

PLAYER HEALTH & SAFETY



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PLAYER
HEALTH & SAFETY

How The NFL Is Advancing Player Health And Safety



The National Football League is committed to advancing progress in the diagnosis, prevention and treatment of sports-related injuries, enhancing medical protocols and further improving the way our game is taught and played.

COVID-19 PROTOCOLS

In preparation for the 2020 season, the NFL, together with the NFLPA, established a COVID Medical Advisory Task Force made up of a variety of medical experts and clinicians to develop COVID-related player safety protocols on screening and testing; isolation and exposure mitigation; treatment and management; disinfection and equipment; return-to-participation and acclimation; and medical ethics. These protocols have been reviewed by infectious disease and public health experts including Infection Control Education for Major Sports (ICS), the Centers for Disease Control and Prevention (CDC), and state and local leaders in clubs' communities. Before reopening facilities to staff, clubs were required to meet criteria including the implementation of operational guidelines; acquisition of adequate amounts of protection supplies; each club's creation of an Infectious Response Team; each club's designation of an Infection Control Officer; and the completion of each returning club employee's COVID-19 hygiene and safety training. In preparation for player return, clubs were required to implement an additional set of facilities and education-focused protocols, including the creation of an Infectious Disease Emergency Response Plan and mandatory player, staff, and family education. The NFL and NFLPA continue to closely monitor developments and consult with leading experts to develop, implement, and evolve protocols that are comprehensive and measured.

PLAYER HEALTH AND WELLNESS

The NFL is making changes on and off the field in an effort to protect the health and safety of every player in the NFL.

- » **The Team Behind the Team:** On average, there are 30 healthcare providers at a stadium on game day to give immediate care to players. In conjunction with the NFLPA, the league has added unaffiliated medical personnel and adopted new technology to assist in the identification and review of injuries, with a specific focus on concussions.
- **Unaffiliated Neurotrauma Consultant (UNC):** The NFL Head, Neck and Spine Committee and the NFLPA have selected and credentialed neurotrauma consultants, who are unaffiliated with either team, to staff the sidelines and monitor the broadcast feeds of every NFL game, and to assist the team medical staffs in identifying, screening and diagnosing concussions. Three UNCs are on staff at each game; two are positioned on the sidelines and one is in a booth above the field.
- **Visiting Team Medical Liaisons (VTML):** When traveling across state lines, every visiting team is required to retain a local board-certified and locally licensed emergency physician, who is typically affiliated with the trauma center nearest the NFL stadium. The VTML works with the visiting team to provide medical care for its players while they are traveling.

- **Booth ATC Spotters and the Medical Timeout:** For all preseason, regular season and postseason games, two certified athletic trainers—retained by the league and unaffiliated with any NFL teams—are stationed in a booth overseeing the field to observe the game and monitor the broadcast feed to identify potential player injuries, with an emphasis on concussions and other head and neck injuries. In what was the first rule of its kind in professional sports, the booth ATC spotter has the authority to stop the game by calling a medical timeout to permit the medical evaluation of a player who the spotter believes may have suffered a concussion or head injury, yet appears likely to remain in the game without an evaluation from the team’s medical staff. This medical timeout does not count against either team. Game officials also have the authority to send a player off the field for medical evaluation.
- » **Chief Medical Officer:** The NFL named Dr. Allen Sills as the league’s Chief Medical Officer (CMO), a new full-time position, in March 2017. Dr. Sills—a neurosurgeon who has specialized in the treatment of athletes—joined the NFL from Vanderbilt University Medical Center, where he serves as Professor of Neurological Surgery, Orthopaedic Surgery and Rehabilitation and Founder and Co-Director of the Vanderbilt Sports Concussion Center. In the CMO role, he works closely with team medical staffs across the league, the NFLPA and its advisors and the many medical and scientific experts who comprise the NFL’s medical committees and guide the NFL’s health and safety efforts.
- » **Video Monitors:** Medical staff from each team and the UNCs have access to sideline video monitors. With the Injury Video Review System (IVRS), medical staff can review the mechanism of an injury as part of their examination of the player on the sideline to focus their examination, guide their diagnosis and design the best care for a player. The sideline video and communications equipment permit both teams’ medical staffs to communicate with the booth ATC spotters.
- » **Electronic Medical Records:** Every club’s medical staff has instant access to their players’ complete medical records via the Electronic Medical Record (EMR) system. Players can access their records at any time via a secure online portal, which remains active after the player retires. The EMR system has greatly enhanced the NFL’s Injury Surveillance System, increasing the league’s ability to make data-based changes in rules and permissible techniques used in play in an effort to make the game safer.
- » **Electronic Tablets:** The NFL requires clubs to use electronic tablets with specially designed applications for injury diagnosis. The C3Logix app, which includes a step-by-step checklist for assessing players suspected of head injury, as well as all players’ concussion baseline tests and historical data, is now an established component of in-game concussion diagnosis and care.
- » **Emergency Action Plans:** Every club is required to design and implement an Emergency Action Plan to follow in instances of severe trauma. These plans are reviewed by the NFL and NFLPA and must be approved by third-party experts prior to the start of each season. This plan, which the club is required to practice prior to the start of the season, also requires the home team to designate a Level One Trauma Center and to retain two certified crews of paramedics and advanced life support ambulances.
- » **Concussion Protocol:** NFL medical professionals follow the step-by-step NFL concussion protocol when they are identifying, diagnosing and treating player concussions. The first version was developed in 2011 by the NFL Head, Neck and Spine Committee, a board of independent and NFL-affiliated physicians and scientists, including advisors to the NFLPA, revised in 2017, and updated in 2020. The concussion protocol is reviewed each year in an effort to ensure players are receiving care that reflects the most up-to-date medical consensus on the identification, diagnosis and treatment of concussions. The 2020 NFL Concussion Diagnosis and Management Protocol and the corresponding “Concussion Game Day Checklist” were adapted from the 2017 consensus statement from the Berlin Conference on Concussion in Sport. In December 2017, the NFL and NFLPA, in conjunction with the Head, Neck and Spine Committee, made additional enhancements to the protocol, including

the requirement that a player who exhibits gross motor instability or significant loss of balance must be taken to the locker room for evaluation if it is not diagnosed as an orthopaedic injury. In an effort to ensure consistent implementation of the protocol, the NFL and NFLPA have developed an enforcement policy. The NFL and NFLPA follow a strict and fair process to investigate incidents and determine appropriate discipline, including club fines and possible forfeiture of draft picks, for clubs that fail to follow the protocol. In 2018, the NFL Concussion Diagnosis and Management Protocol was published in the British Journal of Sports Medicine (BJSM), which marked the first sports league protocol of its kind to be published in a peer-reviewed medical journal. The 2020 revision reflects the ongoing process of updating the protocol in an evidence-based fashion.

