GROUP B STREPTOCOCCUS (GBS) INFECTION
DURING PREGNANCY

THE SOCIETY OF OBSTETRICIANS AND GYNAECOLOGISTS OF CANADA

www.sogc.org

education education education education education

Screening for GBS, and having treatment if needed, is a common and routine part of pregnancy.

Group B streptococcus (GBS) are common bacteria which are often found in the vagina, rectum or urinary bladder of women. This is not the same bacteria which causes strep throat. Infections from GBS are usually not serious for a woman and are readily treated with antibiotics. However, when a woman becomes pregnant, the whole outlook changes.There is no sure way to prevent the GBS bacteria from being passed to a newborn at the time of birth and although it is very rare, and despite medical treatment, some babies still die as a result of complications from a GBS infection. Your doctor would like to help prevent this from happening. GBS usually does not cause infections in pregnant women, the concern is for the baby. Read this pamphlet to find out about group B streptococcus infections (GBS).

About group B streptococcus (GBS)

When GBS bacteria reach a woman's bladder, kidneys or uterus they can cause an infection. Infections can cause inflammation and pain. A woman can have these bacteria in her body and not know it. If a woman has these bacteria in her vagina and rectum without having any symptoms, she is said to be colonized (positive). It is estimated that 15 - 40% of all pregnant women are GBS colonized. Between 40 - 70% of colonized mothers pass the bacteria onto their babies during the birthing process. While most babies are not affected by the bacteria, a very small number (1- 2%) of these babies will go on to develop a GBS infection. Babies who are infected with GBS may have mild to severe problems which may affect their blood, brain, lungs and spinal cord. No one method of screening (testing) and treatment will prevent all GBS infant deaths.

Screening (testing) for GBS

Doctors agree that there arc two acceptable options for screening, (testing) for GBS. A doctor may choose to routinely culture (test) all the pregnant women under his or her care between the 35th and 37th week of pregnancy, and treat the mothers who are GBS colonized (positive) with antibiotics when labour starts. Or a doctor may choose not to routinely test every woman, but rather to treat only those mothers who are at risk of passing the bacteria to their babies (Table 1) during the birth process. If Cultures were not done around the time of the woman's 35th - 37th week of pregnancy, or if the test results are not available at the time of delivery, it is essential that women at risk are treated with antibiotics.

In addition, particularly if the woman has a history of bladder or kidney infections, a doctor may also test a woman's urine for the bacteria If the bacteria are found in the urine but not found In the vagina or rectum, the woman is still considered colonized (positive) and will still I be treated with antibiotics when she goes into labour.

Risk factors for GBS infections

Women are at high risk to pass GBS on to their babies if they:

1. Start labour before they reach 37 weeks gestation (with or without ruptured membranes).
2. Reach full term. but their membranes rupture (water breaks) and it seems as through the labour will last more than 18 hours.
3. If they have an unexplained, mild fever during labour.
4. If they have already had a baby who had a GBS infection.
5. If they have (or had) a bladder or kidney infection which was caused by the GBS bacteria.

How is the test done?

This simple and painless test is done by inserting a Special Q-tip into a woman's vagina and rectum. The Q-tip is then placed in a special solution to see if the bacteria grow. This is called doing a Culture. If bacteria grow, the woman is said to be colonized (positive) If no bacteria grow, the test is negative.

Treatment for mother

Expectant mothers who tested positive for GBS bacteria will be treated with antibiotics when they go into labour or if their membranes rupture (water breaks) early. If a mother is not tested but is thought to be at high risk (Table 1) for passing the bacteria on to her baby during the birth process, she will also be treated with antibiotics to kill the bacteria during her labour and birth.Studies show that it is not beneficial to give antibiotics during pregnancy, as in more than 65% of cases, the bacteria have time to re-grow before labour begins.

Be sure to tell your doctor if you think you have had an allergic reaction to antibiotics in the past.

Two types of GBS infections in newborns

There are two types of GBS infections that can happen to newborn babies. The most common type is called early-onset disease. In this case, the babies are almost always infected during their journey down the birth canal because the bacteria were in their mother's vagina. The symptoms of early-onset infections show up before the baby is seven days old. Some babies show signs of this infection as early is six hours after birth. Early-onset disease can cause infections in a baby's lungs, brain, spinal cord or blood. This type of GBS infection can be very serious and frequently hard for a newborn baby to fight off. This is the infection that antibiotic treatment in labour is aimed at preventing.

