

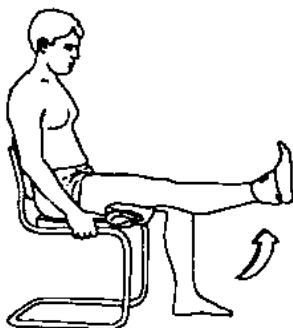
## - HAMSTRING REHABILITATION PROTOCOL -

- *This programme is designed as a guide for rehabilitation*
- *The time frames for various sections will be dependant upon the degree of injury*
- *All exercises should be painfree. This is the best guide for progression*
- *When you can complete one stage of the exercise regime in a painfree fashion, you can progress to the next level. If you are in any doubt, consult your specialist physician or physiotherapist, who is the best person to gauge the extent of the injury and determine appropriate exercise progression.*

### Day 1-4 Post Injury

#### RICE

Sit with an ice bag underneath the injured area of the hamstrings while performing gentle Range of Motion (ROM) exercises to obtain full ROM. Keep bending and straightening the knee to the point of mild discomfort only.



Once pain and swelling have settled and movement is painfree...

### Day 4-7 Post Injury

#### 1. Mobilise the hamstring through full range

Lie on your back with your hip bent to 90 degrees and your hands supporting behind your



#### Clinics at :

Point West, 116 Cromwell Road  
Kensington, London.

The Lodge, Parkside Hospital  
53 Parkside, Wimbledon, London.

thigh. Hold this position and gently straighten the knee until you feel a stretch at the back of the thigh. Hold this for a count of 10. (cont'd)

Relax and repeat 5 times.

## 2. Mobilise the nerve tissue

Repeat the exercise for mobilising your hamstring but perform the exercise with the foot flexed.

Once you have done this 10 times, hold the knee as straight as possible and point and flex the foot 10 times.

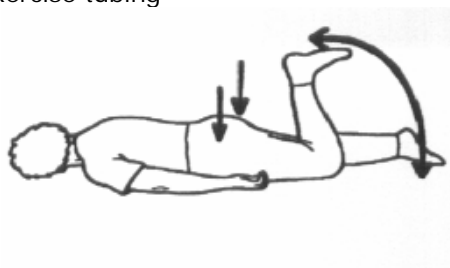


## 3. Commence gentle strengthening work

- *When progressing strength work, pain should always be used as a guideline for progression*
- *All exercises should be performed in a painfree fashion*

Active resisted contractions lying on your tummy

- Theraband exercise tubing



- Light weights

### Clinics at :

Point West, 116 Cromwell Road  
Kensington, London.

The Lodge, Parkside Hospital  
53 Parkside, Wimbledon, London.

- Static through range holds – hold against the resistance for a count of six (6) seconds
- Theraband exercise tubing
- Light weights

#### Active contraction in sitting

- Theraband exercise tubing



Progress by

- Increasing holding time
- Increasing number of repetitions

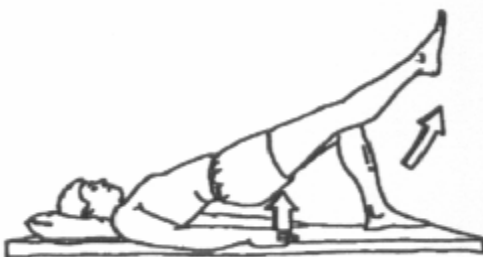
#### Bridging

- Knees bent - heels on floor
- Straight leg - heels on bed



Progress by increasing to

- Single leg work
- Swiss ball
- Increasing holding time
- Increasing number of repetitions



#### Clinics at :

Point West, 116 Cromwell Road  
Kensington, London.

The Lodge, Parkside Hospital  
53 Parkside, Wimbledon, London.

#### 4. Balance and Proprioceptive Work

##### Single leg balance

- o practise holding your balance and counting slowly to 20
- o when you have mastered this - Repeat the same exercise with your eyes closed



Practise standing on a wobble board or mini tramp - both legs



- single leg
- eyes open and closed
- Throwing and catching



#### 5. Maintain CV Fitness

- Cycling
- Swimming
- Pool running
- Arm grinding
- Walking on inclines

##### Clinics at :

Point West, 116 Cromwell Road  
Kensington, London.

The Lodge, Parkside Hospital  
53 Parkside, Wimbledon, London.

