby is like building a house — good materials make a strong house and the right nutrients make a strong, healthy baby. Here are some nutrients both you and your baby need:

**Iron** helps you produce extra red blood cells. Eating iron-rich foods helps prevent anemia. Iron deficiency increases your risk for premature delivery or delivery of a low birth weight baby.

*Best sources of iron: meats, dried beans and peas, dark green leafy vegetables, whole-grain or enriched breads, and fortified cereals.*

\*Check out pages 4 and 5 for specifics about iron.

**Folate** (also called **folacin** or **folic acid**): Your body needs folate to make new cells and genetic material. Folate also helps prevent unborn babies from developing neural tube defects, like spina bifida.

*Best sources of folate: dried beans and peas, peanuts, oranges and orange juice, strawberries, pineapple juice, dark leafy greens, broccoli, sweet corn, and beets. Folic acid, the synthetic form of folate, is found in enriched bread, pasta, crackers, breakfast cereal and rice.*

\*Check out page 6 and 7 for specifics about folate.

**Calcium** is needed for:

- Growing strong, healthy bones for you and your baby
- Keeping your teeth strong and healthy
- Helping your blood clot
- Keeping your nerves and muscles functioning properly

*Best sources of calcium: milk and milk foods (like cheese and yogurt), broccoli, greens (like collards, spinach, kale, mustard, dandelion and beets), and canned fish with bones (like salmon, herring, sardines and kippers).*

\*If you're lactose intolerant, check out page 8.

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## How nutrients help your baby