The second type is called late-onset disease. In this case, the babies don't show signs of a GBS infection until after they are more than seven days old. About half of these babies were also infected during their birth. The other half became infected after the birth by being in contact with their GBS positive mother, or another person who is a carrier of the disease. Late-onset infections can also cause serious problems for the newborn. The most common problem is meningitis - an infection of the membranes which surround the brain and spinal cord. The risk of late-onset disease is not decreased by antibiotic treatment in labour but antibiotics are available for the baby once it is born. Babies with early-onset disease are more likely to die than those babies with late-onset disease.

Treatment for baby

All newborn infants are watched closely for symptoms of an infection, particularly when the mother was GBS positive at some point in her pregnancy, and no matter whether she was treated with antibiotics or not. While it is true that the chances are small that an expectant mother who was treated with antibiotics during pregnancy will pass the bacteria on to her baby - it can happen. Babies who show signs of a GBS infection after birth will also be treated with antibiotics. If available, a baby specialist (paediatrician) may be asked to help look after a baby with a GBS infection.

Further resources from the Society of Obstetricians and Gynaecologists of Canada

- Guideline available at **www.sogc.org**:
  - The Prevention of Early-Onset Neonatal Group B Streptococcal Disease
- The book, "Healthy Beginnings: Giving your baby the best start from preconception to birth", available at **www.sogc.org/healthybeginnings**

GOLDEN MATERNITY

Membrane Sweeping, or Stripping

What is a membrane sweep?

Sweeping, or stripping, your membranes can be done once your baby is term, which is after 37 weeks gestation. It is a way of encouraging your body to go into labour sooner. To do this, your maternity provider will insert one or two fingers into your vagina, and as long as the cervix is dilated enough to fit one finger, they will put their finger through the cervix and "sweep" it around in a circle, separating the membranes from the inside of the cervix a little bit. As far as we understand, this causes some prostaglandin hormones to be released, which prepares the body for labour.

What are the benefits?

Studies have shown that having your membranes swept regularly from 38 weeks onwards reduces the chance of going 10 days or more past your due date and requiring an induction of labour with medications. For every 8 women who have their membranes swept, we will avoid one induction. One study showed that if your membranes were swept at 41 weeks, it reduces the chances of still being pregnant at 42 weeks by almost half.

What are the risks?

The biggest risk is that the procedure is painful. Most women report some degree of pain or discomfort with this procedure. Some women will have some bleeding from the cervix that does not cause any harm. Some women will also have some cramping afterwards that is uncomfortable, but not harmful. One study showed a slightly increased risk of the water breaking before labour started in women whose cervix was already more than 1 cm dilated, but most studies did not show a risk of water breaking prematurely. There is no increased risk of infection to you or the baby.

Membrane sweeping is completely optional. Your maternity providers will offer this starting around 38 weeks, and we would encourage you to try it if you are 41 weeks pregnant and still have not gone into labour, or if we are expecting that we may have to induce your labour early for a complication in pregnancy.

Canadian Paediatric Society

Vitamin K for newborns

What is vitamin K?

Our bodies need vitamin K to form clots and to stop bleeding. We get vitamin K from the foods we eat, such as green leafy vegetables, fish, meat, and eggs.

Why does my newborn need vitamin K?

Babies are born with a very small amount of vitamin K. Not having enough can cause bleeding that doesn't stop because there isn't enough vitamin K to form a clot. The bleeding can happen inside or outside of the body – including the brain – at any time up to 6 months of age.

How is vitamin K given to babies?

There are two ways newborns can receive vitamin K:

- A single injection in the thigh within 6 hours of birth; or
- 3 doses by mouth—one at baby's first feeding, another at 2 to 4 weeks of age, and another at 6 to 8 weeks of age. Your baby must receive all 3 doses.

The Canadian Paediatric Society recommends that doctors give newborns vitamin K by injection.

Giving vitamin K by mouth is not as effective as by injection. Vitamin K is not absorbed as well when given by mouth and does not last as long. Babies who get vitamin K by mouth are an increased risk of late vitamin K deficiency bleeding, which can occur within 2 to 12 weeks after birth and up to 6 months of age.

Web link: https://www.caringforkids.cps.ca/handouts/vitamin-k-for-newborns

Is the vitamin K injection safe?

