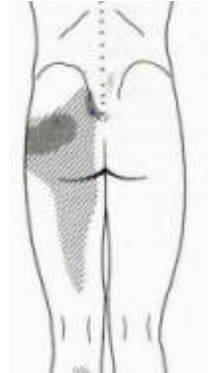




Sacroiliac Syndrome

... involved in up to 90% of cases of lower back pain

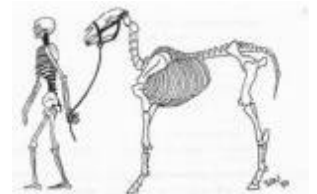
Although back pain has a number of causes, experts from all professions agree that the SACROILIAC JOINTS (SIJ's) of the pelvis are involved in many cases. Sacroiliac pain tends to be low down, often more to one side, and often extends into the buttock, the back of the thigh and sometimes the calf. It can start suddenly, but tends to persist as a dull ache, on & off, often with a feeling of pins & needles in the buttock. Unless correctly diagnosed and treated, this can continue for many years, eventually leading to further problems.



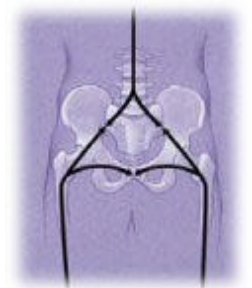
A typical pattern of sacroiliac pain.... but this varies from day to day & person to person.

Research shows the sacroiliac joints to be involved in up to 90% of cases of low back pain. Many people have asked why the SI joints are so prone to giving trouble. Several authorities point to the transition from quadruped to biped, where there appears to be an evolutionary weakness. In the quadruped, most weight is taken on the front legs, e.g. in the horse the distribution is about 65:35 front to hind. Thus the quadruped sacroiliac joint takes a good deal less than half the animal's weight. In man the sacroiliac joint takes 100%.

Another important consideration is the change in angulation from the horizontal to the vertical. In the horse, the main iliac bones of the pelvis act as pylons with the sacrum and spine suspended underneath by massive ligaments. In man, the sacrum is partly held by ligaments but mainly by contraction of the pelvic girdle muscles. "force closure" These resist the massive shearing forces generated across the SI joints.



If the pelvic muscles become strained, they tend to go into a spasm around the SI joints giving a painful "locked" or "fixed" joint. Over a long period of time, the muscles weaken, the ligaments around the joint stretch and the joint becomes sprained, with too much movement: "hypermobility".



Breaking the sprain /strain cycle

Often sufferers will get relief from visiting their physiotherapist, osteopath or chiropractor, only for the problem to return after a day or two. It's frustrating for both patients and clinician. It's a fact agreed by all health professions that in chronic back pain, the tissues overwork and decondition, leading to an inability to cope with the stresses of everyday life. This is where a helping hand can be invaluable. When given gentle, reliable support, muscles and ligaments get a chance to repair and strengthen enough to cope on their own. The Serola SI belt takes the strain off the postural muscles and ligaments while they rehabilitate, helping work towards a long term solution.

"the SI joint is 20 times more vulnerable to axial compression and twice as susceptible to axial compression as lumbar segments.... these are the forces created by bending, lifting and twisting"

Bernard and Cassidy 1991

Lumbar Pain

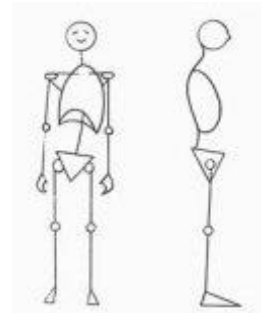
how sacroiliac and lumbar pain are linked



how sacroiliac and lumbar pain are linked

Lumbar Pain or Sacroiliac Pain. Which came first? That's the chicken-or-the-egg question which faces back specialists every day. The lowest disc, facet joints and the sacroiliac joints are very close together, and share many muscles, ligaments, and, importantly, nerves. It can be very difficult to identify just where most of the pain is coming from, and this is still the subject of debate.

