



Mouthguards do matter

BEVAN FRANK sinks his teeth into the mouthguard market and sees what features and trends are taking shape

Until a few years ago, mouthguards were associated with sports like boxing and martial arts. Then a few hockey or rugby players started wearing mouth protection.

Nowadays, athletes who frighten their opponents with blue, black, green, red ... and many combinations in between... grins have become common spectacles on sports fields across the country.

Mouthguards are now also compulsory for hockey players at school level, explains Peter Wright of K&T Sports, distributor of Malik hockey equipment (including mouthguards). And many schools and parents seriously encourage rugby players to wear mouthguards.

While there are several sports where players don't need mouthguards, or can perhaps get away without wearing them, there are several sports where players do need to and should wear mouthguards. In fact, it is not just the traditional sports like rugby and hockey where mouthguards are used. Other sports are now regularly incorporating mouthguards as part of their gear or rules.

"We also see their use in basketball and water polo," says Brett Burgess of Super-Brands, who import the Opro Shield mouthguards. "They can be used in any sport where there is a chance of contact being made with either a person or a hard object."

Any cricketer whose jaw has been on the receiving end of a hard cricket ball or netball player hit by a ball or elbow in the face, will attest to the wisdom of this!

Open mouthed

Yet, across the sporting landscape some players are being left open-mouthed. The truth is that not all players enjoy wearing mouthguards – to the point that a few will not wear them, even when they know they should!

Some players find mouthguards to be uncomfortable and an extra burden to worry about instead of just focusing on their performance. Some complain that mouthguards could inter-

fere with their breathing, hinder their speech or even make them choke.

This is probably because they do not realise the danger they place themselves in.

With no mouthguard, a blow to the lower face will send shock waves through the skull. A direct impact can fracture the front teeth. A blow to the lower jaw can slam the jaws together and the sudden impact of the relatively sharp lower teeth into the back of the upper teeth is like a chisel, causing a fracture of the upper teeth by punching them forwards, explains Dr. Anthony Lovat who developed the custom mouthguards Opro, sold through sports retailers.

In some cases, the transmitted forces can lead to a fracture of the lower jaw, or will travel through the jaw joint into the base of the skull, causing a concussion.

Mouthguards act like a shock absorber, both spreading the force of a blow to the head and mouth over a larger area and increasing the time for the peak force to occur. Dissipating the energy of the blow over a larger area and longer time reduces its effect and preventing or vastly reducing any injury.

Popular stock

Although some parents and players believe that only mouthguards designed and fitted by dentists offer true protection, mouthguards have become popular stock items amongst retailers catering for the schools and club market, says Patrick Franck of W.E.T. Sports Importers, who market their own affordable range of solid colour, two tone and double mouthguards.

This is partly due to improvements made to over-the-counter mouthguards and the fact that even mouthguards sold in retailers can be customised.

It is vital that the mouthguard fits in the mouth correctly. "A mouthguard only protects an individual if it stays firmly in place during the course of activity," says Burgess. "This is the function of the unique OPROfins that break

down on fitting to mould closely and tightly to the teeth."

When it comes to speech, for example, a poorly fitted mouthguard might make speech difficult and interfere with clarity. If a person wearing the mouthguard cannot speak clearly, he or she might not be able to communicate the necessary message to fellow players during the match. This could ultimately impact on performance.

A custom mouthguard makes speech much easier, explains Lovat. "It is still true that the clarity of the spoken word may still be impeded, as the mere presence of the mouthguard changes the air flow dynamics. However, with a little bit of patience, fairly clear speech can be achieved."

Not having the correct mouthguard can also affect one's breathing. Indeed, optimum athletic performance requires unrestricted flow of air into the lungs. Any object that restricts the flow of this air will also reduce the athlete's uptake of oxygen. Lovat points out that a well-fitted mouthguard will not move around the mouth and will therefore allow the athlete to open his/her mouth to inhale or exhale fully.

"Looser boil-and-bite mouthguards will require athletes to modify their breathing to accommodate the mouthguard," he says. "This can inevitably mean reduced oxygen uptake and reduced performance."

Personalised

Personalisation is becoming an important feature of mouthguards – a brand like Opro even makes it possible to include the wearer's name within the laminations. This will prevent another person from picking it up and trying to put it into their mouth. "Whilst this customised mouthguard wouldn't fit another person, the risk of infection from bacteria or viral causes cannot be ignored and personalisation can prevent this," Lovat states. They can also be adapted to fit people with fixed orthodontic braces.

In 2007 Opro received the

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kick boxing clubs.”

Martial arts growth

Reality- and TV-shows have assisted in the growth of martial arts in SA by promoting it as a clean, disciplined lifestyle. Kick boxing has become increasingly popular at gymnasiums, but it is not *poaching* exciting martial-arts-talent for boxing. Martial arts schools present these programs at their schools, and not only at the gymnasiums, counters Eddie Jacobsen, president of the Martial Arts and Games Committee of South Africa (MA&GCSA).

Some would say it is explosive growth; others would call it steady increases, but martial art is certainly gaining popularity as a sport in SA. This has been helped by the formation of one representative body (MA&GCSA) for all martial art codes, recognised by SASCO, says Jacobsen.

The instructors have realised that it is necessary to belong to an organisation that is affiliated to the governmental structures, he explains. “Many of the styles have shown growth (of 15%) due to this, as parents are more positive when they realise that the martial arts code their child is participating in is recognised by the sporting authority of our country.”

He says Lotto money has been allocated to support the development of martial arts athletes, which has enabled MA&GCSA to implement development programmes and to assist less privileged athletes to obtain professional coaching.

For retailers and local distributors there has, however, been a downside as more of the martial art styles now import products directly from India, China and Thailand.



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Queen’s Award for Enterprise Innovation and more recently they have developed a new product - The Platinum. This includes multiple protection zones through using a unique blend of four different materials and an OPROhandle which prevents users from biting through, thus offering a guaranteed minimum thickness and optimal concussion prevention. This will be available in SA towards the end of 2010.

But, not all athletes can afford, or want to go to the expense of acquiring a customised mouthguard — although Burgess maintains that Opro is very affordable indeed. “We cater for various price points to ensure that a wide range of individuals can benefit from our technology,” he says. “The question should be: how much value do you place on your teeth?”

The schools and club market is, however, traditionally price sensitive and Franck says that they cater specifically for this market. He believes that their products are well within the reach of the average consumer.

Wright’s Malik mouthguard is also deemed affordable and is classified as an entry level product.

As far as technical trends and features go, W.E.T. Sports find that the tried and tested amorphous thermoplastic model remains very popular. “This model is comfortable and easy to size,” says Franck.

All the suppliers we spoke to believe that as long as contact sport is played, there will be a growing acceptance of mouthguards.

“In fact, mouthguards have become far more popular in rugby — as well as all other contact sports — over recent years with the increase in power and physical contact we see in modern day sport,” says Burgess.

As for mouthguard designs and specifications changing in the future, Franck says that better materials might become available in light of orthodontic advances, yet there will still always be a place for an affordable alternative.

“Opro are always looking for ways to improve their products working with both the materials used and design of the product. As far as the future goes anything is possible,” Burgess concludes.

