

Midwifery Client Handbook

Part Two

We are happy to send you Part Two of our handbook. This part contains information we think will be useful to you in your pregnancy. The contents are organized in three sections. Throughout your visits we will refer to certain topics and remind you to review them prior to your next visits and then bring any questions that have arisen to discuss with us. For example: at your visit prior to 24 -26 weeks gestation (around 19- 20 weeks) we will ask to review the Gestational Diabetes handout as the gestational diabetes screen is usually done between 24 and 28 weeks of pregnancy.

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Semiahmoo Midwifery Birth Plan

Pregnancy is.....

Physical Awareness

Pregnancy challenges a woman's feelings about her body and herself. During pregnancy a woman's body goes through more changes than at any other time in her life. Your size, shape, and weight are altered dramatically. You may feel awkward in a body that is changing so rapidly. A pregnant woman feels sensations she has never felt before. The awareness of another being growing inside is exciting and strange, unique and wonderful. It is very important that an expectant mother be aware of her body and all its messages. Listening to your body is one of the most important abilities you can develop during pregnancy. After all, you are the expert about your own body.

Sensitivity to your physical needs will help you to nurture yourself and in taking good care of yourself you are also taking good care of your growing baby.

Emotional Awareness

Pregnancy is also a time of emotional challenges and changes. From the time you think you may be pregnant your mind is filled with hopes and fears, dreams, plans and wishes. Sorting out this myriad of emotions can be overwhelming at times. Being clear about your emotions helps your mind (and body!) function more effectively. Accepting your emotions, acknowledging your fears, your hopes and dreams is part of your unique pregnancy experience. It is usually very helpful to talk about it. If emotions remain unexpressed they can affect mental focus and clarity; or they may manifest physically in conditions such as stomach aches, back pain, or headaches. Understanding and valuing your emotions gives you a stronger sense of self. And don't forget the many hormonal changes that your body is going through which can also affect your emotions.

Sometimes you just need to sit down, close your eyes, take a big deep breath and breathe it all out.

Intellectual Awareness

Intellectual awareness gives you the ability to recognize and honour your feelings and values. A great cause of stress for pregnant women can be negative beliefs and stories about pregnancy and birth. Many doubts, fears and worries come to the surface. They are often expressed by people close to you, even other caregivers. It can be easy to forget that although a small percentage of the time complications may arise, pregnancy is a time of health and wellness; a normal physiological process, resulting in a safe, healthy outcome.

This is a time to practice the art of listening to yourself, evaluating information with an inquiring and open mind, and communicating your values and needs clearly. And if necessary you can then replace any negativity with realistic expectations for a positive outcome. During this unique period of growth and transition you can achieve profound insights and discover new skills to claim your directorship of your pregnancy and birth.

Exercise, Activity and Sleeping in Pregnancy

During your pregnancy regular exercise is very beneficial. Find a form of exercise that is enjoyable. If you don't enjoy it, it may be because it is uncomfortable and putting stress on your body. Forcing yourself because it is "good for you" goes against taking care of and nurturing yourself during your pregnancy. Exercise should not cause stress or strain. Listen to your body.

Find a form of exercise that:

- you like to do
- increases your feelings of well being
- exercises the specific muscles that you use during pregnancy, labour and birth.

You don't have to go to classes, join a gym or develop a specific routine although some women find group exercise supportive. You can exercise naturally by integrating more movement into your daily life. Walk more frequently, do gentle stretching exercises or yoga while at home; bending, squatting exercises while doing housework or gardening. Regular walking is very healthy for you and your baby.

The basic rule of thumb is: If you have not been exercising regularly do not embark on a regimen of strenuous routines when becoming pregnant. Easy does it. Research shows that exercise is good for you, but it doesn't show that bouts of strenuous exercise are better than regular moderate exercise.

When you become pregnant your body goes through many hormonal changes that may affect the type of exercise you choose. One of the hormones that is released in your body is **relaxin**. This hormone relaxes your ligaments, cartilage and muscles and enables them to stretch and move more easily. This also facilitates the movement of the pelvis allowing for the growth of your baby and the process of labour and birth. Because your muscles are in a more relaxed state you may need to modify your exercise as your pregnancy advances.

Because of the hormonal changes the symphysis pubis joint (your pubic bone) may become uncomfortable or even painful with certain movements as your pregnancy progresses. If this happens you will need to be aware that some activities or movements such as climbing stairs, getting in and out of cars or even getting in and out of bed may aggravate this condition. Please talk to your midwife. There are ways to move, for example, keeping your knees together and moving your legs as one unit when getting out of the car or bed that will minimize the discomfort. A pregnancy support belt may be very helpful.

Lower back pain is often present in pregnancy. Changes in posture and the furniture you are sitting on may need to be evaluated.

Some alternative therapies such as chiropractic, massage, physiotherapy or shiatsu massage are safe to be used in pregnancy and can be very helpful.

Some forms of exercise that may be enjoyable are: walking, yoga, swimming, aquacize, gentle stretching, tai chi chuan, and dancing.

Rest and Relaxation....

During pregnancy it is very important for you and your baby to get enough rest. If you get overtired, both of you will be under stress. The amount of rest you need each day, will vary. Activity level, diet, stress, weather and hormonal changes affect your activity level. During pregnancy your body uses a lot more energy even when resting. At times you may find yourself feeling exhausted and weary. Sometimes people think food equals energy, and reason that when they are low on energy they should eat. Getting enough rest helps to avoid overeating. The important thing is to avoid becoming overtired. Taking little (or big!) naps when you feel fatigued can be extremely helpful. If you can, take afternoon naps in the last two weeks, you never know when you may be up labouring at night!

Sleeping positions during Pregnancy

In what position should I sleep while I am pregnant?

There are no reliable scientific studies showing that pregnant women sleeping on their (left) side have healthier pregnancies than those sleeping on their backs. During pregnancy you should feel free to sleep in whatever position is comfortable. Women have been doing this for thousands of years and having healthy babies.

But I have heard, and many pregnancy sites on the internet state that sleeping on your side is best while you're pregnant. Is this true?

Let's look at the myths and the facts of this.

The myth: *Sleeping on your back can hurt the baby.*

Imagine awakening to find yourself on your back and believing that you have caused some harm to your unborn baby. Many women believe that blood flow through the placenta will be reduced if they lie on their backs. The origin of this myth can be found in some valid research originally performed in the 1960s and 1970s, which demonstrated **that blood flow can be compromised when a mother is forced to labour lying flat on her back for long periods.** Compression of the vena cava, a major vessel underlying the uterus, may occur in this position **when the mother is in labour.** This is why women in labour are encouraged to change position often: to be on their sides, sitting on the birth ball or walking when they are in labor. Contractions reduce blood flow to the baby for a certain portion of the peak of the contraction. A healthy term baby can tolerate this stress without difficulty.