- » **Return-to-Participation Protocol:** The NFL and NFLPA have established a five-step process that every NFL player diagnosed with a concussion must follow before being cleared to fully practice or participate in an NFL game. This process, developed from internationally accepted guidelines, seeks to ensure that every player in the NFL receives consistent treatment. After a player has progressed through the five-step process and is cleared for full participation by his club physician, he must be seen and separately cleared by an Independent Neurological Consultant (INC), who is jointly approved by the NFL and NFLPA and who is not affiliated with any NFL club. Until cleared by this independent physician, a player may not return to contact practice or play in an NFL game.
- » **Sideline Medical Exam Tents:** NFL games now feature sideline medical examination tents to allow for immediate evaluations of players in private following an injury.
- » **Health and Safety Education:** The NFL and NFLPA, with their medical advisors and committees, developed a standard preseason health and safety presentation that is to be shown by every team to every player at the start of training camp. The presentation was developed by subject matter experts and includes information on exertional heat stroke, concussion diagnosis and management, mental health, infection control, substance abuse and performance-enhancing substances.
- » **Season Structure:** The new season structure, as defined in the 2020 Collective Bargaining Agreement between the NFL and the NFLPA, builds in more time for player acclimation and for clubs to teach and practice proper tackling techniques in an effort to reduce the risk of injury, including a five-day acclimation period at the start of training camp, a maximum of 16 padded practice days, lengthening training camp by an average of two to three days, and by limiting joint practices in training camp, and the formation of a new committee to study and advise on additional changes to the season structure. These adjustments to the training camp schedule aim to better prepare players for the start of the preseason and regular season.
- » **Medical Research:** The NFL is investing in and supporting preeminent experts and institutions to advance progress in the prevention, diagnosis and treatment of head injuries.
 - **Funding Neuroscience:** In 2016, through the Play Smart. Play Safe. initiative, the NFL allotted \$40 million in funding for medical research primarily dedicated to neuroscience. The NFL assembled a Scientific Advisory Board (SAB)—chaired by Peter Chiarelli, U.S. Army General (Retired)—comprising leading independent researchers, experts, doctors, scientists and clinicians to develop and lead a clear process to identify and support compelling proposals for scientific research to be funded. The SAB's goal was to seek innovative translational research being conducted by investigative teams focusing on the diagnosis and treatment of concussion (mild traumatic brain injury) and associated comorbid conditions, including chronic traumatic encephalopathy (CTE), in addition to the natural history of concussion and associated comorbid conditions.

In November 2018, the NFL announced the funding of five research projects recommended by the SAB. The projects being funded are as follows:

- Prevalence of Brain Health versus Neurodegeneration in Professional Football Retirees led by researchers at the University of Pittsburgh and University of Pittsburgh Medical Center (UPMC)
- A Prospective, LONGitudinal and Translational Study for Former National Football League Players led by William P. Meehan III, MD at Boston Children's Hospital and Harvard Medical School
- Surveillance in High Schools to Reduce Concussions in Youth led by Carolyn Emery, PhD at the University of Calgary
- Transforming Research and Clinical Knowledge in Traumatic Brain Injury (TRACK-TBI Longitudinal) led by Geoff Manley, MD, PhD at the University of California – San Francisco
- The Spectrum of Concussion: Predictors of Clinical Recovery, Treatment and Rehabilitation, and Possible Long-Term Effects led by Grant Iverson, PhD at Spaulding Rehabilitation Hospital and Harvard Medical School

More information on the SAB's evaluation process and the projects being funded can be found [here](#).

- **Foundation for the National Institutes of Health (FNIH):** The NFL contributed approximately \$14 million to the Foundation for the National Institutes of Health to advance medical research on brain injuries, especially among athletes and veterans. The grants included:
 - \$12 million for pathology studies through the Sports and Health Research Program (SHRP): two \$6 million cooperative agreements dedicated to defining the long-term changes that occur in the brain after a head injury or multiple concussions.
 - The Boston University School of Medicine and U.S. Department of Veterans Affairs received \$6 million for a study on CTE and post-traumatic neurodegeneration.
 - Mount Sinai Hospital and the University of Washington received \$6 million for a study on the neuropathology of CTE and Delayed Effects of TBI.
 - Six pilot projects totaling more than \$2 million, to provide support for the early stages of sports-related concussion projects.
- **Government-Funded Projects to Advance Neuroscience Research:** In January 2018, the NFL allocated \$16.3 million to a series of government-funded projects—including prospective, longitudinal, multi-site, peer-reviewed efforts to answer leading questions on traumatic brain injury, concussion and provide insights on neurodegenerative diseases, including CTE, as well as other cognitive impairments related to aging:
 - \$7.65 million to the Department of Defense to support the Concussion Assessment Research and Education (“CARE”) Consortium Grand Alliance, which monitors all athletes for concussive injuries at 30 university sites.
 - \$7.65 million to support TRACK-TBI (Transforming Research and Clinical Knowledge in TBI), an NIH-funded study that collects detailed information on patients with head injuries and their outcomes.
 - \$2.25 million to support the National Institute of Aging, the branch of the NIH focused on aging processes and age-related diseases.
- **Concussion Symposium at University of Pittsburgh Medical Center (UPMC):** In October 2015, UPMC held a first-of-its-kind two-day symposium, funded by a grant from the NFL Foundation, that brought together leading concussion clinicians and researchers from around the country to propose guidelines for treating concussions and consider areas for further research. As a result of their discussions, the experts published

a Statement of Agreement in the journal Neurosurgery designed to propose and share nationally the participants' agreement on the best practices, protocols and active therapies for treating concussions.

