

GBS and Pregnancy

A woman who has had any positive test result during the current pregnancy should be offered intravenous antibiotics from the onset of labour through until delivery.

A woman who receives a negative result to the more sensitive test at 35–37 weeks of pregnancy does NOT need to be offered intravenous antibiotics in labour against GBS infection in her baby (though antibiotics may be indicated for other reasons).

A woman who has not had a result from the more sensitive test OR who has had a negative result from the less reliable HVS test during the pregnancy should be offered intravenous antibiotics from the onset of labour if one or more other risk factors is present.

GBS infection in babies

It's highly unlikely you'll need information about GBS infection in babies if you follow the recommendations in this leaflet. Approximately 60% of GBS infection in babies are apparent at birth and up to 90% are apparent within the baby's first 2 days (early-onset GBS infection), so should be detected and treated in hospital.

Late-onset GBS infection develops after the baby's first 2 days, usually as meningitis with septicaemia – GBS infection in babies is rare after age one month and is almost unknown after age 3 months.

Aggressive intravenous antibiotic therapy, together with intensive care, successfully treats most babies with GBS infection and most fully recover, especially if meningitis is not present. However, up to a third of the survivors of GBS meningitis will be left with long-term mental or physical handicaps and in one out of every 8 of these babies, the handicap is severe.

Sadly, even with the best medical care, 10% of babies who develop GBS infection die.

Signs of GBS infection in newborn babies:

Typical signs of early-onset GBS infection include:

- *grunting;*
- *poor feeding;*
- *lethargy (being abnormally drowsy);*
- *irritability;*
- *high/low temperature;*
- *high/low heart rates;*
- *high/low breathing rates;*
- *low blood pressure;*
- *low blood sugar.*

Up to 20% of GBS infection develops after the baby is 2 days old.

The warning signs of late-onset GBS infection, including meningitis, may include one or more of:

fever;
poor feeding and/or vomiting;
impaired consciousness;
shrill or moaning cry or whimpering;
dislike of being handled, fretful;
tense or bulging fontanelle (soft spot on head);

involuntary body stiffening/jerking movements;
floppy body;
blank, staring or trance-like expression;
altered breathing patterns;
turns away from bright lights;
pale and/or blotchy skin.

If your baby shows signs consistent with late-onset GBS infection or meningitis, call your GP immediately. If your GP isn't available, go straight to the nearest Casualty Department. If your baby has late-onset GBS infection or meningitis, early diagnosis and treatment are vital: *delay could be fatal.*

What else need I know?

GBS bacteria may be passed from the hands so everyone (including the parents), whether they carry GBS or not, should wash their hands properly and dry them carefully before handling a baby for its first 3 months.

What should I do next?

You should discuss GBS with your midwife and obstetrician and agree a pregnancy and birth plan which includes strategies against GBS infection in your baby.

Most GBS infection in newborn babies can be prevented: pregnancy can normally be managed so babies born to women who carry GBS are protected against GBS infection.

For more information about GBS, please speak with your health professionals

and/or contact



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All of our leaflets can be downloaded from our website

Group B Strep Support is a national charity providing accurate and up to date information on GBS for families and health professionals.

GBSS endorses the availability of reliable prenatal screening for GBS colonisation but has no particular links nor receives any money from any laboratory. GBSS wants to see reliable tests routinely available to all pregnant women on the NHS but until it is, supports the Royal College of Obstetricians and Gynaecologists national guidelines for a risk-factor approach to preventing GBS infection in newborn babies.

All of our current leaflets are available from our website, or contact us for details.

Key medical references

Heath PT, Balfour G, Weisner AM, Efstratiou A, Lamagni TL, Tighe H, O'Connell LAF, Cafferkey M, Verlander NQ, Nicoll A & McCartney AC on behalf of the PHLS GBS Working Group. Group B streptococcal disease in UK and Irish Infants <90 days of age. *Lancet* 2004 Jan 24, Vol 363(9405):292.

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Centers for Disease Control & Prevention. Prevention of Perinatal Group B Streptococcal Disease: Revised Guidelines from CDC. *MMWR Reports & Recommendations* Vol. 51(No. RR 11) 16 August 2002.

Yancey MK, Schuchat A, Brown LK, Ventura VL, Markenson GR. The accuracy of late antenatal screening cultures in predicting genital GBS colonization at delivery. *Obstet Gynecol* Nov 1996; 88(5):811–5.

Having and using the information in this leaflet dramatically reduces the chance of your baby developing life-threatening group B streptococcal (GBS) infection. Although GBS is the most common cause of life-threatening infection in newborn babies in the UK, GBS infections can usually be prevented – pregnancy can usually be managed so babies born to women known to carry GBS are protected and born unaffected by GBS.



Group B Strep Support
preventing GBS
infection in babies

Registered charity number: 1058159

What is GBS?

Group B streptococcus (GBS) is a common bacterium. Up to a third of men and women “carry” GBS in their intestines and a quarter of women carry it in their vagina.

Most of us are unaware it's there, as GBS carriage causes no symptoms and can be difficult to detect.

GBS is one of a number of different bacteria that normally live in our bodies and carrying it is perfectly normal. Once GBS has colonised the intestines, no antibiotics tested so far can reliably eradicate it.

What do I need to know about GBS?

Although GBS is the UK's most common cause of bacterial infection in newborn babies, this happens relatively rarely – without preventative medicine, it is estimated that roughly one in every 1,000 babies in the UK develops GBS infection: about 700 babies a year (however, recent UK research shows this figure may be a significant underestimate).

