



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 Vancouver.

How can GBS affect my baby?

About 2 in 1000 babies will develop a systemic 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 <37 weeks*
4. *Ruptured membranes >18 hrs*
5. *Maternal fever in labour >38°C*

What are my options for testing and treatment?

Currently, the community standard 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 labour. 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.
- Because of the risk of anaphylaxis with the first dose of antibiotics, consideration should be given to having the first dose given in the hospital. (You can, of course, leave once you have received them, if you would like to labor at home before returning, or are planning a homebirth.)
- If your water breaks before labour starts, you will be offered the choice of inducing labour. 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 15 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 yoghurt or consuming lactobacillus once you know you are GBS positive.

A larger concern in healthcare is the growth of superbugs 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 in 500 chance of having a baby develop GBS disease if your GBS status is unknown **and** no antibiotics are given
- 1 in 200 chance of having a baby develop GBS disease if you are GBS positive **and** no antibiotics are given.
- 1 in 20 chance of having a baby develop GBS disease if you are GBS positive **and** no antibiotics are given **and** you have any risk factors.
- 1 in 4000 chance of delivering a baby develop GBS disease if one dose of antibiotics are given in labour
- 1 in 20,000 if 2 doses are given in labour
- 1 in 10 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.

Are there any alternatives to antibiotics?

One strategy has been to use dietary supplements to support the women's own immune system to fight off GBS so that she doesn't become a carrier. These would include focusing on foods high in vitamin C, minimizing refined sugar, and consuming probiotics. It is never too early or too late in pregnancy to start this regime.