## Week 2 Post Injury

Once you are able to do the following pain-free:

- Walk
- Perform resisted hamstring contractions against the theraband exercise tubing
- Straighten the knee to extend the hamstring muscle fully

**1. Maintain full hamstring extensibility, BUT DO NOT FORCE A STRETCH**

**2. Maintain full mobility of the nerve structures**

**3. Maintain CV Fitness**

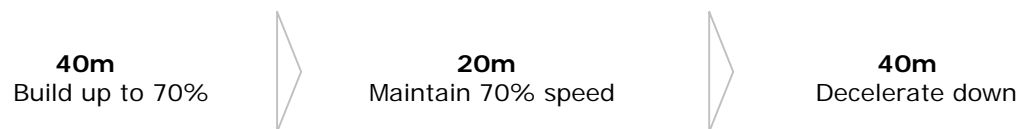
### *Commence jogging*

Once you are able to Jog at a steady pace for 1km and Jog 1km during which you build up to 70% of your maximum pace, you need to Commence The Running Programme.

### *The Running Programme*

Place 4 cones so that a distance of 100m is broken into the following zones:

Commence at 70% of maximum pace



- Run through the distance and then walk back to the starting cone
- Do 2 run throughs at this distance and then, if this is painfree – bring the cones in by 5m.
- Do 2 run throughs at each distance, pausing between every 6 (3 sets) for a 5min break.

Continue this process until you become 'aware' of your hamstring. Cease exercising for the day at this point. You can continue this programme as long as it is painfree and the hamstrings do not feel fatigued.

When you recommence the following day, you need to return to the start of the programme and work through it until you again become 'aware' of the muscle. Each day, this should be a little further.

Once you have reduced the acceleration/ deceleration phases to 5metres, repeat the entire process at 90% of maximum pace, and then again at 100%.

This programme should be repeated on a 2 days on / 1 day off basis.

### **Clinics at :**

Point West, 116 Cromwell Road  
Kensington, London.

The Lodge, Parkside Hospital  
53 Parkside, Wimbledon, London.

#### 4. Progress Strength Work

- Aim to increase the speed of the knee flexion exercise with lighter weights
- Start to work the muscle to control lengthening. This is known as Eccentric activation.

##### Eccentric exercises

a) Wobbles

Lie on your stomach and bend your knee to 90 degrees. Slowly bend your knee from 90 to 100 degrees and then straighten to 80 degrees. Continue to move 10 degrees either side of 90.

Repeat until you become 'aware' of the muscle.

b) Flicks

Lie on your stomach and bend your knee to 90 degrees. Very rapidly, straighten your leg towards the floor as though you are trying to 'flick' your toes against the floor. Stop the movement just before your toes hit the floor. Bend back to 90 degrees and repeat. Continue until you feel the muscle fatiguing.

c) Catches

Lie on your stomach and bend your knee to 90 degrees. Let your foot drop towards the floor 'catching' it just before your toes hit the floor. Bend back to 90 degrees and repeat. Continue until you feel the muscle fatiguing.

You can also practise these exercises in standing



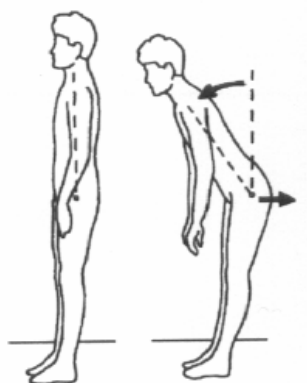
Progress this exercise by increasing the hamstring length – Perform the same exercises in standing with your hips flexed to 90 degrees and your trunk supported over a table or bed

Practise controlling the muscle lengthening from the trunk. Do this by practising bending forward from the hips with the foot in various positions of rotation to activate different parts of the hamstring muscle.

##### Clinics at :

Point West, 116 Cromwell Road  
Kensington, London.

The Lodge, Parkside Hospital  
53 Parkside, Wimbledon, London.



Functional work

- Squats

Commence Power Work

- Hopping

- Jumping

Use minitramp initially

## 5. Balance and Proprioception

Drills that focus on change of direction

Figure 8's

Shuttle runs

Continue with balance board and mini trampoline work – throwing and catching

### You are ready to recommence training once you can:

- Complete the running programme
- Run forwards and backwards
- Run up and down hills
- Slow down and stop suddenly
- Jump and hop
- Cut left and right
- Complete all exercises with 100% confidence

## Final Thoughts

Confidence in the ability of your hamstring to withstand the rigours of playing is absolutely essential for a hassle free return to competition

Working through this extensive programme, will ensure that you have covered all aspects of the functions required by the muscle while playing

It is essential that you have a full week of training before you return to playing in order to improve your function while focussing on ball skills

### Clinics at :

Point West, 116 Cromwell Road  
Kensington, London.

The Lodge, Parkside Hospital  
53 Parkside, Wimbledon, London.