

## Post Natal Pre-Activity Health Questionnaire (PARQ)

You are advised to **ALWAYS** have your client complete a Post Natal Specific PARQ before the commencing any physical training and as well as **ENSURING THAT YOUR CLIENT HAS BEEN GIVEN PERMISSION TO COMMENCE EXERCISING BY HER HEALTH CARE PROVIDER AT HER 6-WEEK CHECK-UP.**

<p><b>Current Date:</b></p> <p><b>Client Name:</b></p> <p><b>Client Address:</b></p> <p><b>Client Phone No:</b></p> <p><b>Client Email:</b></p>	<p><b>Date of Delivery:</b></p> <p><b>Type of Delivery (Assisted, Vaginal, C-Section):</b></p> <p><b>6 Week Check-Up Date &amp; Outcome:</b></p> <p><b>Breastfeeding Status:</b></p> <p><b>Post Natal Bleeding Status:</b></p> <p><b>Recently Fitted Intra Uterine Device (IUD)?</b></p>
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Please give details of your **Pregnancy & Post Natal**, include any complications, illnesses, reasons to visit your Doctor or any other Health Practitioner including Massage, Acupuncture, Pilates, Physiotherapy, Osteopathy, Chiropractor etc.

Do you current or have you ever suffered any of the following conditions? Please circle if YES.

Symphysis Pubis Dysfunction (pain in the central pubic area)	Sacrum or Sacroiliac Joint Pain (pain in the very low mid back – top of buttocks)	Bleeding during or after exercise or any unexplained bleeding
Carpal Tunnel Syndrome (Wrist/finger/hand forearm - pain/numbness or tingling)	Knee Pain (Side, front or back)	History Or Current Episodes of High/low blood pressure, episodes of faintness, dizziness or breathlessness,
Upper Back/Neck/Shoulder Pain	Coccyx Damage or Pain	Separation of your abdominal muscles
Incontinence (Urinary or Faecal)	Prolapse (Uterine, Bladder, Rectum, Vaginal)	Breast Health/Breast Feeding Issues/Mastitis
Piles/Haemorrhoids/Varicose Veins/ Constipation	Were you given an Epidural during birthing?	Nerve Damage During Birthing (Pudendal)
Gestational Diabetes	C-Section wound discomfort or slow healing or ongoing numbness	Anaemia or taking Iron medication
Joint Pain / Muscle Pain	Buttock/Piriformis Pain/Sciatica	Episiotomy Cut, Painful Perineum or Tears (Degree if known)

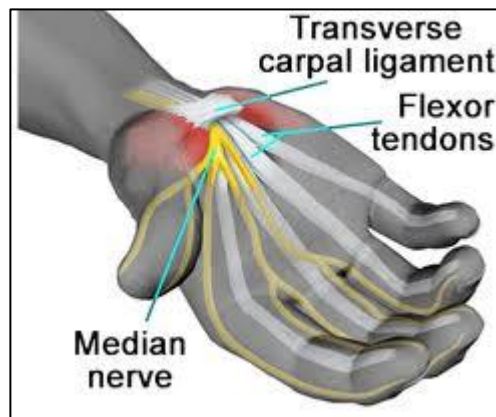
## Readiness & Lifestyle Questions

1.	Please details any relevant/important information relating to previous Pregnancies and Post Birth periods, such as periods of illness or negative outcomes.
2.	Please detail any home or work circumstances that might put constraints on your ability to commit fully in terms of time to your intended programme.
3.	Are you able to count on your significant others for support in your journey?
4.	Can you briefly detail your previous and current exercise abilities/activities?
5.	Can you details which fitness activities you like and dislike?
6.	On a scale of 1-10, can you rate your degree of focus and intention to achieve your current goals? (1 being the lowest and 10 being the highest)

# Common Pregnancy/PN Ailments & Exercise Prescription

The conditions listed below represent common ailments experienced by mothers' in the Post Natal period. **EVERY CLIENT IS AN INDIVIDUAL.** Some clients may present with many of these conditions while some present with none. There is generally no strict time frame for their onset or cessation but a general rule of thumb is that the further the client is away from the pregnancy period the fewer symptoms she will exhibit. Always demonstrate caution regarding your exercise prescription and whenever you feel out of your depth, **ALWAYS REFER YOUR CLIENT** to a suitable and trusted Health Care Professional such as an Osteopath or Physiotherapist in your network or ask to visit her Health Care Provider.

