



# ARTICLE - WOMEN NEED FOLIC ACID DURING PREGNANCY

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**Abstract:** Folic acid is part of the B group of vitamins specifically, B9. It occurs naturally in our body, and the natural form is called folate. For the mother, folate is especially important as it is responsible for the development of blood cells, it reduces incidents of certain types of anaemia. And with the right hemoglobin levels, a pregnant mother can nourish the developing foetus well. All this helps in reducing the chances of IUGR (Intrauterine Growth Retardation) in the baby. Folate supplements also help the mother manage pregnancy symptoms such as tiredness and fatigue better.

**Key words:** Folic Acid, Pregnancy, Fetal Development, Spina Bifida

**Introduction:** During pregnancy, the baby develops rapidly and hence needs nutrients in the right proportion. If folate is deficient in the mother, it can lead to complications in the mother and defects in the baby as well. Folate is important during the pre-conception and early pregnancy phase because this is when the foetus develops spine and nerve cells. Deficiency can lead to neural tube defects or malformation of the spine in the developing baby – known as spina bifida – it has a life-long impact on the child. Since many times a woman may not realise that she is pregnant, all women who are of the child bearing age or are planning a baby are advised to take folic acid supplements. (Read: Symptoms of pregnancy)

If you are planning to conceive in the near future, it is advised that you ideally have supplements three months prior to conception and then for the first three months of pregnancy. (Read: Vitamin D supplements good for pregnant women)

## **HOW MUCH IS TOO MUCH:**

Ideally, folate supplements should be taken along with B12 supplements for optimum absorption, and to prevent any nerve damage – a common side effect of B12 deficiency. That being said, do not try to self-medicate, it is best to take the supplement under guidance of a doctor or a certified nutritionist, since the doses have to be tailor-made for you. For example: The dose for pregnant mums is much higher than that of a normal adult. In comparison, for adults over 50 years of age, a lower dose may be recommended.

## **TOO MUCH OF A GOOD THING, CAN BE BAD FOR YOU**

The positive effects of taking the supplement far outweigh the ill-effects; even so, there are a few things that everybody should know. As mentioned above, if folate is not taken with complementary supplements, it can lead to nerve damage. Other possible symptoms are – a drop in blood sugar, sleep problems, skin reactions and seizures. These symptoms are only seen with an intake of very high doses, since folic acid is a water soluble vitamin and gets washed out of the system without being stored in the body. There by reducing the chances of toxicity.

## **WHEN TO DISCONTINUE**

Pregnant mums can stop as per the doctor's recommendation. Some physicians discontinue it once the mother has completed twelve weeks of pregnancy, while some prefer to keep the supplement going for the full term of pregnancy.

## **Nature has its own supplements, give them a try**

There are foods like green leafy vegetables, dried herbs, sunflower seeds, peanuts, bean sprouts, beans, soybean and liver, that are great sources of natural folate. That being said, one would need a nutritionist's help to determine the amount and method of eating these vegetables to get the amount of folate required. Since pregnancy is such a crucial time for both the mother and the baby, it is best not to take a risk and use supplements with your doctor's advice. (Read: 7 weird cravings during pregnancy)

## **What is folic acid and why do it is needed during pregnancy**

Folic acid is one of the B vitamins. It occurs naturally as folate in foods like pulses (dals) and green vegetables.

Your body needs folic acid to produce red blood cells and DNA (the body's genetic material). Folic acid is also important for the brain, nervous system and spinal fluid. It can prevent your baby from developing a neural tube defect (NTD) such as spina bifida.

It's good to eat as much folate-rich food as you can. But even if you eat a balanced diet, it's hard to get the amount you need from your food. This is why doctors recommend taking a

supplement. The risk to your baby from folic acid deficiency is much greater than any inconvenience you might feel in taking a supplement.

### **Need of folic acid during pregnancy:**

If you are thinking about pregnancy or in the first trimester of pregnancy, you are advised to take a daily supplement of 4mg of folic acid and eat a diet rich in folates. This will help protect your baby from birth defects, and reduce your risk of miscarriage.

You should start taking a folic acid supplement as soon as you decide to try for a baby, up to three months before you conceive. Carry on taking it (along with iron supplements) throughout pregnancy and for the first six months of breastfeeding.

If you have had a child with a NTD, your doctor may prescribe a much higher daily dose of folic acid. This is because you are at greater risk of having further children with a NTD.

### **Foods substance containing the most folic acid:**

It's a good idea to eat foods rich in folate as well as taking folic acid supplements to make sure you're getting the recommended amount. These foods will be packed with all sorts of other nutrients as well that are good for you and your baby.



### **Here are some foods with lots of folate for you to try:**

- a large orange (contains 54mcg of folate)
- a large hard-boiled egg (22mcg)
- a medium papaya (115mcg)
- 1/2 cup of chickpeas or chhole (140mcg)
- 1/2 cup of cooked spinach (130mcg)
- 3/4 cup of cooked white rice (60mcg)
- 1 cup of tomato juice (50mcg)

- 1/2 cup of lentils, cooked (175mcg)
- 1 cup of noodles, cooked (160mcg)
- four tablespoons of black-eyed beans (220mcg)
- 1/2 cup of kidney beans or rajma (115mcg)
- seven tablespoons of bran flakes (113mcg)
- 25g/1oz of wheat germ (100mcg)
- two spears of steamed broccoli (61mcg)
- a large jacket potato (39mcg)

### **Other sources:**

- **Vegetables:** Leafy green vegetables are a good source, so try to have fenugreek (methi) or raddish leaves or spinach daily. Other folate-rich vegetables are peas, corn, cauliflower, green pepper, beetroot, mustard greens and ladyfinger.
- **Nuts** such as almonds, cashew nuts, peanuts, walnuts and sesame seeds.
- **Legumes** such as soya bean, lobia, kidney beans, dried peas, chickpeas and lentils.
- **Fruits** such as strawberries, honeydew or cantaloupe melons, bananas, pineapple, papaya, oranges and raspberries.
- **Grains** Whole grain flour and pasta, wholemeal bread and oats.

*As well as taking a supplement, you could make a few small changes to your diet:*

- Include orange juice at breakfast or chopped fruit with your breakfast cereal.
- Choose a bowl of fruit salad at snack time.
- Include a serving of stir-fried vegetables in sesame oil at dinner time.
- Check out these folate enriched recipes.

Note: The folic acid in foods is delicate and can be destroyed by cooking. Try to cook in a covered pan with the minimum amount of boiling water. Eat vegetables lightly steamed, microwaved, or raw.

### **How will I know about folic acid deficiency**

Folate-deficiency anaemia and iron-deficiency anaemia can have similar symptoms of fatigue and weakness. A mild folate deficiency may also leave you grumpy or edgy. You could also have digestive disorders such as diarrhoea, loss of appetite, weight loss, sore tongue, headaches, heart palpitations, irritability, forgetfulness or other behavioural disorders.

Many of these symptoms are general and could be caused by other medical conditions. If you have any concerns about your health and your diet, speak to your doctor, who may refer you to a dietitian.

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