- **International Professional Sports Concussion Research Think Tank:** The league hosted its second 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 potential long-term effects of concussions in sports. These meetings have identified research priorities that are being addressed through several joint research initiatives:
 - The NFL collaborated with the Canadian Football League (CFL) to jointly examine how an eye-movement test—the King-Devick test—may improve concussion diagnosis on the sideline.
 - Scientists at the University of North Carolina at Chapel Hill and the Medical College of Wisconsin received a \$2.6 million grant from the NFL for a study, one of the first of its kind, that will examine the efficacy of two clinically supervised management strategies, including both the international concussion return-to-play protocol and early therapeutic interventions on concussions.
 - The NFL announced a partnership with the International Concussion and Head Injury Research Foundation (ICHIRF) to fund research into the potential long-term effects and risk factors associated with high-impact sports, including horse racing.

EQUIPMENT AND INNOVATION

The NFL is championing new developments in engineering, biomechanics and material science designed to better protect against injuries in sports and recreation, as well as for the military. In order to advance this effort, the league is collaborating with the NFLPA and bringing in the world's foremost biomechanical engineers and material scientists as advisors.

- » **Leveraging Data:** Throughout the year, comprehensive NFL player injury data is compiled and analyzed by IQVIA, an independent, third-party company. Results are then shared with the NFL, the NFL Players Association (NFLPA) and the NFL medical and football committees. Guided by the experts at IQVIA, NFL medical committee members examine the data for trends in how, where and when injuries happen. Their analysis covers all injuries impacting players, including concussions and ACL/MCL tears, and considers how protocols and rules changes are making an impact on player safety.
- » **Taking Data to the Next Level:** In 2019, the NFL began a partnership with Amazon Web Services (AWS) to transform player health and safety using cloud computing, machine learning and artificial intelligence (AI). The partnership combines the NFL's extensive set of game data with AWS technologies to provide a deeper understanding of the game than ever before. The NFL and AWS are working to develop new tools and generate deeper and better-informed insights into injuries, specifically the impact of a variety of factors such as game rules, equipment, and rehabilitation and recovery strategies. Over time, the collaboration aims to also build the capability to predict injuries before they happen.
- » **Rules on the Field:** The NFL continues to evaluate rules and evolve the game to try to improve protections for players. Since 2002, the league has made more than 50 rules changes intended to eliminate potentially dangerous tactics and reduce the risk of injuries. Recent rules changes include:
 - 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 to reduce the risk of injury on kickoffs. Further, in 2016, the NFL moved the spot of the next snap after a touchback resulting from a kickoff from the 20- to the 25-yard line.
 - In 2013, the league prohibited a runner or tackler from initiating contact against an opponent with the top or crown of the helmet.
 - In 2016, the NFL expanded the horse-collar rule to include when a defender grabs the jersey at the name plate or above and pulls a runner toward the ground.
 - In 2017, the NFL prohibited the “leaper” block attempt on field goal and extra point plays, gave a receiver running a pass route defenseless player protection and reduced the length of overtime in the preseason and regular season to 10 minutes.
 - In 2018, the NFL made it a foul if a player lowers his head to initiate and make contact with his helmet against an opponent, and modified the kickoff play for one year only.
 - In 2019, the NFL made permanent the kickoff rule changes that were implemented during the 2018 season and expanded protection to defenseless players, making it a foul if a player initiates a block when his path is toward or parallel to his own end line and makes forcible contact to his opponent with his helmet, forearm, or shoulder.
 - In 2020, the NFL expanded defenseless player protection to include a kickoff or punt returner who will now be afforded the same protection as a pass receiver – both before, during, and after the opportunity to receive the kick. The protection extends until he can avoid or ward off impending contact from an opponent..
 - In 2020, the NFL emphasized removing certain illegal techniques from line play, such as using the helmet as part of a bull rush, or any block by an offensive lineman that involves initiating contact with the helmet. Game officials continue to focus on identifying fouls in line play, specifically mobile blocks, cut blocks, and certain pass rush techniques, where initiating contact with the helmet occurs.
- » **The Engineering Roadmap:** The NFL allocated \$60 million from the Play Smart. Play Safe. initiative toward the Engineering Roadmap, a comprehensive effort—funded by the NFL and managed by Football Research, Inc. (FRI)—to improve the understanding of the biomechanics of head injuries in professional football and to create incentives for helmet manufacturers, small businesses, entrepreneurs, universities and others to develop and commercialize new and improved protective equipment, including helmets.
 - » **Comprehensive Video Review:** As part of the Engineering Roadmap, biomechanical engineers have completed a comprehensive video review of all reported concussions sustained in NFL games each season beginning in 2015 to better understand concussion-causing impacts. The data is shared widely with helmet manufacturers, designers, innovators, entrepreneurs, universities and others to stimulate new ideas and designs for protective equipment.
 - » **The NFL Helmet Challenge and Symposium:** In 2019, the league launched the two-year NFL Helmet Challenge, an innovation challenge that aims to stimulate the development by experts, innovators and helmet manufacturers of a new helmet for NFL players that outperforms all helmet models currently worn by NFL players. The challenge will culminate in July 2021 with teams submitting helmet prototypes for laboratory testing for the chance to win the \$1 million prize. To kick off the challenge, the NFL hosted a symposium in Youngstown, Ohio in November of 2019 that brought together over 300 engineers, manufacturing experts and innovators

from across the country for information-sharing and collaboration. The symposium provided potential challenge applicants with background on the current state of the science around helmets and head injuries in the NFL.

