



Hughston Health Alert

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Inside...

- Swimmer's Ear
- Runners and Iliotibial Band Friction Syndrome
- Heat Illness on the Athletic Field
- Anabolic Steroids
- Sunglasses
- Hughston Clinic

Golf Injuries

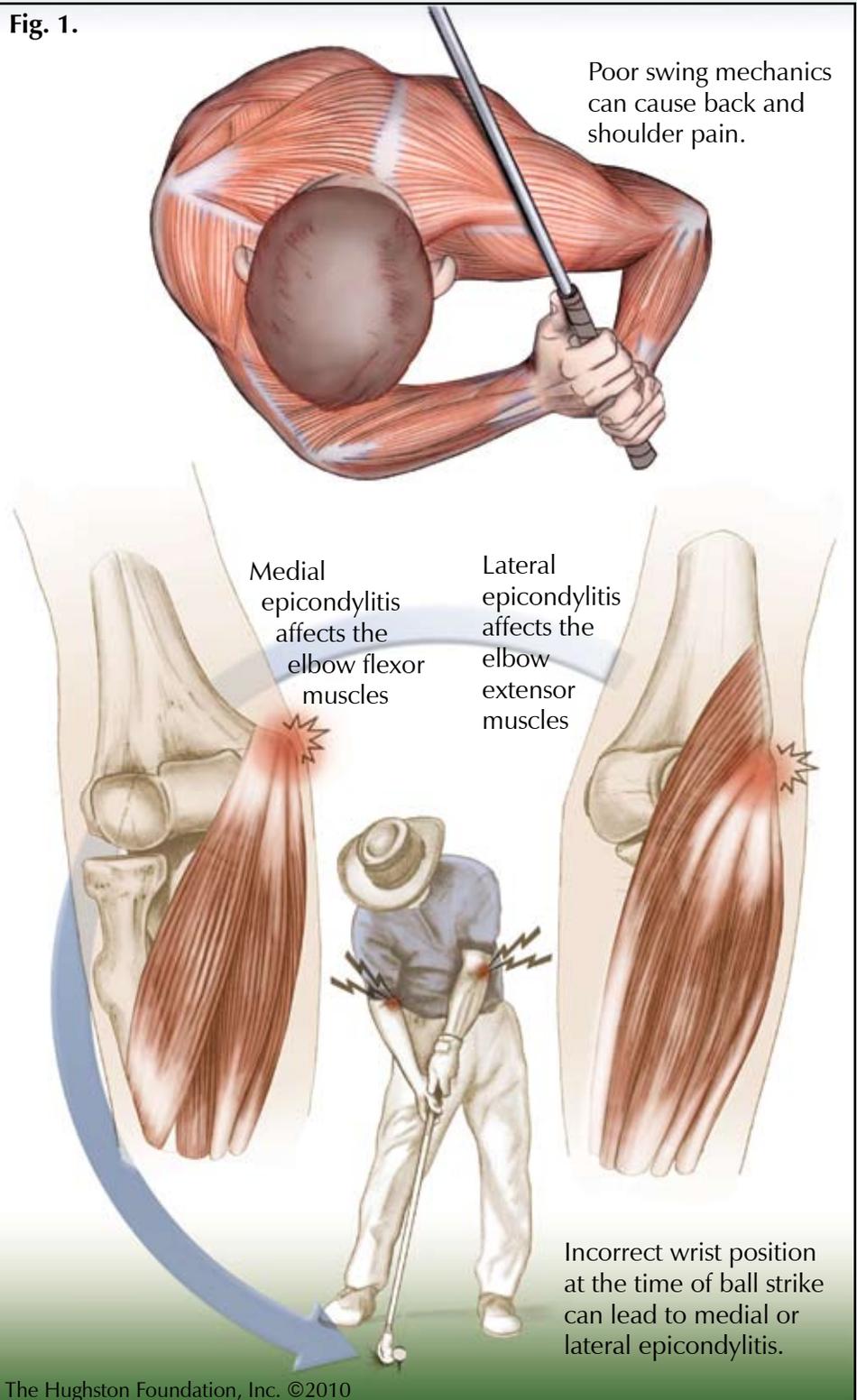
THE LINKS JINX

Golf is fun and challenging and enjoyed by millions of people across all age and skill levels. Although golf is generally considered to be a safe and low-risk sport, injuries can nevertheless occur. Most of these injuries are overuse injuries that can be avoided. A common-sense approach, which includes awareness of common injuries, targeted strengthening, and a good stretching routine, can help reduce your risk of sustaining an injury while playing.

