

# Pre - conceptual care

Your diet can play a big part in ensuring that you are able to conceive and produce a healthy baby.

Here are some ways you can increase the chance of becoming pregnant through a healthy diet:

- Women should avoid drinking alcohol
- Women should avoid cigarette smoke
- Women should stop smoking altogether
- They should also stop using recreational drugs
- They should eat a healthy balanced diet
- Exercise before and during the pregnancy
- You should find out if you are immune to rubella before trying to conceive, if not you should get vaccinated
- Parents should be tested to see if they are carrying genes for genetic disorders like cystic fibrosis and haemophilia, if they are carriers they can find out about the risks.

Folic acid is a form of vitamin B which is obtained through leafy green vegetables, it is essential for synthesis DNA and therefore the growth and division of cells, it also helps the production of red blood cells. It is important during a pregnancy a woman's level of folic acid should be topped up even before she conceives - the recommendation is three months before trying for a baby. If a woman is deficient in folic acid it means that you are likely to become anaemic, which causes problems such as premature delivery, low birth weight or a malformed baby. The most obvious type of malformation is spina bifida or anencephaly. These are both neural tube defects, which basically means that the metabolism of the foetus is not developing at a normal rate. The need for folic acid is greatly increased during a pregnancy, particularly in women who have been taking oral contraceptives (the pill) for a long time. To increase the level of folic acid you can eat things like:

- Liver, Brussels sprouts
- Kidney, spring greens
- Beef extract, kale
- Broccoli, spinach
- Green beans
- Yeast extract
- Leafy green vegetables are very good, particularly the darker green ones

When a woman is pregnant there are three hazardous food risks which could put herself and the unborn baby in danger. The three main hazards are: -

**Salmonellosis** - This is an infection from the Salmonella bacteria and is usually caused by foods such as raw eggs and raw chicken. The bacteria can only be avoided if the food is cooked thoroughly at high temperatures.

**Toxoplasmosis** - This is an infection that is caused by nature (parasites), which could be present in:-

- Raw or uncooked pork or steak
- Unpasteurised milk
- The faeces of cats and dogs

The parasites would cause mild flu like symptoms, but can be very harmful to an unborn child, causing foetal brain damage and blindness. In some cases it could result in the mother aborting the foetus. The third trimester appears to be the most dangerous and vulnerable time.

**Listeriosis** - Listeria can be contracted through eating some chilled foods and also by direct contact with infected live animals, particularly sheep. If the mother is infected with the disease it may enter the baby's blood stream, and can lead to a stillbirth. Spontaneous abortion or the child could be born dangerously ill. Symptoms are flu like i.e. high temperature, sore throat, aches, pains diarrhoea and abdominal pains. Pregnant women should avoid chilled foods especially if they are after their "best by" date.

Some couples may need genetic counselling; a woman who is thinking of becoming pregnant will be offered genetic counselling, particularly if she falls into any of the following categories.

- If she has a history of repeated miscarriages
- If there is a blood relationship between the mother and her partner, for example if they are cousins
- If a woman has previously given birth to a child with a genetic disorder, e.g. cystic fibrosis, or a child with a chromosomal disorder such as down's syndrome.
- If a woman's previous child was born with a congenital defect, e.g. a club foot
- If there is a family history of mental handicap or other abnormal developments

The parents of the unborn child owe it to them to seek advice and counselling if any of the categories apply.

It is important to take regular exercise at this stage of your life because the healthier and fitter the mother is before and during the pregnancy the better she will be able to cope. Nowadays we recognise that exercise is not only beneficial, but necessary too, providing it:-

- Is regular (before and during pregnancy)
- Does not overtire the mother
- It is in moderation

Drugs of any sort are not advisable the effects of prescription drugs. Medicines known to be harmful to an unborn child are: -

