



## Group B Streptococcus

- **Introduction**

GBS is Group B Streptococcus, a bacteria found in the genital, urinary, and/or digestive tracts of some women. It comes and goes. This "germ" is one of several related species, including strains of Group A Strep that is the germ usually responsible for what we commonly call "Strep Throat."

A woman can be a carrier of Group B Strep without having any symptoms. The concern with this bacterium is that when baby passes through the vagina during birth, s/he will be exposed to it, and could possibly get an infection. Because babies have such immature immune systems, the fear is that newborns are at risk to die from this infection—and this does happen very occasionally. <sup>1</sup>

Because of this risk, women are treated with antibiotics to kill the GBS: some give antibiotic pills during the final weeks of pregnancy, and then also give IV antibiotics during labor. There are variations on this theme—and there are 2 problems with this: one is that the antibiotics do not always work; some babies get infected anyway. The other is that due to all this antibiotic use, super germs are created that are resistant to antibiotics. Yes, there are now fewer GBS infections in newborns, but there are more infections with antibiotic-resistant strains of E. Coli, for instance. There are also long term negative effects of antibiotics on the health of mothers and babies both, including thrush/yeast, GERD and other digestive issues.

Extremely few full term otherwise normal/healthy babies (37weeks or more) who weigh more than 5lbs will get an infection, EVEN if the mother is a GBS or E. Coli carrier, and even if mom did not take antibiotics. Even fewer babies who are born at home will get infected (with a healthy mom and a planned homebirth), than those born in the hospital—home is just healthier for the family in so many ways. However, if your baby has any symptoms, then please get medical help since GBS is known at times to kill newborns in just a matter of hours without antibiotics.

The CDC guidelines also say that the attack rate for early onset GBS in the newborns of untreated GBS + women who do not have other risk factors (less than 37 weeks, membrane rupture longer than 12 hours, fever greater than 99.5 degrees) is 5 per 1000. The fatality rate for early onset disease in newborns is 4%, which would calculate to 2 per 10,000 in untreated GBS + women without the risk factors listed above.

As mentioned above, there are numerous reasons to avoid antibiotics for any condition. There is numerous research on the dangers of antibiotic overuse. However, though I do not recommend antibiotics for pregnant women with GBS, it is true that for women who get antibiotics, there are fewer babies who get infected with GBS. That said, some babies get infected even if mom had antibiotics during labor; and of those with no antibiotics for mom, no more babies die than when the mom did get antibiotics. Just so you know, if you don't take antibiotics, your baby has no greater chance of dying from the infection, just a slightly higher chance of *getting an infection* in the first place... still, we are talking extremely low numbers here.

- **Natural approach to avoid GBS colonization**

The natural approach to reducing or eliminating GBS (or E. Coli, yeast, or Gardnerella for that matter) in your vagina is two-fold: one is kill the unwanted bacteria; the other is make your system unfriendly to pathogens and very friendly to beneficial organisms. So, we can use herbs, antibiotics, and other things to try to kill some of the pathogens... but they will just come back if we don't also re-introduce beneficial bacteria and make our bodies more amenable to their health. Remember that what we think of as "our own body" is actually composed of countless types and numbers of other microscopic organisms—some are needed for our bodies to function, some are more or less "neutral," some hurt us if they get too numerous.

The vagina and urinary tract in a healthy woman is fairly acid by nature, whereas the blood, for instance, is just about neutral pH... and the digestive tract is even more acidic... we have varying "pH environments" within our bodies. The beneficial organisms thrive in an acidic environment. You've heard of Acidophilus... ACIDophilus..., this is a brew of freeze-dried acid-loving and acid-creating organisms mainly in the lactobacillus family that also grows in yogurt, tempeh, some other cultured foods. Interestingly and sensibly enough, acid loving organisms give off acidic by-products, which helps them to create and maintain a sufficiently acid environment to thrive.

GBS, E. Coli, yeast, and Gardnerella on the other hand, are alkaline ("base") loving bacteria. It is believed by an increasing number of natural health practitioners that it is our widespread over-consumption of sugars and refined carbs (refined, white flour, etc) that has helped promote more alkaline conditions in the urinary tracts and vaginas of women. Along with this is the vast overuse of antibiotics, which kill off the pathogens as well as the beneficial bacteria in our bodies... harming digestion and absorption of nutrients and, changing pH, among other things. This in turn has made it easier for the alkaline-loving organisms to thrive, and harder for the acid-lovers to thrive.

So, while it can be helpful to use such things as goldenseal to kill the pathogens, and echinacea to boost the immune system, these things will not help unless we also replace the beneficial bacteria, and then help them to thrive by re-establishing the proper acidic pH of vagina and urinary tract. And so, in order to reduce the risk of GBS colonization and potential infection throughout pregnancy, **during the last trimester, and/or intensively during the last few weeks**, depending on how healthy a person is dietary measure can be taken. Below are natural alternatives to antibiotics that women have used over time.