Overuse injuries

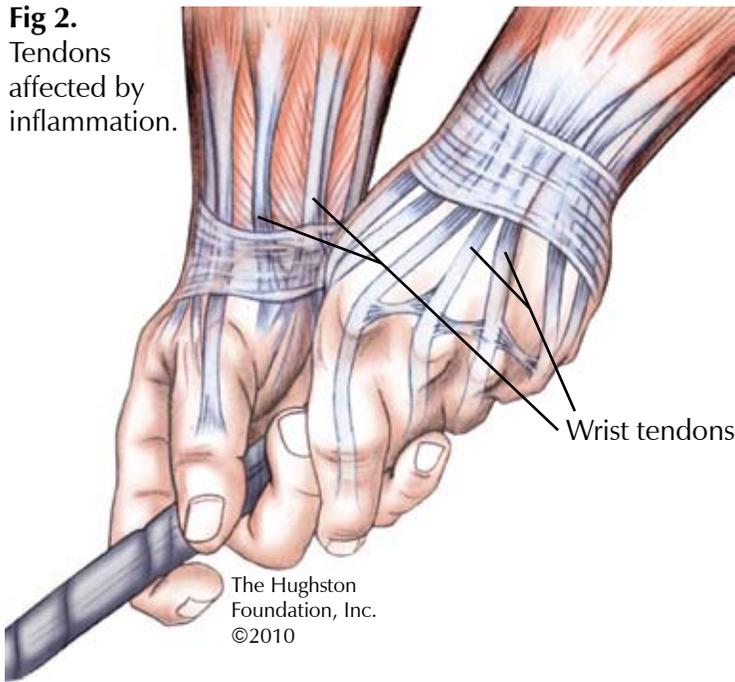
Low back pain is the most common overuse syndrome among golfers. The pain has been attributed to the torque placed on the lumbar spine during the backswing, followed by derotation and hyperextension (extension beyond normal limits) during the follow-through motion. This torque can be abnormally high in amateur golfers who have poor swing mechanics (Fig 1). Poor rotation of the lead hip (the left hip in a right handed golfer), places additional undue torque on the back during the swing. In certain

Fig. 1.



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Fig 2.
Tendons
affected by
inflammation.



cases, amateur golfers who experience pain may tighten the muscles around their spine, leading them to be even stiffer. Stiffness can be reduced by gently stretching the back before starting to swing the club.

Second only to low back pain are injuries to the elbow. Medial epicondylitis (also known as golfer's elbow) is an overuse syndrome that causes pain in the inner aspect of the elbow. It begins as inflammation of the tendon, or tendinitis, and it can progress if untreated to a chronic scarring of the tendon that can be difficult to treat. Lateral epicondylitis (also called tennis elbow) affects the outside of the elbow in a similar manner (Fig 1). Poor swing mechanics, especially variations in wrist position at the time of striking the ball, can lead to the development of medial or lateral epicondylitis. From a practical standpoint, the most important thing a casual or weekend golfer can do to reduce the chance of elbow problems is to warm up and stretch adequately before each round.

Wrist injuries are also common in golfers. Frequently seen injuries are tendinitis of the tendons that cross the wrist, on both the front and back sides of

the wrist (Fig 2). These overuse injuries can usually be treated with a combination of bracing or splinting and the appropriate use of nonsteroidal anti-inflammatory medications (NSAIDs).

