

## **Diastasis rectus abdominis after Pregnancy**

### **Therapy Services, Physiotherapy**

This leaflet provides information and exercises for women with stretched abdominal muscles which is known as diastasis rectus abdominis, following pregnancy and provides postural advice to assist daily living.

The abdominal muscles stabilise the spine during movement and control posture in sitting and standing. The muscles are made up of three layers;

- The rectus abdominis muscle is the layer under the skin which works strongly when coughing and lifting. The rectus abdominis is known as the “six pack” and is joined at the centre by a fibrous band called the linea alba which runs from the breastbone to the top of the pelvis.
- The oblique muscles are deeper abdominal muscles which allow you to rotate.
- The deepest muscle is the transversus abdominis which is the main stabilising muscle and acts as a corset.

### **Why are the abdominal muscles affected during pregnancy?**

During pregnancy the muscles and the linea alba stretch and lengthen as your baby grows. The stretching of the linea alba can cause the muscles supporting your abdomen to become further apart. This is more likely to happen if:

- You are carrying twins or more
- Your baby is large
- You are overweight
- Your abdominal muscles are weak
- The labour is longer than usual
- If you regularly carry heavy objects

### **How can I tell if I have stretched abdominal muscles?**

It is more noticeable in the later stages of pregnancy or after the baby is born. The greatest point of separation is at the tummy button and is visible when you are lying and lift either your head or leg. You will notice either a gap or a bulge or “dome” between your abdominal muscles. This gap can be measured either by using the fingers or a tape measure.

With a severe stretch of the linea alba (up to 20 cm) the back is prone to injury; therefore maintaining the correct posture is very important. A small stretch of 3cm or less often gets better by itself.

### **How to check for a stretch of the abdominal muscles:**

- Lie on your back with your knees bent and feet flat on the bed.
- Gently raise your head and shoulders off the bed.
- Place fingers vertically into the gap in line with the belly button. If you can fit more than two fingers into the gap, you need to follow the exercises and advice in this leaflet and ask your midwife or GP to refer you to a woman's health physiotherapist
- If the gap is two fingers or less follow the exercises and advice in this leaflet.

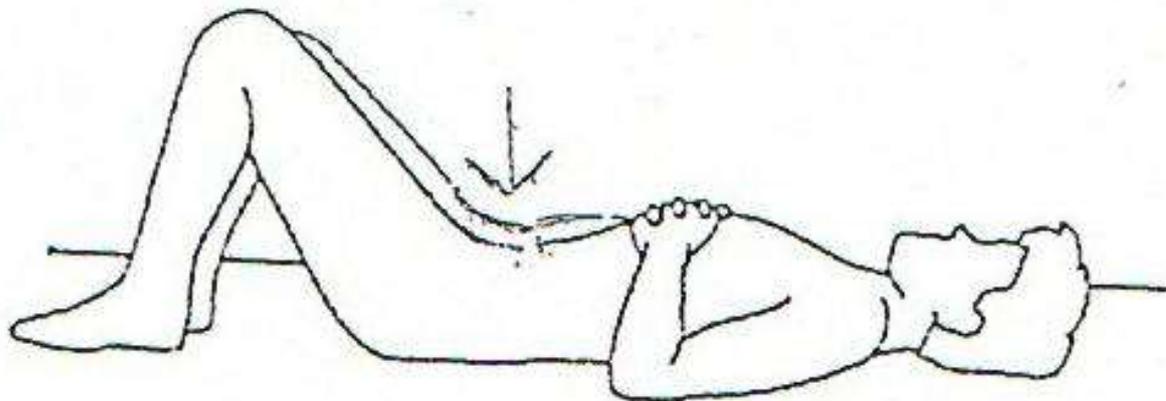
### **Exercises for stretched abdominal muscles**

Begin with the first two exercises. As you gain control and strength, gently introduce each exercise one at a time. Progress slowly.

