HAMSTRING STRENGTHENING
Start with exercises 1, 2, & 4 daily for about 3 weeks. Then change to exercises 3, 4, 5, & 6, every other day, for about 3 weeks. After 3 weeks, continue 4, 5, & 6. Alternate exercises 3, 7, 8 each time you do hamstring work.

1. **Standing leg curl**
   These exercises can begin as soon as they can be done without pain. This may be within the first 2 days, depending on severity of the injury
   - Standing by a wall or table and holding on for balance.
   - The knee is bent, bringing the heel towards the buttock and then slowly returned to the floor.
   - Aim for three sets of 10 repetitions with a short break between sets
   - Play video at http://www.sportsinjuryclinic.net/cybertherapist/back/hamstrings/hams/standing_curl.php

   Increase the intensity if required, by adding ankle weights.

2. **Reverse straight leg raise**
   - Laying on the front with both legs straight out behind.
   - The injured leg is lifted off the floor, as high as is comfortable, keeping the knee straight and is then returned to the floor, maintaining control throughout (image 2).
   - Aim for 3 sets of 10 repetitions with a short break between sets
   - Play video at http://www.sportsinjuryclinic.net/cybertherapist/back/hamstrings/hams/reverse_slr.php

   Both the above exercises can be done on a daily basis. Once they can be done easily then increase the number of repetitions to 20.

3. **Leg curl**
   This exercise can be done using gym equipment a rehabilitation band or ankle weights.
   - Lying on the front with the knee straight, the leg is bent slowly, bringing the heel towards the buttocks.
   - Slowly straighten the leg again in one smooth movement, controlling the downward force.
   - Aim for 3 sets of 10 reps with a short rest between sets.

4. **Groin strengthening**
   Strengthening the groin muscles can help reduce the chance of future hamstring injuries by stabilizing the pelvis and taking some of the strain off the hamstrings.
   - Using a resistance band is one of the easiest and most effective ways of doing this.
   - The band should be tied around the ankle and around something sturdy, close to the ground.
   - Keeping knee straight, the leg is moved out in front and then across the body as far as possible.
   - It is then slowly returned back to the starting position
   - Play video at http://www.sportsinjuryclinic.net/cybertherapist/back/hamstrings/hams/groin.php

5. **Bridging**
To strengthen both the hamstrings and gluteal (buttock) muscles.

- Laying on the back with the knees bent and feet flat.
- The hips are lifted off the ground as high as possible and this position held for 3 seconds.
- The hips are then slowly lowered back to the floor
- Play video at:
  http://www.sportsinjuryclinic.net/cybertherapist/back/hamstrings/hams/squat.php

6. Squats
Squats strengthen all of the thigh and buttock muscles.

- They can be performed using either a gym ball or free-standing with or without weights.
- Standing with the feet shoulder width apart and back straight.
- The knees are then bent as if trying to sit on a chair.
- The back should remain straight and the knees should not move forwards past the toes.
- Squats can initially be very shallow and can become deeper as the athlete progresses
- Play video at
  http://www.sportsinjuryclinic.net/cybertherapist/back/hamstrings/hams/squat.php

Eccentric strengthening

It is important to strengthen the hamstring muscles eccentrically (as they lengthen) as this is when they are most commonly injured.

7. Advanced eccentric hamstring exercise

This is a very advanced exercise and should only be performed when the injury has healed and earlier strength training has been progressed.

- Starting in a kneeling position with the feet and ankles firmly fixed, lean forwards and aim to resist the downwards movement.
- Ensure you keep the back straight and do not pivot at the hips.
- Slowly lower yourself down towards the floor (or couch).
- As you move lower, use your hands to safely lower your body down before pushing back up to the starting position.
- As your hamstrings become stronger you will be able to lower yourself with more control.

8. Eccentric Leg Curl

This exercise can be done using gym equipment a rehabilitation band or ankle weights.

- Lying on the front with the knee straight, the leg is bent slowly, bringing the heel towards the buttocks. Do one leg at a time.

- VERY SLOWLY, to a 10 count, straighten the leg again in one smooth movement, controlling the downward force.

- Aim for 3 sets of 10 reps with 2-3 minutes between sets.