THE ESSENTIAL MOUTHGUARD

Shurfit MOUTHGUARDS™

"Put Safety Where Your Mouth is"

PPE is now needed to open up sports safely

DETECTS FEVER, A SYMPTOM OF COVID-19

- Innovation at work. We brought you Re-boil, Re-fit, Re-pair - now we are excited to announce our temperature sensing mouth guard with all the great features customers have come to expect from our mouth guards.

- When an athlete competes, they deserve nothing but the best. An athlete demands the highest performance from themselves and their gear. Now a visual warning sign can alert a trainer / coach when their athletes may not be at their optimal.

- When core body temperature reaches 102 degrees, that is the range of a fever, Shurfit Thermaguard will change colors. Coaches now have a way by means of a visual indicator, when their players should be pulled out.

www.shurfit.com
Made in the USA

ALL SPORTS MATTER

When you are dehydrated your brain is not getting the necessary power it needs to process information which can be detrimental to your decision making. This can be deadly for a contact sport who relies on their decision making skills to not only win, but to avoid serious injury. Shurfit mouthguards are American made, and they are the only mouthguards in the industry that can alert your coach or trainer when you are dehydrated by actually giving them a visual cue. This is the Shurfit Advantage.

www.shurfit.com
Made in the USA

INJURY PREVENTION

Why should every athlete use a thermo guard?

Our mouth guard is provided for protection from physical injury and for **MONITORING BODY TEMPERATURE** of the wearer. The mouth guard technology comprises a color-changing component. This component changes color to indicate the on-set of 102° temperature of the mouth guard. The thermo technology gives visual inspection to all parties and gives an indication that the person wearing the mouth guard is in danger of experiencing heat related illness.

https://youtu.be/m9fsoNbnUNE

www.shurfit.com
Made in the USA

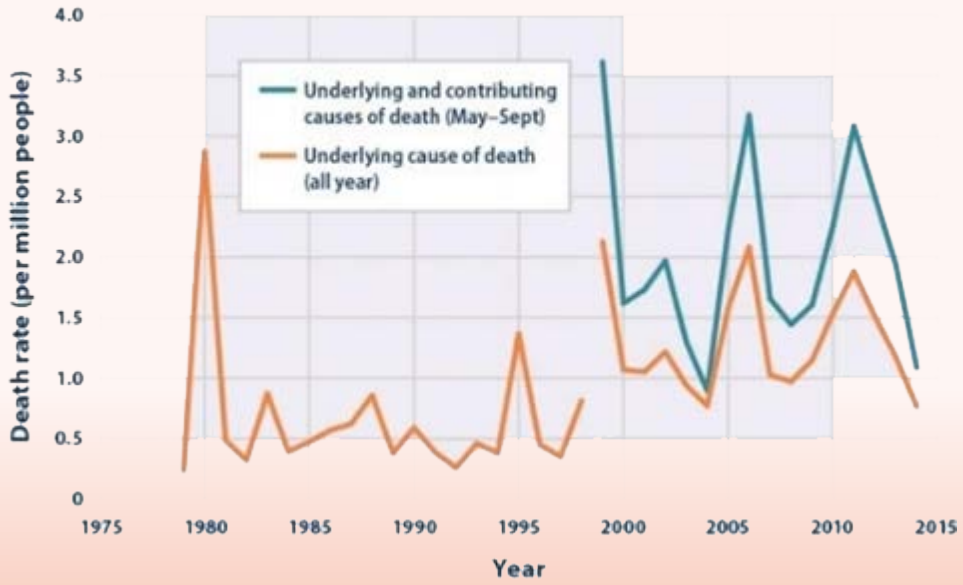
KEY POINTS:

- Heat stroke is always a risk in summer sports, especially football and running.
- Heat stroke is typically caused by a combination of hot environment, strenuous exercise, clothing that limits evaporation of sweat, inadequate adaptation to the heat, too much body fat, and/or lack of fitness.
- Early recognition and fast treatment of evolving heat stroke can save lives.
- Preventing heat stroke hinges on acclimation, hydration, pacing, cooling, and vigilance.
- Heat stroke is a medical emergency. The life-saving adage is: cool first and transport second.

