Zach Lazarov

Abigail Moeggenberg

Mr. Gross

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Significance of Safety

Imagine a world where the sporting community can play as much as they want, whenever they wanted, without a constant worry of injury. Even with the advancement in health, this may never be possible. It is possible, however, to reduce the possibility of injuries as much as possible with proper techniques and awareness of warning signs. With great attention geared toward youth athletics, many children strive to participate and excel in sports. Young adolescents are very intrigued with sport activities. More than 3.5 million children under the age of fourteen receive medical treatment for sports related injuries every year (Powell). Most of these kids are treated for overuse injuries. According to Figure 1, running by itself is the cause of over 50 percent of these. There are thousands of different injuries that could possibly occur. Some like tennis elbow and shin splints are less minor, but more common; others are more serious such as concussions. Common knowledge about these types of injuries is necessary to diagnose what they are and how to treat them. These injuries can occur for many different reasons. Some athletes may train too often and over work their bodies. There are many ways to effectively warm up before a workout or an event that are sometimes forgotten. Afterward, a cool down is almost always left out. It is important that athletes learn the correct way to do these in order to reduce the possibility of an injury. If athletes has common knowledge about injuries, how to correctly treat them, and learned how to do a proper warm-up and cool-down, they will be able to avoid most sports related injuries.

Injuries happen all the time in sports. Most of the time they are caused by repetitive motion of certain muscles. Overuse injuries are the most common and are caused by repetitive use of a specific body part over time, which leads to tissue damage. These are scientifically known as cumulative trauma disorders (Laker). Youth athletes are the most prone to these as their muscles have yet to develop completely (Sports Injuries in Children). Many young athletes, especially in little league baseball, constantly use their arms. Some pitchers will throw the ball too hard in an awkward way, a few too many times. This can lead to a subtle pain in the elbow, which can be narrowed down to tennis elbow. Just because it is called “Tennis” elbow though, does not mean one needs to play tennis in order to have this injury. In fact, less than five percent of people diagnosed with this injury actually play tennis (Johnson). Some may even refer to this as golfer’s elbow instead, but it is less common. Tennis elbow specifically involves the area where the muscles and tendons of the forearm attach to the outside bony part of the elbow. This injury can also affect the back part of the elbow. Most of the time it affects the dominant arm, but it is possible to get it in the non-dominant, or even both arms. Tennis elbow can extremely affect baseball players, and even bowlers, as they are constantly using their arms. This overuse injury can really plague one’s performance drastically.

Whether it is a smooth jog around the town, or a dead sprint to catch a bus about to depart, people put a lot of stress on their shins. Intense use of the legs daily may cause throbbing and aching. This is referred to as “Shin splints” or medically known as “Medial stress syndrome” (Nordqvist).The main causes of shin splints include stress fractures (tiny breaks in the lower leg bones), over-pronation (flat feet), and irritated or swollen muscles (Brenman). There are many ways to irritate the shins such as running on slanted surfaces, running with inappropriate shoes, or even making sudden starts and stops. This is why shin splints are very common among runners. A runner usually gets shin splints after they change their workout intensity or run on a different type of surface that they run on. Shin splints are one of the more common overuse injuries that athletes get, and should not be taken lightly.

Some injuries are far more serious than others. A head-to-head collision in football or a hard foul in basketball can lead to severe head traumas. These are usually concussions, which are one of the more serious injuries that an athlete can experience. These can be caused by a powerful blow to the head or body, a fall, or even other injuries that shake the brain so that it bangs around inside of the skull. Passing out immediately after a hit to the head is an obvious symptom of a concussion. However, just because one receives a concussion, does not mean that they will pass out. This is why it is tricky to know whether one has a concussion or not on the spot. A concussion can be diagnosed if a patient has trouble remembering information, lack of concentration, constant headaches, or even blurred vision (Concussion Overview). A visit to the doctor should be taken immediately if one has these symptoms. With common knowledge of an injury like this, an athlete can learn to prepare and protect their body from personal damage, and also know what to do if it were to ever occur.