- Travel sickness pills
- Some antibiotics
- Pain relievers such as aspirin

Effects of illegal drugs are: -

- Marijuana (even though it is known as a "soft" drug) interferes with the normal production of male sperm and effects of taking such a drug take between three and nine months to wear off.
- The baby of an addicted mother may have a low birth weight
- Hard drugs such as heroin, cocaine, morphine and cannabis can damage the chromosomes both in sperm and ovum, which will ultimately lead to abnormalities in the baby's development
- Usually, an addictive woman causes her baby to have withdrawal symptoms from the drugs immediately after the birth, in the same way as an adult has withdrawal symptoms
- Fumes from some solvents and glues are also extremely harmful

German measles (rubella) is one of the most common of all childhood diseases. It is often referred to as rubella, because it is caused by a virus of the same name. Women who are thinking about having a baby should find out from their doctor whether or not they are immune to German measles. If not they should get vaccinated against it straight away. After being vaccinated, providing it worked a woman should wait at least 3 months before trying to conceive. If you come in contact with someone that has German measles or are suspected to have it you should see a doctor straight away, the doctor should then arrange for the woman to have a blood test which will be tested for antibodies.

STD's that are well known are: -

- Aids - Aids is short for Acquired immune deficiency syndrome. The virus known to be the cause of AIDS is Human immunopathic virus HIV. If a woman is infected who is pregnant or planning to get pregnant may pass it on to their child
- Chlamydia - Chlamydia is a common STD, which often has no visible systems. If it is left untreated it can make a woman infertile as it blocks the fallopian tubes. It can also be passed on to the child during child birth, causing pneumonia, eye infections and in severe cases blindness. Chlamydia is not routinely tested for but can be treated with antibiotics.
- Trichomoniasis - Trichomoniasis is also known as Trich or TV. The cause of this infection is a small parasite (a protozoa) which infects both the vagina and the urethra, which may cause inflammation, itchiness, and discharge from the vagina and would make sexual activity painful. It is a very common complaint. It occurs in women and men but symptoms are more common in women. It can normally be

treated with a drug called metronidazole. It also increases your chances of getting HIV. It also affects the baby if you are pregnant it causes them to have a premature birth or the baby may have a low birth weight.

- Genital warts - The warts can appear anywhere on either the vagina or the penis. The main cause is a virus, similar to one that causes skin warts. They are passed on by the skin during sex. This type of STD is very common and quite easy to treat. The doctor will put a cold liquid chemical on the wart to remove them.
- Gonorrhoea - Gonorrhoea is extremely common and tends to occur in very young people. It is an infection that can be spread only through sexual intercourse. Unless cleared by antibiotics or injections, these symptoms can lead to both the sperm and ducts and oviducts becoming infected, and this in turn can cause sterility.
- Syphilis - Syphilis is also known as the pox. Nowadays we hear very little about Syphilis but we need to be aware of it because it is one of the most dangerous of all sexually transmitted diseases, particularly if left untreated. It has a habit of spreading to other parts of the body, causing heart disease, blindness, deafness, insanity and even death. A woman who is thinking of becoming pregnant, and is suffering from syphilis and has allowed the infection to be untreated can easily pass on the infection to her unborn child. There are 3 stages of Syphilis, they are:-
  1. Primary stage - The primary stage of syphilis is usually marked by the appearance of a single sore (called a chancre), but there may be multiple sores. The time between infection with syphilis and the start of the first symptom can range from 10 to 90 days (average 21 days). The chancre is usually firm, round, small, and painless. It appears at the spot where syphilis entered the body. The chancre lasts 3 to 6 weeks, and it heals without treatment. However, if adequate treatment is not administered, the infection progresses to the secondary stage.
  2. Secondary stage - Skin rash and mucous membrane lesions characterize the secondary stage. This stage typically starts with the development of a rash on one or more areas of the body. The rash usually does not cause itching. Rashes associated with secondary syphilis can appear as the chancre is healing or several weeks after the chancre has healed. The characteristic rash of secondary syphilis may appear as rough, red, or reddish brown spots both on the palms of the hands and the bottoms of the feet. However, rashes with a different appearance may occur on other parts of the body, sometimes resembling rashes caused by other diseases. Sometimes rashes associated with secondary syphilis are so faint that they are not noticed. In addition to rashes, symptoms of secondary syphilis may include fever, swollen lymph glands, sore throat, patchy hair loss, headaches, weight loss, muscle aches, and fatigue. The signs and symptoms of secondary syphilis will resolve with or without treatment, but without treatment, the infection will progress to the latent and late stages of disease.

