Physiotherapy Antenatal Booklet





Physical Changes in Pregnancy



The physical changes of pregnancy can lead to changes in your posture and increased stress and strain on your musculoskeletal system. To best manage this you should:

- Maintain good posture and move well
- Stretch regularly
- Perform appropriate exercise
- Strengthen your deep abdominal and pelvic floor muscles

Posture

Positioning yourself well can ease stress and strain through your back and pelvis and will allow your stabilising muscles to work more effectively. This can mean reduced physical discomfort, improved room and better positioning for your baby. Regular changes in position will also assist with easing aches and pains.

Sitting

- Sit well back in a supportive chair with even weight through your thighs. Use a footstool if required
- Avoid slumped posture and sitting with your pelvis tucked under (use a small rolled towel behind your lower back if required)
- Keep your shoulders relaxed and sit tall
- Avoid crossing your legs
- Set up your workplace to ensure a good work height and avoid excessive twisting and turning

Standing

- Ensure weight distributed evenly between your feet
- Have your rib cage stacked vertically on top of your pelvis
- Stand tall through the crown of your head with your shoulder blades pulled down and back, and your chin gently tucked in.

Sleeping

- Rest lying on your side; avoid lying on your back
- Use pillows to support you as required: between your knees, lower back, arms, and under your belly
- To avoid straining your pelvic floor and abdominal muscles this is how you should get out of bed:
 - Squeeze and draw up your pelvic floor muscles and draw in your deep abdominal muscles by drawing your lower stomach in towards your spine
 - Bend your knees up and roll onto your side
 - Slowly lower your legs off the edge of the bed and push up through your arms to come into a sitting position
 - Continue breathing as you complete the movement
 - Do this in reverse when you get into bed
- Rolling in bed
 - Brace with your pelvic floor and deep abdominal muscles
 - Keep your knees together or keep a pillow between your knees



Lifting

Avoid heavy lifting as much as possible when you are pregnant. If you do have to lift something, using a correct lifting technique is vital to help prevent back strain and injury.

- Bend your hips and knees to utilise your legs rather than your back
- Brace your pelvic floor and deep abdominal muscles
- Bring the object close to your body
- Avoid twisting movements when lifting
- Breathe out as you lift

Stretching

Stretching can assist you in maintaining good posture, reduce strain on your muscles and joints and help alleviate aches and pain. The following stretches are some examples of stretches that may assist with discomfort in your back, hips and pelvis. You can also complete some gentle movements of your pelvis like tilts and circles in standing or sitting on a fit ball. Take care to stretch gently and don't over-stretch. Stretching should not be painful stop and seek advice if you experience pain.



Pelvic Floor

Your pelvic floor is a group of muscles, nerves and tissue that form the base of your pelvis, stretching from your pubic bone to your tailbone.

Why is the pelvic floor important?

- It supports your abdominal organs
- It helps to maintain continence of your bladder and bowel
- It assists in better sexual function
- They have a role in supporting our back
- They prevent and reduce the risk of prolapse



During pregnancy and delivery your pelvic floor can be stretched and weakened. Therefore, it is important to strengthen these muscles during your pregnancy to help reduce your risk of bladder or bowel problems during and after pregnancy and to assist with your recovery following delivery.

To exercise your pelvic floor:

DO:

- Practise in different positions: lying on your side, sitting, standing and kneeling on your hands and knees. It may be easiest to start lying on your side. Ensure that you position yourself with good posture, you may like to tilt your pelvis forward and backwards and then settle in the middle before starting.
- Breathe in and on the breath out squeeze and lift your pelvic floor muscles- around the vagina and urethra it should feel like you are trying to stop the flow of urine, around the anus it should feel like you are trying to stop passing wind. Once you have held the squeeze and lift for a few seconds control relaxing and lowering the muscle back to its resting position.
- Rest between each contraction, ensuring you relax your pelvic floor muscles completely. If you don't feel your pelvic floor muscles relax you have held the contraction too long and next time you need to reduce the time you hold the squeeze.
- Hold the pelvic floor contraction for a short time initially and then aim to build up to a 6-8 second hold, repeating this 8-10 times in a session. Aim to perform these exercises 2-3 times a day.
- Once a day try to do 4-5 quick strong contractions, as this is what occurs when you cough laugh or sneeze.
- Remember to draw in your pelvic floor muscles before you cough, sneeze, laugh, lift and do a big movement like getting out of bed.

DON'T:

- Hold your breath- if you find you are holding your breath try to complete shorter contractions and build up slowly.
- Bear down or strain, if you feel downward pressure you are not completing the exercise correctly. Seek assistance from your Physiotherapist.
- Tense or squeeze your buttocks or thighs.
- Suck your tummy in under your ribs.
- Don't practice your pelvic floor exercises by stopping and starting the flow of urine. This can be done once as a test, but doing this repeatedly can cause bladder problems.