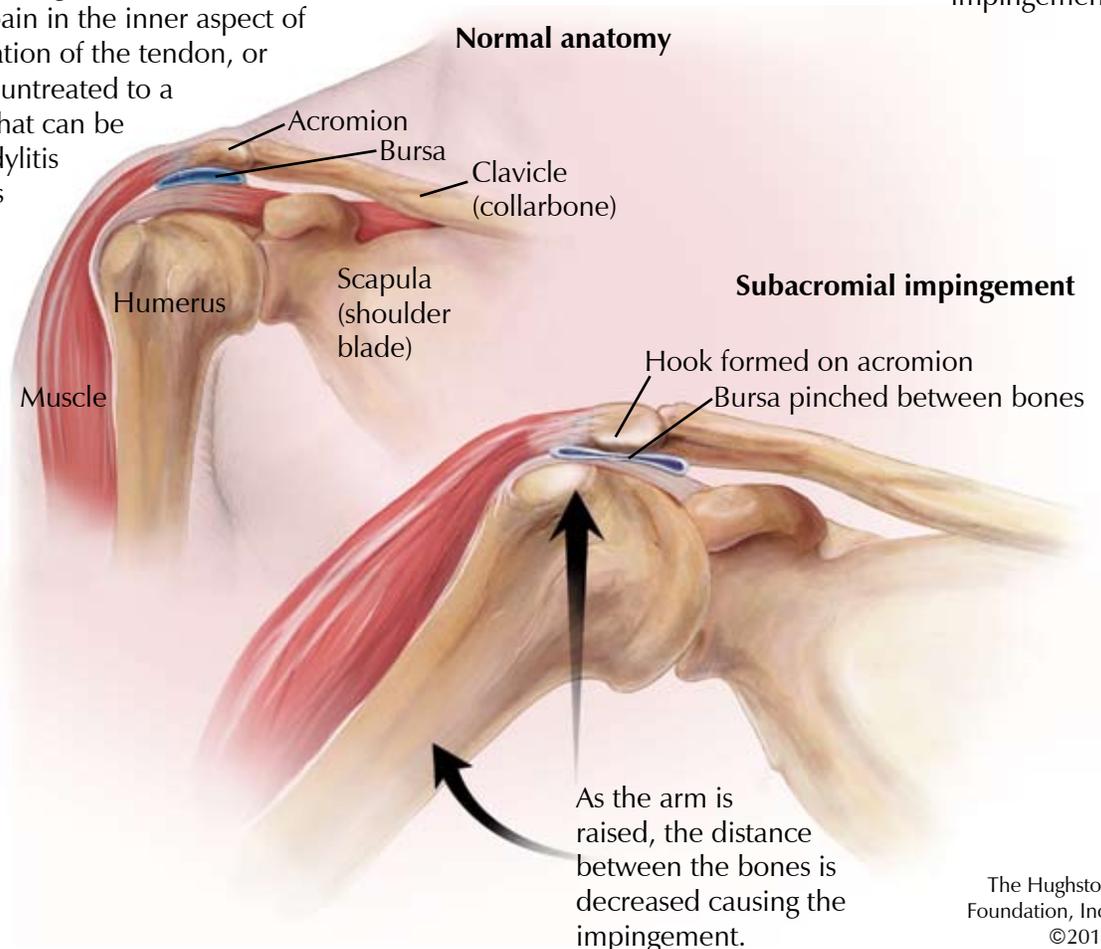
Poor technique

Most injuries to the shoulder are due to overuse, but some may be directly caused by or exacerbated by poor technique. The lead shoulder is more vulnerable to injury in most cases. Common injuries include rotator cuff problems and subacromial impingement (impingement syndrome), as well as injuries to the other supporting muscles of the shoulder girdle (Fig 3). The chance of injury can be reduced through stretching and training to learn proper swing mechanics. If an injury does occur, it can often be treated nonsurgically, using anti-inflammatory medications and physical therapy.

Exposure to the elements

There are a few other potential hazards that are often overlooked by golfers. Rapidly changing weather patterns and the passage of afternoon thunderstorms during the spring and summer months mean that

Fig 3. Normal shoulder anatomy and subacromial impingement



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lightning can and does occur. Although there is no way to completely protect oneself against lightning, a few common sense precautions should be observed. If lightning is in the area while you are on the golf course, you should seek safe shelter in a clubhouse or closed vehicle, while avoiding isolated trees, open fields, and metal poles. If no suitable shelter exists, you should lie down in a sand trap until the danger passes.

Excessive sun exposure can be dangerous and affects millions of golfers every spring and summer. Protect yourself from the sun by applying a sunscreen with a high SPF (30 or greater), before stepping onto the course. Exposed areas, especially the face, ears, and hands, deserve special attention. Consider using a combination of sunscreen and a hat or visor to maximize your protection

from harmful ultraviolet rays.