## Carpal Tunnel Syndrome



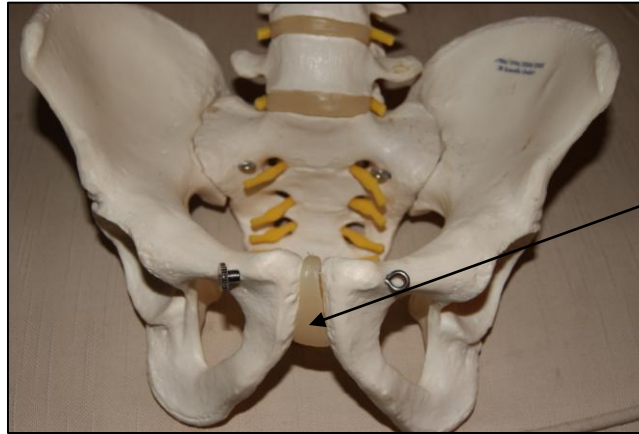
### Causes & Symptoms

- One of the major nerves serving the hand is the Median Nerve. It passes through the Carpal Tunnel, a narrow space at the front of the wrist. The tendons that bend the fingers and wrist pass through the carpal tunnel so space is limited. Any water retention (for both pregnancy and post natal woman) in the region will compress the median nerve and interfere with nerve impulses.
- A loss of sensation or of pins and needles in the hands and/or wrists with sometimes accompanying numbness and weakness.
- Occasionally the whole hand and forearm are affected and it can occur from conception, throughout pregnancy and sometimes well into the post natal period.

## Exercise Considerations

- In an exercise scenario, clients can often complain of pain when bearing their weight on their hands in a flexed position i.e., when on all-fours position.
- Painful positions should be avoided and good wrist alignment maintained monitored throughout the exercise session. Some health practitioners might suggest the wearing of a wrist splint.
- If your client's ability to take part fully in the session is reduced or her ability carry out Activities of Daily Life (ADLs) are hindered you should refer her to a suitable health care professional. In extreme cases, surgery may be suggested although diuretics and diuretic natural remedies are sometimes prescribed to reduce water retention.

## Symphysis Pubis Dysfunction



**Symphysis Pubis –  
A Fibrocartilaginous  
Joint**

### Causes & Symptoms

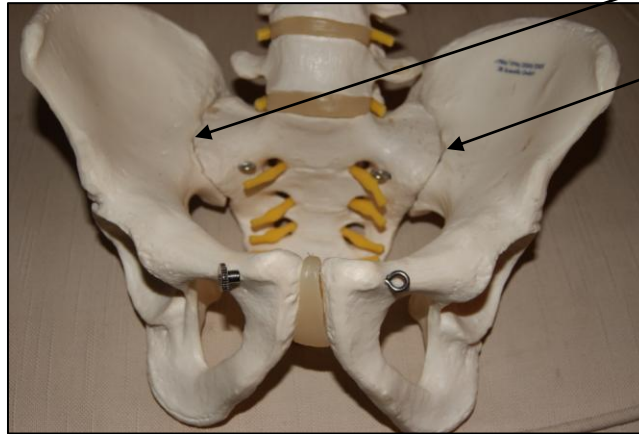
- The Symphysis Pubis is the fibrocartilaginous tissue reinforced by several ligaments that forms the joint of the pelvic girdle at the pubis (centre front of the pelvic girdle). During the pregnancy period the 'relaxing' pregnancy hormones, most notably Relaxin causes ligament laxity which eventually aids the delivery of the baby, allowing the pelvis to 'release' sufficiently to allow the passage of the newborn.
- Diastasis Symphysis Pubis is the name for the problem in its most severe form – where the Symphysis actually separates severely from the bone of the pubis.
- In some women, either because of excessive levels of hormones, or a pelvis that is out of alignment, this area is extra lax or there is extra pressure on the joint.
- When this increase becomes excessive there may be accompanying swelling and severe pain over the joint – especially when walking, getting in and out of bed, and climbing stairs. Pain may also be felt in and down the thighs and the back as the whole pelvis is put under strain. Some women may also become totally incapacitated by the pain and end up using wheelchairs or crutches during the later stages of their pregnancy.

