

LUMBOPELVIC INSTABILITY PATIENT CASE STUDY
February 2011 by Nicola Wycherley MCSP

S.T. referred herself for physiotherapy treatment complaining of an acute left Sacroiliac joint (SIJ) and low back ache. She had suffered with this for the past six years, following a fall onto her sacrum. She reported feeling like her pelvis was unstable, giving her disturbed sleep, morning stiffness, and tightening of her back and gluteals after two hours at work. Walking and standing were painful, she was unable to carry shopping or a handbag and unable to squat.

On examination she exhibited a chest and butt gripping strategy, causing her L4/5 motion segment to sit in flexion. She had hypertonicity of her external obliques, piriformii, and quadratus lumborii muscles. Her lumbar flexion was slow and 30% limited. On one-leg-stand load transfer testing she had a right Intrapelvic Torsion, as a result of her left SIJ unlocking into anterior rotation. This was causing her left long dorsal ligament to become acutely inflamed, hence her acute SIJ pain. Load transfer testing in active-straight-leg-raise showed heaviness and instability on both sides, worse on the left. This was made more stable and lighter by applying compression to her pelvis, indicating that she was having difficulty with force closure of her pelvic ring due to poor function of her pelvic floor, transversus abdominus and multifidus muscles.

She was treated using muscle release techniques, acupuncture to her muscle trigger points, stretches, core strengthening exercises and joint mobilisations. I loaned her an SIJ compressor belt to help her pelvic force closure until she developed enough strength in her pelvis to settle her pain.

Following a course of 20 treatments over a six month period, she reports greatly improved function and a marked reduction in her pain. She can work a whole day without tightening of her back and gluteals and can carry shopping. On examination she now has no chest or butt gripping with a consequent normal low lumbar lordosis in standing. She has full lumbar flexion and is able to fully squat, no Intrapelvic Torsion on one-leg-stand, a light, stable active-straight-leg-raise test and good core control. Her long dorsal ligament is minimally tender and her abdominal muscles exhibit normal tonicity.

She is now attending a Pilates class run by one of our Physios, Nolly Ravenhall, to improve on her Lumbopelvic stability further. This will mean that she will be able to carry out higher loading tasks. She has just returned from a Skiing holiday, having experienced no pain at all.