



Healthy Families Homebirth

Cheryl Furer, CPM, RM, CHom
600 S. Airport Road, Suite G.
Longmont, CO 80503
cheryl.furer@msn.com
Phone: 303-718-1554
Fax: 720-600-4386
www.healthyfamilieshomebirth.com

Group B Streptococcus

What is Group B Streptococcus

Group B Streptococcus (GBS) is a variety of bacteria that is found in the intestines, rectum and, often, vagina of all normal, healthy women. Occasionally, it can travel up the urethra and cause bladder or urinary tract infection, which can be treated with antibiotics. It is not the same bacteria that causes strep throat, and it is not a sexually-transmitted infection. Anywhere from 15%-40% of women can be colonized with it during pregnancy and/or labor. Colonization can occur at any time and can be intermittent, transient, or chronic. Women who test positive for GBS usually have no symptoms and most women are unaware they are even colonized.

Why is GBS a Concern to the Mother

GBS in a pregnant woman can cause urinary tract infections, endometritis (uterine infection), chorioamnionitis (inflammation of the amniotic membranes) and puerperal endometritis (postpartum infection). There is also a small possibility of a miscarriage or stillbirth. "An estimated 20 -30% of pregnant women carry the bacteria but 99% of babies born to mothers who carry the bacteria are perfectly healthy" (GBS, n.d.).

Why is it a Concern for the Baby

The concern about GBS is that it can be passed from the mother to her unborn baby. During pregnancy, the GBS bacteria can move from the vagina to the uterus (chorioamnionitis) but more likely, the baby will become colonized during labor or delivery. This colonization can happen if the bag of waters breaks before or during labor and as the baby passes down and out through the colonized vagina.

GBS in the newborn is classified as either "Early-Onset" or "Late-Onset".

- With early-onset the symptoms appear within the few hours to the first seven days of the birth and it is from the colonization from the mother during pregnancy, labor, or delivery.
- It is estimated that approximately 40-70% of newborns born to mothers who are GBS positive are colonized, but **most will not** contract the disease.
- In the U.S. there was an incidence of the GBS disease in every 2-3 cases per 1,000 live births, which was lowered to 0.5 cases per 1,000 live births after preventive measures were implemented (i.e. IV antibiotics during labour) (Ross, 2007, pg. 42)
- If you have GBS and you are untreated, your baby has a 1/200 chance of getting an early-onset infection (0.5% chance) and a 1/4000 chance if you are treated with IV antibiotics during labor.
- According to ACOG 2009, there is a 5% chance the infant will die from the infection. Which equals 1/40,000 babies dying from a GBS infection, from mothers who do not use IV antibiotics during labor.

This is general information. Please speak to your health care provider about your unique health needs.



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- Babies that have early-onset GBS show signs of meningitis, pneumonia and sepsis.
- These babies will need to be treated with antibiotics and may need to have spinal taps. They generally spend a minimum of ten days in the newborn intensive care unit.
- The other classification is called “Late-Onset” where symptoms appear anytime from the first week to months later. This infection is usually due to contracting it from the environment after they are born (which is why all visitors should through wash their hands as soon as they enter your home).

How is it Diagnosed

The Center for Disease Control and Prevention (CDC) has recommended that all pregnant women be tested for GBS between the 35th – 37th weeks of pregnancy. This is performed by getting a sample from the vagina and rectum with a swab, which looks like a long Q-tip. This sample is then sent to a lab and cultured to see if the GBS is present.

Can I Refuse to Take the Test

Knowing that you are responsible for your own health care decisions with a home birth, you can choose whether or not you want to be tested. If you choose not to be tested, we ask that you research the subject and ask questions so that you can make an informed decision. However, if in the past you have tested positive for GBS or have had a GBS baby, we strongly recommend that you take the test.

What Happens if I Refuse to take the test or IV Antibiotics

- All of our clients are asked to sign a “client information form” concerning GBS.
- Both you and your partner will be asked to initial and sign the client form that will let us know what your plans are for GBS in labor.
- If you choose not to take the test and
 - a. You do not have any signs or symptoms of GBS, we will proceed with your labor and delivery care as though you do not have it.
 - b. Just as in any labor, if you show any signs/symptoms of concern (i.e. infection, fetal heart rate problems, etc.), we would consider transporting you to the closest medical facility.
 - c. If we transport for any non-emergency reason, then the hospital will take measures as if you are GBS positive. These include IV antibiotics and 48 hour newborn monitoring.

What if my Test Comes Back Positive

The CDC recommendation for a positive GBS test in labor is for IV antibiotics be administered every four hours from the time your bag of waters breaks or from the beginning of your labor and continuing until the time of delivery.

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What if I don't want IV antibiotics in labor? You have Options!