NEGATIVE AFFECTS

- Heat Cramps
- Heat exhaustion (occurs at 102
- degrees)
- Nausea
- Extreme Fatigue
- Dizziness, vomiting, and fainting
- Confusion
- Impairs Judgment

Figure 1. Deaths Classified as "Heat-Related" in the United States, 1979–2014



This figure shows the annual rates for deaths classified as "heat-related" by medical professionals in the 50 states and the District of Columbia. The orange line shows deaths for which heat was listed as the main (underlying) cause.* The blue line shows deaths for which heat was listed as either the underlying or contributing cause of death during the months from May to September, based on a broader set of data that became available in 1999. * Between 1998 and 1999, the World Health Organization revised the international codes used to classify causes of death. As a result, data from earlier than 1999 cannot easily be compared with data from 1999 and later. Data source: CDC, 2016

www.shurfit.com
Made in the USA

MEDICAL STUDY:

Athletes (e.g., marathon runners, race car drivers), occupational workers (e.g., fire fighters, agricultural workers), and military personnel are highly motivated populations at risk for exertional heat stroke while performing strenuous physical work or exercise in temperature or hot climates. The incidence of exertional heat stroke is influenced by a multitude of factors, including pre-existing illness, drug use (e.g., alcohol, amphetamines, ecstasy), and wearing protective clothing (e.g., uniforms in athletes) that limits heat dissipation. Exposure to hot weather is considered one of the most deadly natural hazards in the United States in unacclimatized and immunocompromised individuals (20). It was estimated that between 1979 and 2002, heat stroke claimed more American lives than the combined effects of hurricanes, lightning, earthquakes, floods, and tornadoes (19). During this time period, the U.S. reported 4,780 heat-related deaths that were stratified by age with 6% in children 15 yr, 50% in persons aged 15– 64 yr, and 44% in persons 65 yr of age. Despite these reports, heat stroke incidence is difficult to determine due to varying definitions that result in misdiagnosis. Heat stroke: Role of the systemic inflammatory response

Lisa R. Leon and Bryan G. Helwig U.S. Army Research Institute of Environmental Medicine, Thermal Mountain Medicine Division,

Natick, Massachusetts Submitted 22 March 2010; accepted in final form 2 June 2010

HEAT ILLNESS & LIABILITIES

- Similar lessons come from the military. A soldier died of heat stroke marching at night, carrying extra weight. He completed just 2.5 miles (Assia et al., 1985). Running generates about twice the heat of marching. Of 82 heat-stroke cases in Israeli soldiers, 40% were from brief exercise, as in the first three miles of a run. Over motivation was a risk factor (Epstein et al., 1999).

- Summer football brings grueling workouts in brutal heat. For football players in the dog days, mild heat illness is common and grave heat stroke always a threat (Knochel, 1975). Since 1995, on average three players a year have died of heat stroke. Heat stroke also threatens runners and other athletes; in the 2001 Chicago Marathon, a young man in his first marathon collapsed of heat stroke at 26 miles and died soon after.

- In summer sports, it's not the heat, but the heat and humidity. In football, body temperature rises — in a sawtooth line — ever higher the longer practice goes on. So during a hard practice in full gear, heat stroke is possible at any combination of ambient temperature above 80 °F (26.7 °C) and relative humidity above 40% (Kulka & Kenney, 2002).

- When people are exposed to extreme heat, they can suffer from potentially deadly illnesses, such as heat exhaustion and heat stroke. Hot temperatures can also contribute to deaths from heart attacks, strokes, and other forms of cardiovascular disease. Heat is the leading weather-related killer in the United States, even though most heat-related deaths are preventable through outreach and intervention (see EPA's Excessive Heat Events Guidebook at: www.epa.gov/heat-islands/excessive-heatevents-guidebook