**Protein,  
Zinc**  
for growth and  
development

**Vitamin C**  
helps form  
healthy tissues

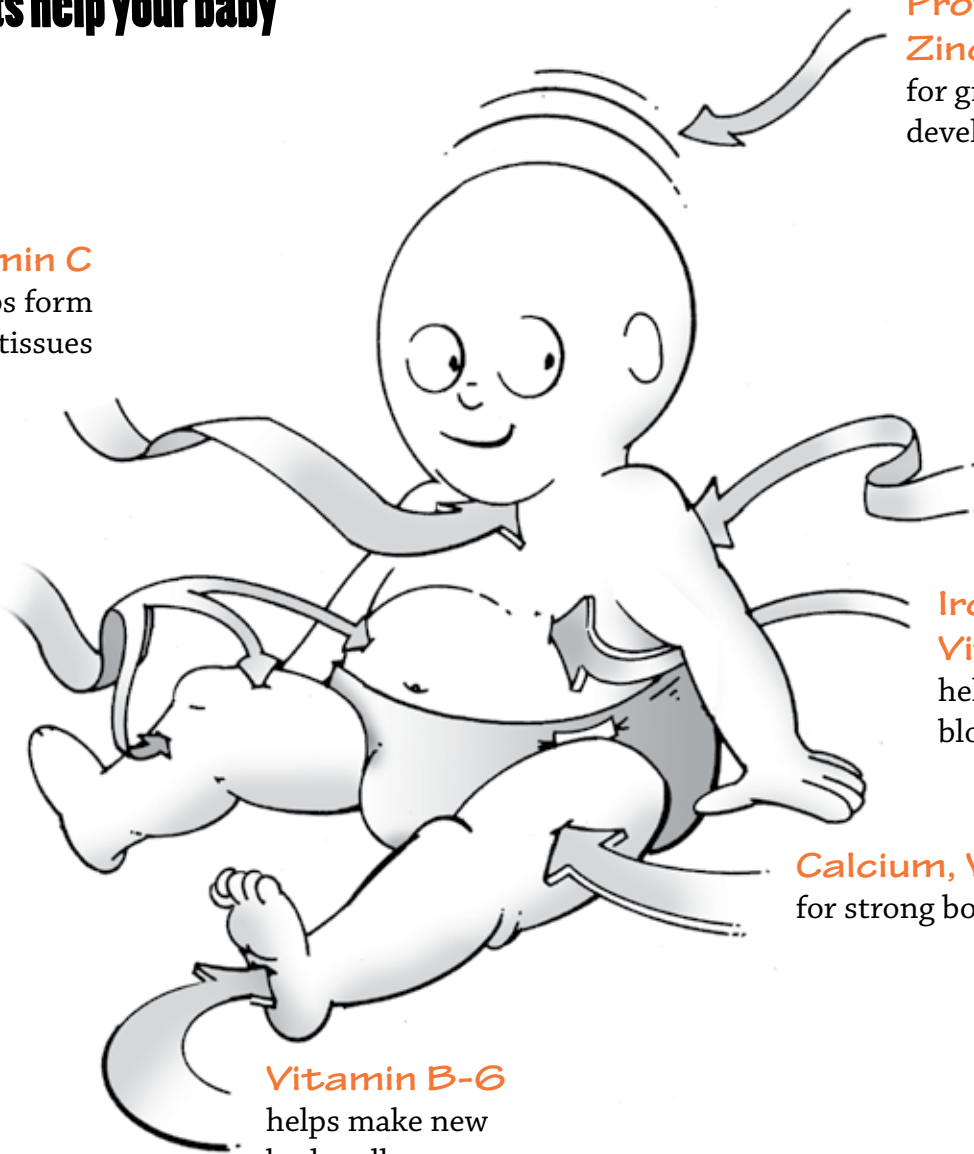
**Folate**  
for spinal  
health

**Vitamin A**  
helps body cells  
develop

**Iron,  
Vitamin B-12**  
help make red  
blood cells

**Calcium, Vitamin D**  
for strong bones

**Vitamin B-6**  
helps make new  
body cells



**Protein** foods have grow power. You need enough protein to support growth and development for you and your baby. Follow MyPyramid to help you get enough protein for you and your developing baby.

*Best sources of protein: lean meats, fish and poultry, eggs, milk, cheese and yogurt, dried beans and peas, nuts, seeds and peanut butter.*

**Vitamin B-6** helps protein make new body cells, so it is an important nutrient for you and your baby.

*Best sources of vitamin B-6: meats, eggs, dried peas and beans, bananas, avocados, watermelon, and dark leafy greens.*

**Vitamin B-12** helps prevent megaloblastic anemia.

*Best sources of vitamin B-12: animal foods like beef, ham, pork, turkey, chicken, salmon, tuna, milk, cheese, yogurt and egg yolk, and fortified breakfast cereals.*

**Vitamin A** keeps your skin and internal organs healthy. It helps the cells in your baby's body develop.

*Best sources of vitamin A: animal sources of preformed vitamin A include liver, egg yolks and milk. It is also found in cereal fortified with vitamin A.*

Your body converts beta carotene from plants into vitamin A in your body.

*Best sources of beta carotene are: red, yellow, orange and dark-green leafy vegetables like carrots, broccoli, winter squash, spinach, kale, tomatoes, apricots, sweet potatoes, red peppers, peaches, pumpkin, mango and cantaloupe.*

**Iodine** is part of a thyroid hormone that helps control the rate at which your body uses energy. Your need for iodine goes up during pregnancy and breast-feeding

*Best sources of iodine: iodized table salt, saltwater fish and foods grown near coastal areas where the soil is iodine-rich.*

**Zinc** is essential for your baby's growth and development. It helps with cell reproduction, tissue growth and tissue repair. A deficiency during pregnancy can result in birth defects.

*Best sources of zinc: meat, seafood and eggs are the best sources. Whole grains and dried beans and peas supply smaller amounts of zinc.*

**Vitamin C** helps your baby's tissues form, especially connective tissue, which holds muscles, bones and other tissues together. It helps keep your muscles, gums, skin and internal organs healthy, too. Vitamin C helps heal cuts and bruises. As a bonus, Vitamin C helps your body absorb more iron from the food you eat.

*Best sources of vitamin C: oranges, orange juice, strawberries, green peppers, broccoli, cantaloupe, potatoes, cabbage and spinach.*

**Vitamin D** is important for your body and for your developing baby because it helps the body absorb calcium and phosphorus, and helps deposit these two minerals into bones.