### Exercise Considerations

- In an exercise scenario, activities which take the legs apart and also which bring them together may cause pain. Activities requiring abduction and adduction as well as squatting, lunging, stepping, walking, yoga, breast stroke may also produce or aggravate symptoms.
- If your client has mentioned having this dysfunction during or after her pregnancy, take care to progress all exercises gradually and ensure they are pain-free while working. There are usually a few activities where they will be comfortable so the goal is to work around painful movements but a meaningful workout can still be had in most cases.

## Sacroiliac Pain

**The Sacro-Iliac  
Joints**



The Sacroiliac joint (SIJ) is one of the largest joints in the body. It is the point of connection of the sacrum (base of the spine) and the Iliac (wings of the pelvic girdle). The SIJ's are crossed by very strong ligaments which hold the joint together. The joint is further stabilized by Symphysis Pubis at the front of the pelvis.

### Causes & Symptoms

- The theory associated with this joint as a generator of pain is that the bone on one side of the joint can slide out of position with respect to the bone on the opposite side of the joint.
- Joint laxity can be caused or exacerbated by pregnancy hormones causing movement at one or both of the joints.
- Or conversely, pain can be caused by a lack of movement at the joints resulting in the two joint surfaces becoming stuck and producing a “locked” joint reducing the degree of mobility.
- Symptoms can vary, but generally consists of mild to severe pain in the sacrum and lower (lumbar) back region. This pain can radiate out from that central point and can travel through the buttocks and down either or both of the back of the thighs. Referred pain may also be felt in the at the Symphysis pubis area.
- Sacroiliac pain can sometimes be misdiagnosed as Sciatica and visa versa.
- A tight/shortened Piriformis can also be a cause of SIJ pain (attaches to inside surface of sacrum and femur).

## Exercise Considerations

- **My first port of call for a PN client complaining of SIJ pain would be to assess for a tight Piriformis. If this is found, an STR technique would be used to release the Piriformis (see Burrell Education YouTube Channel for a video of how to do this). On many occasions, releasing a tight Piriformis has totally alleviated a painful Sacrum/SIJ joints so always assess for this first.**
- Restorative exercises for the TVA, multifidus and anterior pelvic floor muscles along with strengthening the glutes especially glute medius, can be beneficial to aid the stabilization of the pelvis.
- Activities where weight is distributed unevenly can often aggravate the condition. Single leg work whether carried out standing or supine can cause aggravation.
- Lower body exercises requiring abduction or adduction may cause discomfort as may breast stroke swimming.
- The “bend-to-extend” movement pattern may also cause a client discomfort.

**Visit: [www.pelvicpartnership.org.uk](http://www.pelvicpartnership.org.uk) for more information and a downloadable PDF.**

## **Bleeding During or After Exercise – (Also see Post Partum Haemorrhage on page 22)**

After the placenta has been delivered, the uterus undergoes a process called “involution” or shrinking. This is important, because the site on the inside of the uterus where the placenta was affixed, is rich in blood vessels. Shrinking of this site reduces the amount of surface area that can bleed. There is usually bright red bleeding for couple of days – LOCHIA RUBIA – usually by two weeks post natal the fresh blood in the discharge has become less and less and eventually the light coloured discharge is termed LOCHIA ALBA. By the time a client presents for exercise after her 6 week check, she **should** have ceased her post-partum bleeding.

### Symptoms and Causes

- If client returns to exercise very soon after the 6 week check-up, she may still be experiencing “After Bleeding” and be discharging LOCHIA RUBIA. **This is why it is important to ascertain your clients’ “bleeding status” at your first meeting when performing the Initial Consultation so any changes to this status can be monitored.**
- The duration varies but its average length can be anything from around a few days up to as long as 6 weeks. It’s good practice to refer a client back to her HCP if she is still bleeding heavily after the 6 week check.

