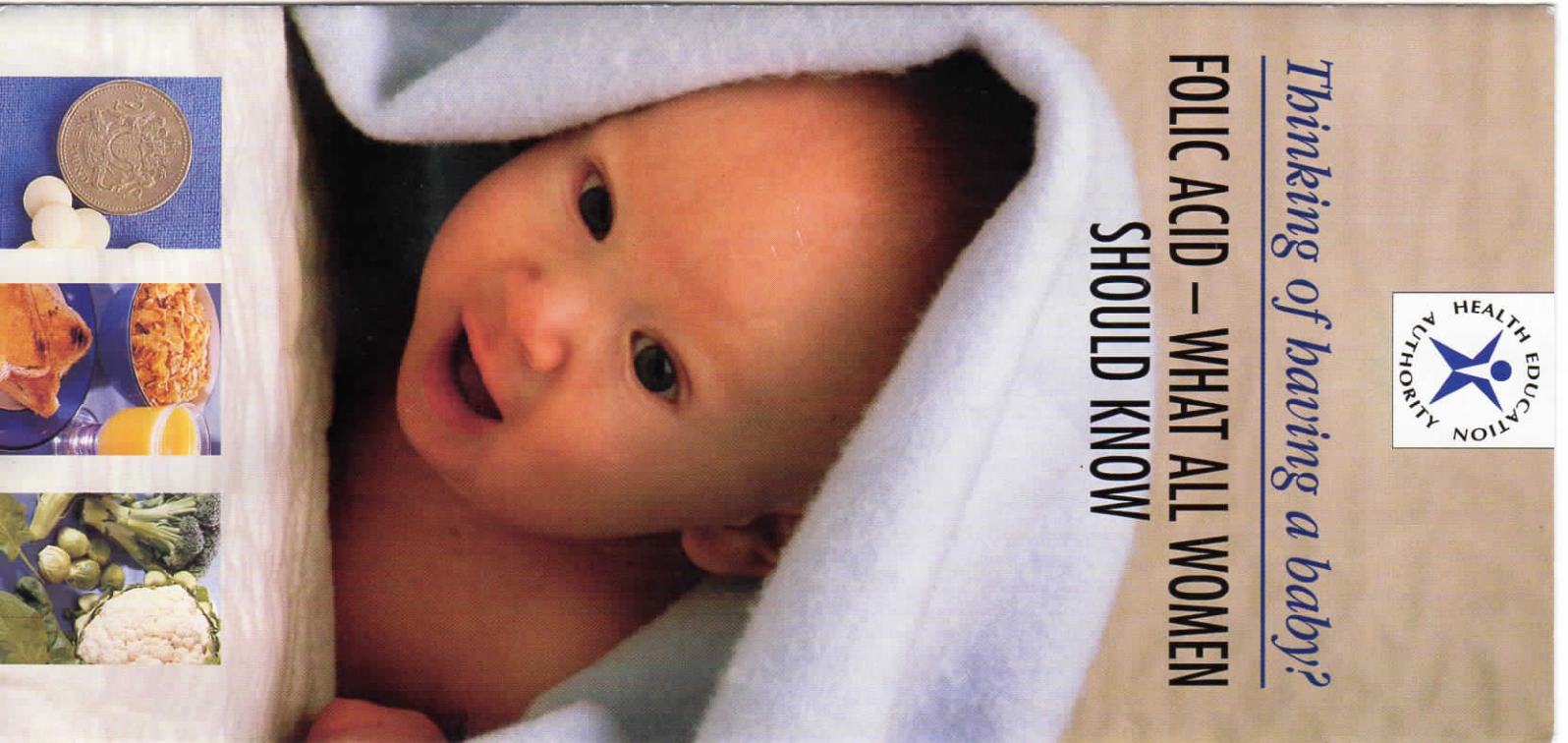




*Thinking of having a baby?*

**FOLIC ACID – WHAT ALL WOMEN  
SHOULD KNOW**



A close-up, black and white photograph of a baby's face, showing the eyes, nose, and mouth. The baby is looking directly at the camera with a neutral expression.

## SPINA BIFIDA AND OTHER NEURAL TUBE DEFECTS

Every woman, even before she's pregnant, wants her baby to be healthy.

No one likes to think that anything will happen to their baby.

But every day in England and Wales, at least two babies are conceived with neural tube defects such as spina bifida.

Spina bifida and other neural tube defects are caused when the neural tube, which goes on to become the baby's spine, does not form properly. With spina bifida, for example, one or more of the bones in the spine fails to develop properly and leaves a gap, meaning that the spinal cord and nerves are damaged. This affects babies in different ways, but could mean a future of dependence on other people, being unable to walk or control their bladder.