Yes, the vitamin K shot is very safe. There are no side effects. There may be some redness, swelling, or pain at the injection site.

Can't my baby get vitamin K from my breast milk?

Breast milk contains very low amounts of vitamin K, so exclusively breastfed babies will not get enough. Even formula-fed babies have very low levels of vitamin K for several days.

What about the injection pain? My baby is so little!

To reduce pain and discomfort of the injection, hold your baby while the vitamin K shot is given. You can also try breastfeeding at the same time to comfort your baby.

More information from the CPS:

- Guidelines for vitamin K prophylaxis in newborns (CPS position statement)

Additional resources:

- Facts about Vitamin K Deficiency Bleeding (U.S. Centers for Disease Control and Prevention)

Reviewed by the following CPS committees:

- Fetus and Newborn Committee

Last Updated: **August 2018**

Early and Often: Getting Breastfeeding Off to a Good Start

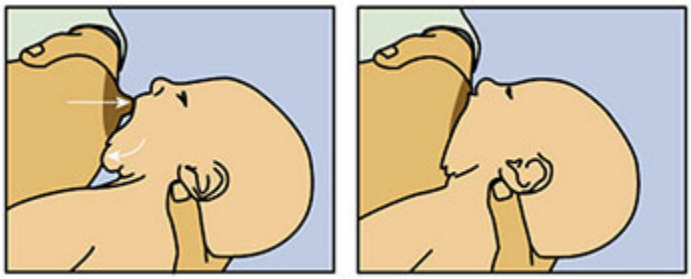
How you choose to feed your baby is between you and your baby. I am sure you know there are many good things about breastfeeding for both you and your baby.

You may ask, "Is there anything I can do to get ready for breastfeeding?" Absolutely! If you plan to feed your baby only breast milk or to feed your baby breast milk and formula, there are things that you can do to get off to a good start. There are two important things you can do before the baby is born and three important things you can do after the baby is born.

Before Birth:

1) A Good Latch

Watch the video, "Attaching Your Baby at The Breast" found on the website, www.globalhealthmedia.org. Learning how to help the baby get a deep latch or attachment is the key to pain free breastfeeding and helps the baby get the most milk from the breast.



Office of Women's Health, U.S. Dept. of Health and Human Services

2) Helping Hands

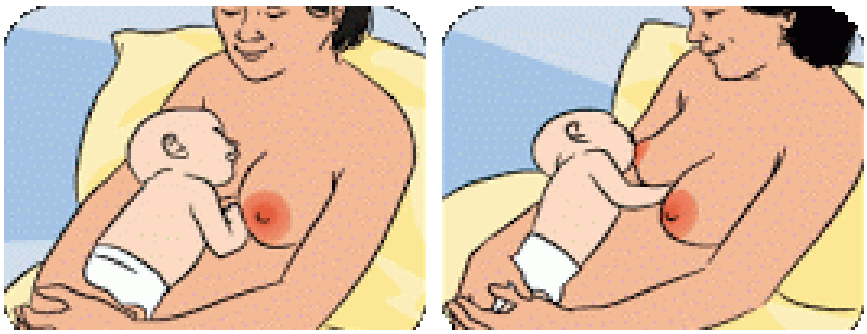
Learn how to use your hands to help your milk come in. Watch the video, "Hand Expression "on the Stanford University website, www.stanforduniversity.org. Some moms have their partners learn how to help with this. Hand expression or using your hands to take milk from the breast is a useful skill both before and after the birth. Colostrum is the first milk produced. There is much less of it than the mature milk that comes in about three to four days after the baby is born. The small volume allows the baby to get used to using its stomach. Colostrum is nature's first super food. There are many antibodies in colostrum to help the baby's immune system get started. This works best if the baby gets only breast milk. Some studies show using your hands to bring out some drops of colostrum before your baby's birth can increase your milk supply after. If you want to do this, you can start at 36-37 weeks of pregnancy. Just expressing the milk helps even if you let it wash away in the shower. Some moms like to save this early milk before birth in the freezer to feed your baby extra colostrum in the first few days. See the handout," **Collecting Colostrum While You're Pregnant"**, to learn more about expressing before birth.

After Birth:

1) Feed in the First Hour of Life

Ideally, the baby goes on your chest right after being born and stays there until after the first feed. The baby may find a good latch all by themselves. You can also help the baby find the breast when she starts rooting and looking for the breast. If the baby stays with mom, it is much easier for the baby to learn to get a deep latch and suck well.