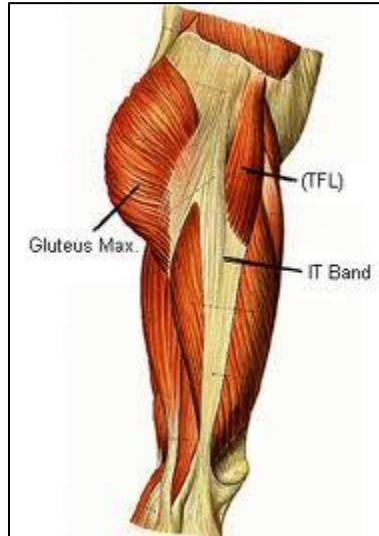
- Lochia goes from a bright red colour in the beginning, to a pink/brown colour then becomes yellowish/colourless.
- If the flow colour has reduced but then suddenly becomes bright red again after exercising or your client reports clots of blood being discharged, this usually means that the placental site is not getting a chance to heal properly and client is probably over-exerting herself.

### Exercise Considerations

- Especially in the early days of training with your client, take care to check that she has not experienced any bleeding **during or after** your session together or when training on her own. If she has, your immediate task is to reduce the intensity of exercise, especially impact work and probably abdominal work causing intrauterine pressure. As always, if in doubt, refer your client back to her GP or other HCP.



## Knee Pain – Front/Side or Back



### Causes and Symptoms

- Relaxin and other pregnancy hormones can cause a softening in the cartilage of the knee.
- The already naturally wider “Q” angle of the woman’s pelvis may be further exacerbated by pregnancy hormones which can have an effect on Anterior Cruciate Ligaments (ACL) causing instability in the knee.
- Weight gain and altered posture/biomechanics/centre of gravity will also increase the stress to the knee joint and changes in the tension of the Iliotibial Band (IT Band). Pain or aching will be felt in the front or side of the knee when the knee is flexed (sitting, squatting, standing up) and is accentuated when walking downstairs.
- The increased need to bend, squat or kneel down whilst caring for a baby may also exacerbate this condition.

### Exercise/Therapy Considerations

- Obviously, all knee flexion activities cannot be ruled out of a training programme but proceed with caution and care and adapt exercises where possible to alleviate any discomfort for your client.
- A well-planned, functional programme that includes work for the core and hip stabilizers should improve stability for the client.
- Consider the postural changes that your client may still be displaying such as tight hip flexors, remember that rectus femoris crosses the hips and ends at the patella tendon, could releasing tightness in this muscle and the rest of the quads be the answer? Also consider the relationship between TFL and the IT Band, could both do with a release??

- As always, if you feel out of depth dealing with your client's problem or if your training programme is causing the situation to worsen – ALWAYS REFER YOUR CLIENT ON TO A SUITABLE OTHER HEALTH CARE PROFESSIONAL. **There is an STR video on the Burrell Education YouTube Channel that you might find useful.**
- **Also, I'd also take a look at the top of the ITB where it fastens into Glute Max and the TFL muscle too.**

## **Back Pain – Upper, Mid & Lower**

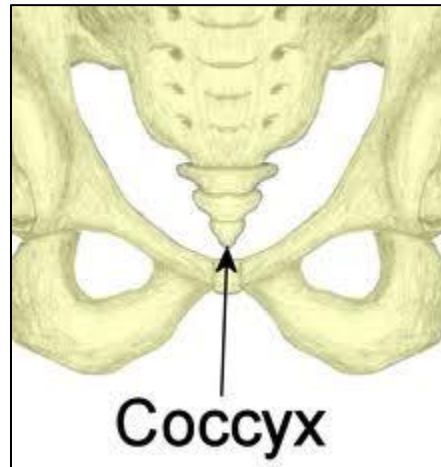
### Causes and Symptoms

- Probably the most common pregnancy and postnatal complaint experienced by mothers.
- Postural adaptations and changes in biomechanics associated with pregnancy i.e., Lower and Upper Crossed Syndrome also contribute to back pain in both the upper (trapezius) mid (rhomboids) and lower back (lumbar) areas.
- Sleep deprivation and general tiredness associated with the mother's new role should also be considered as a contributing factor as often good posture is often neglected when tired.
- Women who received Epidurals may also complain of pain in the area to which it was administered for many weeks after the birth.

