WAKEFIELD SPORTS CLINIC

So …When will I be ready to Run?

An important rehab milestone for athletes with groin pain

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Pain during or after running is the most common problem reported by athletes with groin pain. This limitation is associated with one or more musculoskeletal problems including,

- insufficient core stability
- insufficient strength in single leg stance
- insufficient hip flexor function
- increased tone in hip and pelvic muscles
- decreased flexibility of muscles attaching to pelvis
- intra-pelvic dysfunction (articular and/or myofascial maintained)

Pain during or after running reduces athletic performance, delayed recovery, or an inability to train and/or compete.

The decision to cease, continue, or re-commence running is one of the most important decisions made during rehabilitation and needs to be considered at the initial and each subsequent assessment. There are a large number of conditions associated with athletic groin pain and differential diagnosis can be a challenge for the managing medical team. Repeat radiological investigations can be useful to establish adequate healing of injured tissue, but for the professional/elite athlete there is often little relationship between investigation findings and the capacity to run. Therefore the decision to run must be based on the clinical presentation.

The Decision Making Process

The decision to allow the athlete to run commence when

(a) the impairments (e.g. weak single leg stance) noted on initial assessment have improved sufficiently and
(b) there is no evidence that there are secondary or compensatory impairments that have developed during the unloading (no running) phase of rehabilitation e.g. decreased calf work capacity that may increase the risk of a calf strain.

The decision to allow the athlete to run is confirmed when reassessment demonstrates

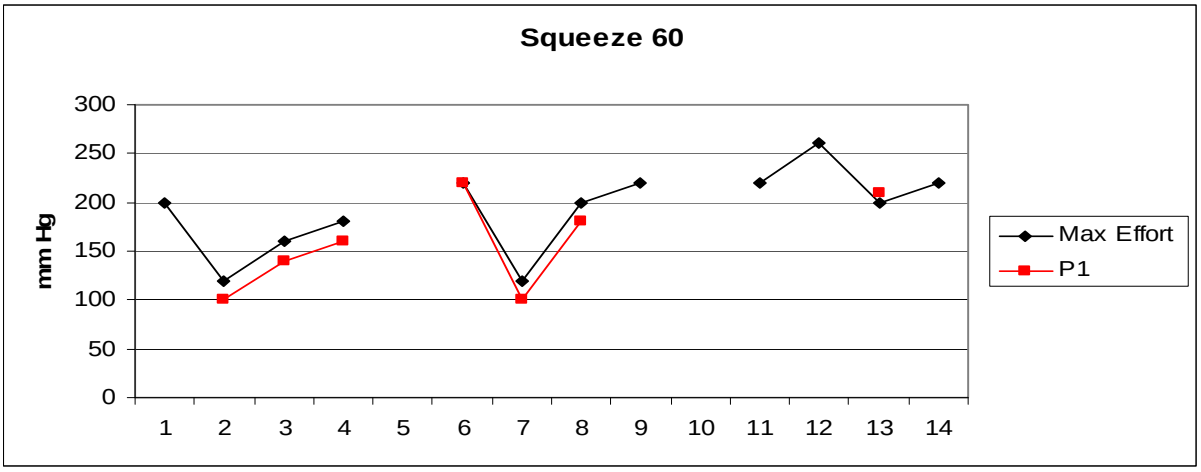
1. no groin pain during (or after) a dynamic warm-up drill
2. no groin pain during pain provocation tests (e.g. Squeeze tests, Pubic Stress tests etc)
3. stable (consistent) muscle tone in hip/pelvic muscles (e.g. adductors, hip flexors).

Modifying the rest of the Rehab program

Having made the decision to commence a straight-line Running Program, the clinician must consider the effect this will have on other components of the rehabilitation program.
The clinician must be constantly aware of the activities or exercises that are generating the highest loads across the anterior pelvis and may need to temporarily reduce or even cease these activities during the first 3 – 4 running sessions.

Monitoring the Running Program

The key to a successful Running Program is monitoring the response to each running session. The most useful test is the Squeeze test, a pain provocation test, that involves bilateral adduction with knees bent (Squeeze 45), knees straight (Squeeze 0), or 90 degrees hip flexion (Squeeze 90). The Squeeze test is measured before each running session, and where possible (e.g., professional/elite athlete) the next day. The maximal effort and P1 (initial pain) on Squeeze test (measured with a sphygmomanometer) should recover to the measure taken before the last running session before the run session is repeated or progressed. If there is uncertainty that the athlete has recovered, an extra day is indicated, especially during the first few running sessions. If, after the first week, the athlete is not recovering quickly enough to run 3 times per week it is questionable that they are ready to run.



Initial Running Program

Pre-Run Assessment (Squeeze test, Pubic Stress test)
10 m acceleration phase
40m – 80m @ 60% maximal running speed
10m deceleration phase
walk recovery
15 x 40m or 10 x 80m
Post-Run Assessment (Squeeze test)

Problem Solving

Whilst this process often is associated with successful return to straight-line running program, some athletes will experience groin pain at rest, groin pain that does not settle within 48 hours, and other symptoms e.g., lumbo-pelvic pain. There are a number of potential explanations the therapist needs to consider and address whilst persisting with the running program

- poor compliance with local tissue therapy (e.g., ice massage)
- poor running technique (often due to prolonged unloading rehab phase)
- acquired intra-pelvic dysfunction (myofascial or articular-maintained)
- apprehension or lack of confidence

Other explanations, which usually require the athlete to be withdrawn from the running program, include

- significant structural damage (e.g. abdominal wall lesion, partial tendon rupture)
- hip joint pathology
- lumbar spine pathology
- undiagnosed pathology

Summary

The main aim of the Return to Running algorithm is to prevent an athlete running with an unresolved problem that has the potential to adversely load the anterior pelvis or facilitate a secondary injury. The Return to Running process described improves confidence in clinical decisions, facilitates communication within the medical team, and improves management of the impatient or apprehensive athlete. The program is considered rigid enough to reduce subjectivity during assessment but flexible enough for clinicians to use their own approach to therapy.

It is most useful for conditions associated with adductor-related, pubic-related, abdominal-related, and hip flexor-related groin pain. It is less reliable when the primary source of athletic groin pain is the hip joint, SIJ, or lumbar spine. The success of the program can be undermined by demands made by the athlete, their coach/manager, approaching key events (e.g., beginning of season, finals, etc.), or an overly optimistic medical team. Used extensively in a wide range of sports (especially the football codes) and participation levels (e.g. serious amateur to professional/elite) it is yet to be formally tested using blinded independent assessors.

Anthony Hogan. Sports Physiotherapist has more than 15 years experience in the management of athletic groin pain in the elite football codes, including Australian Rules Football, the English Premier League and Guinness Rugby Union Premiership.