

Back to basics

By Julie Tupler, RN

Are childbirth education classes really enough to prepare women for the work of labor? No, not when they start at the end of pregnancy and concentrate only on preparing the mind. Labor is just like any other athletic event in that women must prepare both their minds and bodies. However, women are frequently told: “Don’t start an exercise program if you haven’t been exercising.” The misconception here lies in the definition of exercise. Exercise has become synonymous with the image of aerobic activities. But muscle strength, flexibility, relaxation and proper nutrition are the other components of fitness. All of these are vital before, during and after a woman’s pregnancy.

The all-important abdominals

In this article I would like to focus on the abdomen. A firm abdominal wall helps support the lower spine, improve posture and lessen back-aches. Thus, it is especially important to condition the abdominal muscles. However, woman must be taught how to do it correctly. In order to do that, practitioners should be familiar with certain techniques.

There are four major muscle groups that comprise the front abdominal wall: the rectus abdominis, the outermost muscle that runs down the middle from breast bone to pubis (there are two halves to this muscle and they are joined by a fibrous piece of tissue called the linea alba); the external obliques, which run downward from the rib cage to the pelvis; the internal obliques, which cross underneath the externals and run diagonally upward from the pelvis to the rib cage; and the transverse abdominis, the deepest abdominal muscle that wraps like a corset around the middle. Both of the obliques, as well as the transverse, attach to the linea alba.

Few of us have heard about the transverse abdominis. We use it when we breathe, sneeze and cough, as the muscle action is forward and backward. This muscle must be strengthened for pushing.

The rectus abdominis is the main support system for the back. During pregnancy, the muscle changes in two ways. First, it elongates due to pressure from the expanding uterus. Then, conversely, the lower back muscles become shorter which can cause backaches. The pressure of the uterus against the rectus abdominis may cause a diastasis— a separation of the muscle at or around the navel. You can check to see if this has happened to your clients. Have the mother lie on her back with knees bent. Put your fingertip in her navel and have her lift her head. If you feel a hole there, she has a diastasis. This can also be checked above and below the navel.

It is very important for women to do abdominal exercises correctly; otherwise, the diastasis can become larger. It can also become larger if women get up or lie down incorrectly.

Several of my clients were told by their childbirth educators, “All pregnant women get a diastasis. Don’t worry, it goes away after the birth.” Not all pregnant women develop a diastasis, nor does it automatically go back together after the birth. In fact, I know many women who have a diastasis for many years postpartum.

Belly Breathing

Before a mother can strengthen the transverse abdominis in preparation for pushing, she must learn how to use the transverse muscle while breathing. This is important because most people breathe incorrectly. Upon hearing the word “inhale” they take a breath and bring their transverse in toward their spine. When they exhale, the only direction the transverse muscle can go is forward against a weakened recti muscle, consequently making the diastasis larger.

With belly breaths, air is taken in through the nose, expanding the belly (transverse muscle goes forward). The air is then exhaled through the mouth as the belly (transverse) is brought in to the spine. So, each exercise should begin with a belly breath so the transverse muscle is pulled in on the exhale, or working, part of the exercise.

Any muscle required to do hard work must be strong or it will go to “failure,” stopping because it can no longer continue. If the transverse is not strengthened during pregnancy, it is nearly impossible for women to use it to push for more than 15 or 20 minutes. However, when a woman strengthens this muscle and practices pushing with it, she can push for several hours. Gravity affects our ability to work the transverse muscle. This is why it should be strengthened while in a sitting position. And this is another good reason why women should be sitting up when they deliver!

How to do two exercises

The first exercise is called the elevator. Women should sit cross-legged on the floor, or in a chair with support; the back should not move during these exercises. Since the action of the muscle is forward and backward, it works best to imagine the transverse muscle as a side-ways elevator with five floors, using the belly button as the focal point. First floor is when the transverse is in a relaxed position; fifth floor is when the belly button “touches” the spine. When doing the exercises, women must remember to count because it forces them to exhale, which in turn forces them to breathe. The exercise begins with a belly breath, then the belly button is brought toward the spine where it is held for a count of 30. Next, have them close their eyes and visualize their belly buttons going out the back of the spine, or to the sixth floor, for the count of five. The exercise should conclude with another belly breath.

The next exercise is called contracting (squeeze and release). To get into the starting position, the transverse is brought to the third floor. Then, the belly button is pulled back from the third floor to the fifth floor. The emphasis is on the backward, squeezing, movement. Women should begin by doing 25 of these exercises, working up to doing 100 repetitions three to five times daily. It should take about two minutes to do a set of 100. While doing this exercise, women can put one hand on their bellies and one hand on their backs. They should feel this exercise in their backs. When they become stronger, they should try to make the movement smaller by bringing the transverse from fourth floor to fifth floor. By the time they are ready to deliver, they should be able to pull their belly buttons from the fifth floor to the sixth floor 100 times, at least five times daily.

The transverse is attached to the recti, so every time clients do the contracting exercise they bring the recti back and together. It’s important that the transverse be in, or at fifth floor, on the work of everything they do. For example, when standing they can bring the belly button to fifth floor and hold it there. This not only strengthens the transverse and recti but also prevents any diastasis from becoming larger. Caution women that if they are doing something and cannot hold the transverse muscle at fifth floor, they shouldn’t be doing that particular activity.

Using the Tupler Technique

The Tupler Technique is a combination of using the transverse muscle correctly while breathing and strengthening it with the elevator and contracting exercises. It is the missing link in abdominal work. The pelvic floor muscles also play a large role in pushing. A strong muscle stretches better and is less likely to be traumatized. Many of my clients have told me their childbirth educators advised against doing pelvic floor exercises during pregnancy. “You’ll get too tight down there,” they were told. What these educators fail to understand is that the strength of the muscle has nothing to do with the ability to relax it. Relaxation of these muscles must be learned just like women learn to strengthen them. I use an image of squeezing toothpaste out of a tube with my clients to help them understand pushing. The transverse presses against the uterus and the baby comes out. But keeping the cap on the toothpaste tube while squeezing is like tightening the pelvic floor muscles while pushing—it just doesn’t work. So during labor, the goal is to relax a strengthened pelvic floor muscle.

Practice makes perfect

Preparing for the work of labor also means learning how to relax the entire body. This skill is difficult for most people, but it is very important for pain management during labor. Childbirth is not about having to remember things, such as particular breathing patterns. This sets a woman up for failure if she forgets what she learned in class. At my center, we help and encourage women so pushing and relaxation become second nature, with nothing to remember. Using the tips and techniques described in this article will enable you to help your clients become strong, active participants in their birth experiences, too.

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