Basketball was invented in the late 1800’s by Dr. James Naismith. The game has evolved greatly since then and has become one of the most popular sports worldwide. It is estimated by the National Federation of High Schools that there are over 1 million high school basketball athletes alone, many more when considering younger players and college athletes. Basketball is a fast-paced game with significant contact, as well as forces from jumping and change of direction, creating injuries in basketball are most common in the lower extremity and can include sprains and strains to the ligaments and tendons of the knee or ankle. Younger children have been found to be more likely to injure the upper extremities. Male athletes have been shown to account for 75% of all basketball injuries and have higher frequency of lacerations, dislocations, and fractures. Female athletes are more likely to sustain concussions and knee injuries.
Common injuries:
- Blisters
- Ankle sprains
- Stress injury / Stress fracture
- ACL injuries
- Meniscus injuries
- Patellar tendonopathy
- Thigh contusion
- Finger sprains / fractures
- Dental injuries
- Eye injuries
- Concussion

Following is a brief description of some of these injuries, for more in-depth information on treatment and prevention please see our handouts.

Blisters may be a minor injury but they can be difficult to treat and recover from when an athlete is expected to be on their feet for practice and games. Blisters can also become infected and lead to more serious issues. Treatment often consists of draining the blister while keeping the skin intact - this has been found to at least reduce discomfort. Finding ways to reduce friction over the area include use of mole-skin products, gel packs, and band-aids / tape.

Ankle sprains occur most often to the ligaments of the lateral ankle. Bruising and ligament laxity are signs of potential tear. While ankle tape and braces have been shown to provide only minimal decrease in ankle injury, they have been shown to be useful after an injury has already occurred.

Stress injuries are very common in basketball due to the impact of running and jumping. They are important to recognize in the early stages before overuse and stress reactions become stress fractures. Common sites of injury are to the fifth metatarsal, medial malleolus, navicular and lower tibia. The navicular is a bone in the foot that has relatively poor blood supply and is notoriously difficult to heal - therefore recognition of this injury is vital. MRI is often needed to make the diagnosis a navicular fracture can be difficult to see on x-ray. Treatment consists of cast immobilization followed by physical therapy and gradual return to play. Overuse also contributes to relatively high incidence of achilles tendonopathy and Osgood Schlatter’s syndrome (apophysitis of the tibial tubercle).

Injuries to the anterior cruciate ligament of the knee can occur with or without contact. They most commonly occur without contact in association with cutting or landing with sheer force on the knee. Important considerations in prevention of ACL injuries include proper warm up, use of proper technique, as well as off court preparation including proprioception drills, strength training, and flexibility drills. The recovery for an ACL tear can be a long process taking up to 10 months or longer for some athletes. So while ACL injury will always be a risk for basketball players it is important to be prepared and take care in prevention.
Contact with other players as well as the ball may lead to a variety of injuries of the hand / fingers, face, and brain. **Finger fractures and sprains** are among the most common injuries in basketball and often go initially untreated. It is important to have these injuries evaluated to ensure potential fractures heal appropriately and to rule out need for surgical intervention. Head injuries and **concussion** are frequent as well, should always be ruled out before return to play, and proper protocol followed when a concussion has occurred. Contact will likely always be a part of the game and risks will be present, but care should be taken to play the game safely and within the rules to ensure a safe environment for all athletes.

**Tips for avoiding injury:**
- Be prepared for the season. Be sure to address any old injuries. Be sure that your conditioning is adequate before the season begins - be in shape!
- Warm up and stretch before practice and games.
- Be sure to wear appropriate shoes.
- Pay attention to aches and pain and let your athletic trainer or coach know when you may have an injury.
- Consider supportive equipment after an injury has occurred to prevent further or re-injury. This may include goggles, mouthguard, ankle braces, tape, etc.