

What prenatal tests are available to detect neural tube defects?

1. Second trimester screening

A **blood screening test** during pregnancy which can help detect a fetus that may be at **increased risk** of a neural tube defect.

This screening test is:

- a **blood test** taken from the mother during pregnancy to measure the levels of a special protein called alpha-fetoprotein.
- ideally carried out at **15 – 16 weeks** of pregnancy and certainly before 18 weeks.
- harmless to the mother and the fetus.
- available to **all** pregnant women of **all** ages.

It is **very important to be certain of the dates of the pregnancy** for the screening test to be as accurate as possible. An ultrasound scan might be used to date the pregnancy.

If the result shows an **increased risk**, then your doctor will be able to recommend a **diagnostic** test such as a detailed **ultrasound examination of the baby's spine**.

2. Ultrasound

The ultrasound scan is a picture of the baby in the uterus (womb). Ultrasound can be used to screen for neural tube defects in women who have had an increase risk result from their second trimester maternal serum screening test and can be done at 16-18 weeks of pregnancy.

It is recommended that all women have an ultrasound by a qualified practitioner at 18-20 weeks of pregnancy regardless of their risk status.

Remember

To help prevent a neural tube defect in your baby it is important to take **folic acid 0.5mg** for at **least one month before pregnancy and during the first three months of pregnancy**.

For more information contact:

Your GP

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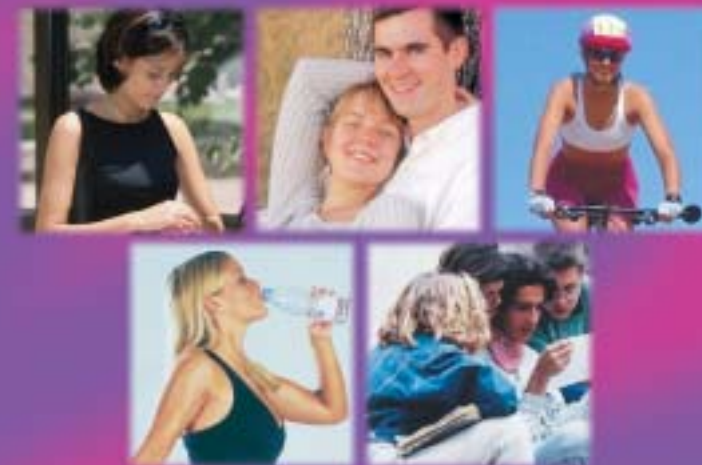


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Prevention of Spina Bifida

and other Neural Tube Defects



Taking the vitamin FOLIC ACID 0.5mg every day for at least one month before pregnancy and during the first three months of pregnancy can help to prevent up to 70% of these defects.



Neural Tube Defects – *birth defects of the spine, spinal cord, brain and skull.*

Within the first 28 days of pregnancy, the baby's brain and spine develop from a neural tube. Messages from the brain are carried to different parts of the body through the spinal column. Spina bifida is caused by the failure of the neural tube to develop properly ('neural tube defects'). A gap or split in the neural tube will damage the central nervous system. Related defects are anencephaly (the absence of a brain) and encephalocele (a malformation of the brain and skull).

More than half of the babies with neural tube defects are either stillborn or die shortly after birth.

How common are neural tube defects?

Neural tube defects:

- Since 1996, neural tube defects occur in one in every 700 births.
- By taking folate supplements, the number of babies with neural tube defects can be reduced by a further 50%.

More than 95% of neural tube defects occur when there is no previous family history.

What is the role of folic acid in preventing neural tube defects?

Folic acid, also called folate, is a vitamin that can help to prevent up to 70% of neural tube defects. However, folic acid does not prevent all neural tube defects.

Folic acid supplementation may also decrease the incidence of some other birth defects such as cleft lip and palate.

Who needs folic acid and how much?

Women of childbearing age, especially those planning a pregnancy, need to have 0.5mg folic acid every day for at least one month before and during the first three months of pregnancy. A daily intake of 0.5 milligrams (mg) of folic acid is the same as 500 micrograms (µg).

However, women who have:

- spina bifida themselves;
- a close relative who has had a child with a neural tube defect; or
- take anti-convulsive drugs for epilepsy;

Need to speak to their doctor before pregnancy.

They may need to take a different amount of folic acid.

What else do you need to know?

Folate occurs naturally in foods such as broccoli, spinach, salad greens, chick peas, nuts, orange juice, some fruits and wholegrain breads and cereals.

- Some breakfast cereals, breads, juices and milk are fortified with folic acid – that is, they have extra folic acid added to them. Check the product contents table on the package for details.

- It can be hard to get enough folate from food alone. It is therefore recommended that you take a folic acid supplement of 0.5mg a day. Folic acid is available from your pharmacy, without prescription and health food stores as a single supplement, and it is not expensive.

What are the different types of neural tube defects?

There are three types of Neural Tube Defects:

- 1. Spina bifida** is a condition where part of the spinal cord and/or the immediate covering of the spinal cord protrudes through a gap in the spine.
 - About half of the babies with spina bifida are stillborn or die shortly after birth.
 - Depending on the size of the defect and where it occurs on the back, there may be problems which include: leg weakness; lack of feeling in the legs; lack of bowel or bladder control; dislocated hips; and curvature of the spine.
 - Many babies have hydrocephalus (excess fluid in and around the brain). This condition can be treated by a shunt (a tube from the brain to the abdomen or a large blood vessel to drain away the excess fluid).
- 2. Anencephaly** is a condition which results in the abnormal development of the brain and skull. The face is usually normal. Babies with this condition are either stillborn or die shortly after birth.
- 3. Encephalocele** is a condition where part of the brain and/or its covering protrudes through a gap in the skull.

Anencephaly and spina bifida occur in roughly equal numbers; encephaloceles are rare.