

BACK PAIN DURING PREGNANCY

Back pain during pregnancy affects around 50% of women, and some studies suggest that percentage is even higher. Back pain experienced during pregnancy is normally a result of changes in the body to compensate for the growing foetus. Leg pain during pregnancy is even more common than low back pain (LBP), and is also due to changes in the mechanical stresses on the vertebrae at the bottom of the spine [just above your tailbone (coccyx)]. The following leaflet gives information on why these changes take place, suggests treatment options and gives advice on how to relieve the pain as well as the stresses on the body that are likely to cause pain. It also advises on what you should look for from a therapist, should you want to seek professional help.

INTRODUCTION

As the foetus develops during pregnancy and becomes heavier, your body posture must compensate in order for you to maintain your balance when you are standing up. This change in weight distribution will put more pressure on the soft tissue structures (muscles and ligaments) in your lower back and may lead to you experiencing either low back pain (LBP) or leg pain during your pregnancy. In addition the stomach muscles become weaker as a result of the increasing stretch of the growing foetus and they lose some of their ability to distribute the increasing weight and maintain a normal neutral posture.

As pregnancy continues, the production of the hormone relaxin increases by about ten times its normal amount which increases joint laxity to allow the pelvis to accommodate the growing baby. Unfortunately this also weakens the static supports in the lumbar spine (lower back) to resist shearing forces which then may result in pain from the facet joints of the vertebrae and the associated soft tissues such as muscles and ligaments in the area.

TYPES OF PAIN

The most common forms of LBP during pregnancy can be classified into 3 types:

1. LBP in the lumbar spine – around the lower curve (lumbar lordosis) of the back.
2. Leg pain around the back of your buttocks (sacroiliac pain) and potentially down to your hamstrings – this is four times more likely to occur than LBP.
3. Back pain that occurs at night time when you are lying down.

TREATMENT OPTIONS

Women who are physically active (engage in 45 minutes or more of physical activity per week) before they become pregnant are less likely to develop LBP during pregnancy; however, this does not seem to reduce the risk of sacroiliac pain.

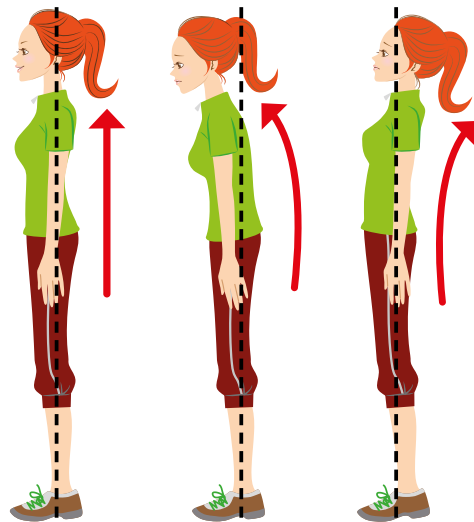
The weight gain and changes in hormone levels will put more stress on your lower back and pelvis at the same time as the ligaments and joints become more lax, so it's important to minimise and manage mechanical stress to the lower back.

This means understanding what good (neutral) posture is, and being very conscious of keeping this neutral posture at all times, particularly

when you are going about your normal daily activities: for example, lifting items, playing sport, moving wet clothes from washing machines, carrying shopping, etc.

A NEUTRAL POSTURE IN STANDING INVOLVES:

- Equal pressure distributed through both feet
- Making sure you're not tipping forward or leaning backwards as you stand
- Feet hip-width apart (so you can run a straight line down from your hip, through your knee to your foot)
- Drawing the shoulders back and down
- Lifting your chin so it's not tilted down (imagine you have a grapefruit under your chin)
- Imagining if you were to hold a piece of string with a weight on the end it would cross all the areas shown in the image below.



A NEUTRAL POSTURE IN SITTING INVOLVES:

- Feet on the floor (or footrest)
- Hips slightly higher than the knees
- Lumbar area (low back) supported
- Head / neck / shoulders / elbows / hips aligned
- Shoulders relaxed
- Elbows bent at 100° or more
- Wrists straight
- Fingers slightly curled and relaxed.

WHAT TO AVOID

- Heels – shoes with heels accentuate the curve in your lower back and increase the stress on the facets of your vertebrae.
- Standing for long periods of time – this also increases the lumbar lordosis (curve of your lower back) – placing one foot on a stool can help.
- Sitting for long periods of time – again resting one foot on a stool can help relax the muscle (iliopsoas) that increases this lumbar lordosis.

SEEKING PROFESSIONAL HELP

- A programme of exercises is one of the most helpful things you can do but it is important that you know how to perform these exercises correctly so that you don't increase stress on your back. A therapist can help advise on what exercises would help you most.
- It may also be helpful for the therapist to watch you doing your usual daily activities, for example using appliances in your house or replicating activities that you do regularly so that they can give you tips on how to keep a neutral spine as you do them.
- It may also be helpful to use heat or ice for pain relief and this will depend on which application works best for you.
- You should avoid joint manipulation while you are pregnant and generally non-steroidal anti-inflammatory drugs (NSAIDs) should also not be taken during pregnancy.

A FINAL WORD

Unfortunately no known exercise regimen completely protects you against LBP during pregnancy but with advanced planning, exercise and awareness, there are many ways to help prevent or alleviate it.

OTHER RESOURCES

- If your therapist has access to the Co-Kinetic website we have two other leaflets giving specific physical activity advice during pregnancy as well as after pregnancy.
- If you'd like to purchase these leaflets individually you can find them at the following links:
 - Physical Activity During Pregnancy
<http://spxj.nl/2aJRzX4>
 - Physical Activity After Pregnancy
<http://spxj.nl/29zWQjg>



Figure 1: Postures to avoid when using a computer: (a) poking chin, (b) excessive lumbar lordosis



Figure 2: Neutral sitting posture

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MANUAL THERAPISTS