- **Dietary measures**

- Acidophilus tabs inserted nightly, high into the vagina can help, as can eating plain, high quality yogurt every day.
- Eat apple cider vinegar (acv) and natural ferments. For example, eating apple cider vinegar and oil salad dressing, just a tablespoon or 2 a couple times a day will help raise your acidity. Vinegar is among the few acid substances that remains acid in the body. Citrus fruits, and such only make the body produce alkaline for digestion, neutralizing the acidic property of those foods. Mild vinegar douching can also help —1/4 cup in a quart of water makes a gentle douche.
- Reduce intake of sugars and refined carbs —this means all sugars, not just "table sugar." Dextrose, maltose, corn syrup, maple syrup, dried fruits, these are all sugars, so read the labels. If you have a strong sugar craving then you may be protein deficient, mildly depressed, and/or you may have a lot of yeast or other pathogens in there, demanding their favorite feast! Increase fats and ferments if that is the case.
- Add garlic as due date approaches: Peel it, thread embroidery floss through it, and insert it into the vagina at night; take it out in the morning. This helps kill pathogens without harming beneficial bacteria. Do this every other night for about 2 weeks. Can be alternated with acidophilus.
- Cranberry extract pill: cranberries have a substance called proanthocyanidin that actually prevents pathogens from attaching to our mucus membranes. Also, eating cranberries, blueberries, and raspberries, will help as well. Better yet, because it does not contain the sugar of fruits, try D-Mannose. This is also the most effective supplement to take for urinary tract infections (UTIs) and works the same way as proanthocyanidins.
- 500-1000 mg Vitamin C with bioflavonoids, taken twice per day. Vitamin C is water soluble and any extra is excreted by the kidneys.
- Bee propolis; or tincture.
- Echinacea is very Strep specific, according to one source. As a preventative, use 10-15 drops of tincture in a glass of water twice a day for a minimum of five days. [As a curative, use two cups of Echinacea infusion daily for five days followed by one cup daily for another five days. Continue for a full ten days. If only the tincture is available, use 1 drop per two pound of body weight. (i.e., 150 pound Mama = 75 drops.) Repeat the dose three to four times a day until fever abates, then two times a day for an additional week.]
- Astragalus tincture ½ teaspoon or one dropper full 2 times a day. Can use equal parts with Echinacea tincture.
- Oregon Grape Root (*You can find this online at His Grace Herbal and Midwifery*)

*Note: Tinctures can be purchased in either a glycerine or alcohol base. You might have to special order glycerine based tinctures.*

- **Vaginal rinses**

Do not douche in pregnancy. Rinse. Go easy. Separate the labia and spray externally. Rinse the anal area also. Remember to treat your partner.

- Gentle douche of plain sterile water in early labor, if waters are intact. It has been studied—; this "plain rinsing" can wash out colonies of the undesirables, thus reducing the chance of GBS transmission to your baby. The more colonies of pathogens inside you, the greater the chance your baby will pick it up on the way out; the fewer the colonies in there, the less chance.
- Thyme, Rosemary, Calendula, Yarrow: Mix equal parts of these herbs in a bowl. Take 6 tablespoons of the mixture and add 1 quart of boiling water. Infuse in a covered container for 4 hours. Strain into a clean jar. Discard the herbs. Use 1 ½-2 cups per application as a rinse. Optional: Add ¼ cup sea salt, 10 drops of lavender oil, 1 oz Echinacea tincture.
- Echinacea infusion.

You can use these infusions for sitz baths, too.

- After 37 weeks, use Goldenseal gel capsules, deep in the vagina, if possible up behind the cervix (not in the cervix). Caution: this can cause uterine contractions, do not use until 38 weeks.

- **Vaginal suppository**

Place 1 cup Echinacea angustifolia root, cut; 1 cup Usnea lichen, cut; and 1 cup Calendula flowers in a quart jar.

Melt 8 oz. cocoa butter with 16 oz. coconut oil; pour over the herbs.

Heat-infuse by placing the covered jar in a crockpot; add water to immerse the jar three-quarters of the way; set on low and cook 12-24 hours. Cool and strain.

To 1 cup of the infused oil add 1 tablespoon of these herbs: Slippery Elm Bark, Comfrey Root, and Marshmallow Root.

Add 20 drops of these essential oils: Lavender, Rosemary and Tea Tree.

Chill slightly in an ice cube tray. When blocks are solid, cut them into quarters. Insert one small cube into vagina before bed.

- **Protocol from Heart and Hands: A Midwife's Guide to Pregnancy and Birth**

1. Twice a day, with breakfast and dinner:

2 capsules lactobacillus acidophilus (2 billion per capsule —try Nature's Plus)

1 capsule Echinacea, 350 mg

1 capsule garlic, 580 mg

1 capsule or gel vitamin E, 500 mg

Also place one clove peeled, unnicked garlic in vagina every other night, remove in morning.

*\*Does not say how long this regimen should be followed*

2. Each day:

6 capsules EHB by NF Formulas (an antibacterial supplement)

Tea tree oil suppositories (soak cotton ball or small cotton tampon with fifty-fifty blend of tea tree oil and olive oil), every four to six waking hours

500 mg vitamin C every four waking hours

*\*This is to be followed for 10 days close to term.*

- **Miscellaneous considerations:**

Use cotton underpants.

