High Ankle Sprain (Syndesmosis Sprain)

**What is a high ankle sprain?**
A high ankle sprain is an injury to the ligaments that connect the tibia and fibula (the lower leg bones) just above the ankle joint. There are five ligaments that connect the tibia to the fibula, and together these are called the syndesmosis. Compared to lateral ankle sprains which affect the lower part of the ankle joint, high ankle sprains are much less common and take longer to heal.

A grade I sprain to the syndesmosis is the mildest form of injury and consists of a stretch to the ligaments. A grade II sprain is a partial tear of the ligaments, and a grade III sprain is a complete tear of the ligaments.

**How does it happen?**
A high ankle sprain is caused by a twisting injury to the ankle, usually while it is flexed with the foot turned out excessively.

**What are the symptoms?**
Symptoms include pain, swelling, bruising, limited ankle motion, and difficulty walking. Some people describe feeling a snap, pop, or tearing sensation at the time of the injury. Grade I sprains have little to no swelling. Grade III sprains can have significant swelling and bruising over a large area of the lower leg and ankle. Pain is located in the front of the ankle and is worse with walking.

**How is it diagnosed?**
Your doctor will ask you to describe how your injury happened and to list your symptoms. After examining your ankle, your doctor may order x-rays to determine the grade of your injury and the amount of instability at the joint.

**How is it treated?**
Treatment will depend on the grade of injury. For the first 24 – 48 hours after any high ankle sprain, treatment is focused on reducing the pain and swelling. Wrap the ankle in an elastic bandage, elevate it as often as possible, and apply ice packs for 15 minutes every 2-4 hours. An anti-inflammatory medication such as ibuprofen can be helpful. Crutches are recommended until you can walk without pain. Your doctor may recommend a supportive brace, air stirrup, or walking boot to help you walk sooner without crutches.

For grade I sprains, physical therapy should begin as soon as possible. Most grade II sprains usually require a short period of immobilization in a cast or boot before physical therapy can begin. In addition to helping control pain and swelling, physical therapy is necessary to regain ankle mobility, strength, and balance. Physical therapy allows the ankle heal faster and reduces your risk of re-injury.

Grade III sprains and some grade II sprains will require surgery to stabilize the ankle joint, followed by physical therapy.

**When can I return to activities/sports?**
Return to sports will depend on the grade of injury and method of treatment. You should be able to return to sports and activities when you have regained full strength and mobility of the ankle joint, and can walk and jog without pain or a sensation of instability. High ankle sprains can take much longer to heal than typical lateral ankle sprains. For grade I and II sprains treated without surgery, it may take up to 6 weeks or longer until you are able to resume athletic activities. For grade II and III sprains treated with surgery, return to sports can take several months.

**How can high ankle sprains be prevented?**
Since the syndesmosis remains looser than normal after a high ankle sprain, you are vulnerable to spraining this ankle again in the future. The best way to protect your ankle and reduce your chances of re-injury is to keep the muscles that support the ankle joint strong. This means continuing to perform ankle strengthening and balance exercises 2 or 3 times a week, even after your physical therapy has ended and you have been cleared to return to sports. Taping the ankle or wearing a supportive brace during sports can provide some added protection, but should not replace the strengthening exercises.

**References**
Elrod L, Syndesmosis Ankle Sprains, ms