The facts: *For normal, healthy pregnant women, any sleep position is safe for the baby.*

During the later stages of pregnancy, the uterus and baby **may** be large enough to press on the large vein, the inferior vena cava, and reduce flow of blood from the lower body (and uterus) back to the heart. But this tends to matter **only in certain circumstances** such as prolonged labor, if blood pressure is high, if the kidneys are not functioning properly, with anesthesia, or if there is a problem with fetal development. In those situations, lying on the left side may be somewhat helpful, or in some circumstances the baby may prefer the right side as evidenced by fetal heart rate changes. But for normal, healthy women in the midst of a routine, successful pregnancy, the best position for sleeping is the one that's most comfortable.

And, if blood flow was indeed compromised, the mother would likely feel dizzy, short of breath or very uncomfortable and she would shift to her side naturally before the baby was affected. If women are lying on their backs, one hip needs to be lifted only a couple of inches to make a difference in any venous compression that might be occurring.

Find a comfortable position

Pregnant women generally change position quite frequently during a night's sleep. Most women use lots of pillows to help in finding a comfortable position. It can be helpful to place a soft pillow under the belly or between the knees, or if you like sleeping on your back you may be more comfortable placing a thin pillow (can be wedge-shaped) or a folded towel under one hip, changing sides as necessary during the night.

Relax and sleep in whatever position you feel comfortable!

KEGEL EXERCISES

The pelvic floor muscles (pubococcygeus muscle) surround the vagina. These muscles are usually in good tone, but can get loose with childbirth, inactivity and sitting a lot, and age. The prevalence of urinary stress incontinence ranges between 40 and 50 per cent in many studies. Increasing the elasticity of this group of muscles can be obtained by doing Kegel exercises regularly (that is, every day).

Locating the Pelvic Floor:

The simplest way to locate the muscles of the pelvic floor is to stop passing urine in midstream by lifting and squeezing the muscles to stop the flow. Once you've identified the muscle, go on to empty the bladder completely. If you are unable to stop voiding midstream, you can identify your pelvic floor by touching the muscle. You should place the top of the index and middle fingers on the skin just behind your vagina. When the muscle contracts correctly, it will lift up away from the fingers. You can also identify your pelvic floor by inserting the tips of your index and middle fingers into your vagina. A correct muscle action will give a gripping and lifting feeling around the fingers. Alternatively, you can try gripping your partner with the pelvic floor muscles during intercourse.

The exercises:

Once the correct muscles have been identified, incorporate Kegel exercises into your daily activities, ones which don't require a lot of moving around – driving your car, watching TV, doing the dishes or while going to the bathroom.

Quick Kegel: Tighten and relax the pelvic floor muscles as rapidly as you can, five times, then relax and repeat.

The Super Kegel: Penny Simkin recommends this exercise as being the most effective, done 5 – 10 times per day and one which can easily be instituted as part of your daily routine especially if performed during each bathroom stop.

How to do it...

“Tighten the pelvic floor only as if you are trying to hold back the flow of urine. Hold it... hold it... if you feel it start to fade even if you are not letting go, RENEW it... renew it... again and again for 10 full seconds, then slowly let go.”

A sign that your pelvic floor is becoming fatigued is when you start to hold your breath or use other muscle groups such as your inner thighs, buttocks, or abdominal muscles. If you feel your pelvic floor muscle tone starting to diminish during the contraction, renew the tightening and visualize your muscle fibres as bringing in fresh energy to the muscles becoming fatigued. If you do these exercises regularly you will notice a rapid improvement in your pelvic floor tone.

These exercises should be done everyday during your pregnancy, then as soon as possible postpartum, and everyday of your life thereafter!

Ultrasound in Pregnancy

What is ultrasound?

During an ultrasound scan, high frequency sound waves are produced by a transducer (the part of the machine which is placed on the body). The sound waves are passed into the body where they encounter structures (like your baby!). When this happens, the waves reflect back, and the sound (or echo) is detected electronically and transmitted onto a screen as a dot. This results in a picture being formed, with strong echoes creating white dots (representative of bone), weaker echoes creating grey dots (tissue) and no reflection creating black dots (fluid).

What are the benefits of having an ultrasound in pregnancy?

Dating: When performed in early pregnancy, ultrasound is considered a reliable method of predicting the estimated due date, especially for women who have irregular menstrual cycles, or are uncertain of when their last period was. Dating ultrasounds have been shown to reduce the number of pregnancies considered to be “post-term” and to decrease the rate of inductions for pregnancies extending far past the due date.

Number of Babies: Ultrasound can detect multiple (i.e. twin) pregnancies early on, which allows women access to specialized care sooner (multiple pregnancies can be associated with a higher rate of complications). Early detection also allows more time to prepare physically and psychologically for the birth of multiples.

Finding Birth Defects: Approximately 35--50% of serious defects are diagnosed during a detailed ultrasound at 18-21 weeks. Ultrasound may also detect “soft markers”--- characteristics of the fetal anatomy which are in themselves normal but can be associated with an increased chance of genetic anomalies. Detection of soft markers or true abnormalities allows women the chance to consider options to further diagnose or rule out a condition (i.e. genetic testing), as well as the opportunity to consider termination of the pregnancy or the ability to engage resources/prepare for the birth of a special needs baby. In many cases, this can also be considered a disadvantage or limitation, as many initial findings cause much worry and concern but turn out to be benign or non-existent.

Uterine Formation: Although rare, some women have a uniquely shaped uterus that increases the likelihood of complications such as postpartum hemorrhage. More commonly, many women (30% over the age of 30) have uterine fibroids; in rare cases, they are large enough and low enough in the pelvis to make vaginal birth difficult or impossible. Detection by ultrasound may aid women and their caregivers in making birth plans, e.g. hospital instead of home.

Placental Location: Ultrasound can rule out placenta previa (a condition affecting 0.5% of the population where the placenta grows over top of the cervix; cesarean

birth is indicated). For the small number of women affected by placenta previa, early detection may result in healthier moms and babies.

Parents' Experience of Ultrasound: Many parents say that they are happy to see their baby move and swim around on screen. While the mother has often been feeling the baby move for a few weeks, a number of partners report that this is the first time the baby seems "real" and that this allows them to feel "more connected" to the pregnancy.

What are the limitations of ultrasound in pregnancy?

In general, routine scans do not seem to be associated with reductions in adverse outcomes for babies.

Dating: While some research shows ultrasound to be more effective in determining a due date than simply calculating based on a woman's last menstrual cycle, the difference detected in most cases would be unimportant and not impact the outcome for mother or baby. (The exception to this would be in cases of preterm/post-term pregnancies)

Placental Location: There is no evidence that routine screening ultrasounds at 18-21 weeks improve outcomes for mother or baby in the case of placenta previa.

Finding Birth Defects: At least 50% of fetal malformations will not be detected via ultrasound. Additionally, some malformations will be "diagnosed," but in reality not be present, causing undue stress to the parents.

Estimated fetal size: Ultrasound only gives a rough estimate of fetal size. It is especially difficult to accurately estimate the size of very large or very small babies at term, when the margin of error is +/- 1lb.

