



# NEWSLETTER

July 2010

Welcome to the July edition of the Physionorth newsletter. Since our last newsletter we have said farewell to Katie Starke who is going on her 3rd year physiotherapy placements, and welcome Megan Symington to the team. In August Physionorth will also welcome Physiotherapist Linda Gomeric from Canada to the team.

Our physios have completed some professional development training in the past 3 months. Robert completed his level 1 and 2 pilates training, Jaquie completed a course on assessment and treatment of the hip, and Lisa completed the upper limb Mulligan technique course.

## **Common dance injuries to the spine. What are they?**

The spine comprises of five different identifiable regions, with the bones of the lower two regions being fused. Starting at the top, there is the cervical spine (neck), thoracic spine (chest and ribs), lumbar spine (lower back), sacrum (joins the spine to the pelvis), and the coccyx (tail bone). Dancers most commonly injure the lumbar region due to the extreme range of motion required in this region to perform common dance moves (an arabesque for example).

Possible causes for back problems in dancers include fatigue, hypermobility, scoliosis, leg length inequalities, and emotional stress. The most severe cases involve intense spasms in which the muscles contract to protect the joints.

### **Lumbar musculature strain and spasm**

Strained muscles in the lumbar spine are the most common cause for lower back pain in dancers. This can occur due to excessive repetitions of one movement pattern. When rehearsing lifts over and over, or a new phase of movement, it is important to rest or change the pattern being rehearsed to avoid fatigue of the muscles.

### **Interspinous sprain (kissing spines)**

This condition is characterised by the touching of the spinous process of adjacent vertebrae. This can occur as the product of a forceful flexion of the spine or direct blow, or can be degenerative in nature.

Dancers will notice a limited range of motion in both flexion and extension of the lumbar or cervical spine.

### **Spondylolysis**

This condition is diagnosed when there is a stress fracture in one or more of the lumbar vertebrae. Spondylolysis is attributed to repeated stress on the lumbar spine due to over-stretching or excessive hyper extension.

### **Spondylolisthesis**

Spondylolisthesis is the forward slippage of a vertebra on the one below. It is commonly seen with Spondylolysis and girls are more susceptible to this type of injury than boys.

### **Herniated Lumbar Disc**

Between each vertebrae are discs that act as a cushion when force is placed on the spine. Injury to the disc usually occurs with a twisting motion of the spine while under load (commonly during lifting or floor work). The disc is pushed (often backwards) out of its normal place and may compress on the surrounding nerves.

### **Sacroiliac joint sprain**

The sacroiliac joint is the junction between the spine and the pelvis and is responsible for transferring load from the upper body to the lower body. Pain can be localised over the joint or referred groin, posterior thigh or leg.

What can you do to reduce your risk of injury? As with all injury prevention, a good warm up and cool down is essential to avoid skeletal or muscular damage throughout a dancer's life. If you are feeling tired or sore, don't push too hard to achieve the positions. Good technique will always look more impressive than forced tricks. Remember to maintain good posture and 'core' strength throughout your dancing life so that it can be one enjoyed injury free.





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## **Common Dance Injuries of the Foot What are they? How can Physio help?**

Dance is one of the most unique modern sports. Combining artistic expression and musicality, with the physical demands of an elite athlete. Whether you choose to dance for fitness, enjoy the socialisation of participating in a class or are training to become a professional in the industry, all physically active people are at risk of injury and dancers are no exception. People new to dancing, be they young or old, should build their strength and flexibility slowly and safely to avoid sustaining one of the common dance injuries. This issue will focus on common injuries that dancers sustain in their feet. While the following list are commonly seen, they are by no means the only possible feet injuries that dancer could sustain.

### **Lateral ankle sprain**

Rolling over the outside of the ankle while on demipoint, sickling the foot or landing from a jump, all can lead to a lateral ankle sprain. Most commonly the anterior talofibula ligament (ATFL) is affected.

### **Plantar Fasciitis**

Is chronic pain and inflammation to the underneath of the foot (plantar fascia), especially around the heel bone.

### **Achilles Tendinitis**

This is a progressive overuse injury common in dancers due to excessive pointing of the foot (plantar flexion).

### **Dancer's Fracture (5th metatarsal)**

Often sustained when landing incorrectly from a jump. Pain on the outside of the foot (along the 5th metatarsal) will be instantly evident and most people will not be able to weight bear on the effected foot.

### **Hallux Valgus and Bunion**

This is a progressive injury of the big toe associated with the foot rolling in (pronation) while in a turned out position. Pain will be greatest with jumping and landing.

### **Metarsalgia**

This is characterised by pain and tenderness along the ball of the foot. For dancers, this is commonly caused by instability in the joints of the smaller toes.

## **What can you do to reduce your risk of injury?**

1. One of the most important ways to prevent dance injuries is to take the time to properly warm up the major muscles of the body, including the muscles of the feet.
2. Take adequate rest to allow the body to heal itself from daily wear and tear.
3. Maintain energy levels by eating and drinking adequately.
4. Try to avoid dancing on hard or uneven surfaces, which could cause injury.
5. Early recognition of symptoms is important. Stop activity if pain or swelling occurs. If pain persists after a few days rest, consult a physiotherapist.



### **Practice Hours:**

Monday - Friday: 7:15am - 7:00pm  
Saturday: 7:15am - 1:00pm

### **Upper Ross Medical Centre**

Tuesday and Friday: 8:00am - 5:00pm