Potentially, everyone's baby is at risk:

- whatever your age
- whether you are a first-time mother or have already got healthy children
- even if spina bifida doesn't run in your family and you are in the best of health

## YOU CAN HELP PROTECT YOUR BABY AGAINST SPINA BIFIDA IF YOU ACT BEFORE YOU GET PREGNANT

Fortunately, there is something you can do to give your child the best possible chance of not having a neural tube defect.

Research shows that a B vitamin called folic acid can greatly reduce the chance of a baby being born with neural tube defects by helping to make sure that the spine develops properly. Medical studies have shown that women who increase their intake of folic acid at the time their baby's spine is forming reduce the risk of having a baby with these conditions.

The simplest way to make sure you get enough folic acid to benefit your baby is to take a folic acid supplement every day. They are easy to find in pharmacies, health food shops and most supermarkets and cost around one pound for one month's supply. They are also easy to take.

**A folic acid supplement is important because, although folic acid can be found in many foods you may eat every day, it would be very difficult to get enough to help protect your baby from spina bifida through your normal daily diet alone.**



### WHAT YOU NEED TO KNOW ABOUT FOLIC ACID

#### ► What is folic acid?

Folic acid is a B vitamin. It is available as a supplement and is also used to fortify some foods, such as bread and breakfast cereals (you can tell which ones by looking at the label). Folic acid is also known as folate when it occurs naturally in a variety of foods such as brussels sprouts, green beans, oranges and yeast and beef extracts.

#### ► How do you get enough folic acid?

To protect your baby against neural tube defects like spina bifida, you need more folic acid than you can get from your daily diet – in fact, it is estimated that you need three times the amount you could normally expect to eat in one day.

Because of this doctors and other health professionals recommend that if you could become pregnant, you should do three things:

- take a 400 microgram folic acid supplement (this may also be written as 400 mcg, 400 µg or 0.4 mg)
- choose breads and breakfast cereals which have added folic acid ('fortified' breads and cereals). Look for information about this on the label
- eat more of the foods which are naturally high in folic acid and do not overcook them.

Multivitamin supplements may also contain some folic acid but are likely to contain less than you need. Do not be tempted to take more of these to give you the right amount of folic acid, as you may end up taking too much of other vitamins and minerals. **The best way is to take a supplement which contains 400mcg folic acid only.**

#### ► When is the right time to start taking extra folic acid?

From the time you stop using contraception until the twelfth week of pregnancy. Doctors and other health professionals recommend that if you could become pregnant, whether you are trying for a baby or not, you should take a supplement of 400 mcg of folic acid each day. This is because it is difficult to tell exactly when you conceive. Some of the most vital developments in your baby, including the development of your baby's spine, take place very soon after conception, even before you realise that you are pregnant.



NUTRITION INFORMATION			
	per 100g	per 100g	per 100g
ENERGY	kJ	1550	700*
	kcal	370	170
PROTEIN	g	7	6
CARBOHYDRATE	g	85	31
(of which sugar)	g	80	30
FAT	g	0.5	0.2
(of which saturated)	g	0.2	0.1
FIBRE	g	2.5	0.8
SODIUM	g	1.1	0.4
VITAMINS			
VITAMIN D	µg	4.2 (85)	1.3 (25)
THIAMIN (B1)	mg	1.2 (85)	0.4 (80)
RIBOFLOVIN (B2)	mg	1.3 (85)	0.6 (80)
NICOTINIC ACID (B3)	mg	15 (85)	4.6 (25)
VITAMIN B6	mg	1.2 (85)	0.4 (80)
<b>FOLIC ACID</b>	µg	<b>333 (85)</b>	<b>110 (85)</b>
VITAMIN B12	µg	0.5 (85)	0.2 (75)
IRON	mg	7.9 (85)	2.4 (17)

note: the percentage RDA (recommended daily amount) applies to the general population. Women planning a pregnancy and up to 12 weeks of pregnancy have a higher RDA, so please choose foods by the level of folic acid and not by the percentage RDA.

So you need to take a folic acid supplement from the time you stop using contraception until the twelfth week of pregnancy to make sure you have enough folic acid in your body at the right time.

#### ► Is a folic acid supplement really necessary?

Yes it is because it would be very difficult to eat enough of the foods which contain folic acid every day to give you the amount needed to help prevent neural tube defects. For example, you would need to eat five portions of brussels sprouts every day to get enough.

