

## **Pre/Post Natal Pilates Workshop**

### ***Why choose Pilates for pregnancy?***

At this stage, most of us are aware of the benefits of Pilates to our core, flexibility, strength etc however, there are many other benefits that many are not aware of (hence the reason for so many different types of workshops and continued education).

During this workshop, I am focusing on the benefits of doing Pilates for the pregnancy trimesters and post-partum recovering mum, caesarean section and diastasis recti, among other things.

### ***What happenings to the body during pregnancy?***

Pregnancy is a gradual and ongoing process with changes i.e. being 4 months pregnant is very different to being 8 months pregnant.

### ***How does pregnancy affect the abdominal muscles, back and pelvic floor:***

During pregnancy the abdominal muscles are stretched to make space for the growing baby. This may weaken the muscles, particularly the deep abdominals, which are necessary for back support (like a corset). A lack of back support makes it vulnerable to injury. This is made worse by the hormone “relaxin” which is released during pregnancy to soften the ligaments and allow the pelvis to stretch during delivery. All ligaments are softened, including the back. With reduced support from the abdominals and ligaments many pregnant women can experience back pain. Relaxin remains in the body for some time post pregnancy and it is therefore important to protect the back/ body when lifting, breast feeding, bending etc.

The pelvic floor is a gateway for what can go in and out. Intercourse may be uncomfortable or painful. The pelvic floor is often weakened (Particularly the anterior pelvic floor) this can result in incontinence.

***As the pregnancy develops and the uterus expands Pilates teachers should keep the following in mind;***

- Pregnant women will experience an increased internal pressure on the abdominal wall
- Increased stress on the lina alba
- A lower ability to activate muscles of the centre
- Reduced ability to maintain axial stretching and good postural organisation
- Energy levels should be monitored. If any of the following symptoms are experienced exercise should be stopped and medical advice sought
  - i) Dizziness/ faint
  - ii) Uterine contractions
  - iii) Bleeding or leaking fluid
  - iv) Headache
  - v) Nausea
  - vi) Racing heart beat
  - vii) Out of breath
- “Take care not to fall”, the change in the centre of gravity affects balance.
- Be careful not to overstretch, due to the release of relaxin.
- As the tummy gets larger and stretches it becomes more difficult to achieve core contractions, don’t squeeze harder and over recruit superficial muscles instead focus on achieving a sense of activation.

**In a nutshell woman should be thinking Maintenance,  
not a vigorous workout programme**

**Breath:** Essential for calming and focusing mum, this in turn keeps baby calm. Breathing techniques also help mum with pain management in labour, particularly if they wish to have a natural birth. As the baby grows breathing can get more difficult.

In my experience of Pilates, many women have told me of their birth experience while under an epidural. The midwife tells them to push, but they don’t know how because they cannot feel anything. I know from my own experience (of having twins) that knowing how to activate my core helped me to deliver my babies, in other words, I had the knowledge of what muscles and where, which allowed me to push and deliver easily and effectively, despite not feeling anything.

## ***Postural Changes:***

### **Pregnancy/Early Post-Partum**

- Head forward
- Forward rotation of the shoulders
- Kyphotic curve
- Stretched abdominals
- Lordosis of the lumbar spine
- Anterior tilt of the pelvis
- Tight hamstrings
- Hyper extended knees
- Tight calf

### **Post-Partum:**

- Forward rotation of the shoulders
- Extra breast weight
- Kyphotic curve
- Loose abdominals
- Unstable lumbar spine
- Unstable pelvis
- Weak glutes
- Tight hamstrings
- Tight calves
- Feet

## **First Trimester**

Exercise during pregnancy is an important part of maintaining a healthy life style. However, the physical changes that accompany pregnancy may require your clients to modify their exercise routines during their pregnancy and immediately after delivery. The general guidelines and precautions for the various stages of pregnancy are as follows:

### **First trimester, up to 12 weeks:**

During the first trimester, there are no specific contraindications as far as body positions or specific exercises.

Exercises should be based on the energy level of the mother and geared to minimize fatigue. Some women continue on with all of their normal routine while others experience fatigue, nausea, and disturbed sleep, that limit their ability to perform at their previous level. Be sensitive to the individual's needs for rest or taking it easy during this period.

### **The primary exception to this rule is in high risk pregnancies, for example:**

- 1<sup>st</sup> pregnancies in women over 35
- Women with a history of miscarriages
- Women who are undergoing in vitro fertilization
- Diabetics
- High and low blood pressure
- Women who tell you they are at high risk for some other reasons
- Note any "I feel well BUT..."

In this case you may suggest that they stop exercising or minimize their routine until they are past the 12 week mark. It is also important to make sure these women are being seen by a doctor and that they have been cleared to exercise before they resume their Pilates programme.

***First Trimester – 0-12 weeks***

**Establishing a routine**

ESSENTIAL EXERCISES FOR THE FIRST TRIMESTER

**Neutral spine**

Important for alignment of the pelvis to facilitate correct birth positioning of the baby

**Extension of thoracic spine**

To counteract forward rotation of shoulders and kyphosis of the thoracic spine

**Flexion of lumbar spine**

Pelvic tilts-for alignment of the pelvis and to counteract lordosis

**Transverse abdominus stabilization**

Strengthening and stabilization of the abdominal area

Prevention of destabilization of rectus abdominus

**Oblique Strengthening**

Strengthening and stabilization of the abdominal area

Prevention of destabilization of rectus abdominus

**Pelvic floor toning**

**Breathing**

Teach deep abdominal breathing as a meditative exercise

Early in pregnancy is a great time to develop a programme that will address the key needs of the pregnant woman, however you should decrease inversion exercises such as short spine stretch and rolling exercises.