Parents' Experience of Ultrasound: While an ultrasound has the potential to be a happy experience, real or mistaken diagnosis of abnormalities of the fetus can be very upsetting for parents. If soft markers are noted (e.g. echogenic foci, choroid plexus cysts), some parents have a hard time accepting even after further testing shows these markers are variations of normal, that their pregnancy or their baby is not abnormal.

Like choosing any test, families choosing ultrasound screening should consider the positive, negative or equivocal findings that could be revealed so as to be prepared for unexpected results, and the potential for further testing options to be offered.

Is ultrasound safe?

The effects of ultrasound are difficult to study, due to the many variables that can affect the results, including age of the exposed fetus, different levels of exposure by different machines and different technicians, frequency of exposure, inherent genetic differences between fetuses, and a large variety of measurable outcomes. So far there has been no

well-designed study to date linking ultrasound to adverse outcomes for mom or baby. Ultrasound has been used on millions of pregnant women for more than 30 years without any clear adverse effects.

However, because there have never been any long-term, scientific studies on ultrasound, most experts agree that ultrasound exposure should be minimized and only be used during pregnancy for **medical indications**.

Private ultrasound clinics offering 3-D images or videos have become very popular. In 2004, the FDA (Food & Drug Administration in the USA) put out a caution discouraging women from obtaining “keepsake” ultrasounds during pregnancy. Their rationale for this cites studies that acknowledge ultrasound as a form of energy that can raise the temperature of tissue.

While there is no evidence that this could harm a baby, the FDA says that there is a potential that ultrasounds in pregnancy aren't entirely innocuous.

At what point in pregnancy will I be offered an ultrasound?

- Ultrasound may be offered in first trimester if it is difficult to pinpoint an accurate due date.
- Women over 35 years of age that opt for genetic testing will be offered a nuchal translucency ultrasound, generally done between 12 and 13 weeks. This ultrasound looks at the amount of fluid around the baby's neck – the nuchal fold. Higher amounts of fluid are associated with Down syndrome and the measurement is integrated with blood tests to obtain genetic screening results.
- All women in pregnancy are offered a “screening” or “detailed” scan at 18-21 weeks. At this point, ultrasound aims to verify that the baby is developing and growing normally.
- An ultrasound may be offered throughout your pregnancy for any of the following reasons: concern that the baby is not growing as expected, to investigate the source of vaginal bleeding, to diagnose cervical changes in cases of suspected preterm labour, to verify the position of a suspected breech baby, to follow-up previously discovered concerns, to monitor a pregnancy that extends far past the due date, or as a visual aid during invasive procedures such as amniocentesis.

Can ultrasound confirm that my baby is “normal”?

Ultrasound has been used for many years to gain information about developing babies and is considered a *screening* rather than a *diagnostic* test. This means that there is a chance of false positives (the technician thinks they see something abnormal but your baby is normal) or false negatives (the technician thinks everything is normal when something is abnormal) when ultrasound is used as a diagnostic. However, ultrasound

remains the method of choice for confirming the diagnosis of some conditions (i.e. spina bifida), and is considered a valuable tool to gain information about the developing baby.

The accuracy of an ultrasound is directly related to the skill of the technician performing the scan, and the quality of the equipment used.

Is there an alternative to having an ultrasound in pregnancy?

While it is considered the standard of care for women to be offered a detailed scan from 18-21 weeks in pregnancy, some debate exists about whether or not routine ultrasound is necessary in normal pregnancies. There are some alternatives for detection of *some* fetal anomalies (i.e. maternal serum screening). The main alternative to having a routine ultrasound is simply to not have one.

Can I find out the sex of my baby?

In BC, if discovered by ultrasound, the sex of the baby will not be disclosed until after 20 weeks. If you would like to know the sex of your baby, the clinic will need to schedule the appointment at an ultrasound location that will disclose the sex to you after 20 weeks.

What about Doppler use in the clinic?

The Doppler that care providers in clinic settings use to listen to the fetal heart rate is a form of ultrasound. If you wish to minimize ultrasound exposure, your midwife can (occasionally or always) use a specially designed stethoscope called a fetoscope to listen to the heartbeat.

The limitations of using the fetoscope include:

- having to wait until the fetus is large enough to hear (usually after 20-24 weeks)
- sometimes it's hard for parents to hear without a trained ear
- it often requires the mother to be in a certain position i.e. lying on her back or side, which may be uncomfortable during labour

The advantages of using the fetoscope, besides minimizing ultrasound exposure, include:

- some parents feel there is something special in hearing the *actual* heartbeat of their baby and not an electronic representation produced by the Doppler technology
- helping to verify the position of the baby

Sources for Further Reading

- Society of Obstetricians & Gynecologists of Canada Guideline on Ultrasound – PDF file

- Cochrane Review of Research on Ultrasound in Early Pregnancy- PDF file

GESTATIONAL DIABETES SCREENING

Definition:

Gestational Diabetes Mellitus (GDM) is defined as any degree of carbohydrate intolerance that is first discovered during pregnancy. This condition results in higher than normal blood sugar levels in the mother. It usually occurs in second half of pregnancy (around 24 – 28 weeks) and for 98% of women, it disappears after the baby is born. It affects approximately 6.5% of pregnancies in Canada.

Understanding metabolic changes in pregnancy:

Glucose in the mother's blood crosses the placenta to help provide energy for the fetus. During pregnancy, the mother produces hormones that alter her carbohydrate metabolism to make glucose readily available to the fetus, primarily by increasing insulin resistance. Women with GDM do not produce enough insulin to deal with the increased blood glucose levels. This means the fetus will also have high blood glucose levels and will therefore need to produce higher than normal amounts of insulin to compensate, which may interfere with the normal growth and development of the fetus. Women with GDM usually have no symptoms and feel perfectly healthy.

Who is at risk for GDM?

Risk factors include women who have a previous history of gestational diabetes or a family history of diabetes, age greater than 25 years, being overweight or having a high BMI. Certain ethnic groups e.g. Asian, African, Aboriginal or Hispanic have a higher incidence of gestational diabetes. Women who have previously had large babies (greater than 4 kilograms), an unexplained stillbirth, or a baby with hypoglycaemia, hypocalcemia or severe jaundice may be at risk.

Clinical risk factors include repeated glycosuria (glucose in your urine), measuring large for dates, a substantial weight gain and a high level of amniotic fluid (polyhydramnios).

Who should be tested?

Current guidelines from the Canadian Diabetes Association Clinical Practice Guidelines Expert Committee recommend:

1) the Preferred Approach: this is the GCT which requires no fasting, involves a drink containing 50 grams of glucose and having your blood drawn one hour later to measure your blood sugar levels. If these values are above the normal range you will need a 2 hr GTT to diagnose gestational diabetes. Some women may have an elevated GCT and a normal GTT.

2) the Alternative approach: this is the 2hr GTT which and requires fasting for ten hours prior to and during the test (except for water). Blood is drawn prior to taking a 75 gm gram sugar drink and then again at one and two hours (3 blood draws).

Who does not need to be tested?