Taking colostrum from the breast in the **first hour** is the most important cue for your breast to make a good supply. Timing is key! Many studies show women who get milk out of the breast in the first hour make up to 40% more milk! You can ask to let the baby to breastfeed before the baby is weighed and has her shot and eye drops.



What if my baby can't breastfeed in this first hour?

Good thing you already know how to hand express. You can use your hands or your partner's hands to tell your breasts to start making milk. You can feed the baby this colostrum with a syringe or spoon. Then, as soon as your baby is able, you can help your baby come to the breast. Even if your baby has had a good feed in the first hour, it is helpful to also hand express in this first hour.

2) Skin to Skin and Feed Often in the first few days

Spend lots of time holding your baby wearing only a diaper right against your chest. This skin-to-skin time alone helps you make more milk and helps a baby become ready to feed. It is home base for baby. Every time your baby starts to root and look for the breast, you can feed her. Remember to help her get a big mouthful of breast. Ask for help if the two of you are having trouble getting a deep latch. It is normal for babies to feed very often at first. They will space out their feeds to 8-12 times /24 hours as they get a little bigger.

3) Helping Hands

Hand expressing in the first three days can also help your milk come in well. For the first few days, it is a good idea to hand express after breastfeeding to help make a good milk supply. Hand express at least five or six times a day for the first few days. Express on one side for about a minute and then the other -back and forth for a total of five minutes. You can feed these first few drops of colostrum to the baby to help keep the baby well. Most women find colostrum is easier to express by hand and mature milk with a pump. You can use your hands for mature milk too.

Breastfeeding is a learned skill. Most mother and baby pairs go through a learning time of a few days to a few weeks where breastfeeding may be hard. After this, most women find breastfeeding becomes easier. Actually, it usually turns out to be easier than bottle-feeding and can be a lovely sharing time for mother and baby. If you do have problems, there is plenty of help for you both at the hospital and after you go home. (Examples: Public Health Nurse, Early Start Line, The Alex Breastfeeding clinic, Riley Park Physician Breastfeeding Clinics, Circle Medical Clinic, Dr. E Jain's Breastfeeding Clinic, North East Women's Health Clinic, La Leche League ,Mosaic PCN New Moms Drop In)

Collecting Colostrum While You're Pregnant

What is colostrum and why is it important?

- Colostrum is a fluid the breast makes from about the 20th week of pregnancy, up to the first few days after your baby is born.
- Colostrum is easy for your baby to digest—it's the ideal first food for your baby.
- It can range from dark yellow to clear, and can be quite thick and sticky.
- Colostrum gives the nutrition that all newborns need. It has a lot more protein than mature milk. Many of these proteins help make your baby's immune system stronger.
- Colostrum has fat-soluble vitamins, some minerals, and salt. All help to protect your baby from becoming dehydrated in the first few days, before breastfeeding is established.
- While the breast doesn't make large amounts, colostrum is high in energy and helps the meconium pass (the baby's first bowel movement), which then helps prevent jaundice.

Why should I think about expressing colostrum by hand?

- Breastmilk is the recommended food for all babies, especially for babies with more health needs.
- In some cases, babies need to be fed shortly after birth, for example, babies with low blood sugar. By expressing colostrum by hand (antenatal expression) and bringing it with you to the hospital, you'll have this ideal food source ready for your baby, if needed.
- Expressing can help promote successful breastfeeding for you and your baby.
- Mothers who collect colostrum while they're pregnant have more success establishing and maintaining breastfeeding.

When can I start expressing colostrum?

Doctor's usually recommend you start once you're at least 37 weeks gestation.

How do I hand express colostrum?

Put warm compresses on your breasts or begin expressing after a bath or shower, as the heat may help the colostrum flow better. It may take a few days of practice before you start seeing a few drops of colostrum. It's strongly recommended that you watch the Stanford Hand Expression video at: http://newborns.stanford.edu/Breastfeeding/HandExpression.html

Before You Start

- Make sure the baby bottle you're using to collect the colostrum is clean.
- Buy syringes from your pharmacy, as you'll use them to collect the colostrum as you express it.