Use vinegar or baking soda in the rinse cycle of washing machine when washing your underpants.

Change your underpants (or panty liner) if damp. Best to go without to air out!

Use warm water wash from squeeze bottle after pooping, then pat yourself dry.

Beta strep can be more prevalent in conjunction with UTIs. Urine should be checked for B-strep in this case.

Yeast infection conditions can give rise to increased B- strep population. Use the same diet and supplement protocol to get rid of yeast overgrowth.

- **Hibiclens during labor instead of antibiotics**

Some practitioners recommend a very dilute solution of Hibiclens (an over-the-counter product which is used as an antimicrobial skin cleanser), Hydrogen Peroxide (food grade), or a very dilute solution of bleach: one teaspoon in a quart of water, as a genital area rinse.

[http://www.medscape.com/viewarticle/542430\\_4](http://www.medscape.com/viewarticle/542430_4)

"Vaginal cleansing with chlorhexidine reduces vertical transmission of GBS to the same degree as intrapartum antibiotics and may be significantly cheaper and easier to implement in settings where skilled providers are lacking. Additionally, the antibacterial action of chlorhexidine extends beyond GBS to a broad spectrum of potentially invasive pathogens."

The proper dilution from the European studies is 0.2% and if you buy a 4% bottle of Hibiclens typically available in the US, you will need to dilute it 1-20, that is, 1 part Hibiclens to 20 parts water.

This is a small amount; you put it in a peribottle and use it as an external rinse. You could rinse a bit inside the labia but don't do an American style "douche." Shallow douche is ok. I would also wipe your anus with it before the test as they sometimes take a culture from there as well.

The good thing about Hibiclens is that it leaves lactobacillus intact, but women who have GBS are generally low in lactobacillus, particularly H2O2 producing lactobacillus, so you would need to supplement with lactobacillus, and eat fermented foods to recolonize yourself. You could also directly instill active culture yogurt into your vagina. Make sure it is plain yogurt. You can also insert some probiotics into your vagina (like a douche with some dissolved in it. I would do this after the exam. Or If you like sour kraut, Bubbies has a naturally fermented kind that you can get at New Seasons or Whole Foods. Bubbies also has naturally fermented pickles.

In the case of Hibiclens more is not better —you really need to dilute because full strength can cause some tissue breakdown. This is not what we are aiming for at all —chlorhexidine is another name for Hibiclens.

- **Additional information**

<http://www2.cochrane.org/reviews/en/ab007467.html>

<http://www.cochrane.org/reviews/en/ab000115.html>

<http://rixarixa.blogspot.com/2008/01/group-b-strep-information.html>

<http://www.moondragon.org/mdbsguidelines/strepb.html>

<http://www.hpakids.org/holistic-health/articles/172/1/Treating-Group-B-Strep>

<http://www.mothering.com/treating-group-b-strep-are-antibiotics-necessary>

### **i If you have a history of preterm labor, UTIs and GBS in urine**

A vaginal swab will not tell you whether you will have GBS during birth. As mentioned above GBS comes and goes. For any woman with child and especially for unassisted birthers, I think a diet to eliminate the possibility of even having it there is the best way to go.

That said, GBS *infection* is a serious issue and a potentially life threatening one for the mother as well as the baby. An infection is not the same as a bacterial overgrowth. A swab will not show if there is an infection in the body. To establish whether you have a GBS infection you need to have your urine cultured. You can have a negative swab and still carry GBS in your urine (or worse, blood or spinal fluid). Who is at risk though? Moms with frequent UTIs are at risk, moms with previous GBS + status from vaginal swabs, and moms who have had preterm labor.

Frequent UTIs are most likely caused by GBS in the urine. This often goes undiagnosed, even the UTI itself can be asymptomatic. Preterm labor is often also most likely caused by an infection, and again this is most often GBS (even if a mom tested negative with a vaginal swab). Previous GBS in the vagina can indicate a general imbalance of flora and this GBS could develop where it shouldn't since the immune system is compromised.

Again, the prevention or healing protocol, if followed rigorously will be effective to treat any GBS naturally. Most moms having an unassisted pregnancy will never know if they would have positive swabs either, and sometimes simply treating a UTI or drinking enough water for preterm labor is not enough nor the right answer.

Personally, I am convinced that those few babies who die from GBS infection, are actually babies from moms who have an undiagnosed infection (again not over-colonization of the vagina, but GBS in the urine or blood). Often times, antibiotics don't work right away or not at all. Sometimes, antibiotics are given, symptoms go away, but GBS is still there. There are many different kinds of antibiotics and we know all the issues about antibiotic resistance. But my main reason for thinking this, is that we all get some E. Coli on us when we are born vaginally and yet no baby dies of E. Coli. If they do, it is because they have a very frail immune system already.

A good diet, rich in raw and fermented foods is very important for our health. Antibiotics are very damaging on many levels and are less and less efficient.