Women who meet the following criteria;

- age < 25 years,

- member of ethnic group with a low prevalence of GDM,
- no family history of diabetes in first-degree relative,
- no history of abnormal glucose tolerance,
- no history of GDM (with or without an associated poor obstetrical outcome)
- weight and BMI normal before pregnancy,

are considered low risk and do not require glucose testing. It is acceptable to decline routine glucose testing in many situations. Women are encouraged to discuss their individual health status with their midwives to determine if screening is appropriate.

What are the tests?

There are 2 tests: a screening 1 hr 50 gram Glucose Challenge test (GCT) and the diagnostic 2 hr 75 gram Glucose Tolerance Test (GTT). The best time to do gestational diabetes testing is between 24 and 28 weeks of pregnancy. If there is a high risk of GDM based on multiple clinical factors, screening should be offered at any stage in the pregnancy.

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Women with a previous diagnosis of GDM, a previous positive GTT or a strong likelihood of diagnosis by risk factors will be recommended to have either a fasting blood glucose, random blood glucose or HbA1c included in their initial bloodwork, and may be recommended to take the 2 hour GTT earlier in pregnancy.

What happens if the GTT is abnormal?

Your midwife will discuss the results with you. If one or more of the values are above normal range this is considered diagnostic of gestational diabetes and requires a referral to the diabetes clinic. At the Diabetes Clinic you will see a specialist nurse and physician who will discuss with you how to monitor your blood sugar levels in pregnancy. You will have regular visits to the Diabetes Clinic to assess that dietary and lifestyle changes are keeping your blood sugar levels within normal ranges.

Does GDM need to be treated?

GDM is generally managed by diet and exercise. It is very important to follow the diet and exercise recommendations. The benefits of making these changes are to reduce the risks of hypoglycemia, hypocalcemia, hyperbilirubinemia (jaundice) and polycythemia in newborns. Diet and exercise help to reduce the incidence of very large babies (>4000gm/9lb), which may result in a difficult delivery. Pregnant women with GDM are at greater risk for developing maternal complications, therefore in some cases we

consult with and share care with Obstetricians. In situations where insulin is required to manage GDM, care is transferred to an Obstetrician. You are usually able to return to midwifery care for the postpartum period, if you wish.

What happens during and after the birth?

Your blood sugar levels will be monitored during the birth and your baby will be tested following the birth. Immediate and frequent breastfeeding is the best course for babies of GDM mothers. Occasionally, if the newborn's blood sugars are low, some formula may be recommended to stabilize them.

Women with GDM are at risk for developing Type 2 Diabetes later in life and should receive ongoing evaluation from their family physician. Follow up is recommended at 3 months postpartum. Women can discuss with their midwives healthy diet and lifestyle habits that may improve their risk factors for GDM and reduce the development of type II diabetes outside of pregnancy.

GROUP BETA STREP INFECTIONS

What is Group B Strep?

Group Beta Streptococcus (GBS) is one of the many bacteria that live in the human body. GBS is a transient bacteria that develops in our intestine, where bacteria play an important part in the digestion of our food and the absorption of nutrients. GBS can also be found in the vagina of 3/10 healthy pregnant women. GBS is not a sexually transmitted disease and does not cause symptoms. In fact in most healthy adults it is considered a normal organism.

Why are we concerned about GBS?

In pregnant women, GBS can cause bladder and uterine infections. It can also cause serious infection in the newborn. The baby may be exposed to GBS in the mother's vagina during labour and birth. Of all babies born to mothers with GBS in their vaginas, 40-50% will become colonized by the bacteria. While most of the babies who become colonized will remain healthy, approximately 2% (1/200) will develop GBS infection and 5-9% of these babies may die. This means 1-2 in 10,000 babies will die from systemic GBS infection. Affected babies will usually become ill within the first 12 hours of life.

GBS is the most common cause of sepsis (blood infection) and meningitis (infection of the fluid surrounding the brain) in newborns, and is also a frequent cause of newborn pneumonia. The infection can be early onset (within 7 days of birth) or late onset (7 days to 3 months.)

Pre-term versus Term: The risk of contracting GBS infection is lower in term infants thus there is greater concern for babies that are pre-term, i.e. less than 37 weeks gestation as their immune systems are more susceptible to infection.

How do you test for GBS?

Between 35-37 weeks of pregnancy a swab, resembling a "Q-tip" is placed about an inch into the vagina and then wiped back along the perineum to the anus. We encourage you to do the swab yourself. The specimen is then sent to the lab for testing. A positive culture means that the mother carries GBS, not that she or her baby will become ill.

What do we do about GBS?

There is conflicting evidence and differing views about universal screening and treatment. There are also a variety of approaches to treatment for GBS, and the professional guidelines and standards in North America (SOGC) have changed over the recent years from guidelines favoring treatment based on risk factors to favoring universal screening and treatment to all women who screen positive. The RCOG in the UK has decided that there is no clear evidence to show that universal screening of all

pregnant women would be beneficial overall. Most European countries continue to treat according to risk factors. How to approach and deal with the issue of GBS in pregnant women continues to be studied.

1. Screen and Treat All GBS Positive Women Approach

The *Society of Obstetricians & Gynecologists Of Canada (SOGC)* recommends that all women be screened, and all those that are GBS+ or have any risk factors will be treated with antibiotics in labour. This is the standard of practice in our community.

If GBS+: Antibiotics, usually Penicillin G, are given in active labour by IV every 4 hours until birth. Two doses of Penicillin G administered at least four hours before birth is considered adequate coverage against infection. It takes about 15 minutes to administer, and the IV can be capped and left in place for future doses. If water breaks *before* labour starts, it is recommended to start IV antibiotics right away and be induced if contractions do not begin soon after. For women who are allergic to Penicillin there are other options such as Clindamycin.

Estimated 70-86% drop in early onset GBS disease; 26.7% of labouring women will be given antibiotics. This approach may have the greatest reduction in GBS sepsis.

2. Treat for Risk Factors Alone Approach

Some countries such as England do not recommend screening for GBS but rather simply treat when risk factors occur. They feel there is not enough evidence that treating GBS+ women is effective, as study quality has been poor. Their evidence also suggests that almost as many women will be treated using the screen and treat for risk factors approach as using the risk factors approach alone .

Risk Factors for GBS infection in the baby:

- Previous baby with GBS infection
- GBS in the urine during pregnancy (2-4% of pregnancies)
- Preterm birth (see previous comment)
- Rupture of membranes (waters broken) for more than 18 hours
- Temp \geq 38 C during labour (fever)

Estimated 50-68.8% reduction in early-onset GBS infection; 25% of women will be given antibiotics.

3. Screen and Treat for Risk Factors Approach

The *Canadian Task Force on Preventive Health Care (2002)* recommends that all women be screened, but only GBS+ women *with risk factors* be treated with antibiotics.

There is evidence that both the screening and risk factor approaches reduce the number of sick babies, but more women will be given antibiotics with the screening approach.

Therefore the CTF feels that screening and treating only with risk factors is more efficient. With either approach, some babies will still get sick.

Estimated 51% reduction in early-onset GBS infection; 3.4% of women would be receiving antibiotics.

What are the side-effects of taking antibiotics in labour?