Getting Started

1. Wash your hands. Make sure the clean bottle is nearby.
2. Sit in a comfortable, upright position, leaning slightly forward.
3. Start with a gentle breast massage, stroking from the back of your breast towards the nipple.
4. Gently press your finger and thumb pads on the border of your areola (not your fingertips) back toward the chest wall and into the breast tissue, then press them together and hold for a few seconds (see Figure 1).

   Your fingers should be well back from your nipple, on the border of your areola and shouldn't tug or drag on your nipple.

   Don't squeeze or pinch your nipple.
5. Repeat, using a rhythm like that of a baby suckling at the breast.

Figure 1

Expressing should be comfortable; speak to your doctor if you have any discomfort or concerns, as you may need to see a lactation consultant.

When the Colostrum Starts Flowing

When you can see the colostrum (Figure 2), collect it with the clean baby bottle (Figure 3). There might only be a few drops from the nipple or it's dripping easily.

1. When the colostrum stops flowing, rotate the position of your fingers and thumb around the areola and repeat the expressing process.
2. Switch to the other breast when the flow slows down or after 2 to 3 minutes.
3. Express on each breast twice during a session.

You can collect the colostrum 2 to 3 times each day.

Figure 2

Figure 3

(*Photo credits: Australian Breastfeeding Association)*

When You're Done Collecting

1. When you're done, collect the colostrum using a clean syringe. Store the syringe(s) in the fridge.
2. Label the syringe and bag with a sticker with your name, the date, and the time you first expressed.
3. Put the freezer bag in the freezer. The frozen colostrum can be stored up to:
   - 4 months in a 2-door refrigerator or side-by-side refrigerator/freezer
   - 12 months in a deep freezer

Colostrum must be used within 24 hours once it's been thawed.

Bringing the Colostrum to the Hospital

Your colostrum stays frozen until your baby's born. At that time, the freezer bag with the syringes can be brought to the hospital.

1. Put the freezer bag in a cooler or in a bag full of ice before bringing to the hospital. Make sure the colostrum doesn't thaw before you get it to the hospital.
2. Make sure the label is still secure.
3. Tell your healthcare provider you brought in frozen colostrum, so it can be put in the breastmilk fridge.

Interior Health

PELVIC HEALTH:

Your abdominal muscles and pelvic floor muscles are impacted by being pregnant and delivering a baby. Your muscles stretch as baby grows. Hormones help open up your pelvis to help the passage of your baby through the birth canal. Sometimes tearing can occur between your vagina and anus. And if you have a caesarian section, the muscles of your abdomen are also cut-through to reach the uterus.

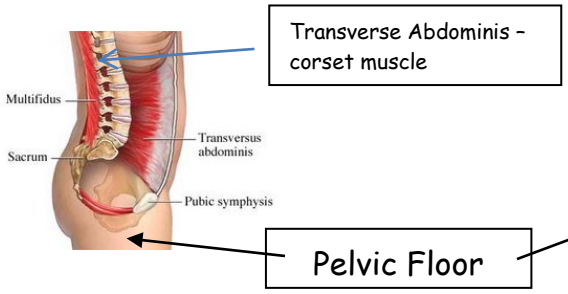
Pelvic floor muscles and your core play important roles in supporting your bowel and bladder function, your sexual health and your spine health. It will be important to re-engage the pelvic floor and core as you recover from your pregnancy and return to activities of daily living and recreation.

Try to familiarize yourself with your pelvic floor and core before you go through labour. After your baby is born, set aside small moments to try to re-engage with those muscles. It can take up to 12 weeks (3 months) for everything to recover. If, after 12 weeks, you are having difficulty getting back into your normal activities or have persistent problems with incontinence (leaking) or pain, you may want to seek further help from your provider or a physiotherapist with special training in pelvic health.

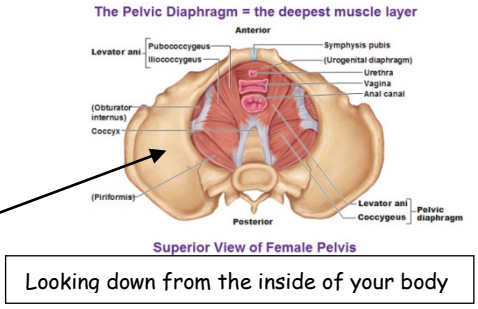
Getting to know your core:

Your core is made up of your diaphragm, Transverse Abdominus muscle, Multifidus muscle, and the sling of muscles that make up your pelvic floor. Ideally core muscle all work together in sync.