### Exercise/Therapy Considerations

- During the immediate post natal period and going forward, reinforcing excellent postural alignment is ESSENTIAL for laying a strong foundation on which to build true strength and stamina. Incorporating posture work with Inner Unit work during 1-1 sessions and the consequent carry over in the clients' Activities of Daily Life (ADL) will make her stronger, more stable and more able to manage her demanding lifestyle.
- In terms of therapy, remember: RELEASE WHAT'S TIGHT, STRENGTHEN WHAT'S WEAK!
- **My 3-D Stretch Salutation (you can find it on the Burrell Education YouTube Channel) is a quick and easy to learn solution for moms and general clients. It deals perfectly with the tightness associated with Upper & Lower Crossed Syndromes.**

## Damaged Coccyx



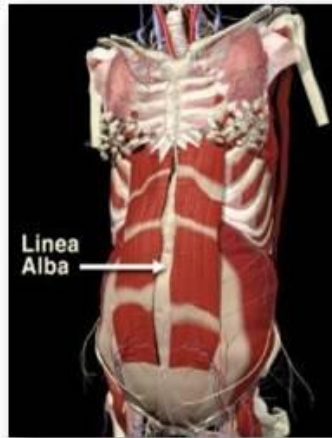
### Causes and Symptoms

- The Coccyx consists of fused vertebrae, which are not flexible like the other vertebrae of the vertebral column. The coccyx is joined to the sacrum via the sacroccocygeal joint.
- Childbirth is one of the main causes of Coccyx pain as the pressure of the baby passing through the birth canal can cause damage.
- Coccyx pain can be incredibly severe and can render those afflicted (in extreme cases) unable to sit, lie or even stand without some degree of pain.

### Exercise Considerations

- Severe coccyx pain in your client will generally hinder any physical training programme so in your role as a trainer, you are best advised to refer your client back to her doctor or another reputable health professional such as an Osteopath and follow their advice.
- As an aside, the Coccyx is one of the major attachments for the Pelvic Floor muscles, so if a client presents with this as an old or current issue be sure to check her continence.

## Rectus Diastasis (Abdominal Mid-Line Stretch/Weakness)



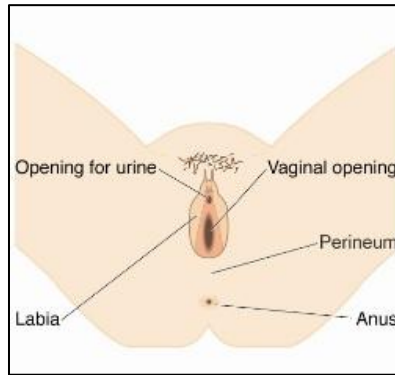
### Causes and Symptoms

- Facilitated by the increasing size of the uterus and the pregnancy hormones, the Rectus Abdominis can undergo extensive stretching throughout the later stages of pregnancy especially in the third trimester.
- This separation of the midline is seen to a greater degree in those women who develop especially protruding abdomens during their pregnancy, especially in the case of multiple births. It can also be caused during the labour period as intra-abdominal pressure is increased when the mother is pushing during the second stage. Previous exercise habits, weight gain, proximity of pregnancies, age of the mother and number of pregnancies can also be a factor.
- Separation of the rectus muscles by the ever-stretching Linea Alba and the entire abdominal wall including tendons and fascia is a major cause of back pain and incontinence not to mention the phenomenon now known as 'mummy tummy' as it leads to instability and dysfunction of the core. If the strength of the core and an inability to withstand intra-abdominal pressure. When the Inner Unit is compromised it can only follow that any movement at the extremities (Outer Unit) will have a poor foundation and could possibly lead to pain and/or injury.

### Exercise Considerations

- "Optimal posture" needs to be constantly re-emphasized. Re-educating the client during your sessions and advising her on good posture and abdominal care in her everyday life is vital to address the postural imbalances created during pregnancy.
- TVA/Pelvic Floor, Diaphragm and Lumbar fascia and musculature activation and strengthening is a must.
- Attention needs to be given to the Rectus muscles to ensure that they are strengthened in the shortened position by ensuring anterior pelvic tilt has been addressed before strength work begins. Strengthening other musculature that reduces anterior tilt is also important, such as the Gluteus Maximus.

## Pelvic Floor & Perineum Trauma Leading to Incontinence (Urinary or Faecal)



### Causes and Symptoms

- During your client's pregnancy, the pelvic floor muscles worked very hard to support the loosening pelvic bones and the ever increasing weight of the uterus and consequently become stretched, weakened and lose strength and optimal function. If your client delivered vaginally, the pelvic floor muscles and/or Perineum may even have been torn or cut, especially during an '**Assisted Birth**' using Forceps or Ventous.