Allergies:

1/10 chance of a minor allergic reaction

1/10,000 chance of anaphylaxis

Antibiotic resistance is a concern with overuse of antibiotics among women with GBS. The widespread use of antibiotics is known to contribute to the development of resistant organisms. Antibacterial resistant strains of GBS are appearing.

Disturbance in normal flora

In the baby's intestine antibiotics may cause delay of development of normal bacteria in the intestine of the newborn although research shows this is mainly a concern in preterm infants who receive more antibiotics.

Another concern is yeast and bacterial infections on the nipples of breastfeeding mothers which can impact the early experience of breastfeeding for mothers and babies – this is currently under study. A final concern is opportunistic infections in the mother; replacing normal flora is recommended for all women receiving antibiotics for any reason and can be done by taking capsules containing live bacterial culture such as acidophilus or bifidus, or Biogaia (*L.reuteri*) drops.

Treatment of your baby:

Women should also know that babies of women of unknown GBS status, needing medical treatment, may be treated more vigorously than those of GBS – women.

Intrapartum antibiotic prophylaxis will not prevent all deaths. Even when treated appropriately some infant will die of early-onset disease particularly when the disease is well established prior to birth.

The Final Word:

Sometimes women who are GBS+ have fast labours and there is not time to administer two doses or even any antibiotics, your baby is not at any more risk if this should occur. Remember most of the world does not treat for GBS and the incidence of sick babies from exposure to this organism is not significantly higher.

For more information on GBS:

http://www.sogc.org/health/pregnancy-groupb_e.asp

<http://www.bchealthguide.org/kbase/topic/special/zp3014spec/sec1.htm>

<http://www.ctfphc.org/>

http://www.cdc.gov/groupBstrep/prevention_spot/
<http://www.rcog.org.uk/index.asp?PageID=520>

Vitamin K and the Newborn

What is Vitamin K?

Vitamin K is a fat-soluble vitamin that is essential to help blood clot. There are 2 types: **phylloquinone** (Vit K1) is acquired through diet, particularly leafy green vegetables and; **menaquinone**, (Vit K2) which is synthesized by bacteria in the human intestinal tract. It is necessary for the formation of blood clotting factors.

Why do we give newborns Vitamin K?

Normal newborn babies in their first few days of life have lower levels of Vitamin K – the reason for this is currently not well understood. If any bleeding occurs, a newborn's blood will take longer to clot than an adult's. The concern with this is that some babies will encounter a temporary abnormality of the blood coagulation system called vitamin K-deficiency bleeding (VKDB).

Do all babies need Vitamin K?

The Canadian Pediatric Society recommends that all newborns receive an injection of Vitamin K in the first 6 hours of life. Vitamin K administration has reduced the incidence of VKDB to approximately 1 in 1 million.

There are some conditions where babies are at higher risk for VKDB and have a greater need for Vitamin K. These are related to: preterm delivery, low birth weight, forceps or vacuum delivery, caesarean section, undetected liver disease, extremely fast or prolonged birth, mother's use of certain medications.

What is VKDB?

VKDB is characterized by generalized ecchymoses (bruising), cephalohematoma, and spontaneous bleeding from the umbilicus or nose, needle prick sites or following circumcision. Sometimes the bleeding is internal, e.g. intracranial, intra-thoracic, abdominal and gastrointestinal bleeding, or the urogenital tract. This is of special concern as symptoms of internal bleeding may not always be evident until major damage has occurred.

Early VKDB typically occurs within 24 hours of birth and is associated with premature birth, birth injuries from a complicated birth or maternal use of medications (e.g. anticonvulsants, oral anticoagulants, cephalosporins and tuberculostatics). It occurs almost exclusively in breastfed babies. Breast milk contains only small amounts of vitamin K (1 – 9 mcg/L); whereas Vitamin K is added to formula (53-66 mcg/L).

Classic VKDB occurs between 24 hours and 7 days of age and is associated with late onset of feeding, inadequate milk intake and marginal Vitamin K content in breast milk. The clinical presentation is often mild, with bruises, gastrointestinal blood loss or bleeding from the umbilicus and puncture sites.

Late VKDB occurs between 2 and 12 weeks of age and is associated with exclusive breast-feeding. The clinical presentation is severe, with a mortality rate of 20% and intracranial haemorrhage occurring in 50% of cases

Supplementing the baby with Vitamin K has lowered the incidence in all aspects of this disease. As well, early and frequent breastfeeding is supported by the fact that colostrum has more Vitamin K than breast milk.

How is Vitamin K given?

Vitamin K (0.1 ml) is usually given to newborns via a single intramuscular injection into the thigh muscle using a very tiny needle. Many studies have concluded that the IM administration is the most effective method of lowering the incidence of all types of VKDB. Some studies have raised concerns regarding long term side effects but there is no definitive evidence to support this concern and the benefits outweigh any possible risks. If performed improperly, intramuscular vitamin K injections can carry a risk for damage to muscles, blood vessels, nerves and the femur, however this would be extremely rare. Intramuscular injection can be a painful experience for the infant, but for most babies it is of momentary discomfort. We usually wait until after the baby has had breastfeeding and cuddling time. Babies can be held skin to skin by a parent when the injection is given, as skin to skin contact has a known analgesic effect.

Can Vitamin K be given orally?

Vitamin K can be given orally in multiple doses over several weeks. This method does not have definitive research findings and it is generally accepted that further study is necessary before oral administration can be confirmed to offer the same protection as the IM route. However, current evidence suggests that oral Vitamin K does provide protection against classic VKDB, 2-7 days, but does not fully protect against late onset VKDB.

The concerns with oral Vitamin K are that; it is not as well absorbed as IM vitamin K and multiple doses are needed; the quality control in the PO products is unknown as there is no standard oral preparation; and there may be variable absorption as babies often spit up after oral liquids and thus may not receive the full benefit. Vitamin K is a very fatty substance so most PO Vitamin K preparations are in an oil base to enable emulsification and ingestion, however, some babies may react to certain oils. There is also a concern that follow-up doses may be missed.

There is no consensus as to the best oral dose. The oral dose regimes suggested are:

1. 2 - 4 mg Vit K PO following first feed then 2 mg at 2-4 weeks and again at 6-8 weeks. (3 doses)
2. 2 - 4 mg Vit K PO following first feed then 2 mg within first week, then 2 mg weekly while breastfeeding. (multiple doses)
3. 2 mg after first feeding, the 2 mg within first week, followed by 25 mcg daily for 13 weeks. (multiple doses)
4. 2 mg after 1st feeding, followed by 1mg weekly, OR 25 mcg daily, while breastfeeding.

Parents should be advised of the importance of the baby receiving follow-up doses and be cautioned that their infants remain at an increased risk of late VKDB (including the potential for intracranial haemorrhage) using this regimen. Parents should note that babies who are not well enough to feed soon after birth, should receive IM prophylaxis. IM Vitamin K should also be considered in any baby with failure to thrive.