Transverse Abdominal (TA):

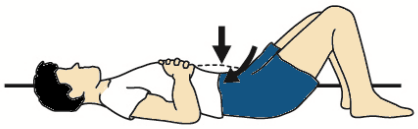


Pelvic Floor:



Activating Transverse Abdominus (TA)

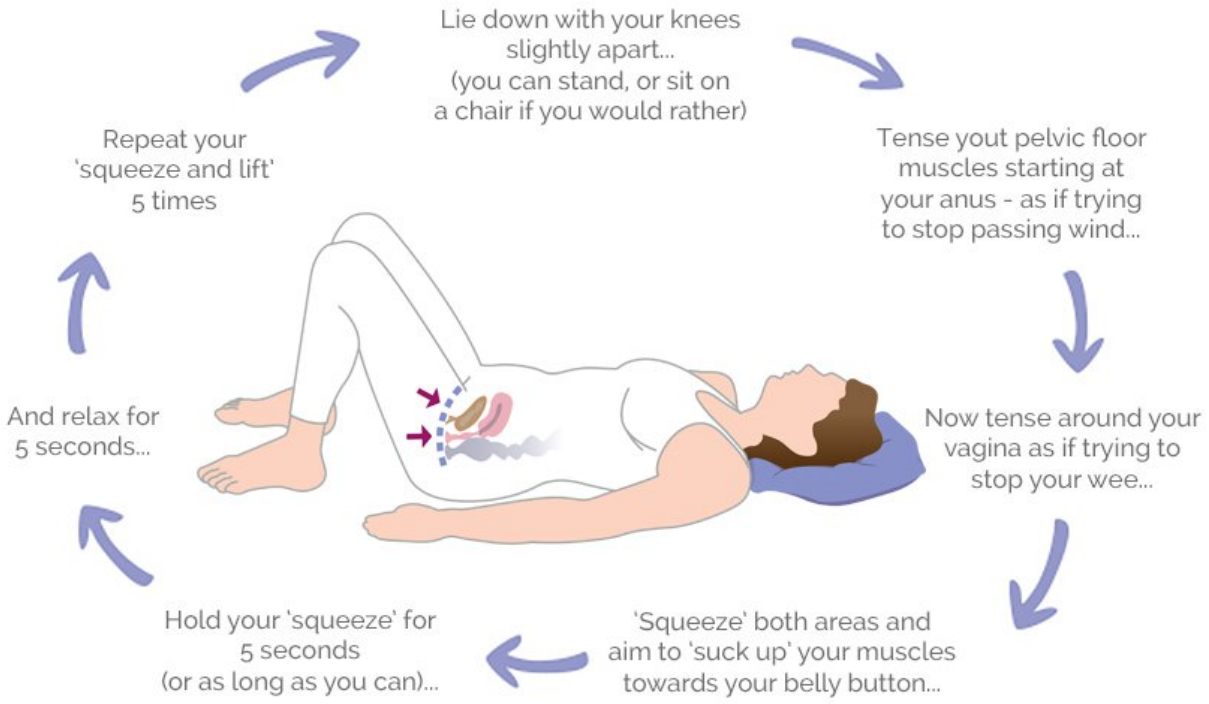
The TA contracts and moves in towards the center of your body like a corset that's being tightened. To tighten the TA, pull your belly button towards your spine. You should feel your abdominal muscles and contents press towards the spine. There should not be any “Sucking In” or holding of your breath. You should also feel your ribs press down toward your hip pockets.



- Begin with a big breath in, filling your belly, then as you exhale move your belly button towards your spine. Try holding for 10 seconds. You should be able to breathe comfortably while you hold. Hint: your tummy should flatten not paunch out

Activating your Pelvic Floor:

Kegel Exercises:



https://www.kegel8.co.uk/articles/pelvic-floor-exercise/how-to-do-kegel-exercise.html

In addition to this technique, to engage the pelvic floor muscles you can imagine bringing the 'sitz bones' together, or pulling the pubic bone and tailbone closer together, or combining both side to side and front to back engagement. Add a lift up and in to enhance the contraction. Then try the opposite. Relax and allow the pelvic floor to drop down. ("reverse kegel")

Once you recognize how to activate the muscles correctly, you can practice in any and every position, such as while you breast feed or while your baby enjoys some tummy time on your chest.