Golfing is an extremely enjoyable, pleasant activity that, when played conscientiously, is also very safe. Before each round of golf or before stepping on the driving range, a thorough warm up and stretching routine can help prevent injury. In addition, consider enlisting your local golf pro. A few instructional lessons can help you develop and improve your swing mechanics, which will not only help prevent injuries, but also likely lead to a lower handicap! As you get ready to head out onto the course, remember that a small amount of prevention can go a long way toward ensuring a safe, long, and enjoyable golfing season.

*R. Grant Mostak, MD
Columbus, Georgia*

Swimmer's Ear

Swimmer's ear, or otitis externa, is an infection of the external ear canal. The external canal is the part of the ear that is easily accessible to foreign materials, including water. When the ear canal gets wet and water remains in the canal, organisms start feeding and multiplying. (Fig.) The infection that can result is caused by common bacteria or can be due to a fungus. The external ear can also become infected from scratching the inside of the ear with cotton swabs or small objects that can irritate or damage the skin.

Symptoms

The first symptom you might encounter is an itchy ear, which is often followed by pain that increases in intensity. The pain can become so severe that you have trouble sleeping. The pain from swimmer's ear is usually persistent enough that even the most stoic individual will visit a physician. There may also be yellow, pus-like drainage with a foul smell that is a sure sign of an infection.

Prevention

The most important step you can take to prevent swimmer's ear is to keep your ear canals dry. You can keep the canals dry by wearing earplugs while swimming or you can put in over-the-counter eardrops to help dry the canals after swimming. These drops consist of a diluted alcohol solution that will dry up water remaining in the ear canal. Additionally, don't place anything inside the ear, including cotton swabs or paper clips. Scratches to your ear canal can damage the skin and allow an infection to begin. If you have had ear surgery or have chronic ear problems, ask your doctor before putting anything in your ears.

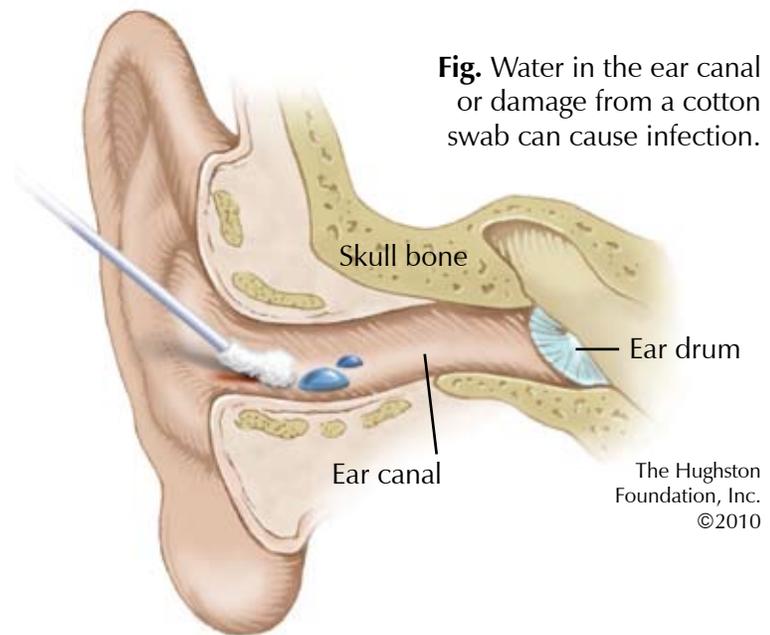


Fig. Water in the ear canal or damage from a cotton swab can cause infection.

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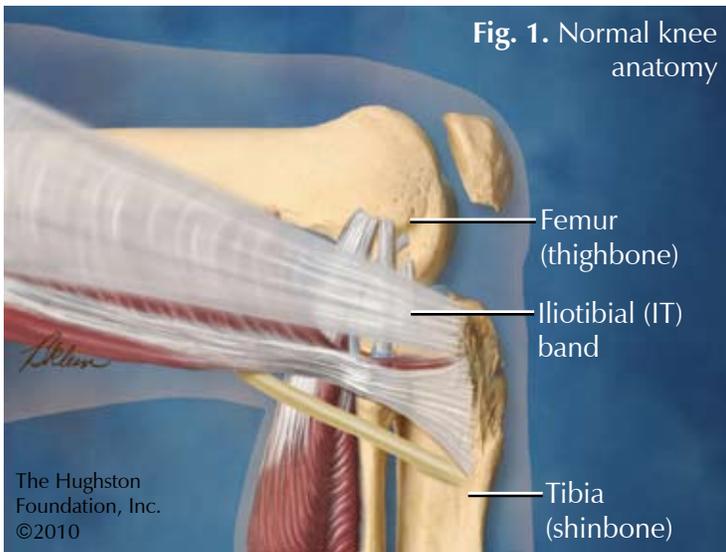
Treatment