*Best sources of vitamin D: sunlight (your body can make vitamin D after exposure to sunlight), fortified milk and milk products, and fortified breakfast cereal. Few foods contain vitamin D naturally.*

# Iron: How to pump up your intake

## 1. Why do I need iron?

- You need iron for healthy blood.
- Iron + protein = hemoglobin.
- Hemoglobin helps carry oxygen to your tissues and to your baby. This improves your chance of having a healthy baby.
- When iron levels are low, our red blood cells can't carry as much oxygen. We may feel tired or weak.
- Babies, children, teens and women are more likely to have low-iron intakes than other people.

## 2. What if I need to take iron supplements when I'm pregnant?

Your health care provider may suggest vitamins with iron or a separate iron supplement. To make sure they are well absorbed:

- Take them at bedtime or between meals
- Drink juice or water (not milk, tea or coffee) with your supplement

Ask your health care provider for help if iron pills cause upset stomach or constipation.

## 3. How can I make sure the iron gets into my body?

Iron in animal foods like meat, fish and poultry is better absorbed than iron from plant foods or egg yolks. Here are some tips to help you better absorb the iron in your food:

- Eat a good source of vitamin C, like oranges, orange juice, broccoli, tomatoes or kiwi, with meals.
- Release the iron in whole grains, eggs, spinach and beans by eating meat or vitamin C-rich foods with them.
- Drink tea or coffee between meals, not with them.
- Don't eat chocolate or cocoa at the same meal with iron-rich foods.
- Limit yourself to one glass of milk with iron-rich meals.



### Try these food combinations:

- Orange juice with peanut butter sandwich on whole-grain bread
- Red beans and rice with ham chunks added
- Stir-fried vegetables and rice with a small amount of either beef or chicken
- Tuna salad sandwich on whole-wheat bread

Can you think of other combos?

## Counting iron in food

<b>Animal sources of iron</b>	<b>Iron (milligrams)</b>
Beef liver, braised (3 ounces)	5.8
Beef, lean sirloin, broiled (3 ounces)	2.9
Tuna, light canned (3 ounces)	2.7
Ground beef, lean broiled (3 ounces)	1.8
Pork tenderloin, lean roasted (3 ounces)	1.3
Chicken breast, skinless roasted (3 ounces)	1.0
Salmon, canned with bones (3 ounces)	0.7
Egg yolk, large cooked (1)	0.7
Cod, broiled (3 ounces)	0.4
<b>Plant sources of iron</b>	<b>Iron (milligrams)</b>
Breakfast cereal, fortified (1 cup)*	4.5-18
Pumpkin seeds (1 ounce)	4.25
Soybean nuts, toasted (½ cup)	4.0
Bran (½ cup)	3.5
Blackstrap molasses (1 tablespoon)	3.5
Spinach, cooked (½ cup)	3.2
Kidney beans, cooked (½ cup)	2.6
Lima beans, cooked (½ cup)	2.5
Prune juice (¾ cup)	2.3
Pretzels, enriched (1 ounce)	1.3
Rice, enriched, cooked (½ cup)	1.2
Raisins, seedless (1/3 cup)	1.1
Prunes, dried (5)	1.1
Whole-wheat bread, enriched (1 slice)	0.9
Green beans, cooked (½ cup)	0.8
White bread, enriched (1 slice)	0.7
Peanut butter, chunky (2 tablespoons)	0.6
Apricots, dried (3)	0.6
Rice, unenriched (½ cup)	0.3

\* amount varies – read the Nutrition Facts label

# Give your baby a boost with folate

## Why is folate important for my baby?

- Your body needs folate to make new cells and genetic material.
- In the first four to six weeks of pregnancy, folate helps develop the neural tube, which becomes your baby's spinal cord, brain and skull.
- Getting enough folate reduces the risk of neural tube birth defects (NTDs) like spina bifida (SPI-na BIF-i-da) and anencephaly (an-en-CEPH-a-ly). An NTD occurs when the neural tube fails to close properly, leaving the developing brain or spinal cord exposed to the amniotic fluid. NTDs are very serious conditions.

## When do I need folate?

- NTDs occur early in pregnancy. All women capable of becoming pregnant should consume 400 micrograms of folate daily.
- Starting to take folate after you find out you are pregnant may be too late.

