



## Vivante Midwifery & Women's Health

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## Group B Streptococcus

### What is Group B Streptococcus?

Group B Streptococcus has many names: Group B Strep, GBS, Strep B. It is part of the normal bacteria found in the urinary, intestinal and/or reproductive tracts of about 30% of healthy people in the U.S.

### How can GBS affect my baby?

About 2 in 1000 babies will develop a system-wide infection caused by GBS acquired before or during birth. It can be obvious at birth, or it can develop within the first week. (This is called *early onset* GBS infection. There is also a *late onset* GBS disease that begins after the first week, but this is probably caused by transmission after birth.)

GBS infection in babies can be very serious. About 5% of infected babies will die. Babies that survive, particularly those who have meningitis, may have long-term problems, such as hearing or vision loss, or learning disabilities.

### What factors increase my baby's risk of developing GBS disease?

1. Previous baby that developed GBS infection
2. Bladder infection caused by GBS at any time during this pregnancy
3. Preterm birth before 37 weeks
4. Ruptured membranes longer than 18 hours
5. Fever during labor

### What are my options for testing and treatment?

Currently, the standard approach in the U.S. is to test women at 35-37 weeks (which is a cotton-swab sample from your vagina and anus that you can do yourself). This swab is sent to the lab to be cultured. It usually takes a few days to get results. The test is done at the end of pregnancy because GBS bacteria can be present in your body temporarily. Testing within 5 weeks of your due date has been shown to be the most accurate way to determine your status at the time of birth.

If your test comes back *positive*:

- You will be offered IV antibiotics in active labor. The drug of choice is Penicillin, but there are other effective options for women who are allergic to Penicillin.
- Once started on antibiotics, you will receive a dose every four hours until you have your baby. Ideally, you will receive at least one dose four hours before the birth, but the protective effect starts to kick in within 30 minutes.
- If your water breaks before labor starts, you will be offered several options for inducing labor at home and/or in the hospital. The reason for this is to minimize the chance of infection due to prolonged ruptured membranes, which we know may increase the chance that you will pass on GBS to your baby.

If your test comes back *negative*:

- You will not be offered antibiotics unless you develop signs of infection, which could be due to organisms other than GBS.

If your GBS status is *unknown*:

- If you go into labor before test results are available, then you will be offered antibiotics only if you develop any of the risk factors listed above.

### **What are the downsides of antibiotic treatment?**

The antibiotics are given through an IV in your arm and take about 45 minutes to complete. This can be uncomfortable or painful. Afterwards you have the option to have a saline lock placed in the IV catheter to avoid repeating the IV insertion. A further concern with exposure to antibiotics is system imbalance resulting in yeast infection (in mom), and thrush (in baby) leading to breastfeeding problems or a fussy baby. Generally this is less of a problem with these types of short-course antibiotics (as opposed to a 10-day-long course) but it may be a good idea to try to prevent or minimize yeast overgrowth by eating lots of yogurt or consuming lactobacillus once you know you are GBS positive.

A larger concern in healthcare is the growth of bacteria that are resistant to antibiotics ("superbugs") caused by treating so many women and babies with antibiotics. Because of this, research on alternative methods of treating GBS is currently being done.

### **What are the risks of not testing and/or treating?**

- 1-2 in 100 chance of having a baby that develops GBS disease if you are GBS positive AND no antibiotics are given AND you have any of the risk factors listed above.
- 1 in 700 chance of having a baby that develops GBS disease if you are GBS positive AND no antibiotics are given AND you have none of the risk factors listed above.
- 1 in 4000 chance of having a baby that develop GBS disease if one dose of antibiotics are given in labor
- 1 in 20,000 if two doses are given in labor
- 1 in 50 chance of experiencing a mild reaction to antibiotics (such as rash or yeast infection)
- 1 in 10,000 chance of developing a severe allergic reaction – anaphylaxis – to antibiotics. Anaphylaxis requires emergency treatment and can be life-threatening.

If your GBS status is positive or unknown AND you decline antibiotics in labor AND you require transport to the hospital during labor, the hospital staff may do any or all of the following:

- Hold the baby for observation for at least 48 hours
- Run tests on the baby, including blood draws
- Be more likely to move the baby to the NICU and/or give the baby antibiotics if there are *any* signs that suggest an infection in mother or baby

### **Are there any alternatives to antibiotics?**

There is some promising early research that suggests that the use of certain strains of probiotics (found in *Femdophilus*) during pregnancy can prevent GBS from "taking hold". This is more of a preventative approach that may decrease the likelihood of carrying GBS.

An alternative to antibiotics in labor is to wash the outer and/or inner vagina with a diluted solution of chlorhexidine (under the brand name "Hibiclens") before and during labor. This solution kills nearly every kind of bacteria. There have been several small research studies on chlorhexidine for GBS in labor; some say it works well and others say it doesn't.