

## REAL TIME ULTRASOUND IMAGING

Real time ultrasound (RTUS) is a state of the art imaging technique used for assessment and training of the deep stabilising muscles around the lower back, pelvis and hips.

When we experience pain in the lower back, hips and groin the important smaller and deeper stabilising muscles can become less active. In turn, the larger superficial muscles of this region become overactive and can further drive the initial cause of pain by altering the way we move and position our body.

The deep stabilising muscles that most often require re-training following injury or pain include the Transversus Abdominus, Multifidus, Quadratus Femoris and muscles of the Pelvic Floor. These muscles are almost always overlooked by people trying to improve their 'core strength'.

This is where RTUS becomes a particularly useful assessment tool. By producing a real time video image of these muscles, our clinicians are able to assess many aspects of their functioning including size, activation, timing and endurance. The visual biofeedback provided by RTUS helps patients re-learn how to switch on these deep stabilising muscles.

### **Applications:**

- Low back pain
- Groin pain
- Pelvic floor muscle dysfunction
- Core stability training following musculoskeletal injury
- Pre/Postnatal core stability muscle training

At Lakeside, your Sports clinician or Physiotherapist may recommend a Core Assessment using RTUS as part of your rehabilitation. Please note that an additional fee will be incurred on top of the standard consultation fee for this service.

Should you have any further queries regarding a Core Assessment and training with RTUS please Contact the clinic on (03) 9682 6029.



## References:

Cowan, S.M., Schache, A.G., Brukner, P., Bennell, K.L., Hodges, P.W., Coburn, P, Crossley, K.M. (2004). Delayed onset of transversus abdominus in long-standing groin pain. *Medicine and Science in Sports and Exercise*, 36(12), 2040-2045.

Hides, J., Gilmore, C., Stanton, W., Bohlscheid, E. (2008). Multifidus size and symmetry among chronic LBP and healthy asymptomatic subjects. *Manual Therapy*, 13(1), 43-49.

Hungerford, B., Gilleard, W., & Hodges, P. (2003). Evidence of altered lumbopelvic muscle recruitment in the presence of sacroiliac joint pain. *Spine*, 28(14), 1593-1600.

Ferreira, P.H., Ferreira, M.L., Hodges, P.W. (2004). Changes in recruitment of the abdominal muscles in people with low back pain: Ultrasound measurement of muscle activity. *Spine*, 29(22), 2560-2566.