



DONALD PHYSIOTHERAPY

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Healthy Body. Healthy Baby. Physiotherapy for Expectant and New Moms.

What happens during pregnancy?

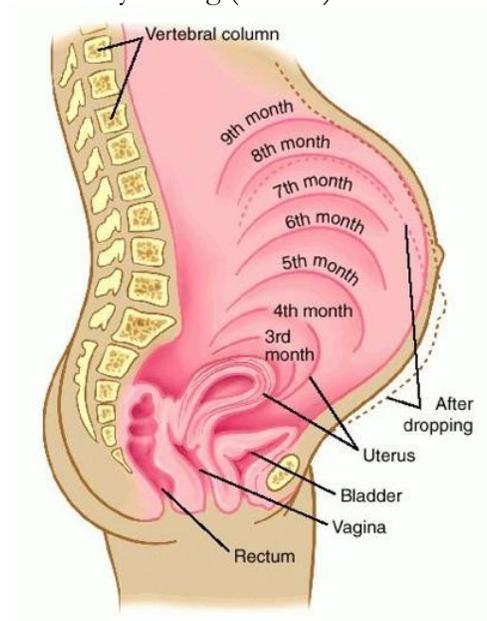
Our body is an amazing thing. It consists of numerous organs, joints, muscles, and ligaments, all of which change with pregnancy to accommodate the growth and development of the fetus. But how? And what changes?

Hormones:

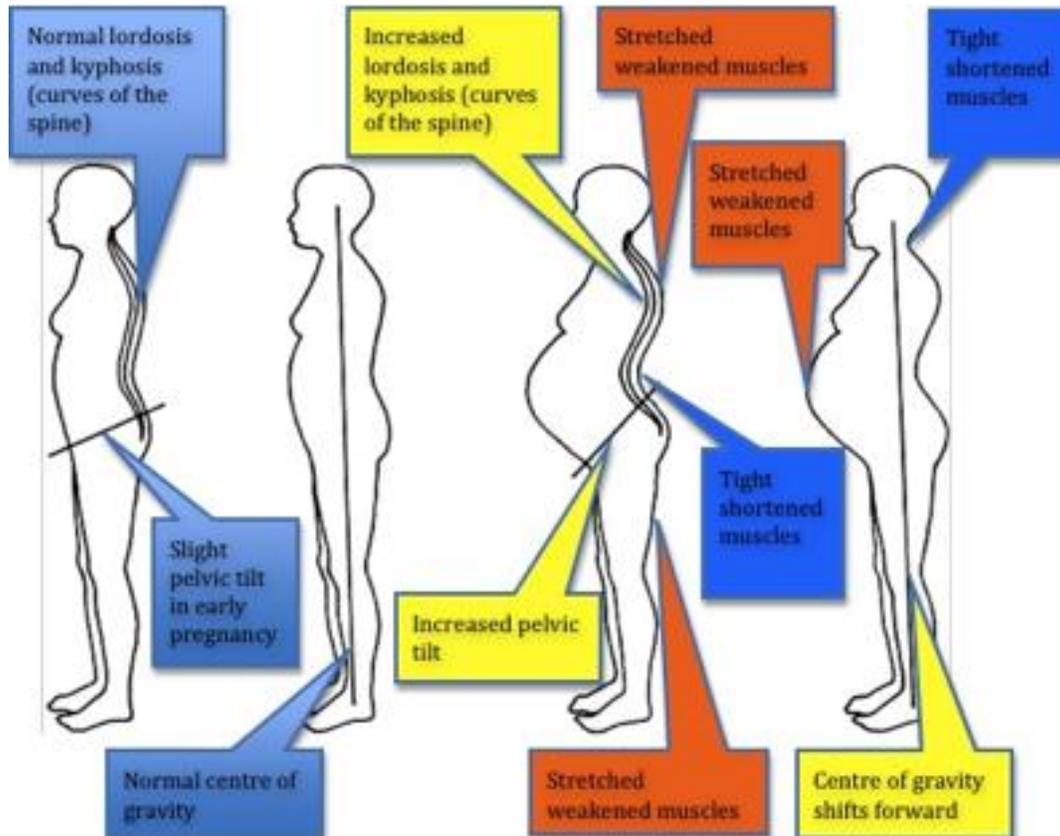
- **Relaxin** and **progesterone** act together to allow for the relaxation of ligaments within the pelvis and body (relaxin) and the relaxation of all smooth muscle such as the uterus (progesterone)