Swimmer's ear, though quite painful, can be treated with medicated eardrops. The drops are usually a combination of an antibiotic for the infection and steroids to reduce inflammation. If needed, acetaminophen or ibuprofen can be taken orally for pain. Often, placing something warm against the ear, such as a low-heat heating pad or hand warmer, can help reduce some of your discomfort.

Swimmer's ear is a common malady that can be easily treated. However, if it is left untreated it can become more serious.

*Richard Mansfield, DO, FAAP
Columbus, Georgia*

Runners and Iliotibial Band Friction Syndrome



The iliotibial band, commonly called the IT band, is a band of connective tissue that runs down the outside of the leg from the hip to the tibia (shinbone) just below the knee joint (Fig. 1). IT band friction syndrome is an overuse injury that often occurs in runners and cyclists, but it can occur in any sport and to any athlete. IT band friction syndrome results from friction between the IT band and the outside of the femur (thighbone) at the knee joint.

How does the syndrome occur?

The main cause of IT band friction syndrome is overuse in the form of repetitive flexion (bending) and extension (straightening) of the knee. In addition to overuse, there are several predisposing physical conditions that can lead to the syndrome. One condition, genu varum, or bow-legs, causes the outside edge of the femur at the knee to stick out causing friction on the IT band.



Fig. 2. Standing leg tuck/hip stretch - place bent leg on table while bending the opposite leg.

Other conditions that can lead to IT band friction syndrome are leg-length discrepancies, over pronated feet (flatfoot), or any other condition that can cause the tibia to be rotated to the inside.

What to look for

Tenderness on the outside of the knee is often the first symptom. Pain can also occur with running down hills and lengthening of the stride. The athlete can often have a full pain-free active range of motion. Typically, the onset of pain begins towards the end of a run, but as the condition worsens the athlete can begin to feel pain earlier during a run. Pain often occurs just above the joint on the outside of the knee.

How is it treated?

One of the keys to treating IT band friction syndrome is rest until acute symptoms (pain with activity and tenderness) have subsided. Along with rest, come the other standard parts of the RICE treatment—ice, compression and elevation. Stretching the hip adductor and flexor muscles (Figs. 2 & 3), as well as strengthening exercises for hip and knee can also help to prevent and treat IT band issues. In addition, foot orthotics can aid in correcting some biomechanical issues, such as over pronation and leg-length discrepancies.

While resting from activity, athletes can maintain cardiovascular endurance through cross-training, though biking should be avoided because this activity can also irritate the IT band. Once the athlete has resumed activity, ice massage before and after activity can help to decrease symptoms. If stretching and rest are not effective, steroid injections are sometimes prescribed to help deal with inflammation.

*Eric North, ATC
Columbus, GA*



Fig. 3. Quadriceps stretch - support yourself while grasping your foot behind you.

Heat Illness on the Athletic Field

The most important fact about heat illness on the athletic field is that the condition can be prevented. Not all athletes respond the same to heat. Some athletes fall victim to heat illness while others don't. Although coaches or athletic trainers cannot predict who may fall ill, they can take steps to help prevent it from happening.

There are several kinds of heat illness, ranging from mild

to severe (Fig.). Mild forms of heat illness include heat edema, heat rash, and heat cramps. Moderate heat illness, or heat exhaustion, and heat stroke, the most severe form, occur after a progression of symptoms. Mild heat illness, such as heat cramps may not progress to heat exhaustion; however, heat exhaustion can quickly progress to heat stroke, which can be fatal. Early recognition of symptoms and prompt treatment are keys to preventing further progression of the illness.

