



**F**olic acid is an important vitamin for all adults. It is especially crucial for women in their childbearing years since it helps prevent birth defects. Taking a daily multivitamin is a great way to get the amount of folic acid most people need to stay healthy.

### What is folic acid and what are the benefits of taking it?

Folic acid is a B vitamin, also known as vitamin B-9 or folate. It promotes good health for all adults in a number of ways, including by helping the body make healthy red blood cells. Consuming enough folic acid can reduce the risk of heart disease, stroke, and some cancers, such as colon cancer.

### What are the benefits of taking folic acid before becoming pregnant?

Studies show that taking folic acid can improve your chances of having a healthy baby. It can help reduce the risk of certain kinds of birth defects, called “neural tube defects” (NTDs). NTDs affect the developing baby’s brain and spinal cord.

It is best to start taking your multivitamin or prenatal vitamin 3 months before you become pregnant. This is because your baby’s brain and spine may begin forming even before you know for sure that you are pregnant. The neural tube is a structure that forms the brain and spine very early in pregnancy (about 3 to 4 weeks after you became pregnant). If your body has an adequate amount of folic acid before you become pregnant, the neural tube usually forms normally. If your body is deficient in folic acid, neural tube defects may occur. Neural tube defects are serious birth defects of the spine and brain.

The two most common neural tube defects are spina bifida and anencephaly.

- **Spina bifida:** In this condition, the developing baby’s spinal cord does not close properly. Some of the blood vessels and nerves are outside the body, rather than protected by the skin. Damage to the nerves can cause weakness or loss of feeling in the legs and other problems like trouble going to the bathroom normally. Babies born with spina bifida may have lifelong disabilities, but not all will have the exact same level of difficulties.

- **Anencephaly:** This is the most severe form of NTD, and it is rare. It occurs when the brain and the top of the skull do not develop normally. Babies with anencephaly may die before birth or be stillborn (born dead). Babies with anencephaly cannot survive after birth.

The seriousness of these birth defects is why it so important to get enough folic acid before you become pregnant.

### How do I know if I am getting enough folic acid in my diet?

The easiest way to make sure that you are getting enough of this important vitamin is to take a multivitamin containing at least 400 micrograms (0.4 mcg) of folic acid every day, whether you are planning a pregnancy or not. It does not matter if you take a “prenatal” vitamin or a “multivitamin,” as long as it contains at least 400 micrograms of folic acid.

New studies show that even women who think they get enough folic acid with food really don’t. They still need a multivitamin to prevent NTDs.

### What foods contain folic acid?

Eating a healthy, well-balanced diet is good for your health and helps provide you with folic acid, too. Leafy green vegetables like spinach and broccoli, citrus fruits and fruit juices like orange juice, and dried beans and legumes such as black beans and lentils contain the natural form of folic acid. Many foods, including breakfast cereals, whole wheat breads, pasta, and flour are now fortified with folic acid. To make sure you are getting enough folic acid every day, doctors recommend a multivitamin with folic acid in addition to a healthy diet.

## Who is at risk for having a baby with an NTD?

Every woman has at least a small chance of having a baby with a neural tube defect (NTD). Some women have a higher than average risk of having a baby with these kinds of birth defects.

These include women who...

- are taking certain medications, such as Tegretol and Depakote which are sometimes prescribed to control seizures (convulsions), and to treat other conditions
- have insulin-dependent diabetes
- have an NTD themselves, or have a paternal partner (the father of the baby) with an NTD
- are obese
- are Hispanic
- have had a pregnancy affected by an NTD

It is even more important for these women to make sure they are taking a multivitamin with at least 400 micrograms (0.4 mcg) of folic acid every day. Many of these women may even need to take extra folic acid.

Be sure to talk to your doctor or other health care professional about whether you are at higher than average risk of having a baby with an NTD and how much folic acid you should take.

## How do I know if I need extra folic acid?

Women who have had a pregnancy affected by an NTD need to take higher amounts of folic acid during

pregnancy. If this has happened to you, you need to take 4 milligrams of folic acid every day. In this situation, it is best to take a vitamin containing only folic acid to be sure you are getting the right amount.

## When should I take folic acid?

Any woman of childbearing age (15 to 45 years old) should take folic acid every day. If you are planning on getting pregnant, consuming folic acid is especially important. Half of all pregnancies are “surprises,” so we advise all women ages 15 to 45 to take a multivitamin every day. Because the baby’s neural tube can form before you know that you are pregnant, taking folic acid is the best way to help ensure that you have a healthy baby.

If you don’t already take a multivitamin with folic acid every day, start at least 3 months before becoming pregnant. Keep taking folic acid throughout your pregnancy and breastfeeding. This will give you the best protection against neural tube defects.

If a neural tube defect has already occurred in a developing baby, taking folic acid will not fix the problem. Even so, if you find out that you are pregnant and are not already taking a multivitamin with folic acid, start taking it right away.

## How can I remember to take a multivitamin every day?

Routines are easier to establish when they are easy to do. So try to keep

your new multivitamin habit simple. Try to combine taking your vitamins with something else you do every day.

For example, take one multivitamin with folic acid around the same time that you:

- brush your teeth
- get ready for bed
- read the morning paper

If your multivitamin upsets your stomach, try taking it with food or before bedtime. You might also try taking a vitamin containing only folic acid.

## Other resources

Visit [kp.org/mydoctor](http://kp.org/mydoctor) to:

- View most lab results and check your preventive health reminders
  - Email your doctor
  - Use interactive online tools to help keep you and your family healthy
- Contact your Kaiser Permanente Health Education Center or Department for books, videos, classes, and additional resources.
- American College of Obstetricians and Gynecologists at [acog.org](http://acog.org)
  - March of Dimes at [marchofdimes.com](http://marchofdimes.com)
  - Centers for Disease Control at [cdc.gov](http://cdc.gov)
  - Your health and your pregnancy can be seriously affected by violence or abuse. If you are hit, hurt or threatened by a partner or spouse, there is help. Contact the National Domestic Violence Hotline at 1-800-799-7233 or connect to [ndvh.org](http://ndvh.org)

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