

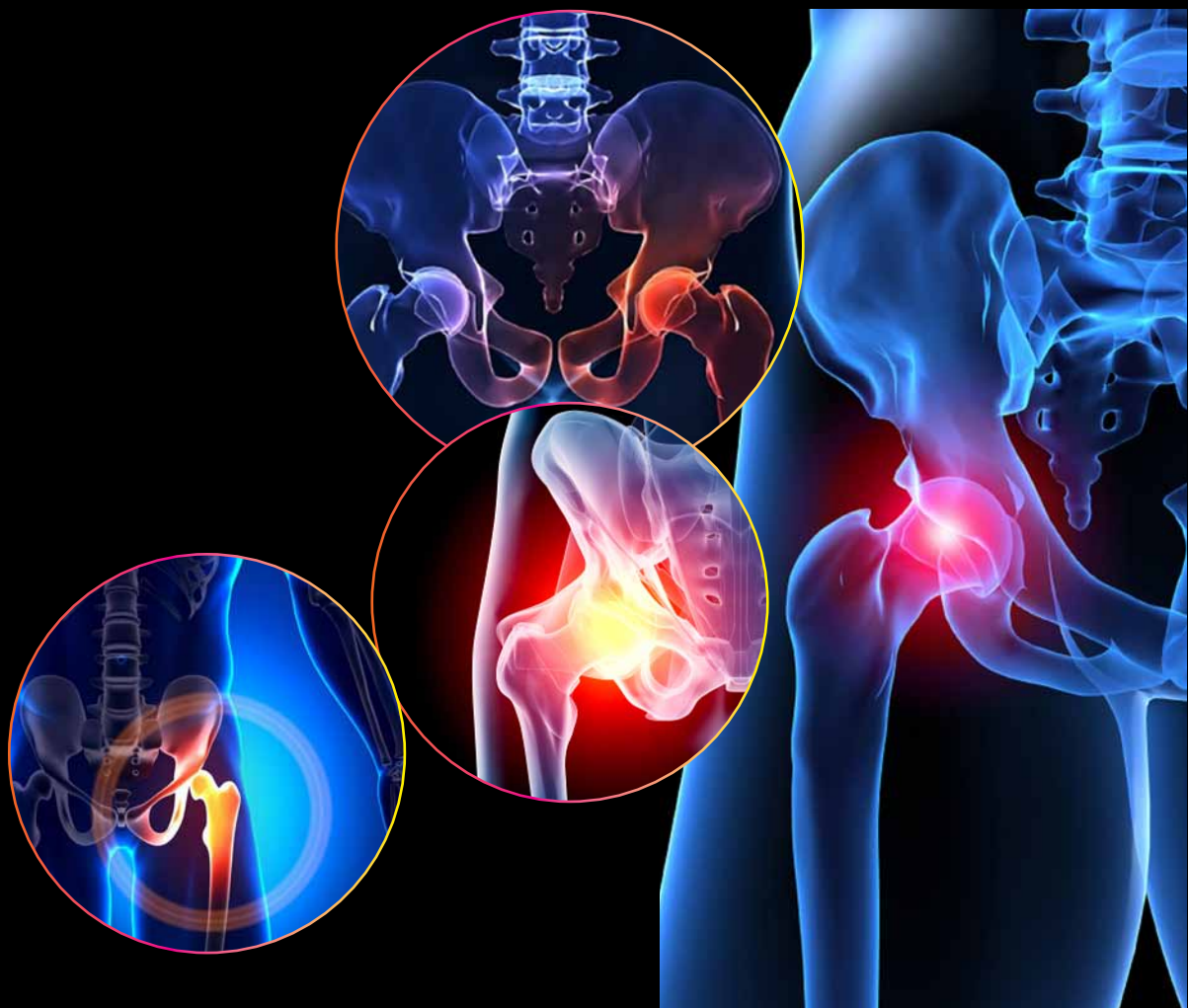
Groin pain injuries:

Adductor related rehabilitation exercise programme for chronic groin pain sufferers (A literature review)

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Chronic groin pain is a common injury in sports, especially in games such as soccer and hockey. The groin is a complex area involving the soft tissues of the inner thigh, bottom of the abdomen, and the pelvis. As a consequence diagnosis of groin injuries can be difficult. One type of groin injury that has some consensus among researchers is 'Adductor-Related Groin Pain' (ARGP). ARGP is defined as pain at palpation of the adductor tendons at insertion of the pubic bone combined with pain at adduction against resistance. The study from Per Holmich (International SportsMed Journal, 1(1), 2000) investigates the efficacy of a rehabilitation exercise programme for adductor related groin pain.

Sixty-eight males athletes with long-term groin pain injuries were split randomly into two groups. One group received only physiotherapy treatment on the injury, while the other received physio as well as performed a specially designed exercise programme. The results of this study were very positive. Four months after beginning the treatment, 74 per cent of the physio-plus-exercise group were participating in sports with no pain. This compared to just 14 per cent of those in the physio-only group.



The exercise programme was split into two phases. Phase one lasted two weeks and involved simple static and dynamic exercise, mainly aimed at re-educating the adductors to be active - one of the consequences of chronic adductor related groin pain is, of course, reduced adductor activity. The second phase, averaging 10 weeks, involved more advanced strengthening exercises as well as balance and coordinating exercises for the groin and pelvis area. The aim of this phase was also to include functional exercises in the programme.

