

SAFETY SENSE

Plastics Help Gridiron Gladiators

(NAPS)—Imagine 340 pounds of solid lineman coming at you at a rate of five miles per hour. The actual force on your body is equivalent to 1,820 pounds of force per second—a hit from a ton of bricks. That's a regular occurrence for professional football players. Players tolerate these bone-crushing blows with the help of equipment innovations made possible by plastic.

Ninety-five percent of football gear is made of plastic. From helmets and protective gear on the field, to safety devices on the sidelines, plastics help keep our gridiron gladiators safer.

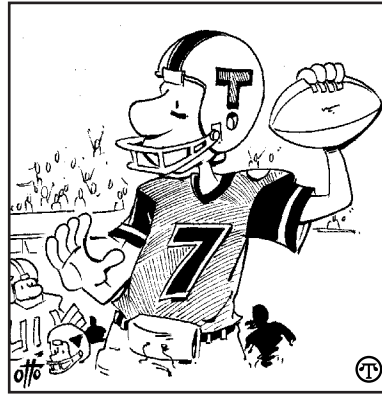
Helmets

Helmets were once made of leather or wood, and were dull, hot and heavy. Today's version is made of a tough, weather-resistant polycarbonate exterior and soft foam or air-filled cushioning. The polyurethane or polypropylene cushioning offers superior protection against head, brain and facial injuries. A polycarbonate or vinyl chin strap helps keep the helmet secure through tough tackles, and many players also opt to wear a tinted polycarbonate visor to help them see more clearly under the glaring lights or sun.

The polycarbonate helmet, in addition to providing impact protection, also comes in bright, reflective molded-in color—allowing players to easily identify each other from more than 100 yards away, whether it's a day or night game.

Protective Gear

Knee and thigh pads constructed of EVA (ethyl vinyl acetate), polyethylene or polypropylene, are built to withstand 300 pounds per square inch. The hulking shoulder pads are mainly polyurethane or polyethylene foam, with a hard HDPE (High Density Polyethylene) shell. HDPE, the same type of plastic used in milk and detergent bottles, is durable and lightweight. This combination helps protect players' shoulders and collarbones, while providing comfort and range of motion.



Plastic mouthguards have become an important safety feature across all sports, including football. Mouthguards help protect the mouth, teeth, lips, cheeks and tongue against harsh impacts—whether from a ball, fist or a jarring tackle. Mouthguards also are believed to be effective in reducing concussion risk due to elevated jaw injury after blows to the chin. Mouthguards are usually created from EVA, which allows for the guard to be molded to the mouth for the ultimate in comfort and protection.

An important piece of protective gear for football players, the quarterback in particular, is a rib protector worn underneath the jersey. The rib protector is lightweight padding that protects against rib damage from those tough hits. Constructed from polyethylene with foam padding, it will not absorb sweat or water, and is helpful in protecting players with rib or side injuries.

On the Sidelines

Medical and physical trainers rely on many plastic medical devices to keep players safe. These include adhesive tape and bandages, cervical collars, splints, and a first aid kit containing meds wrapped in plastic to maintain sterility.

Plastics help keep players safer week after week, allowing fans to continue to cheer for their favorite players. On the sidelines or on the field, plastics have become football's most valuable player.