



GROIN INJURY

FACT SHEET

INTRODUCTION

High incidence of groin injuries are associated with sports that multiple and fast movements of changing directions. Injury commonly occurs when:

- ✦ Reaching for ball or over-stretch of the groin muscles
- ✦ Quick change of direction
- ✦ Stopping
- ✦ Starting
- ✦ Kicking
- ✦ Strong contractions of the muscles on the inside of the thigh (adductor muscles)

Biomechanics and muscle function

- 1- The adductor muscles pull the leg towards the midline or slow down the movement of the leg out to the side
- 2- The abdominal muscles have a connection to the groin muscles and can also give pain in the groin when injured
- 3- The bones of the pelvis join in the front and may also give rise to pain (osteitis pubis).
- 4- There is a canal (inguinal canal) through the abdominal muscles which may get torn or stretched leading to a hernia (abdominal lining pushing through) or sports hernia (tear -no hernia)

Injury presentation and signs

May have pain with:

- ✦ Running, turning and changing directions
- ✦ Stretching the leg outwards i.e. stretching the

adductor muscles

- ✦ Pulling your leg in towards the other leg i.e. contracting the adductor muscles
- ✦ Performing a sit-up, coughing or sneezing i.e. contracting the abdominal muscles and applying pressure on the (inguinal) canal and pelvic joint

Stages to Recovery

We advise that you attend your appropriately qualified sports medicine practitioner to receive a modern evidence based management of your recovery and rehabilitation.

Stage 1: The Acute Phase of a New Injury

- ✦ Decrease inflammation using:
- ✦ Immobilisation: crutches if appropriate
- ✦ Rest Ice Compression Elevation
- ✦ Appropriate medication
- ✦ Acupuncture

Stage 2: The Subacute Stage

Stage 3: Rehabilitation

- ✦ Early Rehabilitation
- ✦ Middle Rehabilitation
- ✦ End Stage Rehabilitation

RETURN TO SPORT

Only when player is able to undertake a full training and competition load, with no aggravation of the injury, should full recovery be presumed.'

Sports Physiotherapy
Applied Science and Practice

Full return to fitness

'Only when a player is 'able to take a full part in training activities and available for a match'

Medical Scientific and Welfare Committee, UCD

Modern Training Recommendations

- Brooks et al '06, American Journal Orthopaedic Society for Sports Medicine.
- Passive and active warm-up and muscle stretching before training and competition have been advocated as effective injury prevention strategies.
- Improving pelvic stability decreased incidents of hamstring and groin muscle strain.
- Decreased flexibility of the groin adductors has been found to increase the risk of groin muscle injury in soccer players (Ekstrand and Gillquist 1983).
- Decreased muscle strength of the adductor muscles has been found to increase the risk of groin muscle injuries. Adductor muscle strength of about 90% compared to the abductor muscles (pulling the leg out to the side) has been found to decrease occurrence of groin injuries (Nicholas and Tyler 2002).
- Need to avoid errors in training and conditions and in rehabilitation procedures to reduce the high level of recurrent hamstring

and muscle injuries.

References

- Orchard J, Verall GM Groin injuries in the Australian Football League. *ISMJ* 2000;1(1)
- Ekstrand J, Gillquist J The availability of soccer injuries. *International Journal of Sports Medicine* 1983;4:124-128
- Nicholas SJ, Tyler TF. Adductor muscle strains in sport. *Sports Medicine* 2002;32(5):339-344