### Exercise Considerations

- Re-establishing the neurological links with these muscles in alliance with the rest of the Inner Unit is a vital part of your client's Initial Core Restore Programme and once these muscles have been strengthened, integrating their use throughout the general training session and indeed daily life should be always emphasised.

## Painful Perineum



### Causes and Symptoms

- A delivery which caused tearing or required an Episiotomy (above) will have caused trauma to the Perineum which inevitably will be painful in the post natal period.

### Exercise Considerations

- This is mainly an issue for your client's Health Care Professional but general advice to your client should be that they should persevere with their Pelvic Floor exercises which encourage blood flows into the area and aids healing and repair.
- Obviously, any activity which causes pain, such as bike riding is not a good idea!!

## Stress Incontinence



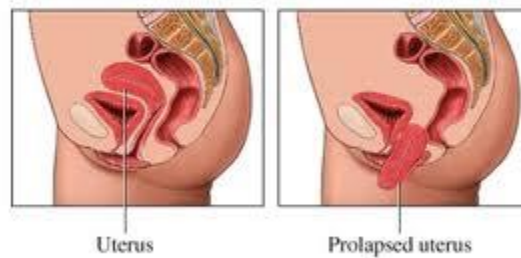
## Symptoms and Causes

- A hugely common condition, affecting nearly all post natal women to varying degrees.
- Small and sometimes large amounts of urine leak out during physical activity such as running or jumping and also when there are sudden changes in intra-abdominal pressure in circumstances such as sneezing, laughing, heavy lifting or sexual intercourse (usually at penetration).
- Caused by the loss of tone in the (especially) Anterior Pelvic Floor musculature by pregnancy and the inability of the APF to contract with appropriate force to withstand the applied intra-abdominal pressure. The PF muscles support the pelvic organs and their outlets.

## Exercise Considerations

- In the early post birth period, Pelvic Floor reconnection and strength exercises should be performed daily with extra emphasis on the Anterior Pelvic Floor (APF) musculature as opposed to the Posterior if the Anterior musculature is weakest.
- The APF musculature consists of both fast and slow twitch muscles so a combination of quicker, more powerful contractions and slower more sustained contractions should be part of any client's exercise routine.
- For more severe cases, there are now electronic and manual pelvic floor training devices available commercially which when used as directed can help the client retrain the pelvic floor in a more clinical & effective manner.
- As you can imagine, activities which cause obvious impact to the pelvic floor should be avoided in these early days as this will exacerbate the condition, e.g., jumping, horse riding, trampolining and running.
- Also the lifting of heavy weight, holding the breath or changes in pressure while performing abdominal work can cause leakage.
- Check out the Burrell Education Wordpress blog: '***Core Re-Conditioning Continuum***'

## Prolapse (Vaginal, Uterine, Bladder, Rectal)



### Symptoms & Causes

Prolapse occurs when the muscles and other connective tissue supporting the pelvic organ become so weakened or damaged that the organ cannot stay in its optimal place, and so it slips down from its normal position. This can happen in various stages, in the case of the Uterus, these are the degrees:

- **First-degree prolapse** – the uterus descends into the vagina.
- **Second-degree prolapse** – part of the uterus sticks out of the opening of the vagina.
- **Third-degree prolapse** – the whole uterus is outside the vagina (also known as Procidentia).

A long and/or difficult labour or giving birth to a particularly big baby can sometimes result in a prolapsed uterus. Prolapse of the Vagina, Bladder and Rectum are also possibilities in the PN scenario.



## Exercise Considerations

- Clients should be encouraged to perform Pelvic Floor exercises regularly. These help strengthen weakened muscles, aid recovery after pelvic surgery, and will help reduce the symptoms such as leaking urine, faeces and backache.
- Any kind of prolapse is an extreme circumstance which requires Specialist advice. This should be sought from the client's GP or HCP or Womens Health Physiotherapist.

## Breast Health/Mastitis



## Symptoms & Causes

- Mastitis is an inflammation of the breast tissue. Most cases occur during breastfeeding although it can occur in those not breastfeeding. It is sometimes caused by an infection spreading from another part of the body or when bacteria get into the breasts through cracked or pierced nipples. Mastitis mainly happens in breastfeeding if your breast is not emptying fully at each feed. This can happen if the baby is not latching onto the mother's nipple correctly, is incorrectly positioned while feeding or a duct is blocked.
- The breast will become swollen, lumpy and sore, and a fever will usually be present.

