

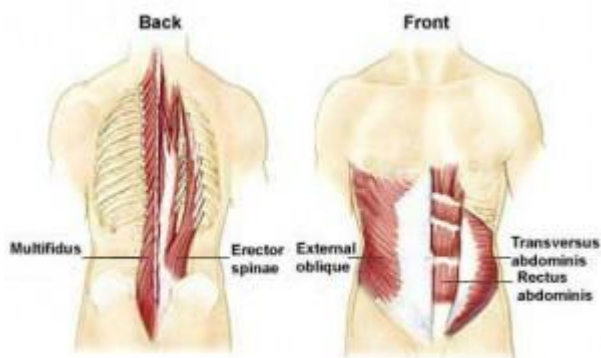
# Clinical Pilates in modern day rehabilitation

**Sarah Abbott and Niamh Clerkin are Physiotherapists based at Performance Physio in Christchurch and were part of our Performance Network.**

“Clinical Pilates” is a modified form of therapeutic exercise used by physiotherapists to assist in the rehabilitation and prevention of musculoskeletal injury. Specialised pilates equipment such as reformers and trapeze tables may be used in addition to fit-ball and floor exercises. A major focus is on strengthening the body’s core muscles around the abdomen, lower back, pelvic and scapular regions, therefore enabling the body to move efficiently and thereby enhancing performance. This is accompanied by an emphasis on postural education and facilitating optimal biomechanics. As an athlete it is essential to have a strong core to provide a stable base of support from which to move your arms and legs. Clinical Pilates is designed to help you recover from injuries and prevent further musculoskeletal problems from developing. Physiotherapists combine their expert knowledge of injury, diagnosis, management and treatment with Clinical Pilates to tailor an individual’s programme to their sports specific needs.



Movement dysfunction often leads to pathology and vice versa. The low level endurance musculature is the primary focus of stability training, and the aim is for early onset, at low loads, of both the local / deep stabilisers such as transversus abdominis and the deep multifidus and the more superficial global stabilisers such as the obliques / superficial multifidus, latissimus dorsi etc. It can be difficult for people to activate the stability musculature as only a low percentage of the maximal voluntary contraction (MVC) is required; strength training is easier to “feel” as it uses a higher percentage of MVC. Stability training must progress from the static to the dynamic and incorporate the connection between the shoulder and pelvic girdles. Load and movement are key factors in muscle activity, therefore the exercises must facilitate and challenge those muscles. If the muscle is to act as a background to movement it stands to reason that it should then be trained in the background and a “movement pattern” developed.



An important issue in stability training is the effect of pathology. Pathologies are generally load sensitive as well as direction sensitive. If a pain producing pathology exists it must be determined if it has a direction preference. The neutral position required for ideal posture may be provocative in the initial stages of injury which can lead to an increase in pain, and consequently cause further muscle inhibition. Unloading the pathology in either flexion, extension or off centre may well protect the pathology and allow

muscle activity to occur. With progression, neutral is incorporated and eventually the provocative position used. Clinical Pilates programmes are designed to enhance the performance ability of all active individuals whether novice or elite.