What changes do we experience?:

- Uterine growth: height - 7.5cm to 35cm (5x the size at term)
- Uterine growth: weight - 50g to 1000g at term (20x increase)
- Body weight gain: approximately 12.5kg (~30lbs)



Our Posture Changes Too!



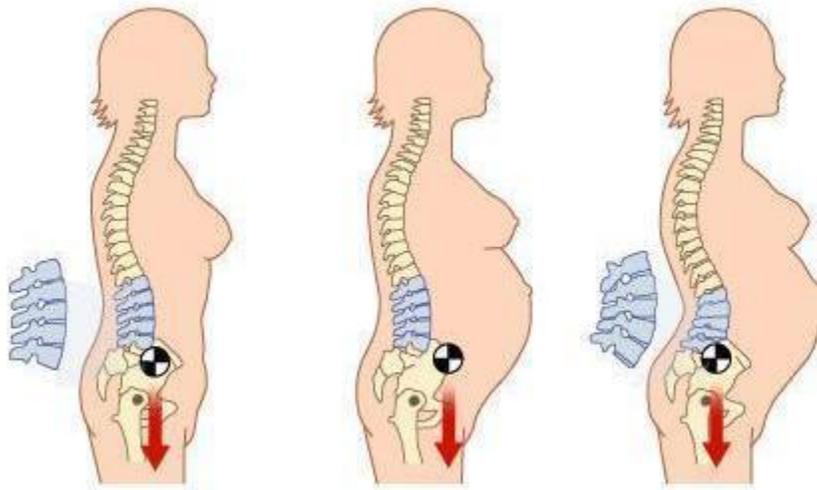
As the picture shows, with the growth we experience, our body has to accommodate. The force and pull on the spinal column changes, muscles stretch and tighten, change our centre of gravity, and create an anterior pelvic tilt. All of this can lead to numerous aches and pains!

What Common Aches and Pains Can Result?

- Low back pain
- Pregnancy related Pelvic Pain (PRPP)
- Diastasis Rectus Abdominus
- Urinary Incontinence (UI)
- Neck pain
- Shoulder pain
- Mid back/thoracic pain
- Carpal tunnel syndrome
- De Quervain tenosynovitis
- Leg Cramps
- Plantar fasciitis

