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Physical Therapy for Expectant Moms and New Moms

BENEFITS OF PRENATAL AND POSTNATAL EXERCISE

Improve circulation and decrease swelling

Meet the increasing physical demands of pregnancy and motherhood more easily

Increased awareness of your physical body and how it functions

Improved mental attitude and stress reduction

Lessening of the physical discomforts of late pregnancy

Preparation for labor – a very physical event!

Decreased recovery time after labor and delivery



Important Elements of Prenatal and Postnatal Exercise Programs

PELVIC FLOOR EXERCISE (KEGELS)

Improve fetal and visceral (internal organs) support from below
Good preparation for learning relaxation during labor and delivery
Improve recovery time of vaginal tissues after birth

TRUNK STRENGTHENING

Improve fetal visceral support
Protect the spine from increasing weight of growing fetus
Increased effectiveness of pushing during the second stage of labor

FLEXIBILITY/STRETCHING

Improve ability to adapt to the postural changes associated with pregnancy
Reduce stress on joints, ligaments, and muscles
Good preparation for childbirth

POSTURAL AWARENESS AND BODY MECHANICS

Protect joints, ligaments, and muscles from injury, as they meet the increased physical demands of motherhood and pregnancy

BREATHING AND RELAXATION TECHNIQUES

Good preparation for labor and delivery
Stress reduction
Enhance sense of well-being



Physical Changes Occurring During Pregnancy & Their Effect on Exercise

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FIRST TRIMESTER:

1. Hormonal relaxation of tendons and ligaments. Women may experience **CLUMSINESS**. Risk of injury is increased.
2. **NAUSEA** and **VOMITTING**. This is in part due to reaction to increased hormone levels, especially HCG.
3. Dilution anemia secondary to an increase in blood plasma. Symptoms may include general **MALAISE** and **FATIGUE**.
4. **BREATHLESSNESS** on activity. This is due to an increased sensitivity to CO₂. Demand for oxygen is increased.

SECOND TRIMESTER

1. Hormones level off. There are **FEWER** problems with **FATIGUE** and **JOINT LAXITY**.
2. **POSTURAL CHANGES**, due to the enlarging baby, increased stress on joints and ligaments (especially of the spine).
3. **FAINTING** may occur due to a fall in blood pressure.

SECOND AND THIRD TRIMESTER

1. **POSTURAL CHANGES** continue increasing stress on joints and ligaments.
2. Increase in **FREQUENCY OF URINATION**, due to increased pressure on the bladder.
3. **HEART BURN**, **GAS**, and **CONSTIPATION**, due to hormonal softening of the smooth muscles of the sphincters.

THIRD TRIMESTER

1. Increase in **JOINT LAXITY**, secondary to an increase in hormone levels of relaxin and estrogen to prepare for birth.
2. **PREGNANCY HYPOTENSIVE SYNDROME** occurs when the pregnant woman lies on her back. In this position, the enlarging uterus can compress underlying blood vessels, reducing the blood supply to the uterus and growing baby. Symptoms may include: dizziness, faintness, difficulty breathing, restlessness, nausea, and vomiting, chest and abdominal discomfort or pain, visual disturbances, numbness or tingling in the limbs, headache, cold legs, weakness, tinnitus, fatigue, and “anguish”. Symptoms most often occur after being supine for 3-10 minutes. Symptoms can be resolved by rolling onto your side (preferably the left).
3. **WATER RETENTION**, leading to **SWELLING** in the **ANKLES, LEGS, and HANDS**. Increased fluid may increase pressure on local nerves, causing numbness and tingling in the hands and feet. Swollen joints also become limited in their range of motion.
4. Increasing weight and postural changes can cause traction or stretching of local nerves in the arms causing **NUMBNESS** and **TINGLING** in the **ARMS** and **HANDS**.