## Exercise Considerations

- As a trainer you should recognise that for a client with Mastitis or any other breast issues, prone positions are most inappropriate due to the pressure on the breasts. And indeed, if your client presents for exercise with a fever you should strictly consider referring her back to her HCP as opposed to performing any exercise.

## Varicose Veins



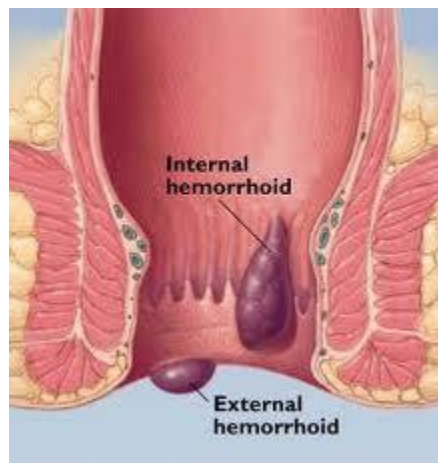
### Symptoms & Causes

- Varicose veins ultimately prevent optimal blood flow.
- Varicose veins may develop during pregnancy due to a global relaxation of connective tissue that also affects the blood vessels. They may still be present into the post natal period and sometimes permanently.

### Exercise Considerations

- Standing still for long periods should be avoided.
- Trainers should avoid activities which cause the client to be sat crossed legs or kneeling back on the heels as this further compresses the veins.
- In terms of exercises, anything that improves/increases blood flow back to the heart is beneficial. Walking is ideal.
- Avoid massaging or foam-rolling over varicose veins.

## Haemorrhoids (Piles) & Constipation



## Symptoms & Causes

- Piles are enlarged and swollen blood vessels in or around the lower rectum and anus. When the pressure of these blood vessels is increased, they swell and form small lumps.
- Pregnancy hormones cause the relaxation of the intestinal tissue. This leads to a slowing down of the passage of food through the gut, leading to constipation.
- The main cause of piles is constipation and the straining to pass large stools. The increased pressure in the blood vessels of your anus causes them to swell resulting in the formation of piles.
- The delivery process may also cause piles to appear due to the pressure of pushing and birthing the baby.

## Exercise & Diet Considerations

- Clients should be encouraged to stay well hydrated and increase their fibre intake to help relieve constipation.
- Any exercise that promotes blood flow, especially abdominal work will be an aid to relieving constipation

## Depression Emotional / Psychological Issues

### Causes & Symptoms

Emotional and psychological problems associated with the PN period can be classified according to their severity :

- **“Baby Blues”** - The most common type of PN depression. Symptoms are relatively mild, such as feeling lethargic, tearful and irrational. Symptoms occur soon after birth and do not last for a long period of time. These symptoms generally, clear up without medical intervention.
- **PN depression** – A more severe and long-lasting version of “Baby Blues”. Depression is felt for much of the time with little sign of it going away. PN Depression can also take many months to develop and usually needs to be treated by a specialist.
- **Post Natal Psychosis** - is the most severe form of depression which is extremely rare. This level of depression can lead to suicidal thoughts and mothers will require specialist psychiatric treatment. It affects one in 1000 PN women.
- As a Trainer of PN clients it is important for you to have empathy and understanding in this area as it can interfere with your client’s day-to-day life. Some women feel unable to look after themselves and

their baby and others feel too anxious to leave the house or keep in touch with friends. Some women get thoughts about harming their baby and themselves. In your capacity as a Fitness Professional, it is beyond the scope of your role to advise your client on methods of alleviating the depression but gently encouraging her to seek advice and help from her GP or other HCP is important.

## **Pudendal Nerve Damage During Birthing**

### **Causes & Symptoms**

- The Pudendal nerve feeds the Pelvic Floor muscles and also innervates the sphincters of the bladder and rectum as well as the perineum and lower vagina. It passes between the piriformis and coccygeus muscles and leaves the pelvis through the lower part of the greater sciatic foramen. It also crosses the spine of the ischium and re-enters the pelvis through the lesser sciatic foramen. Its proximity to the bony structures of the pelvis means that it can become compressed, crushed and sustain trauma during birthing leading to dysfunction thereafter.