3. Late stage - The latent (hidden) stage of syphilis begins when secondary symptoms disappear. Without treatment, the infected person will continue to have syphilis even though there are no signs or symptoms; infection remains in the body. In the late stages of syphilis, it may subsequently damage the internal organs, including the brain, nerves, eyes, heart, blood vessels, liver, bones, and joints. This internal damage may show up many years later. Signs and symptoms of the late stage of syphilis include difficulty coordinating muscle movements, paralysis, numbness, gradual blindness, and dementia. This damage may be serious enough to cause death.

These STD's are having an affect on fertility in young people today as people don't realise they have them or don't see a doctor, they leave it too late and it causes them to become infertile.

If you are trying to conceive it is best to avoid X-Rays or any form of radiation unless it is absolutely necessary. This is because any developing baby (foetus) will be rapidly making new cells and X-rays and radiation rays will destroy new or healthy cells.

Dysentery is dangerous to pregnant women because it can cause dehydration; they lose a large amount of important salts and fluids from the body. The dehydration can be fatal if untreated as vital organs like the kidneys, brain and heart can not function without a certain amount of water and salt. The infection is usually carried in the faeces of a person who is already infected and its symptoms are severe diarrhoea and abdominal pains. There are 2 types of dysentery: amoebic dysentery which is usually found in the drinking water of tropical countries, and bacterial dysentery. In this country, any dysentery infection will normally be caused by bacteria. The main cause is an infected person failing to wash their hands after going to the toilet, and then handling food.

Spina Bifida is a defect where one or more parts of the vertebrae (spine) do not fully develop. This allows a section of the spinal cord to remain exposed. It is possible for the condition to occur anywhere along the spinal cord, but it is more usual for it to happen quite low down the back. Both the spine and the vertebral column start to form a flat layer of cells. The edges of these cells come together to form a tube. This tube is the hollow cavity inside the spinal cord. High levels of folic acid in the mother's blood are needed particularly at the start of pregnancy as it is vital that the neural tube closes.

- Whatever the age of the mother, all babies are at risk of developing Spina bifida and other neural tube defects such as hydrocephalus.
- A mother experiencing a first pregnancy is just at risk as a healthy mother, who has already given birth to healthy children.

- Women who have had several children are particularly vulnerable because they have had little time to top up their folic acid levels before they are pregnant again.
- Women who have had one child with Spina bifida are far more at risk than women who have given birth to healthy children
- Folic acid is lost in cooking and many people are still unaware of this, or how they overcome it
- A strict regime of healthy foods including those rich in folic acid in the diet of a woman pre-conceptually and/or during pregnancy is absolutely essential so they don't place the baby at risk.

Spina bifida is a neural tube defect caused by the failure of the foetus's spine to close properly during the first month of pregnancy. Infants born with Spina bifida sometimes have an open lesion on their spine where significant damage to the nerves and spinal cord has occurred. Although the spinal opening can be surgically repaired shortly after birth, the nerve damage is permanent, resulting in varying degrees of paralysis of the lower limbs.

The three most common types of SB are:

**Myelomeningocele** - Myelomeningocele is the severest form, in which the spinal cord and its protective covering (meninges) protrude from an opening in the spine.

**Meningocele** - Meningocele is when the spinal cord develops normally but the meninges protrude from a spinal opening

**Occulta** - Occulta is the mildest form, in which one or more vertebrae are malformed and covered by a layer of skin.

There is no cure for Spina bifida because the nerve tissue cannot be repaired or replaced. Treatment for the variety of effects of Spina bifida may include surgery, medication, and physiotherapy. Many individuals with Spina bifida will need assistive devices such as braces, crutches, or wheelchairs. Ongoing therapy, medical care, and/or surgical treatments may be necessary to prevent and manage complications throughout the individual's life. Surgery to close the newborn's spinal opening is generally performed within 24 hours after birth to minimize the risk of infection and to preserve existing function in the spinal cord.

Smoking is harmful to both yourself and the developing embryo because