#### **Deep abdominal exercises:**

- Lie on your back or side with your knees bent
- Place your hand on the lower part of your tummy.
- Breathe in through your nose. And as you breathe out, gently draw in your lower tummy away from your hand towards your back (belly button to spine).
- Hold for five breaths in and out then let the abdominals relax
- Aim for ten holds, three times a day.

Slowly progress to holding for a count of ten breaths.



## **Pelvic Floor Exercises**

The pelvic floor muscles help control your bladder and bowel function. They work with the deep abdominal muscles to help support your spine. They become stretched and weak during pregnancy and so need training to restore them. The exercise can be done in any position but it may be easier to begin lying on your back with your knees bent and feet flat as in the first exercise.

- Gently lift and squeeze the muscles around the back passage and then the front, as if stopping yourself from going to the toilet
- Continue breathing whilst holding the muscle contraction
- Avoid tightening the muscles in your legs, bottom and upper abdomen.
- Aim to hold for a count of 10 seconds
- Gently and completely relax the muscle
- Repeat this exercise 10 times, three times a day
- You can also practice fast squeezes of the pelvic floor by using the technique above but quickly. Hold for a count of one second then relax. Repeat the exercise ten times three times a day

Once you feel confident performing these exercises separately you may start to combine them together; squeezing the pelvic floor, then the abdominals.

## **Oblique muscle exercise**

- Lie on your back with two pillows supporting your head and shoulders, knees bent with feet flat on the bed.
- Place both hands on one thigh.
- Breathe in and as you breathe out tighten your lower abdominal muscles whilst pushing your hands and knee together.
- Hold for ten complete breaths in and out. Repeat ten times each side.

Progression: (only to be done if diastasis is less than two fingers)

- To progress the exercise above remove one pillow at a time, until you are not using pillows for support

## **Standing heel lifts**

This exercise works your abdominal muscles and the muscles around your hips, stabilising your spine and pelvis. This is an important exercise to help develop stability when walking.

- Stand with feet hip width apart
- Check you hip bones and pubic bone are lined up vertically
- Gently lift your pelvic floor and tighten your tummy muscles (belly button to spine)
- Lift one heel from the floor, then lower it and lift the opposite heel.
- Keep alternating sides as if walking
- Hold your muscles in and keep your pelvis still all the time

Complete 20 at a time

Continuous postural awareness is essential during activities of daily living to compliment your physiotherapy exercises and gain the best possible recovery of your abdominal muscles and prevent its deterioration.

### **Correct standing posture**

Stand with your feet facing forward, hip width apart. Check weight is balanced between inside and outside of each foot as well as front and back of each foot and equal left and right. Knees straight, not locked. Keep your pelvis in a neutral position by placing the heels of your hands lightly on the front of your hip bones and extend your fingers to your pubic bone. These bony points should line up. Relax your ribs and shoulders down, do not lean back, gently drawing the shoulder blades down and towards each other. Stretch the back of your neck by thinking of lifting the crown of your head towards the ceiling.

Holding this posture, lift the pelvic floor and gently draw your belly button to spine (as if tightening your belt one notch tighter than usual). Try to maintain this tension. (Using a narrow belt, ribbon or string, tie this around waist at the tension you can maintain. Whenever you relax the tension, the belt will dig in and remind you to maintain the tension again).

When working in standing, try to keep work close to you and work at waist height to avoid leaning e.g. nappy changing, bathing baby, food preparation, washing up.

### **Sitting posture**

Feet hip width apart, facing forward, heels positioned under knees. Knees hip width apart at a right angle.

Try to position the hips at a right angle, with weight equal between left and right sit bones. Use a small rolled towel about waist height to help support the natural curve of your lower back. Shoulders should be relaxed with shoulder blades gently pulling back and down towards each other.

Stretch the back of your neck by thinking of lifting the crown of your head towards the ceiling.

Whilst holding this posture, lift the pelvic floor and gently draw navel to spine.