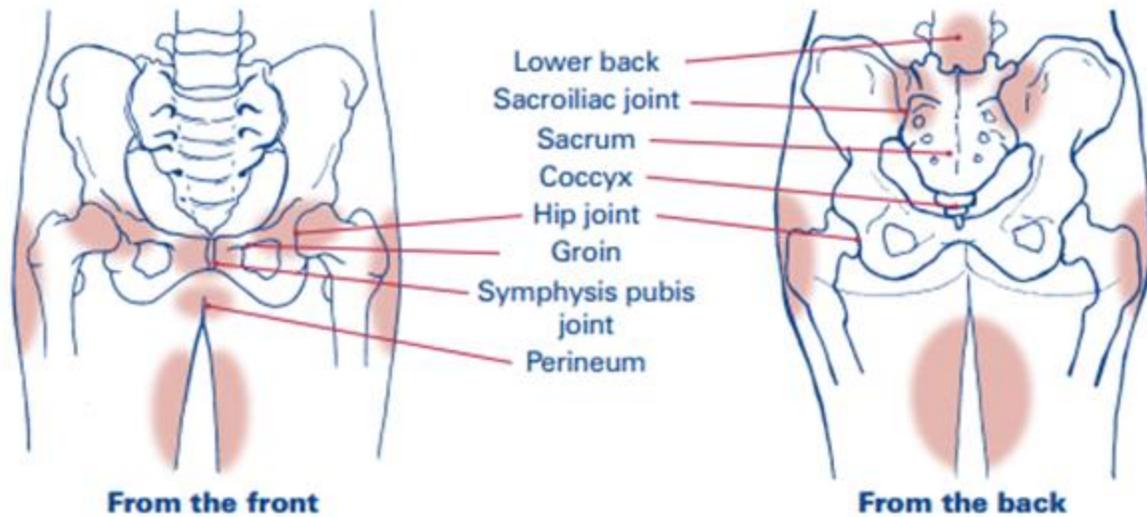
Lower Back Pain

- Can occur in 60-70% of pregnancies, typically increasing in the 5th or 6th month.
- More common if had a history of lower back pain prior to pregnancy.
- Common to see a hyperlordosis - increase lower back curve - therefore increasing the stress on the intervertebral discs, ligaments and facet joints.
- Can create an increased pressure or compression on the lumbosacral plexus -- sciatica/leg pain symptoms.
- Will be worse with change of position such as standing, walking, sitting, and rolling over in bed. Coughing, sneezing and bowel movements can also aggravate.



Pregnancy Related Pelvic Pain (PRPP)

- Symphysis Pubis pain
 - Typically will expand approximately 1 cm.
- Sacro-iliac joint dysfunction
 - Tends to be one sided pain
 - Pain can travel to lower extremity
 - Turning over or rolling over in bed will increase discomfort
 - Pain to stand up or get out of a car
 - Pain can radiate to groin
- Round ligaments of the uterus pain
 - Ligaments surround the uterus in the pelvis, and stretch and thicken as the uterus grows.
 - Can create pain localized located in lower abdomen, one or both sides.
 - Can be worse with poor posture.



What Can Help PRPP

- Positioning for sleep: lie on side with pillows for support.
- When turning in bed, support your belly, try and keep knees together, etc.
- Get up from lying by letting legs go off edge of bed first and push yourself up through your arms.
- Get dressed sitting down, to avoid standing on one leg at a time.
- Avoid:
 - Bending at the hips
 - Crossing your legs
 - Sitting on the floor
 - Sitting twisted
 - Prolonged sitting or standing
 - Pushing or carrying anything heavy
 - Carrying objects in one hand
- **Remember, this list is not exhaustive - each individual is different and many different strategies exist that may not work for everyone.**

Diastasis Rectus Abdominus (DRA)



(c) Diane Lee

- DRA is the separation of the linea alba, seen in the anterior abdominal wall.
- Can begin within the 2nd trimester (27%), more common in the 3rd trimester as the fetus continues to grow (66%).
- Noticeable immediately post-partum (53%), with a significant decrease within 1 day to 8 weeks postpartum.
- If no active intervention such as exercise or physical therapy is sought, there is typically no further closure after the end of the first year postpartum.
- Can affect pelvic floor function, such as urinary incontinence.

Urinary Incontinence (UI)

- Pregnancy and delivery, can lead to postpartum UI.
- Previous pregnancies can increase the chances of UI.
- Key is posture during pregnancy and maintaining a pelvic floor exercise regime, including Kegel exercises.
- If persistent, increasing or significant problem postpartum, specialized treatment and referral is required.

What Can Help?