Even then you could not be sure because folic acid is lost when food is stored for a long time. Folic acid is also destroyed when food is cooked, especially if vegetables are boiled for a long time.

**So the only way to be sure that you are getting the right amount to help protect your baby is to take a 400 mcg folic acid supplement.**

#### ► Can folic acid be harmful?

No. All the research shows that folic acid has no side-effects in women of child-bearing age, even if they take it for many years. It is one of the vitamins that your body gets rid of naturally if you take more than you need.

Always ask for advice from a doctor or pharmacist if you are already taking any medicine. If you suffer from epilepsy and are planning a pregnancy, it is particularly important to get advice.

#### ► What if I'm already pregnant?

If you find out you are pregnant, you should start taking folic acid supplements straight away and continue doing so until the end of your twelfth week of pregnancy.



There is no need to continue taking a supplement beyond this time. Please do not worry if you are more than twelve weeks pregnant and have not taken folic acid – remember that most babies are born in perfect health.

► **Where can you get supplements?**

You can buy folic acid supplements from pharmacies, health food stores and most supermarkets. It is also possible to get folic acid supplements on prescription. However, it is usually cheaper to buy them unless you qualify for free prescriptions. Folic acid supplements are small, easy to take, and you only need one tablet a day of the right strength (400 mcg).

There are different brands of folic acid supplements, so you have a choice. Make sure you get one that contains the right amount, that is 400 mcg, and remember that supplements which contain folic acid only are the best.

**We don't know how to prevent all birth defects but we do know how to reduce the risk of neural tube defects like spina bifida. By following the advice in this leaflet, you can reduce the risk to your baby.**



**FOODS HIGH IN FOLIC ACID\* (50mcg per serving and above)**

Cooked black eyed beans, brussels sprouts, beef extract, yeast extract, cooked kidney, kale, spinach, granary bread, spring greens, broccoli, green beans.



**FOODS WITH MEDIUM FOLIC ACID CONTENT\* (15-50mcg per serving)**

Cooked soya beans, cauliflower, cooked chick peas, potatoes, iceberg lettuce, oranges, peas, orange juice, parsnips, baked beans, wholemeal bread, cabbage, yogurt, white bread, eggs, brown rice, wholegrain pasta.



**FOODS FORTIFIED WITH FOLIC ACID**

**Bread:** most supermarket chains stock one own-label soft grain bread which is fortified with folic acid. A 2 slice serving of one of these will provide approximately 90mcg of folic acid. A few leading brands of bread are also fortified.



**Cereals:** many cereals are fortified but to widely different levels so it is important to always check the label. Some have over 100mcg per 30g serving.



\* Warning: liver is rich in folic acid but you should not eat it if you are pregnant or planning to become pregnant because it also contains high levels of vitamin A which could harm your baby.



\*\* Remember over-cooking destroys folic acid

\*In order of folic acid content per serving

**A note on serving sizes**

For the purposes of this table, folic acid content has been calculated according to the average portion size for that food. For most green vegetables for example, this is 90g, but is 175g for potatoes and 70g for peas. Bread is estimated on the basis of 2 slices, rice 180g and beef and yeast extract on a level teaspoon.

References: Food Portion Sizes, 1993, MAF; The Composition of Food, McCance & Widdowson, 5th Edition; Folic Acid and the Prevention of Neural Tube Defects, Report from an Expert Advisory Group – Department of Health, Scottish Office Home & Health Department, Welsh Office, Department of Health and Social Services, Northern Ireland.

**Ask your pharmacist or family doctor to give you advice if:**

- you're still not sure about the advice in this leaflet
- you're already pregnant
- you're already taking medicine prescribed by your doctor, especially if it is to treat epilepsy
- if you have spina bifida or there is a history of spina bifida or another neural tube defect in your family or that of your partner.

**You can get further information about folic acid and planning a pregnancy from:**

- Your family doctor, practice nurse, health visitor or pharmacist
- the Health Information Service free phone line 0800 66 55 44.

**For further information about spina bifida contact:**

The Association for Spina Bifida and Hydrocephalus (ASBAH)  
 ASBAH House  
 42 Park Road  
 Peterborough  
 PE1 2UQ  
 Tel: 01733 555988.



**FOLIC ACID – AN ESSENTIAL INGREDIENT IN MAKING BABIES**

*This leaflet is produced by the Health Education Authority and funded by the Department of Health*

© Health Education Authority 1996 ISBN 0 7521 0578 7

Printed in Great Britain 1.5m 1/96

Food photography: David Munn  
 Other photography (except cover): Sally and Richard Greenhill  
 Design: Amanda Barragry Design