Fig. Severity Levels of Heat Illness

Symptoms of Mild Heat Illness	
Heat Edema	Swelling of hands & feet associated with prolonged exercise in heat. The core body temperature is usually normal.
Heat Rash	Itchy rash often associated with sweaty areas underneath clothing. Core body temperature is usually normal.
Heat Syncope	Fainting or dizziness with weakness can occur. Core body temperature is usually normal and the athlete usually recovers quickly after lying down.
Heat Cramps	Painful muscle contractions that are associated with dehydration and electrolyte loss after excessive heat exposure. Often the core body temperature is elevated but not over 104°F (40°C).
Symptoms of Moderate & Severe Heat Illness	
Heat Exhaustion	Moderate heat illness with elevated core body temperature ranges 98.6°F - 104°F (37°C - 40°C). Athletes complain of dizziness, fatigue, headache, & sometimes nausea or vomiting. Skin is usually flushed with lots of sweating & can be cold or clammy.
Heat Stroke	Severe heat illness with elevated core body temperature over 104°F (40°C). The athlete can appear confused or disoriented. If the condition advances, the athlete can lose consciousness & become unresponsive. Skin is hot and the athlete may or may not be sweating anymore. <i>This is a medical emergency.</i>

Prevention

Prevention of heat illness begins with awareness of environmental factors that affect the athlete: temperature, humidity, and field conditions.

As for the athlete, an honest evaluation of the kind of physical shape he or she is in before beginning an activity is a good start. Athletes who are not in good shape are not able to cool themselves adequately during activity, which can cause the core body temperature to rise. Conditioning helps the body to become accustomed to heat stress, and to respond with cooling mechanisms, such as sweating, at the first sign of vigorous exercise.

The body's natural means of cooling is to sweat. Unfortunately, if a person starts out dehydrated, then his or her ability to lose fluid through sweat is decreased and the overall ability to cool off is also decreased. There are many ways to become dehydrated, but some of the more common reasons are alcohol use, certain medications for blood pressure, sunburns, and simply not taking in an adequate amount of water before, during, and after vigorous activity.

Environmental factors, such as high temperatures, are the most obvious risk factors for heat stroke. With humidity, higher water content in the air keeps sweat from effectively evaporating from the skin and cooling the body. Insufficient shade and the lack of a water source to rehydrate are additional environmental risk factors for heat illness.

The athlete should prepare in advance for an upcoming vigorous athletic event or season (like two-a-day football practices). Seven to 10 days before the event, the athlete should gradually increase his or her time spent in the heat. During this period, the athlete should drink plenty of water and sports drinks and slowly increase the amount of equipment worn, time spent in the heat, and the amount of exertion. Once practice and play begins, always begin with hydration, continue to maintain hydration, and finish with more hydration. Monitor for signs and symptoms in players, especially confusion or nausea and vomiting. As with many things in life, an ounce of prevention is worth a pound of cure.

Christopher Van Hofwegen, MD
Columbus, Georgia

Anabolic Steroids

BEEFING UP YOUR KNOWLEDGE

“The Juice,” “Gear,” “Roids,” “Arnies,” “Gym Candy”—the list of nicknames for steroids is as rampant as their use. Steroids are illegal, and are banned in sports; therefore, accurate estimates on usage can be difficult. However, the American Academy of Orthopaedic Surgeons estimates that 500,000 young athletes use black-market anabolic steroids to enhance their looks and build muscle.

What are anabolic steroids?

Steroids are naturally occurring hormones in the body. Anabolic-androgenic steroids are synthetic, or artificial, substances similar to the male sex hormone testosterone. There are some good medical uses for anabolic steroids, but some athletes use them to enhance performance by attempting to increase strength and lean body mass. Anabolic steroids can increase muscle mass; however, as many athletes have testified, steroids don’t make the athlete any more skillful at hitting or throwing a ball.

Changes in your appearance

The gains that come from steroid use come at a cost and a huge risk. Known side effects in males that invariably result from steroid use often counter the desired effect (Fig. 1). For example, too much testosterone can cause feminization, or the development of female traits, such as reduced sperm count, impotence, development of breast tissue, and shrinking of the testicles.