(a) if the pelvis becomes distorted, due to a fall or postural stress, the "foundation" of the spine can become tilted. The spine has to compensate, in order for the upper body to be carried upright. Clearly, some of the lumbar muscles have to do extra work, and some of the joints have to take extra loading. The result is extra wear & tear. Sooner or later something has to give. Although an attack of back pain may occur suddenly, for no apparent reason, usually there have been minor niggles or aches for some time.



(b) on the other hand, a minor twist or sprain in the lumbar spine can also go little noticed for a long time. However, irritation in the strained muscles or sprained joints can cause a reflex contraction of major pelvic muscles (e.g. the gluteus maximus). The result is a distortion of the pelvis (as above) adding another stress to the lumbar spine.

In the long term, these stresses can cause torsion & weakening of the lumbar discs, and this mechanism is thought to be one of the main causes of disc degeneration, with resultant sciatic pain. Whichever came first, the lumbar problem or the sacroiliac, the important thing is to get your back and pelvis lined up correctly and working properly as soon as possible. Left for a long time full recovery becomes less and less likelythat's a fact all experts agree on.



Low back pain can be a vicious circle. Pain leads to immobility, frustration, and decreased fitness...which all tends to make things worse. Using an SI support can help with getting back to walking and gentle exercise, which in turn improves local circulation which then helps with the repair process.

Q. "Won't wearing a belt make me dependent on it. And lead to muscles wasting?"

A. Just the opposite. When muscles spasm around a joint (splinting) they quickly fatigue and decondition. (rather like us if we overwork and never take a break). Supporting the muscles and ligaments allows them a chance to recover before fibrosis or further injury can take place.

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Hypermobility

support for hypermobile joints

Most clinicians agree its fairly easy to loosen up a tight joint, but much harder to tighten up a loose, or hypermobile joint.

Hypermobility presents a special problem. Due to their position in the body, the SI joints are under constant stress: standing, sitting ... even just turning in bed. It takes time and rest for the ligaments to tighten up. The Serola Belt is designed to give specific, gentle but firm support to help the repair process, as well as giving welcome pain relief.

Pre- & Post-Partum During pregnancy the hormone Relaxin acts to loosen the ligaments of the pelvis, allowing the SI joints to loosen, and thus birth canal to widen. After childbirth, the ligaments should spontaneously re-tighten over a period of months. However, certain one sided strains & activities, e.g. holding the child on one hip, can lead to continued hypermobility.

* Serola belts are used in maternity hospitals and clinics throughout the UK.



Acquired (e.g. ballet dancers, gymnasts). These individuals tend to be naturally very flexible, however sustained training when young ensures extreme hypermobility. There is no problem whilst there is strongly developed postural musculature. Problems tend to arise when this muscle tone is lost in later years.

Traumatic Acute sprains (ligaments damage) may be inflicted by car accidents, horse falls etc. Chronic sprains can occur without us realising, from repetitive work positions or postural stress. Often referred to as "microtrauma".



"..after childbirth, 147 patients used a pelvic belt....67% reported a positive effect"

J.A Mens et al 1996

"Studies have shown that because all pelvic joints loosen during pregnancy,use of a sacroiliac belt will most likely reduce associated pain during and after pregnancy"

Snidjers et al, 1992

Symphysis Pubis Dysfunction (SPD)

SPD is extremely painful and distressing condition usually associated with late pregnancy but occasionally with trauma, such as a car accident or very heavy fall.

The symphysis pubis itself is where the two main bones of the pelvis meet at the front. A strong dense fibrocartilage connection between the bones makes a tough, springy joint which normally only moves a few degrees at most. If this becomes torn or stretched, intense sharp pain is experienced on almost any movement.



The Serola SI Belt acts to gently stabilise the whole of the pelvis, giving gentle but firm support to help the repair process..... as well as giving welcome pain relief.