

Group B Strep (GBS) in Pregnancy

What is GBS?

GBS is a bacteria that is present in the gut and vaginal flora of 10-30% of all women and is the most frequent cause of infection in newborns (2). GBS is usually harmless to women and doesn't normally have any symptoms, but can be the cause of endometritis and chorioamnionitis. Occasionally it can cause urinary tract infection.

How do I know if I have GBS?

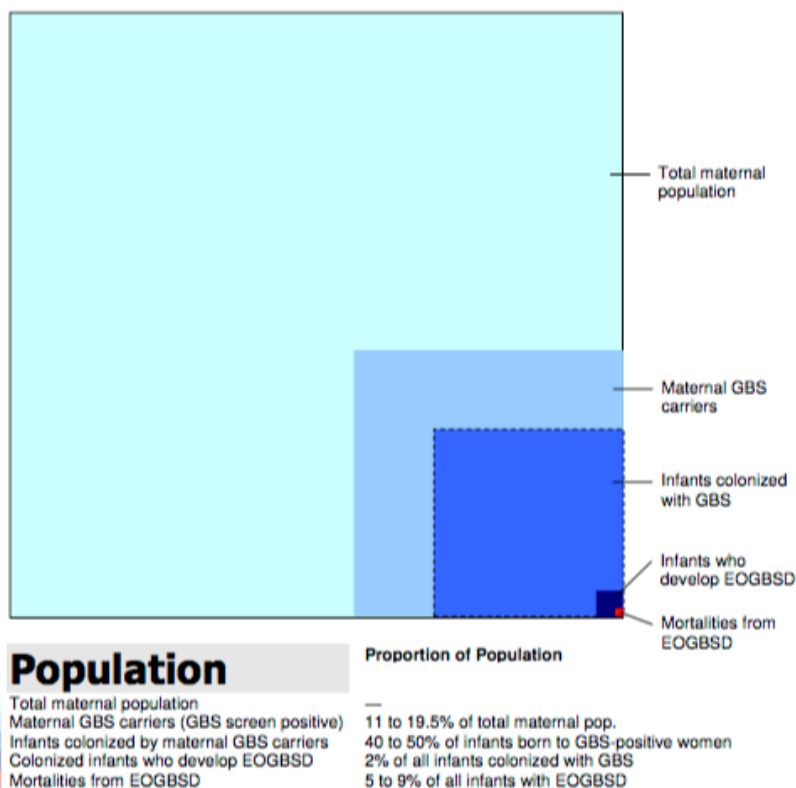
The CDC recommends that all women are tested between 35-37 weeks of pregnancy (1). A swab is used to culture the outside of the vagina and rectum and is sent to the lab. This self-test is optional. If GBS bacteria is present you are considered GBS positive. If no bacteria is present you are GBS negative. It is important to note that the presence of GBS bacteria does not equal infection. GBS status can change by the time of delivery, but the test results are considered applicable for 5 weeks.

The CDC recommends prophylactic antibiotic treatment for anyone with these additional risk factors that could increase the chance of a baby developing GBS disease:

- Preterm labor (prior to 37 weeks)
- Previous delivery of a newborn with GBS disease
- Presence of GBS bacteria in urine culture at any point in pregnancy
- Unknown GBS status and a fever in labor (100.4°F or more)
- Unknown GBS status and waters that have been broken for more than 18 hours

Risks

If there is an overgrowth of GBS in the vagina, women can get an infection in their uterus after delivery. However, this does not frequently occur.



The main risk of GBS is to the newborn. While GBS is a commonly occurring bacteria, infection from GBS is not as common. If your baby does get GBS from your vagina during birth it can cause your baby to have severe respiratory distress or a blood infection. This is called early onset GBS disease because most babies will show signs of this within the first 24 hours of life, but it can occur anytime in the first week. Over half of all women whose newborns developed early onset GBS tested negative for GBS at the time of screening (4). 1 in 2,000 babies will contract GBS disease. The risk of death is 3 in 10,000.

Chart Credit: Vancouver Department of Midwifery

Can I prevent GBS infection?

The CDC recommends treating all GBS positive mothers and mothers with the above risk factors with IV antibiotics during labor. This has significantly reduced the number of GBS infections (0.34-0.77 in 1000 births), but has not prevented any deaths of newborns with early-onset GBS disease (6). It also has not prevented any late-onset GBS infections, which occur after the first week of life. Late-onset GBS is not correlated with maternal colonization of GBS during pregnancy and delivery.

Homebirth midwives in our area do not offer IV antibiotics during labor, so if this is your preference you will need to arrange for a hospital birth. Alternatively, you can arrange to pick up a prescription for an oral antibiotic (Ampicillin) that you can take during your labor. There are no studies to demonstrate the effectiveness of an oral antibiotic because all medical research is performed on hospital births in which all women have IVs. However, our back-up physician feels that oral antibiotics during labor are an acceptable alternative.