On the other hand, females experience just the opposite, by becoming more like their male counterparts. Masculinization from increased testosterone predictably results in facial hair growth, a deepened voice, breast reduction, and changes in their menstrual cycle. Additionally, both genders can experience increased acne, a bloated appearance, rapid weight gain, liver damage, and elevated cholesterol levels.

Fig. 1 The side effects of steroids	
For men, both young and old <ul style="list-style-type: none"> • Reduced sperm count • Development of breasts 	<ul style="list-style-type: none"> • Impotence • Shrinking of the testicles
For women and girls <ul style="list-style-type: none"> • Facial hair growth • Breast reduction 	<ul style="list-style-type: none"> • Deepened voice • Menstrual cycle changes
For both men and women <ul style="list-style-type: none"> • Acne • Rapid weight gain • Elevated cholesterol levels 	<ul style="list-style-type: none"> • Bloated appearance • Liver damage

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Life-changing side effects

Steroids can cause irreversible changes, especially in athletes who are still growing. Steroids can cause premature closure of growth plates, which can stunt your overall height. Catastrophic risks such as avascular necrosis of the hip (the hip bone dies and has to be replaced), can happen even in young people. Steroids are associated with the development of liver cancer, heart attack, and stroke from prolonged use. Not related to the steroids themselves, but by the means of delivery, some people have contracted hepatitis and HIV from needle sharing with injectable forms of steroids.

Fig. 2 Steroids are illegal

- Simple possession of illicitly obtained anabolic steroids carries a maximum penalty of one year in prison and a minimum \$1,000 fine if a first drug offense.
- The maximum penalty for trafficking is 5 years in prison and a fine of \$250,000 if this is the individual’s first felony drug offense.
- With a second felony drug offense, the maximum period of imprisonment and the maximum fine both double.

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Breaking the law

Steroids are illegal and you can go to jail for having them in your possession (Fig. 2). The Anabolic Steroids Control Act of 1990 placed anabolic steroids into Schedule III of the Controlled Substances Act, which is a federal law. Simple possession of illicitly obtained anabolic steroids carries a maximum penalty of 1 year in prison and a minimum \$1,000 fine if it is your first drug offense.

Often, steroids obtained on the black market were never intended for human use. Therefore, they are not monitored for quality and often have dangerous additives that increase risks for the user.

Using steroids will change your life, but not in a positive way. Steroids can increase muscle mass, but because you can’t keep the look without them, you will never be free of them. You can also experience any number of side effects that will alter your appearance. Some side effects are reversible once you stop taking steroids, but unfortunately, some are not. Yes, steroids can change your life, but only for the worse.

*Christopher Van Hofwegen, MD
Columbus, Georgia*

Sunglasses

MORE THAN A FASHION STATEMENT

Most people choose sunglasses based on the latest style or how they match a certain outfit, but did you know that picking the right sunglasses could be as important as applying sunblock? Just as you protect your skin from the sun's harmful rays, you need to also protect your eyes.

UV radiation

Harmful ultraviolet (UV) radiation is invisible and comes in 3 forms: UV-A, UV-B, and UV-C. Of the 3 forms, UV-C radiation is the highest energy, but fortunately, most of these dangerous rays are filtered by the ozone layer. On the other hand, UV-B has less energy than UV-C, but much less of the radiation is filtered by the ozone layer. Therefore, UV-B is the spectrum of light that is most responsible for tans and harmful burns. UV-A is the lowest energy of the invisible spectrum, but it can penetrate through the cornea and reach the lens and retina of the eye (Fig.).

Blue light exposure

High-energy visible light (HEV) is visible to our eyes and is in the blue spectrum. Although it has lower energy than the harmful UV spectrum, it can penetrate deep into the eyes causing retinal damage, including a progressive type of blindness called macular degeneration. Other eye problems caused by HEV and UV rays include cataracts, pingueculae and pterygia (growths on the eyes), and photokeratitis (a type of sunburn of the eye) that can cause temporary vision loss sometimes called snow blindness.