### **Feeding baby**

Support baby on pillows and maintain your upright posture. Avoid twisting body or rounding shoulders.

### **Getting out of a chair**

Remember to bring your weight to the front of the chair before attempting to stand. Shuffle bottom forward, and then lean to bring your nose over your toes before pushing up with the legs. Avoid twisting whilst standing up, especially if holding any type of load e.g. baby

## **Bed Manoeuvres**

When turning over in bed, keep knees together and reach arm over in the same direction.

When getting out of bed, roll onto side, lower legs over side at same time as pushing up with arm. Keep your legs bent to aid in the motion of getting up.

Hold the abdominal and pelvic floor muscles firmly throughout any rolling or twisting movements.

## **Walking**

Try to maintain the upright posture developed in standing, think about “walking tall”, maintaining gentle tension in your pelvic floor and abdominal muscles (belly button to spine) to hold your hips level. If using a baby sling, keep the baby snug and central.

Avoid leaning back to compensate for the weight of the baby or rounding shoulders.

When pushing a buggy (or shopping trolley), keep elbows bent with the buggy close, adjust the handle if possible to waist height. Pushing up hill requires a stronger contraction through the abdominal muscles to maintain the best possible posture.

## **Bending and Stretching**

When securing a child in to a car seat, or a car seat in to a car, bend from the hips and knees not the waist, whilst contracting the abdominal and pelvic floor muscles to support the back. Take care not to over stretch.

## **Lifting**

When lifting get as close as possible to the load to be lifted e.g. toddler, washing basket, Moses basket, vacuum, buggy and use the strong muscles of the legs to push up with whilst keeping the back straight and drawing in the abdominal and pelvic floor muscles.

## **Carrying**

Everything should be held centrally, close to the body e.g. baby, toddler, car seat, buggies. Alternatively, where possible, split the load so it can be managed equally left and right, e.g. shopping bags, or use a rucksack. Avoid leaning to compensate for the altered weight distribution, or rounding the shoulders.

## **Straining**

Bloating and constipation stretch the abdominal muscles. Ensure that you have a good healthy diet and drink plenty of water to avoid this. Knees should be higher than hips when sitting on the toilet (use a small step). Lean forward with elbows on knees and relax. When coughing support the abdominals with your hands to prevent the muscles from pushing out and stretching.

## **Advice for the first twelve weeks after having your baby:**

- Avoid lifting heavy loads and always tighten the abdominal muscles whilst lifting, carrying and holding your baby. Don't lean back if you are holding your baby to your shoulder.
- Avoid vigorous physical activity such as running.
- Avoid constipation and straining by drinking plenty of fluids and include fruit and vegetables in your diet
- Use your hand to support your abdominal muscles during coughing, sneezing and opening you bowels
- Gradually progress your level of exercise, ensure you select activities that are slow and controlled for example swimming or postnatal pilates.

## **For further information please contact**

Newcastle Upon Tyne Hospitals NHS Foundation Trust  
Musculoskeletal Physiotherapy department on

**Tel : 0191 213 8800** (8:30-16:30)

Or e-mail: [newcastle.mskphysiotherapy@nhs.net](mailto:newcastle.mskphysiotherapy@nhs.net)

## **Useful links**

The Patient Advice and Liason Service (PALS) can offer on-the-spot advice and information about the NHS. You can contact them on freephone 0800 032 02 02 or e-mail [northoftynepals@nhct.nhs.uk](mailto:northoftynepals@nhct.nhs.uk).

Association of Women's Health Physiotherapists - <http://acpwh.csp.org.uk/publications>

If you would like further information about health conditions and treatment options, you may wish to have a look at the NHS Choices website at [www.nhs.uk](http://www.nhs.uk). On this website there is an information prescription generator [www.nhs.uk/ips](http://www.nhs.uk/ips) which brings together a wealth of approved patient information from the NHS and charity partners which you may find helpful.

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