THE NATIONAL FOOTBALL LEAGUE IS INCREASING SAFETY FOR FOOTBALL PLAYERS AND OTHER ATHLETES AT ALL LEVELS OF SPORT. THE LEAGUE HAS AND WILL CONTINUE TO IMPROVE HOW WE PLAY THE GAME, HOW WE TEACH THE GAME, AND HOW WE USE RESEARCH TO IMPROVE THE GAME.

**HOW WE PLAY THE GAME**
The NFL constantly evaluates how we can change the rules of the game and use technology to improve safety.

**RULES ON THE FIELD**
Over the last decade, the league has made nearly 40 rules changes to eliminate dangerous tactics and reduce the risk of injuries, especially to the head and neck. To highlight just a few:

» In 2009, the NFL prohibited a defender from using his helmet, forearm, or shoulder to make contact with the head or neck area of a “defenseless” receiver.

» In 2010, the NFL expanded that rule to protect all “defenseless players” from contact to the head by an opponent’s helmet, forearm, or shoulder. The rule was expanded again in 2012 to include certain defensive players.

» In 2011, the NFL moved the restraining line for the kicking team from the 30 to the 35 yard line—contributing to a 40% reduction in the number of concussions on that play when compared to the 2010 season.

» In 2013, the league prohibited a runner or tackler from initiating contact against an opponent with the top or crown of the helmet.

**SIDELINE MEDICAL SUPPORT**

» **A Team Behind the Team:** A specialized squad of medical professionals, including team physicians and athletic trainers, patrols the sidelines at every NFL game. There are approximately 27 medical staff at a stadium on game day, including an unaffiliated neurological consultant (UNC), who collaborates with team physicians to make in-game neurological assessments and who must independently approve a player returning to play following a suspected head injury.

» **Medical Timeout:** The medical staff also includes an expert “eye in the sky”—a certified athletic trainer positioned in a stadium box who scans the field and television replays to help identify players with a potential injury who may require attention. New in the 2015 season, the eye in the sky is authorized to stop the game and call a medical timeout—which does not count against either team’s limit—if needed to provide a player with immediate attention.

» **Video Monitors:** Team medical staff—including the UNC—also have access to sideline video monitors, which allow them to watch video of any play. As a result, medical staff can review the mechanism of an injury to better understand what happened and design the best care for a player. The video cannot be accessed by anyone other than the medical team.
» **Electronic Tablets**: Since 2013, the NFL has required clubs to use electronic tablets with specially designed applications for the diagnosis of concussions. The X2 app, which includes a step-by-step checklist of protocols for assessing players suspected of head injury, as well as all players’ concussion baseline tests, is now an established component of the in-game concussion diagnosis and care. This record travels with a player wherever he goes in the league, so that his medical history is close at hand from game-to-game and team-by-team.

**MANDATORY PROTECTIVE EQUIPMENT AND PRACTICE RULES**

» **Limits on Practices**: NFL teams are limited to only 14 days of full-contact football practice during the 17-week season. The restrictions amount to less than one day of full-contact practices per week.

» **Improving Helmet Safety**: Through our Head, Neck, and Spine Committee that was established in 2010, the NFL—in partnership with the NFLPA—assembled a team of engineers, biomechanical experts, and material scientists to undertake a comprehensive analysis of the football helmets worn by NFL players. The results of the test were shared in July 2015 with players, athletic trainers, equipment managers, and others to help players make informed decisions when selecting their helmets. As part of its Head Health Initiative, the NFL has solicited ideas and proposals about new materials and technologies that could better protect the brain from injury. The NFL is also funding joint research projects with the National Institute on Standards and Technology (NIST) to identify materials that would better mitigate forces experienced in a wide range of settings, including sports and in the military. The combination of this research holds the promise of headgear that will provide superior protection for athletes in many different sports.

» **Protective Equipment**: Since the 2013 season, the NFL has required players to wear thigh and knee pads during games to better protect them from leg injuries. As with helmets and shoulder pads, players not wearing the mandatory protective equipment are not permitted onto the playing field and may be assessed financial penalties.

» **Improving Field Surfaces**: Through our Injury and Safety Panel, founded in 1993, the NFL oversees and analyzes biomechanical research and injury data and shares this information with shoemakers and artificial turf manufacturers. Following the Panel’s recommendations, turf manufacturers have taken steps to standardize the characteristics of turf—such as surface hardness and the depth of sand below the turf—in order to decrease injuries.

**HOW WE TEACH THE GAME**
The NFL is committed to helping young athletes learn how to participate in all sports as safely as possible. Active participation in sports benefits young people physically and builds positive leadership and teamwork skills. The League wants to maximize these benefits while minimizing safety risks.