Abdominal bracing

Abdominal bracing is a contraction of your deep abdominal Multifidus muscle (transverse abdominis). This muscle acts as a 'corset' and gives your pelvis and spine postural support. By tightening or 'bracing' your transverse abdominis together with your pelvic floor when you move and lift you will reduce the risk of straining your back, stomach or pelvic floor.

How to perform a deep abdominal 'brace' correctly

- You can practise lying on your side, sitting, standing or on your hands and knees.
- Breathe out then gently draw up your pelvic floor muscles and then draw in your lower tummy by drawing your belly button in towards your spine. Keep your back and pelvis still and in a neutral position. It should feel like you are doing up a zipper or pulling on a tight pair of pants.



DO:

- Keep your upper large abdominal muscles relaxed (above your belly button)
- Keep breathing
- Aim to build up to a 5-10 second hold
- Brace before and during any movement or activity that increases pressure or places strain on your trunk or back large movements, lifting, coughing, sneezing.
- You should be practising your 'brace' regularly throughout the day this will help to train your body into activating the muscle more automatically.

DON'T:

- Hold your breath
- Suck in your upper tummy
- Bear down through your pelvic floor
- Suck in your tummy forcefully, it should be a gentle contraction of the lower stomach only

Exercise

It is important to engage in appropriate exercise throughout your pregnancy. Exercise has many benefits for you, your baby and for your recovery.

- Reduce musculoskeletal pain and muscle cramps
- Improve swelling, circulation and reduce constipation
- Improve sleep and reduce fatigue
- Increase endurance and prepare for labour

During pregnancy due to hormones (such as Relaxin) and the biomechanical changes of carrying your baby you are at greater risk of injury. If you are commencing a new program or changing your exercise program you can discuss this with your Obstetrician or Physiotherapist.

To ensure appropriate exercise:

- Warm up and cool down
- Avoid exercising lying on your back
- · Avoid exercise in heat and for prolonged periods
- · Stop if you experience pain or discomfort
- Be able to maintain a conversation- this ensures you are not exercising at too high an intensity. Your heart rate should not exceed 140-150 beats per minute.
- Wear cool, comfortable and supportive clothes
- Ensure good posture and abdominal muscle bracing
- Do not hold your breath through exercises
- · Avoid high impact activities or heavy weights
- If you find your tummy bulges out or you feel pressure on your pelvic floor, this may mean you have forgotten to brace OR what you are doing is too hard. This means you may be at risk of injury. Please seek advice from a Physiotherapist to modify your exercise program if this occurs.

Recommended exercises:

- Walking
- Exercise classes with a trained Women's Health Physiotherapist
- Swimming/water activities
- Cycling
- Yoga
- Pilates or low impact aerobics

STOP and seek medical attention if you experience:

- Pain
- Numbness
- Changes in baby's movements

- perience:
- Dizziness/blurred vision/nausea/vomiting
- Bleeding/contractions/leaking/vaginal heaviness

Bladder and Bowels

It is important that during pregnancy (and after delivery) you have good bladder and bowel habits.

- To avoid constipation and reduce strain on your pelvic floor:
 - Drink plenty of water- 1.5 2L per day (up to 3L when breast feeding)
 - Increase fibre in your diet
 - Limit caffeine, alcohol and soft drink
 - Incorporate gentle exercise into your daily routine
- Practise your pelvic floor exercises regularly
- Go to the toilet when your bladder feels full, aim to avoid 'just in case' visits. It is normal to empty your bladder 4-6 times daily and 0-1 times overnight.
- Sit down on the toilet, do not hover.
- Go to the toilet when you first feel the need to empty your bowels.
- Use the correct position when opening your bowels:
 - Use a footstool to bring knees higher than hips
 - Lean forward at your hips and rest your elbows onto your knees
 - Do not strain
 - Relax your tummy, breathe and take your time

Common Musculoskeletal Issues

Rectus Diastasis

During your pregnancy it is normal for your abdominal muscles to stretch to accommodate your baby. This includes your '6 pack' muscle rectus abdominis. This muscle is joined down the middle of your abdomen by strong connective tissue. A rectus diastasis occurs when there is a significant amount of stretching and thinning of this connective tissue, causing the muscles to move apart as they stretch over your tummy. The amount of separation varies between individuals, but is usually about 3cm. A Physiotherapist will assess this for you prior to your discharge home and advise you accordingly.

If you do have a rectus diastasis you may notice a bulge running down the middle of your stomach or around your umbilicus when you perform certain movements. It is important to limit the strain placed through this connective tissue so try to avoid any movements or actions that cause bulging.





