



## Winter '09 - '10

The ski season is well and truly here!

As some of you can testify, skiing with an injury or picking up a ski injury can be frustrating.

Each year we see a number of very similar skiing injuries. The more serious injuries are usually around the knee and ankle, as well as some back and upper limb injuries. We believe that best way to prevent injury is by having strong, flexible muscles and joints, which resist strain and injury.

With this in mind, we have come up with a basic programme to help you avoid injury on the slopes. The exercises below can all be done at home, however if you are a regular at a gym, we can easily help you adapt them to suit your exercise routine.



**Paul White** is available for physiotherapy treatments at the City Bow Lane site Monday to Friday and Canary Wharf Docklands site Tuesday and Thursdays.



### WATCH OUT!

If you have any pre existing musculo-skeletal disorder or medical condition it may be advisable to discuss these exercises with a physiotherapist before starting. You should not experience any pain with these exercises, if you do please stop doing them immediately.

Here We Go! . . .

### 1. Isometric Power: Static Wall Squat

The wall sit makes you resist the force of your own body weight, which simulates what happens in certain parts of the turn while skiing. With your back against the wall, lower yourself down until your legs form a \*90-degree angle. Try 4 sets of one, two, and three-minute intervals, three times a week. Increase the duration of intervals as you gain strength.

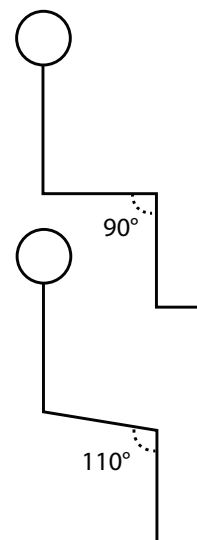
#### \*Please Note

For exercises 1 (above) and 2 (below), 90 degrees is quite severe so only attempt if you already have good leg strength. You may want to start at 100 degrees - 110 degrees as it is much easier.



### WATCH OUT!

Don't let your bottom go lower than your knees.



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## 2. Stability squats with an exercise ball

Place the ball between the wall and your mid back, then lower yourself down until your legs form a \*90-degree angle, then return to upright.

This exercise is a little more dynamic. Emphasise control through out movement. 3 sets of 10, three times a week.

### \*PLEASE NOTE

For exercises 1 (above) and 2 (right), 90 degrees is quite severe so only attempt if you already have good leg strength. You may want to start at 100 degrees - 110 degrees as it is much easier.



### WATCH OUT!

Don't let your bottom go lower than your knees.



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## 3. Lower limb trunk curls

Assume push-up position on the ball. Keep the wrists directly below the shoulders. In one slow and fluid movement roll the ball underneath you as shown. Keep core muscles strong and back as straight as possible. 3 sets of 15 reps, three times a week.



### WATCH OUT!

Don't let your lower back sag.



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## 4. Gluteal stability bench

Lie with upper back on exercise ball, raise torso so that knees, hips and shoulders are all parallel to the ground. Hold for 20 sec, 10 reps, three times a week. Maintain correct alignment.

### PLEASE NOTE

For those who have had contact with a physiotherapist or have been to exercise classes and been taught about engaging deep core abdominal muscles, it is advisable that you engage them before starting exercise to further benefit with the strengthening process.



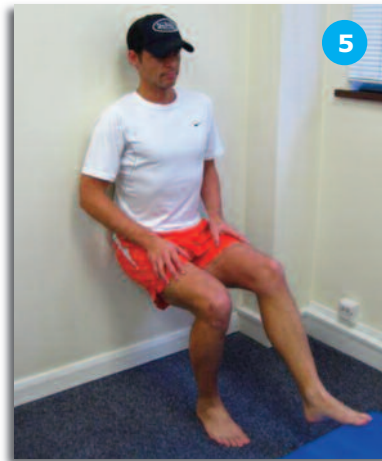
### WATCH OUT!

Keep spine long, tailbone tucked in.

**Mastered above exercises? Then move on to these more difficult single leg exercises.**

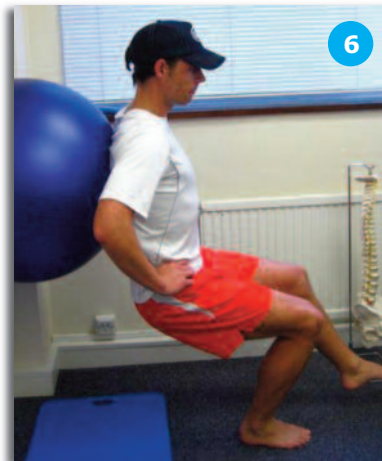
**5. Single leg Static Wall Squat**

See Exercise 1 for more details.  
15-20 sec hold, 3 sets of 10 reps, three times a week.



**6. Single leg Stability squats with an exercise ball.**

See Exercise 2 for more details.  
1 sec hold in down position, 3 sets of 15 reps, three times week.



**7. Lower limb trunk curl with one leg.**

See Exercise 3 for more details.  
1 sec hold in down position, 3 sets of 15 reps, three times a week.



**8. Gluteal stability bench with one leg.**

See Exercise 4 for more details.  
3 sec hold in down position, 3 sets of 10 reps, three times a week.



**PLEASE NOTE**

Make sure that your lower back is maintained in a neutral position and does not over arch. You should still be in alignment, with spine relatively straight, your hips over your knees and knees over the middle of your foot.