Group B Streptococcus (GBS) Infection in Pregnancy

This information is for you if you are expecting a baby or planning to become pregnant. It may be helpful if you are a relative or friend of someone who is pregnant. It tells you about Group B Streptococcus (GBS) infection in babies in the first week after birth (also known as early-onset neonatal GBS). It also includes the current UK recommendations for preventing GBS in newborn babies.

A glossary of all medical terms used in this information is available by clicking on the word itself which includes a live link or you can view the full list on the RCOG website at: http://www.rcog.org.uk/womens-health/patient-information/medical-terms-explained

Key points

- Group B Streptococcus (GBS) is one of the many bacteria that normally live in our bodies and which usually cause no harm
- GBS is not routinely screened for during pregnancy in the UK
- If you carry GBS, most of the time your baby will be born safely and will not develop the infection
- If GBS is found in your urine, vagina or rectum (bowel) during your current pregnancy, or if you have previously had a baby affected by GBS infection, you should be offered antibiotics in labour to prevent your baby becoming unwell
- The risk of your baby becoming unwell with GBS infection is increased if your baby is born prematurely, if you have a temperature while you are in labour, or if your waters break before you go into labour
- If your newborn baby develops signs of GBS infection, they should be treated quickly with antibiotics

What is GBS?

GBS is a common bacterium (bug) which is carried in the vagina and rectum of 2 - 4 in 10 women in the UK. Carrying GBS is not harmful to you, but can affect your baby around the time of birth. GBS is not a sexually transmitted infection and most women carrying GBS will have no symptoms.
How is GBS found?

GBS is sometimes found during pregnancy when you have vaginal or rectal swabs or a urine test.

Routine testing for GBS carriage is not offered by the NHS. For further information about testing visit the Group B Strep Support website:
www.gbss.org.uk/TestingforGBS

What could GBS mean for my baby?

Many babies come into contact with GBS during labour or during birth. The vast majority of these babies will not become unwell. However, if GBS is passed from you to your baby around the time of the birth, there is a small chance that they will develop an infection and become seriously ill, or even die.

Around 1 in every 1750 newborn babies in the UK and Ireland is diagnosed with early onset GBS infection. The infections that GBS most commonly cause in newborn babies are sepsis (infection of the blood), pneumonia (infection in the lungs), and meningitis (infection of the fluid and lining around the brain). Although GBS infection can make your baby very unwell, with prompt treatment most babies will recover fully. However, 1 in 20 (5%) babies infected can die of the infection and 1 in 13 (7.4%) babies may be left with a disability.

What might put my baby at higher risk of developing GBS infection?

This is more likely to happen if:

- your baby is born prematurely (less than 37 weeks of pregnancy) – the earlier your baby is born the greater the risk
- you have previously had a baby affected by GBS infection
- you have had a high temperature or other signs of infection during labour
- you have had any positive urine test or swab test for GBS in this pregnancy
- your waters have broken more than 24 hours before your baby is born

How can the risk to my baby be reduced?

- A urine infection caused by GBS should be treated with antibiotic tablets straight away and you should also be offered antibiotics through a drip during labour.
- If you have had a positive swab or urine test for any reason during this pregnancy you should be offered antibiotics through a drip during labour
If you have previously had a baby who was diagnosed with GBS infection you should be offered antibiotics through a drip when you are in labour.

If your waters break after 37 weeks of your pregnancy and you are known to carry GBS, you will be offered induction of labour straight away. This is to reduce the time that your baby is exposed to GBS before birth.

Even if you are not known to carry GBS, if you develop any signs of infection in labour or if you go into labour before 37 weeks (preterm labour), you will be offered antibiotics through a drip that will treat a wide range of infections including GBS.

**What are my options for where I have my baby?**

You should discuss your planned place of birth with your healthcare professional during pregnancy to make sure that you can receive antibiotics as required in labour. If you need antibiotics through a drip during labour, it may not be possible to give birth at home or in some midwife-led units. It is important to contact your health care professional as soon as you go into labour or your waters break as it is important that you have antibiotics as early as possible. You should always let your healthcare professional know that you carry GBS.

**Do I always need treatment with antibiotics if I carry GBS?**

No, if you are found to carry GBS in your vagina or rectum, treating you with antibiotics before labour begins does not reduce the chances of passing it on to your baby. You do not need antibiotic treatment until labour starts when you will be offered antibiotics through a drip to reduce the chance of your baby being infected. These antibiotics reduce the risk of your baby developing a GBS infection from around 1 in 400 to approximately 1 in 4000.

If GBS is found in your urine test, then you will need antibiotics for treatment of urinary tract infection, as well as being offered antibiotics through a drip during labour.

There are other occasions when you are offered antibiotics but these are not specifically related to GBS infection, for example:

- If your waters break prematurely (before 37 weeks) but you are not in labour, you may be offered a course of antibiotics. See NICE guidance (NG25), on Preterm Labour and Birth: [https://www.nice.org.uk/guidance/ng25/ifp/chapter/About-this-information](https://www.nice.org.uk/guidance/ng25/ifp/chapter/About-this-information)
- If you are having a planned caesarean section and you carry GBS, you do not need antibiotics to prevent GBS infection in your baby unless labour has
started or your waters have broken. All women having a caesarean section will be given antibiotics at the time of the operation to reduce the risk of a wide variety of infections.

If I had GBS in a previous pregnancy should I be given antibiotics during labour?