To do this you should:

- Ensure good lifting techniques and avoid heavy lifting
- Adopt good posture. Stand with ribs stacked over pelvis and a small curve in your lower back
- Avoid sit up or plank type exercises and movements
- Get in and out of bed through your side using your arms to push up and lower
- Avoid holding your breath during movements and exercises
- Use your abdominal bracing to avoid excess strain through your tummy muscles
- · Avoid constipation and straining when you use your bowels

Pubic Symphysis and Sacroiliac Joint Pain

During pregnancy many women experience pain in the joints around their pelvis and low back. In particular the pubic symphysis joint at the front of the pelvis and the sacroiliac joints at the back. This can occur due to changes in posture, pressure of carrying the baby and hormonal changes that cause softening of ligaments which can lead to excess movement in these joints.

To reduce strain through these joints utilise your abdominal brace to provide support, ensure good positioning and posture and work to strengthen your pelvic floor and core muscles.



If you have pain:

- · Avoid aggravating activities, use pain as your guide
- Avoid asymmetrical postures where you are taking more or all of your weight through one leg
- · Sit down when you are putting underwear and pants or skirts on or off
- Avoid exercises standing on one leg or with wide stance
- Avoid twisting movements
- Take smaller steps and take stairs one at a time
- Keep movements symmetrical
 - When getting into the car bring your legs in together
 - Use pillows between your legs when rolling in bed
- Use shoes with good support and shock absorption
- If you have significant pain your Physiotherapist may prescribe a support belt or garment

Labour Positions

During labour try to position yourself in an upright or forward lean position with your pelvis open and legs apart. Good positioning during labour and delivery to utilise gravity can:

- Encourage descent of the baby's head and increase efficiency of contractions
- Ease discomfort with contractions and reduce back and pelvic pain

You may find in early labour you are able to stand and walk, however as labour progresses you may need to use more supported positions to allow you to rest and conserve energy. There are many ways to utilise furniture and equipment to allow for this such as chairs, benches, fit balls, bean bags, and the hospital bed. Positioning yourself in standing, kneeling and sitting will allow gravity to assist with your labour. Adding movement to these positions, such as circling your hips, can help relieve pain. A forward leaning position can assist with back pain and allow for support to conserve energy and assist with relaxation. Your partner can assist and support you in these positions.

It is best if you can familiarise yourself with a variety of positions in preparation for your labour.

There are other physical ways that can assist with pain. These include:

- Massage from your partner or support person. This can ease muscle tension and also reduce anxiety and be a great cue to encourage slow relaxed breathing
- Heat from shower or hot towels
- Water in shower or birthing pool
- Breathing low and slow throughout contractions helps to ease tension and pain
- TENS machine

It is important to learn relaxation techniques during your pregnancy to assist with energy levels and to reduce stress and muscle tension. During labour relaxation techniques aim to conserve energy, improve breathing patterns, reduce anxiety and encourage endorphin release. Some examples may be music, visualisations/affirmations/guided mediations and muscle relaxation techniques.

Recovery after a vaginal delivery

During a vaginal delivery your perineum must stretch and thin out over your baby's head. This can result in some pain and swelling following delivery. If you have an episiotomy or a tear this may include stitches.

- Lie down as much as possible and try to elevate your lower body. Avoid sitting or standing for long periods of time.
- Use ice to reduce pain and swelling in the first 24-72 hours. Your midwives will assist you with this on the ward.

- Keep the area clean and dry.
- Commence gentle pelvic floor exercises (after removal of the urinary catheter if you have one) start with gentle pulses rather than strong squeezes in the first few days.
- If needed you can support your perineum when opening your bowels. Do this with a clean pad or folded toilet paper.
- DO NOT use a circular/doughnut shaped cushion as this will act to increase swelling.
- A Physiotherapist will come to see you after delivery and will assess and advise you further about your recovery.

Recovery after a Caesarean

- In the first couple of days after your baby has been delivered it is important that you look after your circulation and keep your lungs clear. To do this move your ankles back and forth and take some deep breaths each hour.
- Ensure that you continue to move in and out of bed through your side. This will reduce strain and discomfort through your incision and stomach.
- Start with frequent short walks on the ward, you may need assistance the first time. Aim to walk several times per day.
- At times you may feel like you need some support for your wound when you cough/laugh/ sneeze. You can do this by gently providing support over the incision with your clean hands, a folded towel or a pillow.
- You can commence your pelvic floor exercises once your urinary catheter has been removed.
- Make sure you allow yourself time to rest, avoid sitting or standing for prolonged periods of time.
- Avoid lifting anything heavier than your baby.
- A Physiotherapist will come to see you after delivery and will assess and advise you further about your recovery.

Resources

www.continence.org.au www.bladderbowel.gov.au www.pregnancybirthbaby.org.au

Phone apps

www.pelvicfloorfirst.org.au/pages/pregnancy-app.html www.continence.org.au/pages/pregnancy-app.html

MR0021582 RHC MaternityCare Physiotherapy Antenatal Booklet 0720