References:

1. Routine administration of Vitamin K to newborns.

A joint position statement with the College of Family Physicians of Canada
Principal Author D McMillian; Canadian Paediatric Society, [Fetus and Newborn Committee](#) Paediatr Child Health 1997;2 (6):429-31 Reaffirmed February 1 , 2014
Click on Fetus and Newborn Committee for the link

*Many of the studies of Vitamin K prophylaxis in newborns are over 10 years old, and the current dose of Vitamin K is now different than those referenced. This summary above is one of the best in reporting a balanced, scientific view of Vitamin K administration to newborns.

2. Vitamin K in neonates: facts and myths

Guiseppe Lippi and Massimo Franchini; Blood Transfus. Jan 2011; 9(1): 4-9.
The link below will take you to the article:
Vitamin K [in neonates: facts and myths - PubMed Central ...](#)

3. Separating Fact From Fiction in the Not-So-Normal Newborn Nursery: Vitamin K Shots.....

<http://www.sciencebasedmedicine.org>

4. Revisiting vitamin K - What have we learned in a decade?

Sara Wickham Essentially MIDIRS: July/August 2013 Vol 4 /7
The link below will take you to the article: Copy and paste in your browser
<http://www.maternity.org.nz/wp-content/uploads/2014/03/Revisiting-Vitamin-K-and-the-newborn.pdf>

Newborn Eye Medication

PREVENTIVE TREATMENT FOR NEWBORN EYE INFECTION

Why are the newborn's eyes treated with medication after birth?

Treatment of the newborn's eyes is done to prevent or reduce eye infections, collectively called neonatal ophthalmia, caused by exposure to certain organisms from sexually transmitted diseases, primarily Gonorrhoea and Chlamydia. These organisms can infect the newborn if present in the mother's vagina at birth. Gonorrhoea is the more virulent bacteria, and may cause permanent damage, including blindness, in the early newborn period, although this is now rare in Canada.

What is Neonatal Ophthalmia?

Neonatal ophthalmia is defined as conjunctivitis that occurs within the first four weeks of life. It is a relatively common illness, occurring in 1% to 12% of newborn infants. Originally, neonatal ophthalmia referred to conjunctivitis in the newborn caused by infection with *Neisseria gonorrhoeae*, but now the term refers to any conjunctivitis in this age group, irrespective of the cause.

N gonorrhoeae accounts for less than 1% of reported cases of neonatal ophthalmia in Canada and the United States, while that due to *Chlamydia trachomatis* varies from 2% to 40%. Rates of ophthalmia by these two sexually transmitted pathogens have declined over the past two decades as a result of the decreased prevalence of these infections in the general population as well as the general institution of routine prenatal screening for them.

In most instances, neonatal ophthalmia is a relatively mild illness. The exception is ophthalmia due to infection with *N gonorrhoeae*. Without preventive measures, gonococcal ophthalmia has been observed to occur in 30% to 42% of infants exposed to *N gonorrhoeae* during delivery and may progress quickly to corneal ulceration and permanent visual impairment. The primary purpose for the use of prophylaxis for neonatal ophthalmia is to prevent disease due to *N gonorrhoeae*.

Aren't women tested in pregnancy?

Although women are usually routinely tested in pregnancy, no test is 100% reliable and women may be unaware that they have an infection due to a false negative test result or by being re-infected after the testing period.

What if I don't have an STD?

The law in British Columbia states that all babies must be treated prophylactically (preventively) within one hour of birth. However, in 1995 this B.C. law was changed to allow parents the option of **refusing this treatment with informed consent**.

If your testing was negative and/or you are confident that you and your partner have not acquired either of these infections since then you may decide not to give this eye medication. It is important that you are absolutely confident of your sexual relationship/history as you cannot rely on absence of symptoms as your indicator of infection.

Despite the dramatic decrease in prevalence since 1983, *N gonorrhoeae* continues to be regularly identified in newborns in Canada. Furthermore, the infection is frequently asymptomatic in women. Thus, the Canadian Pediatric Society continues to promote universal prophylaxis for neonatal gonococcal ophthalmia, in addition to routine prenatal screening for *N gonorrhoeae* and *C trachomatis*, and treatment of identified infections during pregnancy (1).

What is the treatment and when is it given?

Erythromycin, an antibiotic ointment is administered to the baby's eyes within the first hour after birth. Although erythromycin is effective against both organisms, gonococcal ophthalmia (eye infection) has occurred despite treatment with erythromycin ointment. While no treatment is 100% effective the risks are significantly reduced with preventive treatment. If a documented gonococcal infection exists, topical erythromycin therapy alone is inadequate. Erythromycin provides additional protection against other bacterial eye infections and decreases the incidence of local irritation.

Although it is proven that this treatment has reduced the incidence of infection to the newborn, there have not been any controlled trials which prove that this preventive measure is a more effective means of preventing blindness than careful observation of the newborn followed by adequate treatment of any conjunctivitis that should appear. This becomes an issue of weighing the responsibilities of careful observation against the intrusiveness of the treatment.

Recommendations for Treatment:

- When the possibility of infection is suspected, treatment should be administered immediately after birth.
- If a maternal infection is unsuspected, the ointment will still be administered unless both parents sign an informed refusal.
- If infection is unsuspected and you have declined treatment, it is still important to watch your baby's eyes for redness, discharge and swelling*.
- If symptoms occur, a culture may be done to test for gonorrhea or chlamydia and to rule out yeast or other vaginal infections.

Are there any side-effects of routine treatment?

Treatment will cause blurry vision for a few hours after been given. We usually delay application for the first hour of life to enable the parents to enjoy the bonding time and the first breastfeeding experience. After this time when the newborn exam has been completed, the baby is usually ready to sleep and the ointment is absorbed while the baby rests.

In some cases the medication may cause a localized irritation of the eyelids, known as chemical conjunctivitis. This can lead to an overgrowth of non-susceptible organisms including fungi. Rarely, following an application of erythromycin, sensitivity may occur.

*Sticky Eyes

Mild eye infections in the newborn are common due their exposure to common organisms and the normal bacteria in our environment. "Sticky eyes" are generally self-limiting, resolving in about 48 - 72 hours. Sticky eyes usually present between the 3rd to 8th day postpartum. Treatment is warm water on a cotton ball, wiping the eye from the inner to the outer corner. Use each cotton ball once. If the sticky eye and discharge does not clear up with just warm water you may use a solution of black tea. Just use an ordinary black tea bag and make a cup of medium strength tea and wipe the baby's eye 4 times a day with the tea, or more often if the discharge is persistent. You should notice a difference in 24 - 36 hours. "Sticky eyes" are rarely an infection and do not respond to antibiotic ointment. Any discharge, swelling and inflammation of the newborn's eyes should be checked out. Please consult with your midwife.

(1) Recommendations for the prevention of neonatal ophthalmia

[Infectious Diseases and Immunization Committee](#), Canadian Paediatric Society (CPS)

Re- affirmed 2009

BC NEWBORN SCREENING PROGRAM

Why is my baby screened?

