

Fact Sheet 9



Folate before pregnancy - the prevention of Neural Tube Defects

What are Neural Tube Defects?

The neural tube is the embryonic structure which develops into the brain and spinal cord. This occurs during the very early stages of a baby's development in the womb. When there is a problem with the formation of the neural tube the resulting condition is referred to as a 'neural tube defect'.

Spina Bifida & Anencephaly are Neural Tube Defects

Spina bifida and anencephaly are the most common neural tube defects.

In **spina bifida** the neural tube has failed to form completely at some point along the baby's back. As a result the spinal cord and nerves may be damaged. This causes problems that can be as mild as reduced feeling or weakness in the legs to severe problems such as paralysis and no control of bowel or bladder action.

In **anencephaly** the brain does not form and these babies are stillborn or die soon after birth.

How common are Neural Tube Defects?

In Australia 1 in 800 pregnancies is identified with a neural tube defect.

Who is at risk of having a baby with a Neural Tube Defect?

Anyone could potentially have a baby with a neural tube defect, even if there is no family history. However, some people are at higher risk.

Couples are at increased risk if:

- either partner has a neural tube defect such as spina bifida
- they have already had a pregnancy affected with a neural tube defect
- they have a close relative who has, or has had a neural tube defect
- the woman is taking medicine for epilepsy or seizures

Can Neural Tube Defects be prevented?

Research has shown that taking a vitamin called **folate** (or folic acid) prior to and during early pregnancy can reduce the risk of having a baby with a neural tube defect by 70%.

What is folate?

Folate is a B group vitamin found in leafy green vegetables, wholegrain breads, cereals and legumes (peas, dried beans and lentils). It is also available in tablet form as folic acid.

Who needs folate?

Everyone needs folate but it is especially important for women planning a pregnancy. Since the formation of the neural tube occurs very early in development, often before a woman knows she is pregnant, it is important that all women of reproductive age take a folic acid tablet each day.

Folate can only help in preventing a neural tube defect if it is taken as recommended – 1 month prior to conception and for the first 3 months of the pregnancy.

How much folate?

For most women it is necessary to have 0.4mg of folate each day. Women at increased risk should consult their doctor or a genetic counsellor before pregnancy as a higher dose (of 4mg) is usually required. Currently in Australia the tablets are 0.5mg.

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