## **Second trimester**

### **Month 3 to 4**

Sometime around the end of the third month or during the fourth month, it will become uncomfortable to lie on the stomach and prone work should be discontinued. Your client will usually indicate when they start to feel like they don't want to lie prone. The abdominals also begin to feel a bit out of touch around this time as the abdomen stretches and the pregnancy starts to show. If your client was having issues with morning sickness and fatigue, they will usually ease up about this time and they will have more energy to work with.

### **Programme modifications during months 3 and 4**

- discontinue prone work
- discontinue inversion exercise (short spine stretch, roll over, rolling)
- develop stretches for the low back
- find abdominals that are comfortable
- maintain the flexibility of the abdominals by doing cat/camel or supine stretch
- if the client has issues with low blood pressure, teach them to change positions slowly

### ***Second trimester- 14-27 weeks***

#### **Modifying the Routine**

##### ESSENTIAL EXERCISES FOR THE SECOND TRIMESTER

#### **Neutral spine**

Continue to work for the correct positioning

#### **Lateral flexion**

To stretch the inter costal muscles due to the expanding rib cage

#### **Thoracic extension**

Continue maintaining strength in upper body and arms

#### **Transverse abdominus stabilization**

Strengthening and stabilization of the abdominals

Prevention of destabilization of rectus abdominus

#### **Obliques**

Will become more stretched at this point. Maintain with gentle exercises using breathing as a tool.

#### **Pelvic floor toning**

#### **Breathing**

Use lateral and posterior ribcage breathing to stretch the intercostal muscles

#### **Month 5**

During the 5<sup>th</sup> month the uterus is large enough to start putting pressure on the arteries that run alongside the inside of the spine when the client is supine.

#### **Programme modifications during months 4 and 5**

- Discontinue supine work or limit to no more than 5 minutes
- If your client starts feeling lightheaded or her legs feel weak or tingly, bring her out of supine immediately
- Discontinue exercises that deeply work the psoas and the hip flexors as in Teaser
- Limit spinal rotation

## **Third Trimester**

### **Month 6-9**

At this point in the pregnancy the size of the mother's abdomen will start to affect her ability to flex her spine and to deeply flex her hips. The hormone relaxin is starting to circulate in her body at higher levels leading to a loosening of the ligaments around the joints. This can lead to a lack of stability around the pelvis and cause low back, sacroiliac joint problems and hip problems to flare up. Swelling can also settle in the ankles and lower legs

### **Programme modifications during months 6-9**

Modify abdominals to suit the growing abdomen (roll back with straight legs works better than Teaser)

- Use a wider leg position on leg and foot work
- Emphasize the limbs rather than the core
- Increase stability of the pelvis and hips
  - Adductor exercises
  - Abductor exercises
  - Light abdominal work
  - Gluteal strengthening
  - Quad strengthening
  - Hamstring strengthening
- Work arms and upper torso strength for holding the baby
- Keep the feet up when possible to decrease swelling



***Third trimester- 28-40 weeks***

**Decreasing the Routine**

**ESSENTIAL EXERCISES FOR THE THIRD TRIMESTER**

**Pelvic tilts**

Continue to work for correct positioning

**Stability of the spine and pelvis**

**Hip circles**

May be done on the ball for best result

**Stretching**

Concentrate on inner thighs hips and spine

**Breathing**

Concentrate on deep abdominal breathing for calming and focusing

## Post-natal

Once the baby is born the mother can start doing simple core activation, pelvic floor and pelvic stability work as soon as she feels like moving. If the delivery was vaginal, she will be able to return to a beginning level routine as soon as she has stopped bleeding and feels up to it.

### **Caesarean Section**

If the baby was delivered by caesarean section, strenuous exercise is usually not suggested for 6-8 weeks following delivery. Gentle core work is very helpful but it is not wise to put stress on the sutures that are healing. Once they are cleared by their doctors for exercise, it is wise for them to start off slowly until they feel they have their full energy back.

### **Diastasis Recti**

During pregnancy, it is quite normal for the linea alba or the rectus abdominis muscles to separate. Therefore flexion of the torso is excluded during the pregnancy, as this puts the most strain on this area.

**Note-** a woman should always be checked for this condition prior to commencing Pilates otherwise the condition will worsen and will increase the likelihood of spinal problems

Ask your client to move into a supine position on the floor, raise her head and shoulders in flexion, then run your finger, starting at the xiphoid process to the pubic bone (always ask the client in advance and explain why you are doing it). The general rule is if the gap is 2 fingers or greater, supine flexion should be excluded. Encourage the client to draw the muscle fibres to the midline

Notes on using breath and drawing fibres to mid-line to help improve the condition:

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***Exercises that are good throughout pregnancy:***

**MAT**

- All 4 abdominals
- Cat/Camel
- Tail wag
- Pelvic Press/bridging with feet on the wall (ball-not tennis-at knees)
- Down dog
- Wall push ups (leg pull down or just plank position)
- Stretches
  - Standing hamstring
  - Quadriceps foot on chair
  - Calf stretches
  - Angels in the snow
  - Telescope/pinwheel

### Mat Pilates Class Plan

<b>Standard Class</b>	<b>Trimester 2</b>	<b>Trimester 3</b>	<b>Post Natal</b>
The hundred			
Leg circles			
Roll up			
Rolling like a ball			
Single leg pull			
Criss cross			
Leg Lowers			
Spine stretch forward			
Saw			
Cat/ Camel			
Superman			
Press ups			
Leg pull down			
Mermaid			

Q and A session:

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Thank you and well done,

Sarah MacLachlann

Sarah@ppireland.com