A blood test can be used to get important information about his or her health. A newborn baby can look healthy but have a rare disorder that you and your doctor or midwife may not be able to detect with regular postpartum care. Newborn screening detects these babies who may have one of a number of rare disorders. When these disorders are found and treated early, the chances of serious health problems are prevented or reduced later in life. If not treated, these disorders can cause severe mental developmental, growth problems, health problems and sudden infant death.

How is my baby screened?

Your baby's heel is pricked and a few drops of blood are put onto a special card. Your baby may cry and fuss a little but taking the test does not harm your baby. You can hold your baby or breastfeed while the test is being done. The blood sample is sent to the newborn screening laboratory at BC Children's Hospital for testing. The same blood sample is used to screen for all disorders.

How soon after birth will my baby be screened?

The blood is usually taken between 24-48 hours after birth. This is usually done before your baby leaves the hospital, however, if you have an early discharge or a home birth it may be done by your midwife at home.

Can the baby be tested later?

The earlier these treatable disorders are found, the better the outcome for babies with these disorders. If you decide to make an informed refusal you will be asked to sign a form that you understand the reasons for the test and the possible outcome if the baby is not tested and treated. As there is no risk to the baby and it is strongly recommended to have the test done.

How do I find out the results of the screening?

Your baby's screening results are reported to the hospital where the baby was born and your baby's midwife or doctor. Your midwife will advise you of the results.

What does it mean if the test is negative?

A negative screen means that the chance of that your baby has one of these disorders is very low. Very rarely, the test may miss a baby with one of these disorders.

What does it mean if the screen is positive and what happens next?

A positive screen tells that there might be a problem. It does not mean that the baby has one of these disorders, but that it is possible. More tests are needed.

Will screening for these disorders find anything else?

Screening for sickle cell disease and cystic fibrosis may also tell if your baby is a carrier for one of these disorders. Babies who are carriers are healthy and no more likely to get sick than any other baby. If your baby is a carrier, you will be provided with more information to find out what this means for your baby, yourself and your family.

Which disorders are included in the Newborn Screening?

In British Columbia babies are screened for 19 rare but treatable disorders. These include:

Metabolic Disorders: These occur when the body is not able to break down (metabolize) certain substances in food like fats, proteins, or sugars. These substances can build up in the body and cause serious health problems. Serious ongoing health problems can be prevented with early treatment.

Endocrine Disorders: Babies with endocrine disorders of either the thyroid or adrenal glands make too little of certain hormones to replace the ones their bodies cannot make. Replacement of thyroid hormone prevents growth problems and mental handicap. Replacement of adrenal gland hormones can prevent serious health problems such as shock or unexpected death.

Blood Disorders: Blood disorders happen when the part of the red blood cell that carries the oxygen (hemoglobin) throughout the body is changed. Hemoglobin is important because it picks up oxygen in the lungs and carries it to the other parts of the body. Serious health problems can be prevented through medicines and special treatments.

Cystic Fibrosis: Cystic fibrosis is an inherited life-limiting disorder. It causes thick mucus to build up in the lungs, digestive system (and pancreas) and other organs. Most people with CF get chest infections. They also have problems digesting their food and as a result, they may not gain weight as well as they should. Early treatment can be started with medicines and physical therapy that help babies with cystic fibrosis digest food and keep lungs clear of mucus. CF affects about 1 in every 3,600 babies in BC.

What if the results show that my baby has one of the disorders after all the tests are done?

Babies who have any of these disorders will need treatment from a doctor who specializes in the disorder. Babies are referred to a specialist right away. Treatment can start in a few days.

For more information: www.newbornscreeningbc.ca

SEMAIHMUO MIDWIFERY BIRTH PLAN

Our philosophy of birth is to support you and your partner through the process of labour and birth in the most normal, physiological manner, minimizing the use of medical interventions, including them only as clinically necessary. We also wish to provide personalized care that honours any religious or personal beliefs you have and that you wish to be included in your birth experience.

We have put together a comprehensive outline of what you might expect our care to be during your labour and birth experience. We hope this will answer your questions and help you make your choices. Please carefully read through and let us know your preferences.

You will be attended by one of the Sage Midwives throughout your labour and birth. Sometimes the changeover in our call schedule means that another midwife will come in and continue care.

Early Labour

In early labour you will be in your own home. We encourage you to relax, rest, as much as possible and not pay too much attention to the early labour contractions. Once you have an active labour pattern (see **When to call the Midwife: Labour** in the handbook) you will page the midwife on call. Most often the midwife will make a home visit to make an assessment and determine labour progress.

- If she determines you are in early labour, she will help you get more comfortable and make arrangements to stay in touch.
- If you are in active labour, she will stay and support you at home as long as desired or arrange to meet you in the hospital as indicated.
- Sometimes we do an early labour assessment in the hospital (triage) and after addressing your needs will send you home until labour is well established.

Active labour

- A calm, supportive atmosphere is our goal. This may include low lighting, soft voices, quiet environment, privacy or an appropriate number of support people.
- We will encourage you to move, walk and change positions frequently to assist the progress of labour.
- We will encourage you to keep well hydrated; drinking water, juice or energy drinks

- We support you to eat easily digested foods as desired and tolerated, recognizing that as labour progresses you may feel nauseous and will likely not want to eat
- As needed, we generally give lots of verbal encouragement, however if you wish quiet during your contractions please say so.
- We will suggest supportive non-pharmacologic pain relief measures, such as the bathtub, showers, tens, and massage.
- Except in rare circumstances we do not offer you drugs. We know that for most women normal labour and birth is manageable, supported by non-pharmacological methods, movement and encouragement.
- You will be reminded to empty your bladder frequently
- We do not offer enemas; occasionally women who have persistent and uncomfortable constipation may request one.
- IV fluids will only be used for medical indications, such as severe dehydration, administration of oxytocin, or epidural use.
- If you are GBS positive and have opted to treat with antibiotics, we will set up your IV so that you are only attached to the IV set-up when antibiotics are being administered, usually about 20 minutes every four hours.
- We will wait for your bag of waters to break on its own unless a clinical reason indicates that artificial rupture of membranes (breaking the bag of waters) may be helpful or necessary.

Monitoring your baby's heart rate:

- We will listen to your baby's heart rate, usually with a handheld Doppler every 15-30 minutes once you are in established labour. During pushing, monitoring will increase to about every 5 minutes.
- If continuous monitoring is indicated or recommended, (oxytocin administration, epidural, vbac) and your baby is doing well, we will take you off the monitor and for 20 -30 minutes at a time. You can then get up, move around and go in the shower or tub as desired.
- If a cordless system is available, we will use it.

