

September is Sports Eye Safety Month.

Once we open our eyes we put them at risk of injury.

An eye injury can cause you intense pain and unfortunately sometimes permanent loss of vision or even blindness.

The most sensitive part of our eyeball is the cornea (the clear covering) and it is protected by the bones in our face (forehead, cheeks and nose), the eyelashes, eyelids and even our tear film.

With all these natural defences in place why are our eyes still vulnerable to injury especially in sports? This is because every sport puts the athlete in an unnatural visual situation and puts the most important equipment you possess at risk - your eyes.

When it comes to eye injuries, sports can be classified as low, high, or very high risk.^[1]

Low-risk sports like running, track and swimming, do not have sports equipment or involve body contact with other players.

Swimming - Low Risk

Why do swimmers wear goggles if it is low risk even though it is not mandatory?

Wearing swim goggles protect our eyes from being in contact with water and allow us to see properly while underwater.

Swimming pools use chemicals (mainly chlorine) to keep the pH levels at a safe level for swimming but it also strips away the tear film on your eye, making your eyes more vulnerable to infection.

If you need to wear spectacles, swimmers can get prescription swimming goggles.



swimmer George Bovell ...
trinidadexpress.com

High-risk sports often use equipment (e.g. ball, bat, stick, or racquet) and may involve body contact (e.g. basketball, cricket, hockey, football, rugby, and racquet sports).

A stick, finger, or other object can accidentally get into your eye and scratch the cornea which causes pain, redness and excess tears, the vision can be blurred and you can become very sensitive to light.

The extent of the eye damage also depends on the size, hardness, and speed of the object, as well as the force imparted directly to the eye.

A blow to the eye with a hard object like a ball or fist can damage the eye, eyelids, and muscles or bones that surround the eye.

If the injury is mild, you might get a swollen eyelid or black eye. If it's more severe, you might start to see red which is a sign of bleeding inside the eye. If you're hit hard enough, it could break the bones around your eye.

Sometimes the eye muscles get trapped inside the broken bone, and will need to be freed with surgery.

If you wear spectacles and you have high myopia (your prescription is over -5.00 diopters) you are five times more at risk of getting a retinal tear or a detached retina from the lash.^[2]

A picture paints a thousand words, so here are some examples of eye injuries in some of our more popular sports in Trinidad and Tobago, as well as some athletes who have made a personal choice to protect their eyes from getting injured.

Basketball - High Risk



The most common injuries to the eye in basketball are caused by fingers or elbows. Cuts and swelling around the eye and the eyelid, corneal abrasions and orbital fractures can occur.

Elbow to face. Georges Niang , Iowa State
<https://bleacherreport.com> Tristan Thornburgh March 14, 2014

Kareem Abdul-Jabbar's, (7'foot-2-inch), grand-father (Point Fortin) and grand-mother (Grand Riviere) were from Trinidad.[3]

Abdul-Jabbar's cornea got scratched in 1968 and again in 1975. He came back on the court wearing safety goggles when his eye healed. Abdul-Jabbar's stopped wearing the goggles after a few years but then his cornea got scratched again in 1980, and he never played without them until his retirement in 1989.[4]



Photo: Getty

Cricket - High Risk

Wicketkeepers and fielders close to the batsmen wear helmets to reduce facial injuries if the ball were to hit their face. Unfortunately not all batsmen do. And sometimes a helmet is still not enough to protect the eyes.



Kieron Pollard
rapidleaks.com DEV TYAGI. MAY 12, 2020.