Options During Pregnancy: You can start strengthening your immune system and then if wanted, you can retake the GBS test again in two-three weeks. Of course, there are no guarantees that they will work or that your second test will come out negative. Before starting any of these or any other treatments, please, talk to your midwife.

Some of these alternative/complementary treatments include:

- Echinacea tincture
- Bee Propolis
- Vitamin C 500mg with bioflavonoids will help to strengthen membranes.
- Probiotics such as *Lactobacillus acidophilus* which can help make the intestines healthier.
 - Probiotic use will aid your entire system and help with regularity of bowel movements as well as change the pH in the vagina.
- Capsules of Acidophilus and Bifidus can be inserted vaginally, insert for 3 nights in a row either before or after you've used the vaginal garlic.
- Garlic in general is a great infection fighter. You can eat it raw or take it in capsules. Some studies suggest inserting it vaginally at night may help reduce or kill the bacterium. Please ask your midwife for instructions on how to do this.
- Apple Cider Vinegar taken with water can be another way to change the pH of the body. Put a teaspoon in a large glass or bottle of water and sip regularly throughout the day.

Options During Labor:

IV Antibiotics Use During Labor:

- The State of Colorado does not allow home-birth midwives to use or have access to antibiotics. Certified Nurse Midwives, such as those that work at a birth center or hospital can provide antibiotics.

Alternative/Complimentary Treatments to Use During Labor

- a. A solution of 0.25% Chlorhexidine (Hibiclens) a skin disinfectant and dental treatment can be used as a douche or vaginal cleanse every 4-6 hours during labor.¹
- b. You can choose to do no treatments during labor.

Alternative/Complimentary Treatment Risks in Labor

- a. No comparison studies have been done to test whether any of these treatments are more or less effective than IV antibiotic treatments.

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- b. Chlorhexidine, some women report a mild but temporary burning sensation after use. It has not been approved for this treatment and insufficient research has been done to prove whether or not this is an effective treatment for GBS.
- c. If you have GBS at the time of delivery and choose not to use IV antibiotic treatment during labor there is a 1/200 chance your baby may get sick.

Special Considerations

The most effectively proven way to treat GBS in labor is with IV antibiotics given every four hours from the time your bag of waters breaks or when your labor starts until the time of delivery. If you choose not to use IV antibiotics during labor there are certain risk factors that may increase your need to use them:

- Labor before 37 weeks gestation
- Membranes ruptured (water breaks) for longer than 18 hours
- Maternal fever during labour >100.4 F
- Previous baby with Early-Onset GBS
- More than 4 vaginal exams after membranes have ruptured

Maternal bladder/kidney infection caused by GBS at any time in this pregnancy (Tharpe, 2004)

IV Antibiotic Treatment Risks in Labor

- a. The CDC does not address the risks of IV antibiotic use during labor and, as with all treatments, there are both benefits and risks.
- b. Due to the overuse of antibiotics, there are strains of bacteria that are becoming antibiotic-resistant. However, this has not been seen with this bacterium as of the year 2010.
- c. Many argue that GBS detection due to universal swabbing is one of those situations and that antibiotic use in healthy mothers and infants is the source of disease in the postpartum period.
- d. With the use of antibiotics in labor, the rate of GBS infection has decreased BUT the rate of other bacterial infections has increased. E-coli bacteria infecting newborns is on the rise.

Risks of IV antibiotics

Known risks of antibiotic treatment

- Allergic reaction to antibiotics
- Increased antibiotic resistance in the general population

Potential risks of antibiotics

- Yeast and/or thrush in either the mother and/or baby.

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- Some research indicates that babies are not being appropriately colonized by their mother's vaginal flora, which may reduce the healthy gut flora in the infant.
- No follow-up studies have been done to check on the long-term health of the babies.

For more information

www.gentlebirth.org

http://www.marchofdimes.com/professionals/14332_1205.asp

<http://mothering.com/pregnancy-birth/treating-group-b-strep>

<http://mothering.com/pregnancy-birth/herbal-treatments-for-group-b-strep>

<http://pregnancy.about.com/b/2009/07/28/lack-of-evidence-for-antibiotics-for-group-b-strep-in-labor.htm>

www.meningitis.org/disease-info/types-causes/gbs

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Notes:

¹Facchinetti F, Piccinini, Mordini B, Volpe A. Chlorhexidine vaginal flushings versus systemic ampicillin in the prevention of vertical transmission of neonatal group B streptococcus, at term. *J MaternFetal Med* 2002 Feb;11(2):84-8.

“In this carefully screened target population, intrapartum vaginal flushings with chlorhexidine in colonized mothers displayed the same efficacy as ampicillin in preventing vertical transmission of group B streptococcus. Moreover, the rate of neonatal E. Coli colonization was reduced by chlorhexidine.”

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“This prospective controlled trial demonstrated that vaginal douching with 0.2% chlorhexidine during labour can significantly reduce both maternal and early neonatal infectious morbidity.”