Babies who develop GBS infection are usually exposed to GBS in the womb, although this can also happen during labour or passage through the birth canal, or after birth. Yet many thousands of babies are exposed to GBS with no ill effects - just why some babies are susceptible to the bacteria and develop infection while others don't is not clear.

Most GBS infection in newborn babies can be prevented by giving women in known, higher-risk situations antibiotics intravenously (through a vein) from the start of labour or waters breaking until the baby is born.

Giving oral antibiotics for GBS carriage have not been shown to be effective at preventing GBS infection in babies, although if GBS is found in the urine during pregnancy this should be treated with oral antibiotics at the time of diagnosis.

Caesareans are not recommended to prevent GBS infection in babies since there are significant risks associated with Caesarean sections. Caesareans don't eliminate GBS infection in babies and the recommended intravenous antibiotics in labour are highly effective.

Very occasionally, GBS causes infection of the waters around the baby, womb or urinary tract in pregnant women and those who have recently given birth.

Who is most at risk of GBS infection?

There are six situations where a baby is more likely to be exposed to GBS and, if susceptible, to develop GBS infection:

Risk factors for GBS infection in newborn babies

Clinical risk factors: *each increases the risk at least 3 times:*

- where labour or membrane rupture is preterm (*before 37 completed weeks of pregnancy*);
- where there is prolonged rupture of membranes (*more than 18 to 24 hours before delivery*);
- where the pregnant woman has a raised temperature during labour (*37.8°C or higher*).

Mothers who carry GBS during the present pregnancy: *multiplies the risk at least 4 times:*

- where the pregnant woman has been found to carry GBS during the present pregnancy;
- where the pregnant woman has GBS bacteria in her urine at any time during the present pregnancy (*this should be treated at the time of diagnosis*).

Mothers who have previously had a baby infected with GBS: *multiplies the risk about 10 times:*

- where the pregnant woman has had a baby who developed a GBS infection.

How can most GBS infection in babies be prevented?

Giving pregnant women in the above situations intravenous antibiotics at regular intervals from the start of labour or waters breaking until delivery has been shown to be effective in stopping most GBS infection in newborn babies.

The recommended antibiotics are highly effective – if a mother known to carry GBS at delivery receives them as recommended, the risk of her baby developing GBS infection falls from around 1 in 300 to less than 1 in 6,000.

Key Recommendations

- 1 Women at increased risk should be offered intravenous antibiotics immediately at the onset of labour through until delivery (i.e. women known to carry GBS without other risk factors and women not known to carry GBS but where another risk factor is present).
- 2 Women at particularly high risk should be strongly advised to accept intravenous antibiotics immediately at the onset of labour until delivery (i.e. women known to carry GBS with one or more other risk factors, women not known to carry GBS with multiple risk factors and women who have previously had a baby infected with GBS).
- 3 For women in labour, the recommended doses of penicillin G are 3 g (or 5 MU) intravenously initially and then 1.5 g (or 2.5 MU) at 4-hourly intervals until delivery – for women allergic to penicillin, clindamycin, 900 mg intravenously every 8 hours until delivery, is recommended. **You must tell your health professionals if you have an allergy to penicillin or any other antibiotic.**
- 4 Intravenous antibiotics should be given for at least 4 hours before delivery where possible.
- 5 Babies born in situations where there is increased risk and the mother HAS received at least 4 hours of intravenous antibiotics before delivery should be assessed carefully by a paediatrician and, if completely healthy, intravenous antibiotics should not be given to the baby.
- 6 Babies born in situations where there is increased risk and the mother HAS NOT received at least 4 hours of intravenous antibiotics before delivery should be investigated fully and initially commenced on antibiotics until it is established the baby is not infected.

There are always small but serious risks associated with taking any antibiotics, so the decision must be considered carefully.

Some hospitals routinely swab healthy babies' ears, noses, throats or tummy-buttons. Some of these swabs will grow GBS and hospitals may

put these babies on antibiotics until blood and/or urine cultures come back negative. This is not our medical advisory panel's recommendation – GBS growing from these surface swabs indicates GBS colonisation, which does not need to be treated, not GBS infection.

Can I find out if I carry GBS?

No reliable test to find out if you carry GBS is routinely or widely available on the NHS and the test that is usually used (often called an HVS) will give a falsely negative result up to half the time when it should be positive (though a positive result is highly reliable).

A reliable test to detect GBS colonisation is currently not available routinely or, at present, on the NHS. However, a much more sensitive test is available privately, and currently costs £32 for a postal service. Ask your health professionals for more information or check our website at www.gbss.org.uk to find out where more sensitive testing is available. It has been available privately in the UK since May 2003 but some health professionals may not yet be aware of it.

GBS colonisation can be intermittent, so testing should be done at 35–37 weeks' gestation to best predict whether you will be carrying GBS at delivery. Research showed that, when the more sensitive test was performed within 5 weeks of delivery, a negative result was 96% predictive of not carrying GBS at delivery (4% of women acquired carriage between the test and giving birth) and a positive result was 87% predictive of carrying GBS at delivery (13% of women lost carriage between performing the test and giving birth). The test can be done earlier, but then isn't as reliable at predicting colonisation status at delivery. It can be done later, but the chance of your baby arriving before the result increases.

Testing is not essential, but if you don't do the more sensitive test, it's important to know when a baby is more likely to develop GBS infection and how most GBS infection can be prevented. And, whether you do the more sensitive test or not, you should be aware of the signs of GBS infection to watch for in your baby.

Implications of the more sensitive test results

Testing is unnecessary for a woman who has previously had a baby who developed GBS infection, as she should always be offered intravenous antibiotics from the start of labour in subsequent pregnancies.