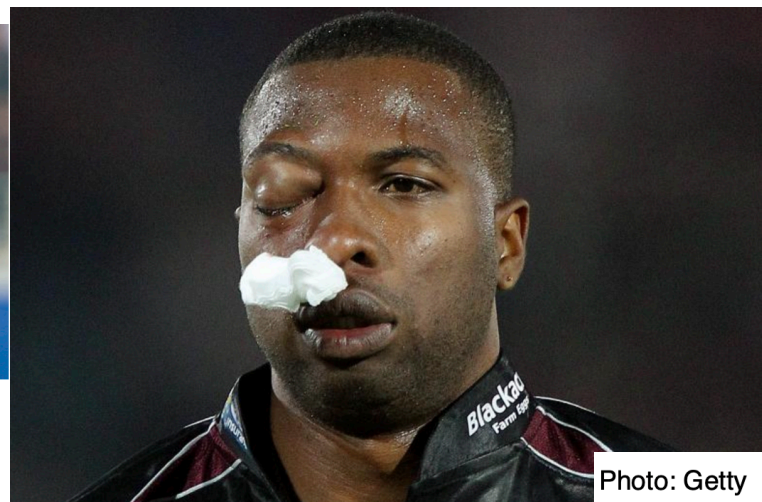


Photo: Getty

Kieron Pollard after he was hit on the eye in 2010



A ball gets stuck in Englishman Stuart Broad's grille.
Photo: Reuters



Virender Sehwag, in glasses and helmet.
Photo: BCCI

Football - High Risk



Football is another close contact sport but in addition to the risk of elbows and fingers the studs under the football boots (cleats) can penetrate the eye.

Striker Kemar Roofe with his shoe in the face of Slavia Prague goalkeeper Ondrej Kolar.
Photo: SNS Group

Jan Vertonghen with his finger in Jurgen Klopp's eye.
Photo: VISIONHAS





Edgar Davids 2003 Juventus Midfielder, Great Of The Game-Tumblr

Squash - High Risk

In squash both the racket and ball adds to the risk of eye injury. A squash ball is about the same size of an eyeball. A direct hit to the eye can dislocate the lens, cause the retina to tear or become detached, or fracture the bones at the back of the eye which can result in the loss of the injured eye.



By Eliot Min, Crimson Staff Writer

In Trinidad and Tobago it is mandatory to wear eye protection on the squash courts if you are under 19 years.



Thirty Years On: The History of Eye Protection in The U.S. ; Squash Magazine

Very high risk sports include direct face-to-face contact such as boxing, wrestling, and martial arts.

Boxing - Very High Risk

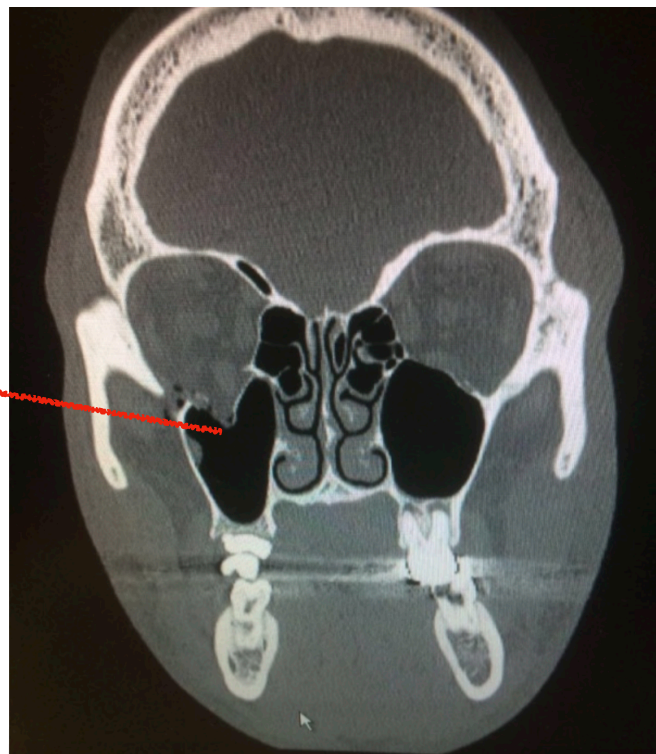
Boxers in the flyweight to super heavyweight have a peak punching force of 447 to 1,066 pounds. (Martial artists needed 687 pounds of force to break a concrete slab 1.5" thick).^[5]

The swelling and blood seen on a boxer's face in a match does not reflect the amount of injury that may have occurred inside the eye.



Alexander Ustinov vs
Kertson Manswell

Kell Brook, English welterweight
boxer's xray of his orbital
fracture,
BoxingScene.com



So why don't more athletes wear eye protection?

Even though sports goggles have vastly improved over the years, their appeal has not caught on.

Many complain that it is cumbersome. They fear it will reduce their peripheral vision and that the lenses will fog when they sweat and it will become difficult to see. Yet there are very successful athletes who choose to wear safety goggles and continue to perform at a very high level.

When top players do not wear eye protection it sends the wrong message to the youth who might think that being an elite player means NOT wearing eye protection which are only used by junior players.

You can wait for governing sports bodies to make eye protection mandatory for all players at all levels but ... ultimately you are responsible for protecting your precious eyes.

References

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5. The Physics of Punching Someone in the Face, by Cecil Adams, Washington City Paper.