- If a previous baby was affected with early onset GBS infection then you should be offered antibiotics during labour in all following pregnancies, as there is an increased risk that a future baby may also be affected.
- If however, GBS was found in a previous pregnancy and your baby was unaffected, then there is a 50% (1 in 2) chance that you will be carrying it again in this pregnancy. To help you choose whether you would like to have antibiotics in labour, you can have a swab to test for presence of GBS when you are 35-37 weeks pregnant and:
  - if the swab test shows you are still carrying GBS at this stage of pregnancy, the risk of your baby developing early onset GBS infection is increased to 1 in 400 and you will be offered antibiotics in labour.
  - If the test shows you are not carrying GBS at this stage of pregnancy, then the risk of your baby getting GBS infection is much lower (1 in 5000) and you may choose not to have antibiotics.

What will my treatment during labour involve?

If you have been offered antibiotics to prevent GBS infection in your baby, these should be started as soon as possible after your labour begins, or after your waters have broken. They will be given through a drip and continued at regular intervals until your baby is born.

You should still be able to move around freely during labour and as long as you have antibiotics, it is safe to have a water birth if this is what you choose.

If your waters break prematurely, your healthcare professional will talk to you about when you will need antibiotics and about the best time for your baby to be born. This will depend on your individual circumstances and how many weeks pregnant you are.

The antibiotic that you would be offered to prevent GBS infection in your baby is usually penicillin. If you are allergic to penicillin you will be offered a suitable alternative.

Can antibiotics in labour cause any harm?

Some women may experience temporary side effects such as feeling sick or having diarrhoea. Women can be allergic to certain antibiotics and in rare cases the reaction
may be severe and life threatening (anaphylaxis). Tell your healthcare professional if you know that you are allergic to penicillin or any other medications.

Your healthcare professional should discuss with you the benefits and risks of taking antibiotics in labour to prevent early onset GBS infection.

If you choose not to have antibiotics in labour then your baby will be monitored closely for 12 hours after birth as they remain at increased risk of developing early onset GBS infection.

**How will my baby be monitored after birth?**

If your baby is born at full term (after 37 weeks) and you received antibiotics in labour at least 4 hours before giving birth, then your baby does not need special monitoring after birth.

If your baby is felt to be at higher risk of GBS infection and you did not get antibiotics at least 4 hours before giving birth, then your baby will be monitored closely for signs of infection for at least 12 hours. This will include assessing your baby’s general wellbeing, feeding, temperature, breathing and heart rate.

If you have previously had a baby affected by GBS infection then your baby will be monitored for 12 hours even if you had antibiotics in labour.

**What are the symptoms and signs of GBS infection in my baby?**

Most babies infected with GBS become unwell within 12 hours of birth however late onset GBS can affect your baby up until they are three months old. See GBSS information here: (link to be inserted before publication)

Babies with GBS infection may show the following symptoms:

- Be very sleepy
- Cry a lot
- Be floppy
- Not feed well
- Have a high or low temperature
- Have an abnormally fast or slow heart rate or breathing rate
- Have low blood pressure
- Have low blood sugar
- Have changes in their skin colour

If you notice any of these symptoms or are worried about your baby you should urgently contact your healthcare professional and ask about GBS
What tests and treatments are available for my baby?

If it is thought that your newborn baby has an infection, tests will be done to see whether GBS is the cause. This may involve taking a sample of your baby’s blood, or a sample of fluid from around your baby’s spinal cord (a lumbar puncture). This will be discussed fully with you.

Babies with signs of GBS infection or babies who are suspected to have the infection should be treated with antibiotics as soon as possible. Antibiotics can be life-saving when given to babies with suspected infection. Treatment is stopped if there is no sign of infection after at least 36 hours, or if all the tests are negative.

Can I still breastfeed?

It is safe to breastfeed your new baby. Breastfeeding has not been shown to increase the risk of early onset GBS infection, and it offers many benefits to both you and your baby.

Why are all women not tested for GBS during pregnancy in the UK?

The UK National Screening Committee does not recommend testing all pregnant women for GBS carriage. This is because:

- many women carry the GBS bacteria and, in the majority of cases, their babies are born safely and without developing an infection.
- screening all women late in pregnancy cannot accurately predict which babies will develop GBS infection.
- no screening test is entirely accurate. A negative swab test does not guarantee that you do not carry GBS.
- many babies who are severely affected by GBS infection are born prematurely, before the suggested time for screening (before 35-37 weeks)
- giving all women who carry GBS antibiotics would mean that a very large number of women would receive treatment they do not need.

Further information


NICE Guidance on Intrapartum care [https://www.nice.org.uk/guidance/cg190](https://www.nice.org.uk/guidance/cg190) - (currently being updated)

NICE Guidance on Neonatal infection (early onset): antibiotics for prevention and treatment: [https://www.nice.org.uk/guidance/CG149](https://www.nice.org.uk/guidance/CG149) (currently being updated)
Making a Choice

Shared Decision Making

If you are asked to make a choice, you may have lots of questions that you want to ask. You may also want to talk over your options with your family or friends. It can help to write a list of the questions you want answered and take it to your appointment.

Ask 3 Questions

To begin with, try to make sure you get the answers to three key questions if you are asked to make a choice about your healthcare.

1. What are my options?
2. What are the pros and cons of each option for me?
3. How do I get support to help me make a decision that is right for me?

Sources and acknowledgements

This information has been developed by the RCOG Patient Information Committee. It is based on the RCOG Green Top Guideline, Prevention of Early-onset Neonatal Group B Streptococcal Disease published in XXXX.

The Guideline contains a full list of the sources of evidence we have used. You can find it online at: https://www.rcog.org.uk/en/guidelines-research-services/guidelines/gtg36/

This information has been reviewed before publication by women attending clinics at XXXX, and by the RCOG Women’s Network and Women's Voices Involvement Panel.

A glossary of all medical terms is available on the RCOG website at:

http://www.rcog.org.uk/womens-health/patient-information/medical-terms-explained