



Information on Group B Streptococcus (GBS)

What is Group B Strep (GBS)?

GBS is one of many common bacteria that live in the human body without causing harm in healthy people. GBS develops in the intestine from time to time, so sometimes it is present and sometimes it is not. As it is found in the intestines, it can also be in the rectum and vagina in about 10% to 30% pregnant women at any time. GBS is NOT a sexually transmitted disease, and it does not cause discharge, itching, or other symptoms. This is not the same bacteria that causes Strep throat.

How Does GBS Cause Infection?

At the time of birth, if it is present in the vagina, GBS is transmitted in 40 to 70 percent of newborns but only 1 to 2 percent of the infants will develop early-onset (less than 7 days of age) disease. In some cases, GBS can cause bacteria to enter the blood (bacteremia / septicemia), respiratory infections, lung infection (pneumonia), inflammation in the brain and spine (meningitis), and death.

Full-term babies who are born to mothers who carry GBS in the vagina at the time of birth have a 1 in 200 chance of getting sick from GBS during the first few days after being born.

What are the risk factors?

Your baby is more at risk of getting sick with early-onset GBS disease when one or more the following happens:

- You are GBS positive during labor.
- Your baby is born before 37 weeks (also called preterm).
- Your water breaks (rupture of membranes) more than 18 hours before giving birth.
- You get a fever during labour ($\geq 38^{\circ}\text{C}$)
- You had a previous baby with GBS disease
- You have GBS bacteria in your urine during pregnancy

How Do You Know if You Have GBS?

At 35 to 37 weeks of pregnancy, you will be offered to test for GBS. During the prenatal visit you or your midwife will collect a sample by swabbing your vagina and anus with a sterile Q-tip. It is just as accurate for you to do your own test as for the midwife to do it. It can then be determined if GBS bacteria grows in the culture that is sent to the lab from that Q-tip sample.

If your test shows **you carry** GBS, you are considered **GBS positive**.

If your test shows you **do not carry** GBS, you are considered **GBS negative**.

No test is 100% accurate. The test may say you are negative when you are positive or say you are positive when you are actually negative for GBS. This test correctly identifies when someone has GBS 87% of the time.

If you do not receive this test or choose not to take the test, you will be considered GBS "unknown."

If you are GBS negative

If your GBS status is negative within the past 5 weeks you do not need antibiotic in labour.

If, however if you do develop a fever greater than or equal to 38 degrees Celsius, antibiotic would be recommended as an infection is developing, but would likely NOT be from GBS.

If you are GBS Positive

If your GBS culture is positive, the standard of care is antibiotics during active labour OR once your waters have broken - whichever of those things happens first (SOGC/AHS).

The antibiotic is given IV (in the vein) every four to eight hours (depending on the type of antibiotics you get) until your baby is born. A dose given up to 4 hours before birth reduces the chances of your baby being sick from 1 in 200 (no antibiotics) to 1 in 4000. Two doses reduce it further to 1 in 64,000. Requiring antibiotics for GBS in labour **does not** prevent you from having a home birth or a water birth.

A review done by the Canadian Task Force on Preventative Health Care (2001) concluded that screening all women for GBS and only selectively using antibiotics for GBS positive women who had an additional risk factor, was a reasonable choice as well - however this approach is NOT endorsed by AHS.

If you are GBS "unknown"

If you are GBS unknown, you will be offered antibiotics if one or more of the following happens:

- Your baby is born before 37 weeks
- You develop a fever during labour
- Your water breaks more than 18 hours before the baby is born
- You had a previous baby with GBS disease
- You have GBS in your urine during pregnancy

How Will We Know if Your Baby Is Infected?

Babies who get sick from infection with GBS almost always do so in the first 24 hours after birth.

Symptoms include:

Problems maintaining temperature (too cold or too hot)

Feeding problems

Breathing problems

Irritability or fussiness

Inactivity or limpness

What Is the Treatment for a Baby with GBS Infection?

If the infection is caught early and your baby is full-term, most babies will completely recover with IV antibiotic treatment. Of the babies who get sick, about one in six can have serious complications and 2% to 3% among term infants will die.

Allergic to Penicillin?

Penicillin or a penicillin-type medication is the antibiotic recommended for preventing GBS infection. If you are allergic to penicillin, your midwife will check to see what antibiotic is responsive (susceptible) in treating GBS.

What are the risks of getting antibiotics?

Antibiotics can cause rare but serious health problems for you and your baby.

Relatively common side-effects of antibiotics include:

- Yeast infections for you and your baby
- Minor allergic reactions to penicillin, such as rash

Other less common side-effects of antibiotics may include:

- Serious allergic reactions to penicillin
- Other bacteria-related illnesses in babies
- Possible increased in developing asthma or allergies with numerous doses of antibiotics throughout your child's early years
- Gastro side effects

Summary

Research has shown that giving GBS positive mothers and/or mothers that present with risk factors, intravenous antibiotics during labour, can significantly reduce the frequency of GBS infection in the baby. Use of antibiotics in labour reduces the risk of infection from 1/200 for untreated mothers to 1/4000 when antibiotics are given within at least 4 hours before the birth. Both treatment options will treat many women and babies unnecessarily and will miss some babies who really do need treatment. The increasing number of antibiotic resistant bacteria due to overuse of antibiotics is a global issue. Antibiotics can also cause or contribute to side-effects such as diarrhea, yeast infections, and allergic reactions. The potential effects of repeated doses of antibiotics on the fetus is unknown at this time, though research is underway. The challenge of GBS is one without an easy solution. We encourage you to read more about this topic and discuss any questions you have with us.

References

- This document was adapted from "Share with Women" GBS document - Journal of Midwifery & Women's health Vol47 No 6 Nov/Dec 2002
- Society of Obstetricians and Gynecologists of Canada JOGC Sept 2004 <http://www.sogc.org/guidelines/public/149E-CPG-September2004.pdf>
- Shah, V. Ohlsson, - the Canadian Task Force on Preventative Health Care.
- Prevention of Early Onset Group B Strep Infection in the Newborn: Systemic Review Recommendations. CTFPHC Technical Report #01-6 May, 2001 London, Ontario:
- Canadian Task Force.