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Mountain Biking Injuries

With increased popularity of the sport have come an increased number of injuries. Research regarding these injuries has begun to reveal patterns within the sport.

Question: *What are the most common types of injuries?*

Answer: Mountain bikers are subject to various traumatic and overuse injuries. Traumatic injuries can vary from abrasions and contusions to wrist fractures, shoulder injuries, and concussions. Most crashes result in only minor injuries such as abrasions, contusions and lacerations. Fractures and concussions are less common. The majority of fractures occur to the upper extremity and most commonly involve the fingers, metacarpals, wrist and radial head. The shoulder is also vulnerable to injury including clavicle fractures and acromioclavicular separations. These injuries can occur when a cyclist falls and lands on the shoulder. The majority of traumatic injuries take place on downhill rides. Injuries tend to be more severe when a rider is thrown forward over the handlebars than when he or she falls off the side of the bike.

Overuse injuries often involve the knee, lower extremity, spine, upper extremity and saddle region. These injuries are related to interactions between the cyclist's body, the bicycle, and the terrain on which they ride.

Question: *How are these injuries treated?*

Answer: Depending on the severity of the traumatic injury, an evaluation by a qualified healthcare professional is generally recommended. Training errors frequently contribute to overuse injuries and these include inadequate preseason conditioning, suddenly increasing mileage, hill climbing, or riding intensity. Improper bike fit and anatomic malalignments may also lead to overuse injury. Identification of these errors through a careful history and examination are critical for directing proper treatment. Injured cyclists may require temporary modifications of their riding habits until symptoms decrease. Rather than taking a complete break from cycling, the injured cyclist can often benefit from relative rest, i.e. temporarily decreasing mileage and hill climbing and emphasizing low-resistance easy pedaling. As symptoms subside, the cyclist can gradually increase the amount and level of riding.

Question: *What are the best ways to prevent injuries?*

Answer: To prevent injuries, the importance of bicycle maintenance, bike handling skills, and common sense cannot be overemphasized. Monitoring speed, knowing the terrain, paying attention and riding within one's ability will minimize off-road crashes. Helmet use is clearly effective in decreasing head injuries and should remain a key preventive measure. Other protective gear, such as chest, shoulder, and extremity padding, is also used by many downhill cyclists. These devices probably help decrease superficial injuries, but their ability to prevent serious injury is still in question. Proper bike fit, training and the correction of any anatomical malalignment are also important in the prevention of overuse injuries.

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