## How much folate do I need?

- During your pregnancy, 600 micrograms of folate is needed.
- Although many foods contain folate, you may need to take a supplement containing folic acid, the synthetic form of folate.
- Talk to your health care provider about taking a supplement containing folic acid. Be sure to tell your doctor if you have a family history of birth defects.

## What foods are good sources of folate?

- Foods rich in folate include citrus fruits and juices, dark-green leafy vegetables, nuts, beans, liver and some fortified cereals (check the label).
- Since 1998, refined-grain foods like bread, white rice and pasta are fortified with folic acid (a synthetic form of folate).

## Start your day with a folate-rich breakfast:

- Have a bowl of fortified cereal with milk and  $\frac{3}{4}$  cup of orange juice. This will give you half the folate you need for the day.



<b>Food</b>	<b>Folate (micrograms)</b>
Spinach, cooked (½ cup)	130
Navy beans, cooked (½ cup)	125
Asparagus (½ cup)	120
Brussels sprouts (½ cup)	102
Cantaloupe (½ cup)	100
Breakfast cereals (1 cup)	100-400
Oatmeal (½ cup)	97
Wheat germ (½ cup)	90
Orange juice (1 cup)	87
Romaine lettuce (1 cup)	86
Lima beans (½ cup)	71
Peas (½ cup)	70
Avocado (½ whole)	55
Orange (1 medium)	45
Collard greens, cooked (½ cup)	56
Sweet potato (½ cup)	43
Broccoli (½ cup)	43
Peanuts, dried (1 ounce)	30
Folic acid is added to refined grains. One slice of bread and ½ cup rice or pasta each contains about 40 micrograms of folic acid.	

### Did you know?

You can reduce your baby's risk of developing a neural tube defect (NTD) by making sure you get enough folate in your diet.

In the first four to six weeks of pregnancy, the developing baby's neural tube forms and then closes. The neural tube later becomes the baby's spinal cord, brain and skull.

An NTD occurs when the neural tube fails to close properly, leaving the developing brain or spinal cord exposed to the amniotic fluid. NTDs are very serious conditions, so it's important to get plenty of folate before you get pregnant and early in your pregnancy.

### Plan your meals with folate

Use this space to plan a meal containing at least 150 micrograms of folate. Include foods you like to eat.

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# What if I'm lactose intolerant?



## **How do I know if I am lactose intolerant?**

People who are lactose intolerant have nausea, stomach pain, cramps, diarrhea and gas when they eat or drink dairy foods like milk. The reason for this is that milk naturally contains a sugar they can't digest. The undigested sugar causes these uncomfortable symptoms.

## **If I have these symptoms, should I give up drinking milk?**

If you think you are lactose intolerant, check with your health care provider before making any changes. Your symptoms could be caused by something else.

## **If I am diagnosed with lactose intolerance, how can I get enough calcium?**

Lactose intolerance is not a reason to give up dairy foods! Most people who are lactose intolerant can include dairy foods in their meals and snacks. Use the tips below to help.

### **If you're lactose intolerant:**

- Eat or drink smaller portions of dairy foods, like  $\frac{1}{2}$  or  $\frac{3}{4}$  cup instead of 1 cup of milk. Have smaller portions more frequently to make sure you get enough calcium.
- Eat dairy foods with other foods, not alone. Cereal with milk may be easier to tolerate than a plain glass of milk.
- Choose calcium-rich foods that are lower in lactose, like cheddar, Swiss or colby cheese.
- Have low-fat yogurt or buttermilk — they are easier to digest than milk.
- Eat other calcium-rich foods like broccoli, dark leafy greens, calcium-fortified orange juice and canned salmon or sardines. (Remember to eat the bones in canned fish to get the calcium.) Read the label! Boneless canned salmon or salmon in foil packages are not a good source of calcium.
- Drink lactose-reduced or lactose-free milk and other dairy foods. Most grocery stores carry these products.

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For more information, call MU Extension's Show Me Nutrition line at 1-888-515-0016.

Running out of money for food? Contact your local food stamp office or go online to [dss.mo.gov/fsd/fstamp](http://dss.mo.gov/fsd/fstamp).