Rectus Abdominus Diastasis (RAD)

Women's Health Physiotherapy Department
St James’s Wing
St George’s Hospital
Blackshaw Road
SW17 0QT

020 8725 1333
Rectus Abdominus Diastasis (RAD)

The following information is for women who have experienced a separation of their stomach muscles during pregnancy or labour. It explains why this may have occurred and how it is best managed.

The stomach muscle is made up of four layers of muscle. The top layer of muscle is called the **rectus abdominus**. This muscle runs from the bottom of the ribcage down to the pubic bone of the pelvis. The muscle is in two halves which attach together in the middle. During pregnancy or labour these two parts can separate, as in the picture above. This causes a ‘rectus abdominus diastasis’. This is the medical term for the separation of the two sides of the muscle. The linea alba (the connecting tissue between the two halves of the muscle) will have stretched or divided.

**What about the future?**

Many, but not all, women notice an improvement in the muscle separation within the first eight weeks after delivery. Pilates exercise groups can be very beneficial to continue and progress your strengthening programme from approximately six weeks postnatal. Ensure that your diastasis has decreased to at least two finger widths before starting to gradually return to other activities and more challenging exercises, usually from around three months postnatal.

Recovery time can vary postnataally, it is important to be patient and persevere with the exercises and advice. If you feel you are not improving, or your diastasis is very large, ask your GP for a referral to a Women’s Health Physiotherapist. If you have any questions please contact us directly on 020 8725 1333.
3) Lie on your back with knees bent and feet on the bed. Tighten your pelvic floor and stomach muscles as in exercise 1. Keeping the muscles tight, gently slide one heel along the bed away from you until almost straight, then slowly return to the start. Only straighten your knee as much as you can without your low back or pelvis starting to arch. Repeat with the other leg. Alternate up to 5 times on each leg. Do this 3 times a day.

Can I wear a support?
If your Physiotherapist feels it is required, you may be issued with a tubigrip support to wear around your stomach and low back. This double-layered elasticated material provides some gentle support to your stomach. It may also stimulate and encourage your deeper stomach muscles to work as you go about your day to day activities. This may, therefore, be worn while performing the exercises. You can also wear it for more demanding activities, such as housework, pushing the pram and longer walks. Anything more than very light lifting/pushing should be avoided for at least three months.

Other general advice
As well as strengthening the muscles, it is vital that you protect the weakened muscles from further strain:

- Avoid sit-ups.
- Avoid heavy physical work/straining.
- If a ‘doming’ or ‘bulging’ occurs of the stomach on certain movements, try to avoid these movements.
- Take care when getting in/out of bed – contract the stomach muscle (exercise 1) prior to starting the movement, roll to the side and use your arms and waist to raise/lower you, so as not to pull up on the front stomach muscles.
- Wear tubigrip if appropriate.
- Perform pelvic floor exercises as regularly as possible.

What causes RAD?
During pregnancy the stomach muscles, in particular the rectus abdominus, stretch to accommodate for the growing baby. This, along with hormonal changes, can cause the two halves of the rectus abdominus to separate. This separation may also occur during labour while the mother is actively pushing to deliver her baby.

It is usual for an increase in the width between the two halves of the muscle to occur in all postnatal women. The risk of a larger separation increases:
- with a large baby
- with multiple births, for example, twins
- for those with a narrow pelvis
- for those with weak stomach muscles
- for those with poor posture
- for those who have had previous children.

Occasionally, however, it may occur for no apparent reason.

What happens in the postnatal period?
After any delivery the muscles of the stomach may be weakened and stretched and can remain so for some time. The presence of a rectus abdominus diastasis results in a greater weakness of the whole area. This may affect the support given to the low back, which can cause back pain in some people. The diastasis is not dangerous but care is required to encourage reduction of the separation. Avoiding certain movements and strengthening the deeper stomach muscles may help with this.

The aim is therefore to re-educate and strengthen the deeper stomach muscles to try and return them towards their pre-pregnancy condition. Many women find they significantly improve within the first few weeks after delivery, however, changes may take longer than this.
How do I test for a diastasis?
1. Lie on your back with your knees bent and feet flat on the bed. Have only one pillow under your head.
2. Place two fingertips widthways on your stomach, just above or below your belly button, so that your fingers are going across your stomach, not lengthways.
3. Press gently downwards into your stomach then slowly raise your head off the pillow tucking your chin in towards your chest.
4. You should feel the two sides of the stomach muscle clamping around either side of your fingers. If you cannot feel anything, start again, but this time use three fingers instead of two. Continue in this way until you can feel the muscles either side of your fingers as you raise your head.

When you feel the stomach muscles clamp around the sides of your fingers, count how many finger widths it has taken. This is the width of your diastasis and as you improve, this should reduce. Testing once a week is sufficient. Two finger widths is quite ‘normal’ after having a baby.

What treatment is available?
Specific exercises are necessary to start the rehabilitation process. Your ‘muscular corset’ is made up of a number of important muscles. It is of particular importance to strengthen your deepest stomach muscle, your **transversus abdominus**, prior to starting more vigorous exercise or doing sit-ups. This will start the strengthening process from the inside.

1) Lie on your back with knees bent and feet on the bed. Relax your back into a neutral position (not too flat or too hollow). Tighten your pelvic floor muscles and gently draw your low stomach muscle in towards your spine. Hold for 10 breaths in and out. Repeat 10 times. Do this 3 times a day.

You should practice the above exercise while both sitting and standing, as well as on your back, as shown. If your diastasis is bigger than three finger widths you may experience further benefit from doing the exercises while encouraging closure of the rectus abdominus muscle. This can be achieved by crossing your arms over your stomach and gently drawing your hands together while you perform the exercise. It can also be achieved by wearing a double-layered tubigrip around the stomach, which can be provided by your Physiotherapist if necessary.

Once you have mastered the above exercise, you should progress to the following:

2) Lie on your back with knees bent and feet on the bed. Tighten your pelvic floor and stomach muscles as in exercise 1. Keeping the muscles tight, gently press your low back into the bed, tilting your pelvis. Hold for 3 seconds then return to the start position. Repeat up to 10 times. Do this 3 times a day.