If you are GBS positive and decline antibiotic treatment during labor or do not have time to take antibiotics, the CDC recommends we watch for signs of infection in the newborn for 48 hours (1).

The CDC recommends that we watch for the risk factors listed above if you decline to be tested for GBS.

Are there risks to treatment?

Concern over the effect of heavy antibiotic use during labor is mounting and is an important part of this issue. Exposure to antibiotics during labor is linked with increased *e. coli* infections, yeast and thrush, allergies, and asthma in small children (3). If you choose to go the route of prophylactic antibiotics, a probiotic is recommended to repair any damage to intestinal flora caused by the antibiotic.

Are there alternatives to antibiotic treatment?

If you are GBS negative and no risk factors are there, no treatment is necessary.

It never hurts to have a healthy lifestyle that decreases your risk of any type of infection (7). This includes a diet that is high in vegetables and low in sugar, as well as reducing stress or adopting healthy ways to relieve stress. We are learning more about how to effect healthy gut flora through the use of probiotic supplements.

If you are GBS positive or decline testing and wish to lower your risk of infection by using herbal methods, the following regimen is recommended to be started at 32 weeks but has not been researched for GBS (7):

- 500 mg vitamin C daily
- 1 cup of echinacea and burdock root infusion daily (Prepare the infusion by steeping ½ ounce of each herb in 4 cups of boiled water for 2 hours).
- Alternative to the infusion, you may take ½ teaspoon of echinacea and astragalus tinctures twice a day. These are immune-boosting herbs that may reduce infection in the body.

How do I know if my baby is sick with GBS?

Signs of infection in the newborn

- Difficulty breathing (grunting, retractions of the chest, blue coloring of the skin) OR Fast respirations (more than 60 breaths per minute)
- Fast heart rate (over 160 beats per minute)
- Fever (100.4°F)
- Extreme sleepiness

Treatment

Immediate medical attention is necessary if your baby displays any of these symptoms. Your baby will be treated with antibiotics. Most full-term babies will make a full recovery if the infection is caught quickly.

Additional Resources

You may also find the information at Evidence Based Birth helpful in guiding your decision:

<http://evidencebasedbirth.com/groupbstrep/>

Group B Strep (GBS) Informed Consent & Waiver

Please initial below to indicate your testing and treatment preferences:

_____ I have read and understand my options for testing and treatment for GBS, all my questions have been answered, and I've had time to do additional research.

_____ I choose to be screened for GBS.

If positive, I choose:

_____ Transfer of care for IV antibiotic at a hospital birth.

_____ Oral antibiotics to take every 6 hours during labor.

_____ Oral antibiotics in the event that my water breaks without labor beginning.

_____ Alternative herbal treatment

_____ No treatment, only watchfulness for risk factors

_____ I decline screening for GBS and understand that this may give us less information to use when making decisions about my care during labor.

_____ I chose antibiotic treatment in the event that any risk factors are present.

_____ I decline antibiotic treatment despite risk factors.

_____ I understand that in the even of a hospital transfer I will be treated according to CDC recommendations for unknown GBS status (IV antibiotics in the presence of above mentioned risk factors). My baby will be monitored for signs of infection for 48 hours before release. Some hospitals may treat regardless of risk factors.

Client Signature: _____ Date: _____

Midwife: _____ Date: _____

References

- 1 Centers for Disease Control and Prevention (2010). *2010 Guidelines for Prevention of Perinatal Group B Streptococcal (GBS) Disease*. (2010). *Cdc.gov*. Retrieved 12 September 2016, from <http://www.cdc.gov/groupbstrep/guidelines/guidelines.html>
- 2 Marshall, J., Raynor, M., Fraser, D., & Myles, M. (2014). *Myles Textbook for Midwives*. (16th ed.) Edinburgh: Churchill Livingstone.
- 3 Ohlsson, A. & Shah, V. (2016). Intrapartum antibiotics for known maternal Group B streptococcal colonization. *Cochrane Database Of Systematic Reviews*. <http://dx.doi.org/10.1002/14651858.cd007467.pub4>
- 4 Schrag, S., Zell, E., Lynfield, R., Roome, A., Arnold, K., & Craig, A. et al. (2002). A Population-Based Comparison of Strategies to Prevent Early-Onset Group B Streptococcal Disease in Neonates. *New England Journal Of Medicine*, 347(4), 233-239. <http://dx.doi.org/10.1056/nejmoa020205>
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- 6 Vancouver Department of Midwifery,. (2010). *Group B Streptococcus*. Vancouver: Provincial Health Services Authority.
- 7 Romm, A. (2014) *The natural pregnancy book* (3rd ed.). New York: Ten Speed Press.