Groin pain injuries Exercise programme, phase 1 (weeks 1-2)

1. Static adductors.
 - a. Lying supine, legs straight, with soccer ball between feet. Squeeze the ball using adductors. Hold for 30 seconds and repeat 10 times.
 - b. Lying supine, knees bent with soccer ball between

knees. Squeeze the ball using adductors. Hold for 30 seconds and repeat 10 times. Force applied should be just below pain threshold.

2. Abcurls, 3 x 10-20.

3. Reverse curls. Ball between knees, crunch shoulders and knees together from stomach. 3 x 10-20.

4. Wobble board. Five minutes of balance work.

5. Slideboard. Gentle movements side to side on slideboard, keeping feet fully on the ground.

Perform this routine three times per week.

Groin pain injuries Exercise programme, phase 2 (weeks 3-12)

Perform five sets of 10 reps of each of these exercises.

1. Side-lying adduction. Lying on side, top leg bent, bottom leg straight. Lift bottom heel upwards.

2. Side-lying abduction. Lying on side, top leg straight, bottom leg bent. Lift top heel upwards.

3. Gluteal leg raise. Stand with hips touching physio couch. Lean forward so upper body is supported by couch, hips flexed to 90 deg. Lift legs off the floor until hips are fully extended.

4. Standing adduction with leg pulley. Attach cable pulley to ankle, perform adduction movement standing next to machine.

5. Single leg squats.

6. Fitter. Five minutes balance work on the Fitter machine.

7. Slideboard skating. Five sets of one minute simulated skating on the slideboard.

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General sports physiotherapy practice which also offer:

Biomechanical Analysis

- Functional movement analysis to identify :
 - muscle length- and strength imbalances
 - movement impairments
 - areas at risk for injury
- Correction of the above and injury prevention
- Stretching programmes
- Strengthening programmes
- Identification of incorrect muscle recruitment patterns with correction

Massage

Includes sports, pre-event, recovery & pregnancy
Massage therapist also available

Individual and group Pilates classes

Rehabilitation which improves:

- Posture
- Strengthens stabilisers
- Flexibility
- Circulation
- Skill-based conditioning

Spinal alignment, postural correction and Lino Method



Differential diagnosis of groin pain injuries

Muscles related to groin and hip:

- Adductor longus and brevis
- Adductor magnus
- Gracilis
- Pectineus
- Sartorius
- Iliopsoas
- Rectus femoris
- Tensor fascia lata
- Gluteus medius and minimus
- Gluteus maximus
- Piriformis and other external rotators
- Hamstrings

The symptoms and clinical findings are related to a specific anatomical structure:

1. Adductor related groin pain
2. Iliopsoas related groin pain
3. Inguinal related groin pain

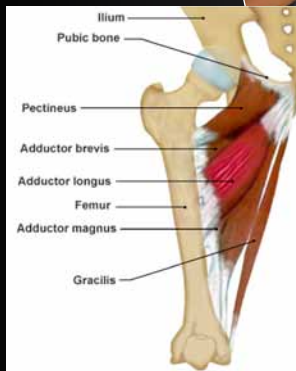
1. Adductor related groin pain

Location of pain:

- Medially deep in the groin
- Sometimes pain radiates to the medial knee or deep behind the scrotum
- Rarely pain on tendon itself

Complaints:

- Pain during sprinting and fast turns, slippery surface and turning, kicking and tackling
- Long runs fatigue
- Standing on one leg and putting on socks
- Pain with the tests in the picture (Holmich et al)



2. Iliopsoas related groin pain:

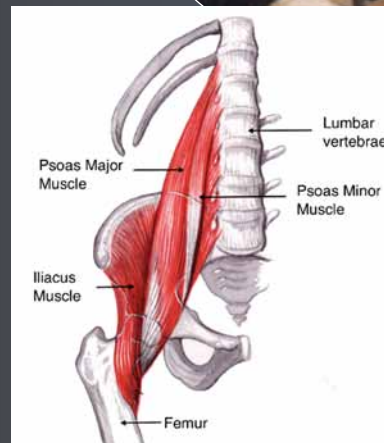
Location of pain:

- Lower abdomen
- Proximal on anterior thigh
- Antero-medial groin
- Low back pain and fatigue



Complaints:

- Sitting in a deep chair for long periods
- Climbing stairs
- Biking with cleat shoes uphill
- Long runs
- Coughing, sneezing
- Sprinting
- Pain with the tests in the pictures (Holmich et al)



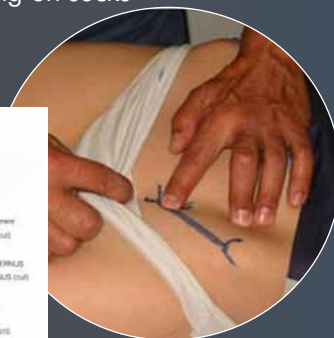
3. Inguinal related groin pain

Location of pain:

- Lower abdomen in the area of the inguinal ligament
- Radiating across the pubis
- Radiating to genitals and groin

Complaints

- Activities including the abdominal muscles
- Pain with fast turns, sprinting, slippery surface
- Standing on one leg putting on socks
- Pain with coughing and sneezing



For references contact Andri Smuts