

Streptococcal infection - group B

Group B streptococcal bacteria can cause a wide range of illnesses in susceptible people including newborns, the elderly and those with pre-existing medical conditions such as diabetes or cancer.

Out of every 1,000 newborns, one to four will contract group B streptococcal infection (GBS) from their mothers during birth, although the rate is declining in Australian maternity hospitals. This reduction is believed to be due to preventative screening programs in these hospitals.

In most cases, the pregnant woman shows no symptoms; they are usually not even aware that they are carrying the bacteria. Of those babies infected, between 10 and 20 per cent will become ill.

Some of the life-threatening complications of GBS infection in newborns include bacterial infection of the bloodstream (septicaemia), pneumonia and meningitis. Many Australian maternity hospitals screen pregnant women for GBS infection to reduce the risk of GBS infection in newborn infants.

Symptoms

The signs and symptoms of GBS vary according to age, but can include:

- **Non-pregnant adults** – fever, headache, confusion, shortness of breath, a burning sensation when passing urine, frequent visits to the toilet to pass urine.
- **Pregnant women** – fever, abdominal swelling, uterine tenderness.
- **Newborns** – shortness of breath or difficulty breathing, lethargy.
- **Babies aged between one week and a few months** – fever, lethargy, irritability, poor feeding, seizures.

Some people are carriers

Some people are carriers, which means they harbour the bacteria but don't show any symptoms of the infection. Common sites on the body where GBS may be carried include the vagina, bladder, the rectal (anal or back) passage and throat.

Infection is usually short term. It is thought that around 12 to 15 per cent of Australian pregnant women carry GBS in their vagina. About one or two per cent of babies born to these carriers will develop GBS disease. The risk of GBS infection is higher among premature babies.

Onset of disease in babies

The two types of GBS disease that affect babies include:

- **Early-onset** – the newborn shows signs of illness shortly after birth or within one to two days of birth. Early-onset GBS disease is the most common type.
- **Late-onset** – infants show signs of illness one week to several months after birth. This form of GBS disease is comparatively rare. Only around half of all babies with late-onset GBS disease contract the illness from their infected mothers. For the remainder of cases, the source of infection is unknown.

Diagnosis and treatment

GBS infection is diagnosed from specimens collected from blood, urine or spinal fluid. Vaginal swabs may be collected from pregnant women to determine if the bacteria are present. The principal form of treatment is intravenous antibiotics, usually given in hospital. If the bacteria are found in a pregnant woman, intravenous antibiotics are given during the labour.

Screening methods

There is no standard screening procedure for GBS in Australia and the protocols vary from hospital to hospital. According to a report published in the *Medical Journal of Australia*, many Australian maternity hospitals screen 'at-risk' pregnant women for GBS infection. Other hospitals screen all pregnant women at 35 to 37 weeks. If they are found to be positive for the bacteria, pregnant women are treated with antibiotics when labour begins, to reduce the risk of GBS infection in the newborn.

The main screening test is a swab of the vagina. A swab of the rectum (back passage) may also be taken. Research indicates that screening tests taken late in pregnancy are more reliable. For example, around 10 to 20 per cent of pregnant woman who have GBS-negative swabs at 28 weeks gestation are carrying the bacteria at the time of delivery.

Risk factors

If a pregnant woman is found to be a GBS carrier, the infection can be easily treated with intravenous antibiotics. Risk factors that may prompt your obstetrician to screen for GBS infection include:

- A GBS-positive swab in a previous pregnancy
- A previous baby with GBS infection
- Pre-term labour
- Rupturing of the membranes well before the onset of labour (18 hours or more)
- Signs of infection around the time of labour or delivery (such as fever in the mother)
- Prolonged labour.

For non-pregnant women and others, chronic diseases such as diabetes or cancer make you more vulnerable to getting GBS infection.

Where to get help

- Your doctor
- NURSE-ON-CALL Tel. 1300 60 60 24 – for expert health information and advice (24 hours, 7 days)
- Your obstetrician or midwife
- Your maternity hospital.

Things to remember

- Group B streptococcal bacteria can cause a wide range of illnesses.
- Between one and four out of every 1,000 newborns contract group B streptococcal disease (GBS disease) from their mothers during birth.
- Some of the life-threatening complications of GBS infection in newborns include bacterial infection of the bloodstream (septicaemia), pneumonia and meningitis.
- Many Australian maternity hospitals screen pregnant women for GBS infection to reduce the risk of GBS infection in newborn infants.

This page has been produced in consultation with, and approved by:

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