- » **HeadHealthTECH Challenges:** The NFL and FRI created the HeadHealthTECH Challenges, which are attracting innovative grant proposals from institutions, individuals and corporations that are interested in designing the next generation of protective equipment. These proposals range from concepts to commercially-ready products for use by athletes, including most recently support for Helmet Challenge applicants to develop their helmet prototypes. The TECH Challenges are structured to stimulate research and innovation, as well as encourage connections with mentors and/or venture capitalists, with the goal of spurring developments in engineering, biomechanics, advanced sensors and materials science. The TECH Challenges are operated and managed by Duke University's Clinical and Translational Science Institute, which provides constructive feedback for all applicants. Thus far, the NFL and FRI have awarded grants totaling nearly \$3 million to help advance the development of 17 new technologies.
- » **1st and Future:** Each year since 2016, the NFL has teamed up with partners to host the *1st and Future* Super Bowl start-up competition to drive innovation and spur technology advancements in athlete safety and performance. Innovators and entrepreneurs compete and showcase their technologies that could improve player health and safety, including but not limited to: protective equipment, medical devices, sensors and training devices. In 2019, an Analytics Competition was added to *1st and Future*, tapping the data science community to analyze NFL data sets to propose rule changes designed to reduce player injury during punt plays while maintaining the integrity of the game. In 2020, the Analytics Competition focused on strategies to reduce lower extremity injuries.
- » **Head Health Initiative:** In 2013, GE and the NFL teamed up to launch the Head Health Initiative, a four-year, \$60 million collaboration that has accelerated innovations designed to improve prevention, diagnosis and treatment for traumatic brain injury. The initiative included the following:
 - A four-year, \$40 million research and development program to develop next-generation brain imaging technologies. This includes substantial clinical trials at seven leading research centers across the country where individuals with head injuries participate in a rigorous test methodology to learn more about imaging and brain injury. The initiative has fostered the development of several novel technologies.
 - An open innovation challenge fund to invest up to \$20 million in grants to scientists, academics, experts and entrepreneurs worldwide across three innovation challenges to help spur advancements to better understand, diagnose and protect against traumatic brain injury. Under Armour and the National Institute of Standards and Technology (NIST) are also supporting this effort.
 - More than 1,000 applicants submitted ideas through the challenge's three parts, resulting in innovations in equipment and technology:
 - New diagnostic tools—such as blood tests, biomarkers and MRI technologies—to aid in the detection of traumatic brain injury
 - Helmet and turf technologies designed to absorb impact
 - Rate-dependent tethers that attach to a player's helmet and torso designed to provide high-force resistance during collisions
 - Advanced materials designed to better absorb or mitigate force from helmets, pads and other sports and consumer products.

» **Protective Equipment and Field Surface Safety:**

- The NFL, in collaboration with the NFLPA, through their respective appointed biomechanical experts, coordinates extensive laboratory research to evaluate which helmets best reduce head impact severity in the tested conditions. Each year, the results of the laboratory tests are displayed on a poster and shared with NFL players and club medical, training, coaching and equipment staffs to help inform equipment choices. The results of the helmet study should not be extrapolated beyond the NFL, including to collegiate, high school or youth. In 2019, based on the results of this study, discontinuation of certain helmets by the manufacturer, and/or the opinions of the biomechanical experts involved, the NFL and NFLPA have prohibited 11 helmet models from being worn by NFL players. Pursuant to the NFL's rules, players are required to wear helmets that are: (1) certified based on the standards established by NOCSAE (National Operating Committee on Standards for Athletic Equipment), (2) under 10 years old, and (3) not prohibited pursuant to the NFL and the NFLPA's joint Helmet Laboratory Testing program.
- The NFL Musculoskeletal Committee has coordinated extensive research on athletic shoe safety and performance, including in laboratory testing. Laboratory test conditions are intended to represent potentially injurious lower extremity loading in the NFL. That information is disseminated to teams to help inform players' selection of footwear, along with other factors, including fit, shoe structure, comfort, durability, player position and the player's medical history. The results of the cleat pattern study should not be extrapolated beyond the NFL, including to collegiate, high school, or youth football.
- The NFL requires players to wear thigh and knee pads during games to better protect them from leg injuries. As with helmets, players not wearing the mandatory protective equipment are not permitted onto the playing field and may be fined.
- In 2016, the NFL and NFLPA established the Field Surface Safety & Performance Committee to perform research and advise on injury prevention, improve testing methods and adopt tools and techniques to evaluate field surface performance and playability. It also oversees the NFL stadium inspection program, which includes testing of NFL playing surfaces by engineers retained by the NFL, under observation by NFLPA experts.

» **Sharing Progress:** Where appropriate, the NFL is sharing applicable learnings across all levels of football—and to other sports and society at large.

- **Heads Up Football:** USA Football's grant program has awarded nearly \$2 million in resources to benefit youth athletes in 2018, including new equipment, uniforms and other supplies. Grants are valued up to \$1,000 each and are distributed based on merit, need and a school's or sports organization's commitment to coaching education and best practices. More than 600,000 coach certifications have been completed through USA Football's Heads Up Football program since its 2012 inception. The Heads Up Football Program strives to improve player safety for youth and high school players by training and certifying coaches on safety fundamentals; teaching proper tackling techniques; appointing Player Safety Coaches for every youth league to enforce safety protocols; helping ensure proper equipment fitting; and teaching coaches, parents and players districts enrolled in Heads Up Football in 2018. USA Football, the sport's national governing body and a member of the U.S. Olympic Committee has awarded more than \$14 million in grants to school-based and youth football programs since 2006.
- **Increasing Access to Athletic Trainers:** Nearly two thirds of high schools lack a full-time athletic trainer (AT) and almost 30 percent of high schools do not have any athletic trainer at all. In 2014, the NFL Foundation established a matching grant program designed to help NFL teams increase access to ATs in their communities. To date, 22 NFL clubs have used this grant to support local schools and leagues. In October 2016, the NFL Foundation, in collaboration with Gatorade, the National Athletic Trainers' Association (NATA),

the Korey Stringer Institute (KSI) and the Professional Football Athletic Trainers Society (PFATS), launched a pilot program in four states (Arizona, Illinois, Oklahoma, Oregon) which has provided funding to more than 70 public high schools with football programs that have limited or no access to an AT. Grants, each in the amount of \$35,000, have been awarded over a three-year period to help fund an athletic training program.

