What is it?
A strain or sprain is an injury to a muscle or ligament. The elbow is a joint made up of three bones: the ulna, radius, and humerus. This joint is supported by multiple ligaments and muscles that could be damaged in an injury to the elbow. An elbow injury could occur suddenly from a fall or if it is twisted too hard. These injuries are common in football, wrestling, gymnastics, skiing, and many other sports. An injury could also occur from overuse or repetitive motions that involve the muscles or ligaments of the elbow. The muscles that are attached to the elbow help control motions of the wrist. These injuries might occur in throwing sports, such as baseball, softball, and field sports (javelin, shot put, etc.).

Symptoms:
The athlete may start to feel symptoms immediately after the injury, or they may slowly worsen over the course of a few days. If this is an acute injury, the athlete might feel a sharp pain or popping sensation on one side of the elbow. The pain may also appear gradually over time or only hurt with certain motions of the elbow. If a muscle or ligament is injured, the athlete may feel weakness or instability in the joint. The elbow might feel stiff and have limited movement.
**Sports Medicine Evaluation/Treatment:**
A sports medicine physician will perform a careful physical examination of the joint. This will involve testing how far the athlete can extend, flex, and twist the elbow, and if there is any pain or clicking with these movements. The doctor will perform strength testing of the muscles involved in the elbow and test the ligaments to make sure they are intact. The physician will also do a neurological examination to make sure a nerve was not injured. Depending on the type of injury and the physical examination, the athlete may need to get an x-ray, MRI, or ultrasound of the elbow to obtain more information. A mild strain or sprain might only need rest and a prescription of an anti-inflammatory medication. The athlete might also be referred to a physical therapist for rehabilitation of the injury. If there is a tear of a muscle or ligament, the athlete might need to have surgery performed.

**Return to play:**
As long as there is no severe injury to a muscle or ligament, the athlete will be able to return to play once he/she has full strength and range of motion of their elbow. The athlete must also be able to safely perform in sports without pain to prevent further injury. For some injuries, the athlete may need to wear an elbow brace for protection. If the injury was caused by a mistake in throwing form, this must be corrected before returning to play.

**Prevention:**
Injuries that occur with repetitive motions may be preventable. These injuries might occur from incorrect throwing form or an imbalance of strength. For example, the entire body is used in throwing a baseball or softball – the legs, core, and shoulder muscles. If one part is weak, an injury may occur at some point to the elbow. It is important that throwing athletes be taught proper form at a young age, and these athletes follow rules limiting how often they can throw, to prevent elbow and other injuries.

**AMSSM Member Author:** Jeffrey Bytomski, DO

**Reference**