Protecting your eyes

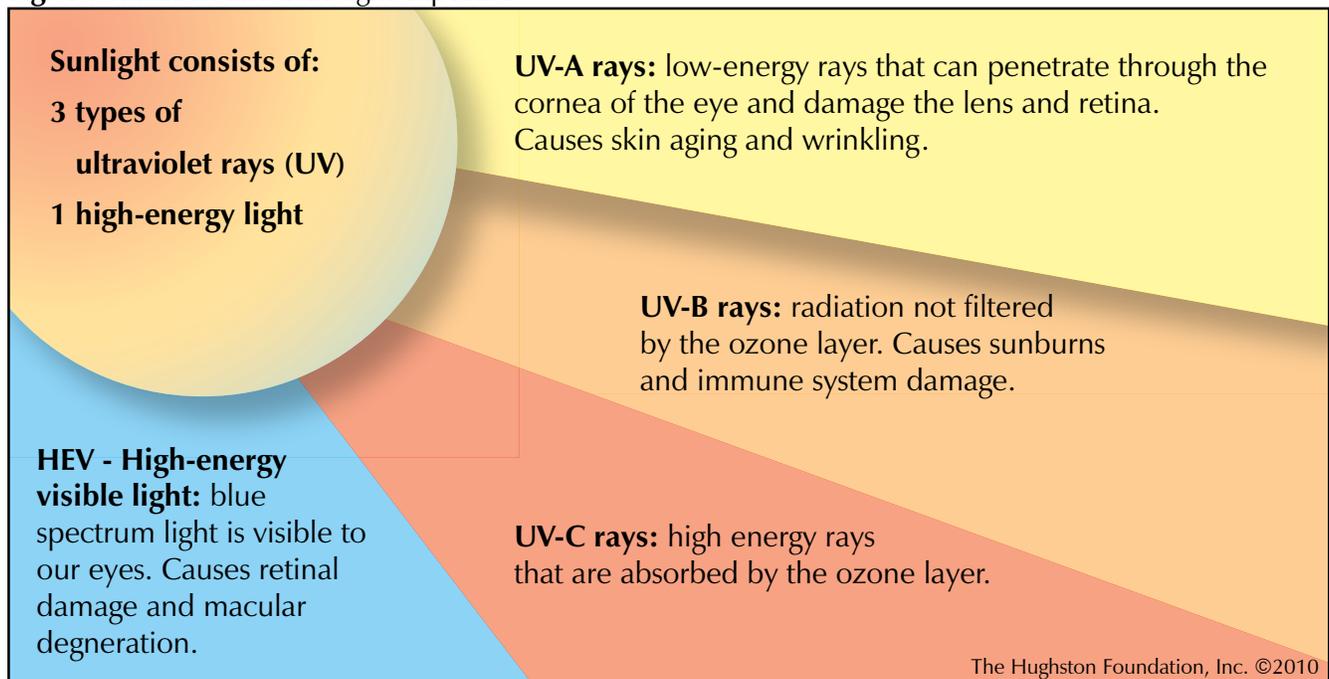
To best protect your eyes from the sun's harmful UV and HEV rays, the American Optometric Association (AOA) recommends that you always wear good quality sunglasses when you are outdoors even on cloudy days because UV rays penetrate clouds. Snowy days can significantly increase the amount of rays directed at your eyes; therefore, eye protection should be worn on the slopes. Look for sunglasses that block 100% of UV rays and that also absorb most HEV rays. Frames with a close-fitting wraparound style provide the best protection because they limit the amount of sunlight that reaches your eyes.

The amount of UV protection sunglasses provide is unrelated to the color and darkness of the lenses. A light amber-colored lens can provide the same UV protection as a dark gray lens. But for HEV protection, color does matter. Most sunglass lenses that block a significant amount of HEV will be bronze, copper, or reddish-brown. In addition to sunglasses, wearing a wide-brimmed hat on sunny days can reduce your eyes' exposure to UV and HEV rays by up to 50%. Because sun damage to eyes is cumulative, the AOA also suggests that children be encouraged to wear sunglasses starting at an early age to prevent future damage to their eyes.

While you're out shopping for the perfect sunglasses, remember, think eye protection first then style. If you have already picked out the perfect sunglasses for the summer and you are not sure about their safety, your optometrist can check them for you. For more information about protecting your eyes, visit the American Optometric Association Web site at www.aoa.org.

*George Sutherland, MD
Columbus, Georgia*

Fig. UV radiation and blue light exposure



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4401 River Chase Drive
Phenix City, AL 36867
Phone: 334-732-3000
Fax: 334-732-3020

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