- **Raising Awareness about Concussions:** A poster and related player fact sheet were developed by the NFL, in partnership with the CDC and others, to educate NFL players about the symptoms and 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.
- **Youth Concussion Laws:** In 2010, NFL Commissioner Roger Goodell took up the cause to advocate for every state to pass a youth sports concussion law. These laws are modeled after Washington's Lystedt Law, which includes three components: 1) concussion education for parents, coaches and players; 2) immediate removal from play of an athlete who has sustained a concussion; and 3) clearance by a licensed medical professional before a young athlete may return to play or practice. By 2014, all 50 states and the District of Columbia had enacted return-to-play laws. In October 2017, a study was released from researchers affiliated with the Center for Injury Research and Policy at Nationwide Children's Hospital, Temple University's Beasley School of Law and the Colorado School of Public Health at the University of Colorado—the study found state laws that address concussions in youth sports can help reduce the rates of recurrent concussions.
- **NFL Foundation Grassroots Program:** In 2018, the NFL Foundation Grassroots Program, a partnership between the NFL Foundation and the Local Initiatives Support Corporation, provided grants to 14 cities to improve the quality, safety and accessibility of football fields in underserved areas. Grants totaled more than \$3 million to build or refurbish neighborhood football fields. Since 1998, the NFL Foundation has provided nearly \$68 million to refurbish 551 fields nationwide for youth athletics.
- **NFL PLAY 60:** NFL PLAY 60 is the League's national youth health and wellness campaign to encourage kids to get physically active for at least 60 minutes a day. Since PLAY 60 launched in 2007, the NFL has committed more than \$352 million to youth health and fitness through PLAY 60 programming, grants and media time for public service announcements. The NFL and its clubs have supported programs in over 73,000 schools and constructed more than 265 youth fitness zones nationwide—giving more than 38 million children an opportunity to boost their activity levels. Research conducted by The Cooper Institute through its NFL PLAY 60 FitnessGram® Project revealed annual improvements in aerobic capacity and body mass index for students participating in NFL PLAY 60 programming when compared to schools not utilizing NFL PLAY 60 programs. Visit NFL.com/PLAY60 for more information.
- **NFL FLAG:** Flag football is a great way for boys and girls of all ages to learn the fundamentals of the game. In April 2019, the NFL, USA Football, GENYOUth and Fuel Up to Play 60 announced the expansion of the NFL FLAG-In-Schools program with a nearly \$1.5 million commitment from the NFL Foundation to reach 4,200 new schools and 2.3 million additional students. Since 2014, the partners' efforts have resulted in 9.1 million students becoming more active before, during and after school through the NFL FLAG-In-School program.



PLAYER
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ENGINEERING ROADMAP



As part of the NFL's *Play Smart. Play Safe.* initiative, the NFL allocated \$60 million toward the creation and funding of the [Engineering Roadmap](#). It's a comprehensive effort—funded by the NFL and managed by Football Research, Inc. (FRI)—to improve the understanding of the biomechanics of head injuries in professional football and to create incentives for helmet manufacturers, small businesses, entrepreneurs, universities and others to develop and commercialize new and improved protective equipment, including helmets.



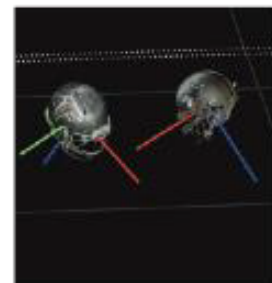
DRIVEN BY EXPERTS: BIOMECHANICAL ENGINEERS

Football Research, Inc. (FRI), a nonprofit corporation formed and financially supported by the NFL, manages the Engineering Roadmap. The Board of Directors includes leading engineers and experts who advise FRI on how best to achieve the goal of advancing the understanding of biomechanics in football and creating an environment where new and improved protective equipment will be developed. Jeff Crandall, Ph.D., chairman of the NFL Engineering Committee, serves a leading role in managing the Engineering Roadmap. Dr. Crandall is the Nancy and Neal Wade Professor of Engineering and Applied Sciences at the University of Virginia and Principal Scientist and Consultant at Blocore. The Board also works closely with Dr. Kristy Arbogast and Dr. Barry Myers, consultants to the NFL Players Association, who each serve as co-leads on essential elements of the Engineering Roadmap.



RESEARCH: MEASURING THE ON-FIELD ENVIRONMENT AND SHARING TOOLS

As part of the Engineering Roadmap, biomechanical engineers completed a comprehensive video review of all reported concussions sustained in NFL games since the 2015 season to better understand concussion-causing impacts. The data is shared widely with helmet manufacturers, designers, innovators, entrepreneurs, universities and others to stimulate new ideas and designs for protective equipment. FRI has also collaborated with university partners to develop new tools to encourage innovation and advance equipment design, including finite element models of modern football helmets, impact test dummy components and test conditions simulating on-field impacts.

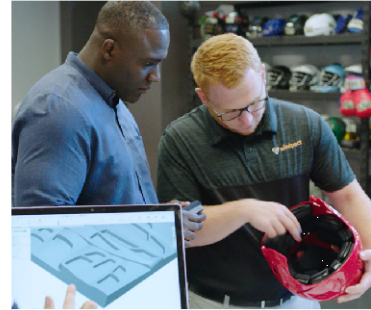


Updated July 2020



**EDUCATION: EXPERTS AND INNOVATORS
LEARNING FROM EACH OTHER**

Experts share the latest knowledge regarding the causes of concussion in professional football, including the best tools available for assessing and optimizing the design and manufacturing of protective equipment. These discussions are an important step to educating and creating incentives for those in the marketplace to design and manufacture protective equipment that performs better than current models. Periodic symposia, webinars and other educational efforts allow experts to share the most up-to-date biomechanical and biomedical information.



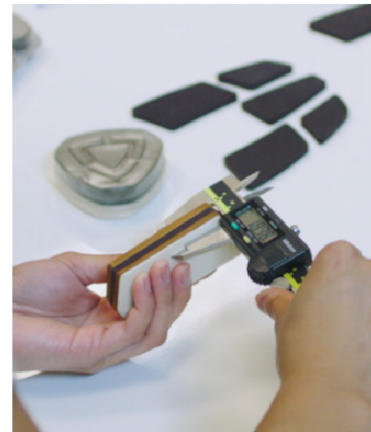
**CROWDSOURCED CHALLENGES OFFER INCENTIVES
FOR ENTREPRENEURS AND SMALL BUSINESSES TO
ACCELERATE INNOVATION**

The NFL engages experts to stimulate new developments in engineering, biomechanics and materials science designed to better protect against injuries.