Injury prevention is important for the safety of athletes. There are many rules that keep athletes safe such as pitch counts in little league baseball and roughing the passer penalties in football. Pitch counts are designed to limit the number of throws a pitcher can have in a game and roughing the passer penalties protect the quarterback from late hits after the ball is released from his hand. Proper officiating crews definitely help regulate the safety of athletes during the games. However, they are not responsible for what the athletes do to keep their bodies in great shape before and after events. When a proper warm up is not done, the chance for an injury increases. Warm muscles are less susceptible to injury than cold muscles (Quinn). A proper warm up should start with at least ten minutes of low level cardiovascular activity (Steen). This may consist of jump rope, a quick game of catch, or even a light jog. As important as light activity is, the warm up does not end there. Light stretching is crucial to do before any intense physical activity. This should include every body part for about five to ten seconds each. Doing so increases blood flow to the muscles and also increases synovial fluid (a type of self-lubrication process) in the joints (Steen). The body’s range of motion also increases after doing this. Stretching is a nice transition from light activity into the actual exercise itself.

Starting slowly and stretching muscles out is a key factor for a proper warm up. However, just because the body is properly prepped, does not mean that it is protected. Fierce competition can lead to serious injuries. Protective pads, mouth guards, helmets, gloves, and other equipment are not for sissies. Protective equipment that fits well can keep the head, knees, hands, eyes, and teeth safe from injury. Mouth guards can keep any athlete from losing or chipping teeth in any sport. More serious injuries are avoided by wearing helmets. A good helmet can significantly reduce the impact that the brain takes, which reduces the chance of concussions. However, Dr. Margaret Alison Brooks said, “because the brain is floating freely inside the skull, I think most experts doubt whether it is possible to ever develop a helmet design that can prevent concussion.” (Brooks).

After getting buckets playing a pick-up game of basketball, or making slick passes at football practice, it is time to focus on the post-game/post-workout. This should consist of intense stretching and a cool down. Stretches should once again include each body part, but more specifically focusing on target muscles that were most intensely used during the activity. This time around each stretch should last about four to five seconds at a time, really focusing on actually stretching the muscles. Each stretch should be done up to six times, increasing the range of the stretch each repetition (Steen). This should be done so that fresh blood can be pumped into areas with lactic acid (an organic acid produced in the muscle tissues during strenuous exercise.) which starts the recovery process. Warm ups and cool downs are just as important as the physical activity itself, especially when trying to avoid injuries. It is important to know that injuries cannot be completely prevented. They can be significantly reduced by warming up correctly, strapping up with the correct equipment, and taking advantage of a cool down period.

Even with the many ways that injuries could be prevented, they still happen. When they do happen, it is important to know the right procedures to take. If there is severe swelling and/or pain, than it is important to receive medical attention as soon as possible. A doctor can prescribe any medication necessary to reduce pain and also place a cast on a broken bone. A more serious injury, such as an ACL tear, may require surgery. It is important to seek a qualified surgeon to perform this. Doctors are always there to help athletes with their injuries.

Some cases involve injuries that are not so serious, such as tennis elbow and shin splints, can be treated even without a physician. In these cases, it is important to know what to do in order to treat an injury correctly. The most important acronym in preventing sports injuries is RICE (Rest, Ice, Compress, and Elevate.). In order to prevent anymore aggravation to an injury, it is at the utmost importance to rest an injury. This is very important when trying to get rid of a concussion. Ice can help reduce any inflammation and pain generated by heat from the injury. It is important not to ice for too long as the skin can become frostbit. A good method for icing is ten to twenty minutes at a time, three or more times a day (Blahd). If the swelling is gone after two to three days, heat can be applied to the injury to help circulation (Blahd). Compression helps reduce swelling and avoid any excessive pain. Elevation also helps get circulation back to normal. RICE is one of the most effective ways in treating injuries.

It may be impossible to prevent injuries forever, but they can be reduced to a minimum and treated correctly. With background knowledge on some of the more common injuries, the quicker and easier it will be to diagnose, and correctly treat. A proper warm up and cool down will reduce the possibility of injury. Wearing the correct equipment will reduce impact and protect the body. Even though there are numerous injuries that could possibly happen, they can be avoided by taking advantage of these simple to do precautions. If ever an injury does occur, the proper treatments can be done if an athlete and their family know what they are dealing with. Every athlete should know these, and do the little things to keep their bodies injury free and in tip top shape. This may just help them prevent an injury that would have occurred if they did not know about injuries and know how to take care of their body. An athlete may even perform better on the court and field.

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