

Basketball And Your Feet



Peach Baskets to Jams

Ever since physical education instructor James Naismith, pressed to find a new indoor sport, nailed a peach basket to the wall of a YMCA gymnasium in 1891, Americans of all ages have enjoyed the game of basketball. Naismith's invention caught on like wildfire, and within a year official rules were drawn up and leagues formed.

Today's airborne exploits and backboard-shattering jams of NBA stars like Charles Barkley and Shaquille O'Neal obviously mark significant changes in the game since that first experiment (when only one basket was scored and the ball retrieved with a step ladder), but basketball's essential elements of running, jumping, cutting, stopping, and shooting on a hard floor remain the same.

Tremendous Pressure

In basketball, tremendous pressure is exerted on the foot and ankle. Without proper equipment and preparation, podiatric physicians say, injuries will invariably occur. Two distinct types of injury to the lower extremity can occur in basketball: acute injury from a sudden and forceful blow, or chronic injury, which develops slowly and becomes aggravated over an extended period of time.

Most acute foot and ankle injuries, which occur from landing improperly from a jump or twisting while falling, are accidental and difficult to prevent. The most common acute injuries include ankle sprains, torn ligaments, muscle pulls, tendon ruptures, and fractures.

Chronic, or overuse, injuries can be caused by inadequate warmup, poor conditioning, improper and ill-fitting shoes, worn out shoes, or a biomechanical deformity that causes undue stress on the foot and ankle. Common chronic injuries sustained in basketball include stress fractures, plantar fasciitis, shin splints, achilles heel, tendinitis, patellar tendinitis, sesamoiditis, and blisters.

Similar injuries, especially ankle inversions and stress fractures, are also seen in another indoor court sport, volleyball. Volleyball is more purely vertical than basketball; there is less running and cutting, but there are more quick-step reactions from a stationary position.

Different playing surfaces can also have an effect on injuries. Indoor wood courts offer the most shock absorption and are considered the safest courts, while outdoor courts of asphalt are more dangerous. Concrete courts are the hardest and most dangerous courts in relation to lower extremity injuries.

Preventing Injuries

Some acute injuries occur following mid-air collisions, erratic lunges for a rebound, or scrambles after a loose ball, and can't be helped, but chronic injuries can be averted with proper conditioning, equipment, and good sense on the court.

Podiatric physicians recommend stretching exercises and gradual warm-up before beginning vigorous play. A separate weight-lifting regimen of both upper and lower body muscles helps minimize the impact of chronic injuries before they happen.

Another means of preventing injuries while playing basketball is a proper shoe. Shoes should be basketball-specific, with lots of ankle support and shock absorption.

Some high-topped shoes offer more ankle support than others and are preferred by many doctors of podiatric medicine. Shoes should fit well and be replaced before the soles become smooth, or before the uppers begin to tear or come apart. A typical basketball shoe should be replaced every two to three months for five days a week worth of play. Acrylic socks should be worn to avoid blistering.

Volleyball-specific shoes should also be worn by devotees to that sport. They are similar to the basketball shoe, but typically are lighter, have less midsole support, and a "tighter" sole more responsive to quick starts and stops.

When the Game's Over

Acute injuries require immediate medical attention. After a bad fall or painful twist, the game's over. When an injury occurs, podiatrists advise, get off the court immediately and apply first aid. The best initial treatment for acute injury is ice, rest, compression, and elevation of the injured extremity. See your podiatric or family physician as soon as possible.

When bothered by a chronic injury, reduce activity level in accordance with the severity of the pain. If nagging pain gets worse in the course of a game, get off the court and apply ice and a compression bandage, and elevate the foot. Over-the-counter anti-inflammatory medications such as aspirin or ibuprofen can be taken at proper dosage for temporary pain relief.

If pain does not subside within three to five days, see a podiatrist, who will explore possible causes of the injury. Chronic pain can often be traced to a biomechanical abnormality that is placing undue stress on a particular part of the foot or ankle.

Biomechanical imbalances can be corrected by prescription orthotic devices--specially constructed shoe inserts that redistribute the body's weight evenly on the foot and ankle.

Selective stretching and strengthening programs, shoe modifications, or strapping of the foot and ankle can also correct biomechanical problems. Lower extremity structural problems that often lead to injury include high arches, flat feet, bow legs, and tight calf muscles.

Getting Back on the Court

Basketball is one of the most demanding sports, physically and mentally, and is especially rough on the foot and ankle. Understand that competitive basketball puts the entire body under stress and at risk of injury.

When injury to the foot or ankle does occur in basketball, the injured part must be given time to get over the acute inflammatory phase of healing. Then, adequate support with shoes or splints and/or tape may be necessary.

Finally, and just as important, is the need to strengthen the injured part back to its pre-injury condition. If not, it will remain weak and predispose the athlete to re-injury.

The American Podiatric Medical Association operates a toll-free telephone service, **1-800-FOOTCARE (1-800-366-8227)**, from which consumers can obtain informative literature on a variety of foot health topics. The [American Academy of Podiatric Sports Medicine](#), an affiliate of APMA, may be reached at 1-800-438-3355.

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