Birth in Hospital

- We encourage you to labour at home until labour is well progressed and the birth becomes more imminent, unless there is a clinical indication to go sooner. We factor in safety, comfort, distance to hospital, weather, labour progress in determining when to go to the hospital.
- Your midwife will phone the hospital to advise them of your labour status and our intention to come into the hospital. Very occasionally we are advised that there are no rooms or nursing staff available at your preferred hospital. This situation may be resolved by labouring at home for a few more hours or it may be necessary to go to another site if you need to be in the hospital sooner.
- At both SMH and PAH you will labour and birth in a private room. At SMH there are showers in every room and tubs in 3 out of the 36 rooms. At PAH there are tubs in 7 of the 8 rooms.
- On arrival a nurse will be assigned to our room. Our nurse provides supportive care and this will include taking your vital signs, listening to the fetal heart, assisting with position changes, verbal encouragement, massage etc. If the family birthing unit is busy our nurse may be involved with other duties until you are pushing at which time she is with us until after the birth.
- If complications arise and you have an epidural or oxytocin the nurse will monitor the epidural and oxytocin according to the unit protocols in conjunction with our management and/or the obstetrician as needed.
- You may wear your own clothes, a hospital gown or nothing as you wish.
- We make an effort to ensure your privacy is respected and will obtain your permission before non-essential personnel (student nurses, interns, residents etc.) are invited to be present.
- You may have whomever you deem to be your support team for labour and birth with you in the room, however we suggest you discuss your plans with your midwives ahead of the birth as sometimes it is necessary to reduce the number of people present so you can labour and birth without distraction.

Birth at Home

- If you are planning to use a birthing tub, you may wish to enter the tub when you are in well established, active labour. You may stay in the tub to birth the baby as you wish, assuming labour is normal.
- The second midwife will be called to attend once your labour has progressed and your midwife determines you are in or close to second stage.

Second Stage – Pushing

- We support spontaneous, instinctive, non-directed pushing unless it is deemed clinically necessary to provide direction to facilitate the birth.
- We may suggest frequent position changes, (e.g. hands and knees, squatting, side-lying), to ensure you are in the most effective position to push and give birth.
- We do not use stirrups routinely.
- We may suggest the use of the squatting bar or birth stool if available.
- We do not perform an episiotomy unless it is clearly necessary to help the baby get born quickly. If forceps or a vacuum is used an episiotomy is sometimes done.
- You may wish to see the baby's head emerging with a mirror as you push.
- You may wish to touch the baby's head as it starts to emerge.

Birth

- You or your partner may wish to help lift the baby out as it is being born.
- The baby is usually lifted up onto your tummy and placed skin to skin.
- The baby will then be gently dried and covered with a warm towel.
- We do not routinely suction the baby's nose and mouth.
- The cord is usually clamped after about two minutes. We can wait until it has stopped pulsing if you wish.
- Your partner or a chosen support person may cut the cord if they wish,
- We can collect the cord blood for banking if you have prearranged it.
- Breastfeeding is encouraged as soon as the baby seems interested.

Third stage ... the placenta

- We offer active management of the placenta which is an injection of oxytocin into your thigh right after the baby is born (please read third stage management handout). This assists the delivery of the placenta and reduces blood loss.
- If you wish physiological or expectant management please let us know.
- We usually offer to show you the placenta.
- If you wish to take home your placenta please bring a sealed container.

Immediate Postpartum

- Vital signs (BP, pulse, Temp, assessment of bleeding) will be done by the nurse every 15 mins for one hour.
- We usually delay the newborn exam for about an hour to enable bonding time and breastfeeding.
- Vitamin K and erythromycin eye ointment as per parent's wishes will be administered at this time. Sometimes the nurse will do it sooner with the parent's agreement.

In the event of complications...

- We make an effort to ensure any proposed procedures are explained and discussed with you and as much as possible we act as your advocate to ensure your choices are respected. In emergency situations, time for discussion may be limited and your permission to act in your and your baby's best interest is assumed. We will discuss and debrief with you and your partner following any emergency procedures.
- If the situation requires we transfer care to an obstetrician we will stay with you in a supportive role. If the baby's care is transferred to a pediatrician we will also continue supportive care until baby's care is transferred back to us which may be following discharge.
- If there is meconium (baby's first bowel movement) in the amniotic fluid a pediatrician may be called to be at the birth, depending on the situation.
- If a baby needs assistance to begin breathing the cord will be cut quickly and the baby taken to the warmer where oxygen, suction and radiant heat are available. Other nurses and physicians will often come to assist.

- If the baby needs to be taken to the nursery the partner can usually go with them and the mother will be taken to see the baby as soon as possible.

Induction and Augmentation... (stimulating contractions)

- There are a number of situations where induction maybe advised or offered. If any of these arise for you, we will discuss the risks and benefits of all options to help you make an informed decision as to how to proceed.
- If your labour needs to be induced we will discuss natural methods such as cervical stretch and sweeps, labour cocktail, acupuncture, massage, and homeopathics before we offer medical induction unless the situation dictates otherwise.
- If your labour needs to be augmented (i.e. your contractions need to be stimulated to become stronger and more frequent) we will suggest walking, breaking of the bag of waters, using a breast pump or nipple stimulation, or homeopathics, if appropriate or oxytocin through an IV pump. Oxytocin administration will require the fetal heart to be monitored with an electronic fetal monitor and is frequently accompanied with an epidural so the mother can get some rest.
- In the case of induction or augmentation we consult with an obstetrician and in some cases care may be transferred, however we will stay with you until after the birth.

Birth in the OR – Forceps or Caesarean

- If the birth happens in the OR one support person and your midwife can be with you.
- The support person will be invited to sit beside the mother's head after the regional anaesthetic is in place.
- If a general anaesthetic is required the support person is not allowed in the OR.
- The partner is generally invited to go and be with the baby after it is delivered, and being examined by the pediatrician, and will go to the recovery room with the baby before the mother is transferred from the OR.
- The baby is usually shown quickly to the mother after delivery, and brought to her for a cuddle before going to the recovery room. When possible we bring the baby back to the mother in recover room for more skin to skin and breastfeeding.
- Skin to skin is encouraged as soon as possible, and partners are encouraged to do skin to skin if they wish until the mother is able to receive the baby.

Postpartum

- Following a normal birth Mothers and babies are encouraged to go home as soon as possible, 6-12 hours depending on the time of birth.
- Unless the baby is in the nursery we are the baby's caregiver and are responsible to discharge them.
- A midwife is available by pager 24/7 for any postpartum concerns not addressed by the handbook. You may page us from the hospital if you are having difficulties not addressed by the nursing staff.
- You will receive a home visit around 24 hours after a home birth, depending on the time of birth.
- If you need to remain in the hospital we will come and visit daily. You will usually receive a home visit the day after you go home from the hospital.
- We will do the newborn screening test (heel prick) after 24 hours unless it has been done in the hospital
- Postpartum home visits are done around day1, day 3 and at 7-10 days postpartum. These visit schedules are not carved in stone, if we are at another birth and mother and baby are fine, the visit may be done the following day. If there are serious concerns we usually call in another midwife.
- Circumcision, if chosen, is not done in the hospital and will need to be arranged and paid for privately. Information is available at the clinic.
- We support exclusive breastfeeding and are committed to helping you establish breastfeeding and resolve any difficulties.
- We rarely supplement with formula, and the need is carefully evaluated.
- We will see you in clinic at around 3 weeks and we encourage you to come to a postpartum 3 week group which is lots of fun, sharing and support.
- Our last visit with you is at around six weeks and we can do a PAP if it is due.
- We will give you a copy of your records to take with you.