- **Exercise**
 - Will increase physical endurance
 - Increase muscle strength of hip, back, and abdominals
 - Tone muscle to improve metabolism, decrease severity of fatigue and therefore prepare for delivery and assist with recovery
 - **Must only be done within physical limitation and after clearance from a medical professional, and then personalized for your physical ability.**
 - Should be stopped if:
 - Dizzy
 - Headache
 - Increased shortness of breath
 - Chest pain
 - Uneven or rapid heartbeat
 - Uterine contractions that continue after rest
 - Vaginal bleeding
 - Fluid leaking or gushing from your vagina
 - Decreased fetal movement
- **Check Your Posture!**
 - Do a check from head to toe
 - Head up and ears in line with neck
 - Draw shoulders back and down while lifting up rib cage
 - Tuck bum under pelvic bone while contracting abdominals
 - Gently bend knees to ease weight over feet
 - Distribute weight evenly over centre of each foot

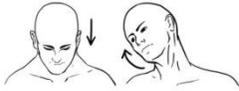
What Can You Do Now?

*Information adapted from the Cleveland Clinic

STRETCHING EXERCISES

Stretching makes the muscles limber and warm. Here are some simple stretches you can perform before or after exercise.

Neck rotation--Relax your neck and shoulders. Drop your head forward. Slowly rotate your head to your right shoulder, then back to the middle and over the left shoulder. Complete four, slow rotations in each direction.



Shoulder rotation--Bring your shoulders forward, then rotate them up toward your ears, then back down. Do four rotations in each direction.



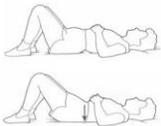
Sitting bum stretch--Sitting comfortably, bring one knee up toward your chest and hold for count of 5. Do four times per side. Can be done in lying if comfortable.



MUSCLE TONING EXERCISES

The following exercises can be done to strengthen the muscles of your vagina, abdomen, pelvic floor, back, and thighs.

Pelvic tilt--Pelvic tilts strengthen the muscles of the abdomen and lower back, increase hip mobility, and help relieve low back pain during pregnancy and labor. Gently try and "roll" pelvis back, into bed, then relax forward. Do not hold your breath while performing the exercise. Do 5-7 reps, two times a day.



All fours--On the floor, get on your hands and knees, keeping your hands in line with your shoulders and your knees in line with your hips. Keep your back flat and shoulders relaxed. Inhale. While tightening your abdomen, tuck your buttocks under and tilt your pelvis forward in one motion. Exhale. Relax, being careful not to let your back sag. Continue to breathe. Repeat 10 times.



Kegel exercises

Kegel exercises, also called pelvic floor exercises, help strengthen the muscles that support the bladder, uterus, and bowels.

By strengthening these muscles during pregnancy, you can develop the ability to relax and control the muscles in preparation for labor and birth.

Kegel exercises are highly recommended during the postpartum period to promote the healing of perineal tissues, increase the strength of the pelvic floor muscles, and help these muscles return to a healthy state, including increased urinary control.

How to do Kegel exercises

Imagine you are trying to stop the flow of urine or trying not to pass gas. When you do this, you are contracting the muscles of the pelvic floor and are practicing Kegel exercises. While doing Kegel exercises, try not to move your leg, buttock, or abdominal muscles. In fact, no one should be able to tell you are doing Kegel exercises.

How often should I do Kegel exercises?

Kegel exercises should be done every day. We recommend doing three sets of Kegel exercises a day. Each time you contract the muscles of the pelvic floor, hold for a slow count of 10 seconds and then relax. Repeat this 15 times for one set of Kegels.

What is the Role of Physiotherapy?

- Physiotherapy can assist with all of the above mentioned aches and pain, prenatal and postpartum. Each person will be screened appropriately and treatment is individualized accordingly.
- Treatment can include:
 - Manual therapy to restore the biomechanics or mobility of the joints affected.
 - Posture education and correction.
 - Muscle release.
 - Muscle strengthening.
 - Improve flexibility.
 - Position suggestions for sleeping, sitting, standing, rolling over in bed, and getting up from bed.
 - Provide/suggest equipment as needed
 - ie) SI belt, taping, etc.
- Frequency (how often) and for how long will depend on the individual issues to be addressed.

Postpartum Check List

- **See brochure from the Physiotherapy Association of British Columbia**

Thank You!!

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