### **Exercise Considerations**

- A client who has sustained damage to her Pudendal nerve may have great difficulty in reconnecting with her Pelvic Floor muscles. Extra care and consideration needs to be applied when teaching this essential part of their post-baby restore programme. If you feel that your client is not progressing at all after weeks of performing 'reconnecting strategies', please refer your client to trusted HCP who is a specialist in this area.
- Also, as an aside, during birthing, a 'Pudendal Block', an anaesthetic may be injected into the region of the Pudendal nerve to anaesthetize before the application of assisted delivery tools such as Forceps and Ventous and Episiotomy.

## **High/Low Blood Pressure & Faintness/Dizziness/Anaemia**

### **Causes & Symptoms**

- There are a wide range of reasons why a client may have either high or low blood pressure in the post birth or any period of her life – they key here for Fitness Professionals is to screen for it or measure it, evaluate the clients' response to the findings and then be able to make a decision based on findings ie., referral back to clients' HCP. Both high and low blood pressure will have a negative impact on the quality of any exercise session anyway, so it's good practice to abstain when the client feels unwell and place emphasis on finding a solution/cause for the issue.
- In the case of anaemia, the early post natal client may have experienced blood loss during her birth leaving her with a low haemoglobin count. This will contribute to feelings of tiredness, nausea and dizziness many weeks after the event if not addressed with an increase of iron intake post-birth. Even when iron intake has been increased, it can take some weeks before the anaemic state is reversed.

## **Poor/Slow C-Section Wound Healing**

### **Causes & Symptoms**

- When a C-Section client first presents for exercise (post her 6-week check-up! And generally a lot later than this), her C-Section wound should have healed sufficiently. But in some unfortunate cases, there may have been infection or incomplete healing, leaving the area open to infection and this may be evident some months after birthing.
- Another consideration.....Due to the obesity epidemic that we are experiencing, after C-section, many women have poor healing due to the overhang of abdominal tissue that prevents air accessing the wound to assist healing.

### **Exercise Considerations**

- Obviously, it is unwise to be offering exercise to any client in this position so it is always wise (and when privacy permits) that you ask to view the clients' scar as part of your initial consultation process in order to judge for yourself and at the very least question your client thoroughly on her degree of healing before commencing a programme.

## **After Effects of Gestational Diabetes**

### **Causes & Symptoms**

- Gestational Diabetes is a form of diabetes that occurs exclusively during the pregnancy period. It occurs when insufficient insulin is produced and there is a lack of regulation of blood sugar.
- During pregnancy, the body requires extra insulin to serve the needs of the growing foetus and when the mother is unable to meet the increased demand, Gestational Diabetes can occur.

### **Exercise Considerations**

- If a mother has experience Gestational Diabetes during pregnancy the condition may not automatically correct after birthing and for some mothers, erratic or low blood sugar level (hypoglycaemia) may exist for some months into the post natal period. This might be more evident after exercise or in some cases even during an exercise period.
- Ultimately, if this metabolic dysfunction continues, your client really needs to seek help from a specialist HCP but dietary revision will be a must. More vegetables, more protein, less starchy carbs, sugar and alcohol.

## **Some Other Important Terms & Considerations**

- **Involution of the uterus** – return of the uterus to its non-pregnant size and condition. Typically, thought to be complete after six weeks. The mother's Health Care Provider may check for this at her six week check-up.
- **Post Partum Haemorrhage (PPH)** – severe bleeding from the genital tract up to 6 weeks after labour, of 500ml of blood or any amount which causes deterioration to the mother's health. May be a threat to the life of the mother so emergency management is required. Primary PPH occurs within 24 hours of birth and is due to relaxation of the myometrium (the middle layer of the uterine wall responsible for inducing uterine contractions). Secondary PPH occurs after the first 24 hours and up to 6 weeks postpartum and is due to infection or retained products of conception.
- **Air Embolism** – the abnormal presence of air in the vascular system or heart causing an obstruction to blood flow. Can be fatal.
- **Thrombosis** – the formation of a blood clot anywhere in the circulatory system. Thromboembolism relates to part of a blood clot which has broken off and is circulating in the blood. When it reaches small vessels, it can cause a blockage.