» **Heads Up Football**: In April of 2013, the NFL—along with USA Football—launched the “Heads Up Football” (HUF) program. This educational outreach program, funded by a $45 million grant from the NFL Foundation, strives to improve player safety for youth, high school, and other amateur players by teaching proper tackling techniques, training and certifying coaches on safety fundamentals, appointing Player Safety Coaches for every youth league to enforce safety protocols, ensuring proper equipment fitting, and teaching coaches, parents, and players how to recognize and treat concussions. Today, more than two thirds of youth leagues across the country, including all of Pop Warner, have implemented HUF. More than 150,000 coaches are certified, representing 1 million kids. HUF leagues have 76% fewer injuries, 34% fewer concussions in practices, and 29% fewer concussions in games than non-HUF leagues.
Promoting Sports Safety Education and Access to Athletic Trainers: In May 2014, during the first-ever Healthy Kids and Safe Sports Concussion Summit at the White House, the NFL Foundation pledged $25 million to test and expand health and safety projects over the next three years. Since 2014, the NFL in partnership with National Athletic Trainers Association (NATA), Gatorade and the Professional Football Athletic Trainers Society (PFATS) have committed $3 million to fund athletic trainers in underserved high schools nationwide. This program has already impacted more than 160,000 youth across 670 high schools. In 2015 an additional $50,000 will be awarded to 15 high schools for an athletic trainer and an additional 10 schools will receive safety presentations and safety starter kits from a certified athletic trainer. Other projects include field grants to provide new and refurbished places for kids to play safely, equipment grants, and funding for continuing education for clinicians.

Raising Awareness about Concussions: A poster and related player fact sheet was developed, in partnership with the CDC and others, to educate players about the possible consequences of concussions and advise them to report any related symptoms they may experience. A similar poster, endorsed by 16 national governing bodies for sport, was developed for young athletes and made available through the CDC to display in youth team locker rooms, gymnasiums, and schools nationwide.

Helmet Replacement Program: In 2012, the NFL partnered with the U.S. Consumer Protection Safety Commission and a number of other organizations to launch a helmet replacement program for youth leagues in underserved communities. In conjunction with USA Football, the NFL continues to provide equipment grants that furnish new or reconditioned helmets for youth leagues in underserved communities at no cost.

PLAY 60: NFL PLAY 60 was launched by the NFL in the fall of 2007 to encourage kids to be physically active for at least 60 minutes per day. Since that time, the NFL has joined forces with partners such as the American Heart Association, KaBOOM!, National Dairy Council, and United Way to create school programs and build new places for kids to be active.

NFL FLAG Football: Flag football is a great way for boys and girls of all ages to stay active and learn the fundamentals of the game. There are more than 1,100 NFL FLAG leagues across the U.S., and participation has grown 52% in the past three years to more than 260,000 in 2014. Additionally, approximately 1.5 million students participated in the NFL FLAG in-school P.E. curriculum in the 2014-2015 school year.

Lystedt Laws: In 2010, the NFL began advocating for youth sports concussion prevention laws in every state. These laws, known as Lystedt laws, mandate a gradual return-to-play protocol to better protect youth athletes in all sports from the risks of preventable concussions. Lystedt laws require: 1) concussion education for parents, coaches, and players; 2) immediate removal of an athlete who has sustained a concussion; and 3) clearance by a proper medical professional before a young athlete may return to play or practice. These laws have now been adopted in all 50 states, as well as the District of Columbia.

HOW WE USE RESEARCH TO MAKE THE GAME SAFER
The NFL is investing in pioneering medical research to help scientists and doctors find breakthroughs that will benefit all athletes. These investments include:

Foundation for the National Institutes of Health: In September 2012, the NFL announced a $30 million unrestricted grant to the Foundation for the National Institutes of Health (FNIH) to advance medical research on brain injuries, especially among athletes and veterans. This marked the single-largest donation to any organization in the league’s history.

Head Health Initiative: In 2013, the NFL, along with GE and Under Armour, launched the Head Health Initiative, a four-year, $60 million collaboration to accelerate diagnosis and improve treatment for traumatic brain injury. The initiative includes the following:
A four-year, $40 million research and development program to develop next generation brain imaging technologies that take a whole-brain approach to improving the diagnosis and treatment of patients with mild traumatic brain injury.

A two-year, open innovation challenge fund to invest up to $20 million in grants to scientists, academics, experts and entrepreneurs worldwide across three innovation challenges aimed at spurring disruptive advancements to better, understand, diagnose, and protect against traumatic brain injury. The National Institute of Standards and Technology (NIST) is also supporting this effort. In December 2015, the league awarded grants up to $1 million to the final winners of Challenges II and III, which include potentially revolutionary innovations such as a turf under-layer that better absorbs impact and new energy-absorbing materials to protect against brain injury.

» Partnering with the U.S. Army: In 2012, the NFL and the U.S. military launched a long-term initiative to improve the health of soldiers and players by sharing information and providing education on concussion and health-related issues that affect both organizations. The initiative fosters peer-to-peer conversations to reduce the stigma that may be associated with reporting brain injuries and to promote sharing of tips on how to recognize, prevent, and manage concussions.

» Concussion Symposium at University of Pittsburgh Medical Center (UPMC): In October 2015, UPMC held a two-day symposium, underwritten by the NFL Foundation, that brought together 37 leading, independent concussion clinicians and researchers from around the country to propose standard guidelines on the best ways to treat concussions.

» Second Annual International Professional Sports Concussion Research Think Tank: The league hosted its second annual international think tank on concussions in October 2015, convening representatives of the world’s major sports leagues and concussion experts to share best practices and protocols and collaborate on ways to advance progress, such as a new study on the long-term effects of concussions in sports—specifically in retired horse jockeys, American football and hockey players, and Australian rules football players.