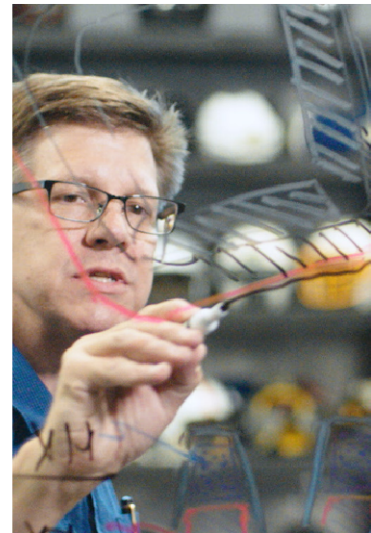
THE NFL HELMET CHALLENGE

In 2019, the league launched the two-year NFL Helmet Challenge, an innovation challenge that aims to stimulate the development by experts, innovators and helmet manufacturers of a new helmet for NFL players that outperforms all helmet models currently worn by NFL players. The challenge will culminate in July 2021 with teams submitting helmet prototypes for laboratory testing for the chance to win the \$1 million prize.



HEADHEALTHTECH CHALLENGES

The NFL and FRI created the HeadHealthTECH Challenges, which are attracting innovative grant proposals from institutions, individuals and corporations that are interested in designing the next generation of protective equipment. These proposals range from concepts to commercially-ready products for use by athletes, including most recently support for Helmet Challenge applicants to develop their helmet prototypes. The TECH Challenges are structured to stimulate research and innovation, as well as encourage connections with mentors and/or venture capitalists, with the goal of spurring developments in engineering, biomechanics, advanced sensors and materials science. The TECH Challenges are operated and managed by Duke University's Clinical and Translational Science Institute, which provides constructive feedback for all applicants. Thus far, the NFL and FRI have awarded grants totaling nearly \$3 million to help advance the development of 17 new technologies.



HEALTH AND SAFETY RELATED RULES CHANGES SINCE 2002

2020 KICKOFF GUIDE

PLAYER HEALTH & SAFETY

As the NFL learns more about player health and safety, the league evaluates and changes rules to evolve the game and try to improve protections for players. Since 2002 alone, the NFL has made over 50 rules changes intended to eliminate potentially dangerous tactics and reduce the risk of injuries.

2020

- Expands defenseless player protection to include a kickoff or punt returner who will now be afforded the same protection as a pass receiver – both before, during, and after the opportunity to receive the kick. The protection extends until he can avoid or ward off impending contact from an opponent.
- Emphasizes removing certain illegal techniques from line play, such as using the helmet as part of a bull rush, or any block by an offensive lineman that involves initiating contact with the helmet. Game officials will continue to focus on identifying fouls in line play, specifically mobile blocks, cut blocks, and certain pass rush techniques, where initiating contact with the helmet occurs

2019

- Makes permanent the kickoff rule changes that were implemented during the 2018 season.
- Expanded protection to defenseless players, making it a foul if a player initiates a block when his path is toward or parallel to his own end line and makes forcible contact to his opponent with his helmet, forearm, or shoulder.

2018

- Makes permanent the playing rule that changes the spot of the next snap after a touchback resulting from a free kick to the 25-yard line.
- It is a foul if a player lowers his head to initiate and make contact with his helmet against an opponent. It is a penalty that will result in the loss of 15 yards. If the foul is by the defense, it is also an automatic first down. The player may be disqualified.
- Modifies the kickoff play for one year only.

2017

- Prohibits the “leaper” block attempt on field goal and extra point plays.
- Extends the rule changing the spot of the next snap after a touchback resulting from a free kick to the 25-yard line for another year.
- Gives a receiver running a pass route defenseless player protection.
- Prohibits crackback blocks by a backfield player who is in motion, even if he is not more than two yards outside the tackle when the ball is snapped.
- Reduces the length of overtime in the preseason and regular season to 10 minutes.

HEALTH AND SAFETY RELATED RULES CHANGES SINCE 2002 (CONT.)

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2016

- All chop blocks are prohibited.
- The horse collar tackle rule is expanded to include when a defender grabs the jersey at the name plate or above and pulls a runner toward the ground.
- In an effort to increase touchbacks, the spot of the next snap after a touchback resulting from a kickoff is moved from the 20- to the 25-yard line.

2015

- Rules prohibiting illegal “peel back” blocks are extended to cover all offensive players.
- Offensive backs are prohibited from chopping a defensive player engaged above the waist by another offensive player outside the tackle box.
- Defenseless player protections are expanded to cover the intended receiver of a pass in the immediate continuing action following an interception.
- When a team presents a punt, field-goal or try kick formation, defenders are prohibited from pushing teammates on the line of scrimmage.

2014

- Clipping and unnecessary roughness penalties are expanded to prohibit blockers from rolling up on the side of a defender’s leg.

2013

- Players are required to wear protective knee and thigh pads.
- It is illegal for a runner or tackler to initiate forcible contact by delivering a blow with the top or crown of his helmet against an opponent when both players are clearly outside the tackle box.
- “Peel back” blocks below the waist are illegal inside the tackle box.
- The list of “defenseless players” is expanded to include long snappers on field goals and PATs (point after touchdowns).
- The “bunch” formation is eliminated on field goals and PATs. No more than six defenders may be on the line of scrimmage on either side of the snapper at the snap for these plays.

2012

- The list of “defenseless players” is expanded to include defensive players on crackback blocks, making it illegal to hit them in the head or neck area.

HEALTH AND SAFETY RELATED RULES CHANGES SINCE 2002 (CONT.)