FOURTH TRIMESTER

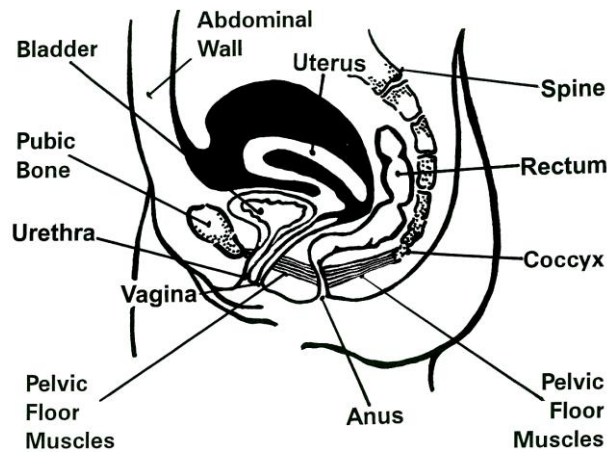
1. Hormonal levels remain for six to eight weeks after birth; **JOINT LAXITY** will continue increasing risk of injury.
2. **FATIGUE** from change in sleeping patterns, recovering from labor and delivery, and due to new occupation as a full time mom. This increases risk of injury and accidents.
3. **VAGINAL BLEEDING**, which is normal postpartum for up to six weeks, should be monitored during an increase in activity level. Increase bleeding is a sign that activity level was increased too rapidly.

THE PELVIC FLOOR MUSCLES

THE PELVIC FLOOR MUSCLE CONSISTS OF SEVERAL LAYERS OF MUSCLES THAT COVER THE BOTTOM OF THE PELVIC CAVITY.

THESE MUSCLES HAVE THREE DISTINCT ROLES:

1. To support the pelvic organs, the bladder, uterus, and colon within the pelvis.
2. To assist in stopping and starting the flow of urine or the passage of gas or stool.
3. To aid in sexual appreciation.



Female Pelvic Floor Muscles

HOW TO LOCATE THE PELVIC FLOOR MUSCLES:

THE STOP TEST

As you begin urinating, try to stop or slow the flow of urine without tensing the muscles of your legs, buttocks, or abdomen. Try to isolate the pelvic floor muscles, so that you can learn exactly where they are, and how they function. When you are able to slow or stop the stream of urine, you have located the correct muscles. Feel the sensation of these muscles pulling up and in to the pelvic cavity. It is extremely important to remember that this is a testing procedure only. Do not do this exercise on a daily basis.

FEELING THE MUSCLE

Insert 1 or 2 fingers into the vaginal opening, or place a fingertip on or into the rectal outlet. Contract and lift the muscles as though you were holding back gas or bowel movement. You should feel the pelvic floor move upward during these muscle contractions.

TENS and the Benefits During Labor, Delivery, and after Cesarean Section

TENS (Transcutaneous Electrical Nerve Stimulation) has been shown to significantly reduce pain during labor and delivery. It also can be used to decrease post operative pain after a C-section.

How does TENS work?

Electrical impulses from the TENS unit stimulate low-threshold nerve fibers and mechanoreceptors. This stimulation reduces the excitability of pain fibers which travel to the brain. In this way, TENS reduces the number of pain messages sent to the brain from the uterus, cervix and low back.

What are the benefits of TENS?

TENS is comfortable, affordable, non-invasive, and easy to use. There are no known side effects. You are in control of the on/off switch and intensity throughout your labor. While using TENS, you may require less pain medication, allowing you to remain more alert during your labor and delivery. TENS has been shown to reduce pain at the incision site after a C-section.

How do I get my own unit for my labor and delivery?

You will need to request that your OB/GYN write a prescription, which should read, "Evaluation and instruction in the use of TENS for labor and delivery." Next, call Physical Medicine Center for an appointment with a women's health physical therapist. You will need to bring your labor partner with you for demonstration. During your visit, you will receive a TENS unit, along with instructions on its uses during each stage of labor.