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PLAYER HEALTH & SAFETY

2011

- The restraining line for the kicking team is moved from the 30- to the 35-yard line in an effort to increase touchbacks.
- All kicking team players other than the kicker must be lined up no more than five yards behind their restraining line, eliminating the 15- to 20-yard running “head start” that had become customary for many players.
- The list of “defenseless players” is expanded to include: a kicker/punter during the kick or during the return; a quarterback at any time after a change of possession; and a player who receives a “blindside” block when the blocker is moving toward his own endline and approaches the opponent from behind or from the side. Previously, these players were protected against blows to the head, but not against blows delivered by an opponent with the top/crown or forehead/“hairline” parts of the helmet against other parts of the body.
- A receiver who has completed a catch is a “defenseless player” until he has had time to protect himself or has clearly become a runner. A receiver/runner is no longer defenseless if he is able to avoid or ward off the impending contact of an opponent. Previously, the receiver who had completed a catch was protected against an opponent who launched and delivered a blow to the receiver’s head.

2010

- During a field-goal attempt, punt or try-kick, a defensive team player who is within one yard of the line of scrimmage at the snap must have his entire body outside the snapper’s shoulder pads.
- After a half has expired, dead ball personal fouls by either team will be enforced on the succeeding kickoff.
- A player who has just completed a catch is protected from blows to the head or neck by an opponent who launches.
- All “defenseless players” are protected from blows to the head delivered by an opponent’s helmet, forearm or shoulder.
- Kickers and punters during the kick and return, and quarterbacks after a change of possession, are protected from blows to the head delivered by an opponent’s helmet, forearm or shoulder, instead of just helmet-to-helmet contact.
- The ball is declared dead at the spot if a runner’s helmet comes completely off.

2009

- Teams are not permitted to intentionally form a wedge of more than two players on a kickoff return in an attempt to block for the runner.
- The “bunch” formation on kickoffs is eliminated. The kickoff team must have at least three players outside each hash mark, one of whom must be outside the yard-line number.
- It is an illegal “blindside” block if the blocker is moving toward his own endline and approaches the opponent from behind or from the side, and the initial force of the contact by the blocker’s helmet, forearm or shoulder is to the head or neck area of an opponent.
- It is an illegal hit on a defenseless receiver if the initial force of the contact by the defender’s helmet, forearm or shoulder is to the head or neck area of the receiver.
- The rule regarding low hits on passers is clarified:
 - A. A defender cannot initiate a roll or lunge and forcibly hit the passer in the knee area or below, even if he is being contacted by another player.
 - B. It is not a foul if the defender swipes, wraps or grabs a passer in the knee area or below in an attempt to tackle him.

HEALTH AND SAFETY RELATED RULES CHANGES SINCE 2002 (CONT.)

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PLAYER HEALTH & SAFETY

2007

- A block below the waist against an eligible receiver while the quarterback is in the pocket is a 15-yard penalty instead of a 5-yard penalty (an illegal cut block).

2006

- Low hits on the quarterback are prohibited when a rushing defender has an opportunity to avoid such contact.
- Blocks in the back above the waist by the kicking team while the ball is in flight during a scrimmage kick are illegal.
- The definition of a “horse collar tackle” is expanded to include grabbing the inside collar of the jersey.
- During a field-goal attempt or a try, a defensive player who is within one yard of the line of scrimmage at the snap must have his helmet outside the snapper’s shoulder pad.
- Personal or unsportsmanlike conduct fouls that occur during halftime or during intermission between the fourth period and an overtime period will be penalized on the ensuing kickoff.
- During a free kick, at least four kicking team players must be on each side of the kicker when the ball is kicked.

2005

- It is illegal to grab the inside collar of the shoulder pads to tackle a runner (“horse collar tackle”).
- Unnecessarily running, diving into or throwing the body against a player who should not have reasonably anticipated such contact by an opponent is unnecessary roughness. Previously, the rule only protected a player who is out of the play.
- A kicker/punter must not be unnecessarily contacted by the receiving team through the end of the play or until he assumes a distinctly defensive position. An opponent may not unnecessarily initiate helmet-to-helmet contact to the kicker/punter during the kick or during the return.
- An offensive player who is aligned in the tackle box at the snap and moves to a position outside the box is prohibited from initiating contact on the side or below the waist of an opponent if the blocker is moving toward his own end line and approaches the opponent from behind or from the side (“peel back block”). The near shoulder of the blocker must be in front of his opponent’s body.

2002

- The chop block technique is illegal on all kicking plays.
- It is illegal to hit a quarterback helmet-to-helmet any time after a change of possession.

BREAKING DOWN SIDELINE MEDICAL CARE - A TEAM BEHIND THE TEAM

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PLAYER HEALTH & SAFETY

There is a specialized squad of medical professionals, including team physicians, unaffiliated medical staff, and physicians from the local area, that watches the field for potential injuries and is available to provide immediate care to players at every NFL game.

In 2012, in conjunction with the NFLPA, the NFL added two certified athletic trainers (both ATC spotters) who provide an “eye in the sky” from a stadium box—they monitor the field and television replays to help identify players with potential injuries for team medical staffs.

The NFL added unaffiliated medical professionals in 2014—each sideline is staffed with an Unaffiliated Neurological Consultant (UNC), who supports the team medical staffs in the identification, screening and diagnosis of in-game concussions. In 2015, the NFL also authorized both ATC spotters to stop the game and call a medical timeout—which does not count against either team—if needed to provide a player with immediate medical assistance. Game officials also have the authority to send a player off the field for medical evaluation. In 2018, a third UNC was added to monitor the broadcast video and audio feeds of each game, and notify on-field UNCs of possible head, neck or spine injuries.

Visiting Team Medical Liaisons (VTML)—board-certified physicians licensed to practice medicine in the state in which the stadium is located—work with the visiting team to provide medical care for its players, including access to leading medical centers for emergency care. Additionally, every club is required to design and implement an Emergency Action Plan to follow in instances of severe trauma. All NFL team physicians work under these plans, which are reviewed by the NFL and NFLPA and approved by third-party experts each season.

The National Football League Physicians Society (NFLPS)—a professional organization made up of world-class team doctors focused on the prevention and treatment of injuries for their patients, NFL players—compiled a list of all these professionals, illustrated in this chart:



NFL CONCUSSION PROTOCOL

THE PROTOCOL MAY BE TRIGGERED BY:



NFL CONCUSSION PROTOCOL

PLAYER IS REMOVED TO:



NFL MEDICAL COMMITTEES OVERVIEW

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PLAYER HEALTH & SAFETY

The NFL is advised by many of the world's preeminent experts in medicine and science. Specialists in a wide variety of disciplines relevant to player health and safety volunteer their time to explore groundbreaking research and make recommendations for how the League can continually improve the prevention, diagnosis and treatment of injuries as well as invest in scientific research to promote player health and safety.

The NFL medical committees meet throughout the year to review player health and injury data and determine what policies, programs and protocols should be adopted by the League.

The diligent work of the committees normally begins in the spring at the NFL Combine in Indianapolis before the NFL draft introduces a new class of eligible players to the League. Members take this opportunity to gather for the first of several meetings throughout the year to analyze injury data from the previous season. The committees discuss statistical trends, identify outliers in the data, debate reasons for the numbers and ask important questions that need further analysis and reporting.

They also form judgments that are shared with the competition committee and the NFL about potential changes that need to be made to the rules or to medical protocols or practices.

These discussions last long after the initial annual meetings in Indianapolis and lead to a year-long effort to make the game safer.

The men and women on these committees comprise a wide range of perspectives and expertise on some of our players' most challenging health issues. They are not employed by the NFL and most receive no compensation for their involvement other than a small honorarium (less than \$1500), typical in the medical field for volunteer efforts like serving on a medical committee or advisory board, and reimbursement of travel expenses for attending committee meetings.

An overarching Health and Safety Committee—including chairs of the General Medical Committee, the Head, Neck and Spine Committee and the Musculoskeletal Committee—oversees committee efforts and facilitates cross-specialization and discussion among subject matter experts, team physicians and athletic trainers.

Two new committees were formed by the NFL and NFLPA in 2019. A joint NFL-NFLPA Pain Management Committee works to establish uniform standards for club practices and policies regarding pain management and the use of prescription medications by NFL players. A joint NFL-NFLPA Comprehensive Mental Health and Wellness Committee is charged with developing mental health educational programs for players and their families, coaches, and club personnel, as well as collaborating with local and national mental health organizations to promote mental health related stigma reduction.

An ad hoc committee of equipment and field managers focuses on keeping game day surfaces safe—bolstering the league's commitment to injury protection on the field. In the league's ongoing mission to make the game safer for those who play it, each and every medical committee includes participation by representatives from the NFL Players Association (NFLPA), including its long-time Medical Director, Dr. Thom Mayer.

On the next page is an overview of how the NFL's medical committees are organized.

NFL Medical Committee Structure

NFL Chief Medical Officer

Dr. Allen Sills

Health and Safety Committee

Dr. Elliott Hershman <i>(Chairman)</i>	Dr. Andrew Tucker <i>(General Medical Committee)</i>	Dr. Nicholas Theodore <i>(Head, Neck and Spine Committee)</i>	Dr. Javier Cárdenas <i>(Head, Neck and Spine Committee)</i>	Dr. Robert Anderson <i>(Musculoskeletal Committee)</i>	Dr. Ed Wojtys <i>(Musculoskeletal Committee)</i>
Dr. John York <i>(Owners' Health and Safety Advisory Committee)</i>	Dr. Leigh Ann Curl <i>(NFL Physicians Society President)</i>	James Collins <i>(Professional Football Athletic Trainers Society President)</i>	Dr. Thom Mayer <i>(NFL Players Association)</i>	Dr. Allen Sills <i>(NFL CMO)</i>	Dr. Tony Casolaro <i>(NFL Physicians Society)</i>

CONSULTANTS TO THE HEALTH AND SAFETY COMMITTEE

Dr. Jeff Crandall <i>(Engineering Consultant)</i>	Dr. Richard Kent <i>(Engineering Consultant)</i>	Dr. Nancy Dreyer <i>(Epidemiologist, IQVIA)</i>	Dr. Christina Mack <i>(Epidemiologist, IQVIA)</i>	Dr. Lawrence Brown <i>(Drug Policy Advisor)</i>	Dr. John Lombardo <i>(Drug Policy Advisor)</i>
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General Medical Committee

Dr. Andrew Tucker
(Chairman)

Dr. Deverick Anderson
(Infectious Disease)

Dr. Doug Casa
(Environmental Medicine)

Dr. Tony Casolaro
(NFL Physicians Society)

James Collins
(Professional Football Athletic Trainers Society President)

Dr. Leigh Ann Curl
(NFL Physicians Society President)

Dr. Jon Drezner

Dr. Robert Heyer
(ex officio)

Dr. Jim Kinderknecht

Dr. Nyaka NiiLampti

Dr. Thom Mayer
(NFL Players Association)

Dr. Patrick Strollo
(Sleep Medicine)

Dr. Robert Vogel
(Cardiovascular)

Jim Whalen
(Athletic Trainer)

CONSULTANTS TO THE GENERAL MEDICAL COMMITTEE

Dr. Kevin Hill
(Consultant)

Head, Neck and Spine Committee

Dr. Nicholas Theodore
(Co-Chairman)

Dr. Javier Cárdenas
(Co-Chairman)

Dr. Julian Bailes

Ronnie Barnes

Dr. Tony Casolaro
(NFL Physicians Society)

James Collins
(Professional Football Athletic Trainers Society President)

Dr. Leigh Ann Curl
(NFL Physicians Society President)

Dr. Kimberly Harmon

Dr. Odette Harris

Dr. Wellington Hsu

Dr. Thom Mayer
(NFL Players Association)

Dr. Elizabeth Pieroth

Dr. Margot Putukian

Dr. Bert Vargas

Dr. Robert Heyer
(ex officio)

CONSULTANTS TO THE HEAD, NECK AND SPINE COMMITTEE:

Dr. Robert Cantu
(Consultant)

Dr. Joseph Maroon
(Consultant)

Dr. Hank Feuer
(Consultant)

Musculoskeletal Committee

Dr. Robert Anderson
(Co-Chairman)

Dr. Ed Wojtys
(Co-Chairman)

Dr. Asheesh Bedi
(Hip)

Dr. Robert Brophy
(Knee)

James Collins
(Professional Football Athletic Trainers Society President)

Dr. Mike Coughlin
(Foot and Ankle)

Dr. Leigh Ann Curl
(NFL Physicians Society President)

Dr. Robert Heyer
(ex officio)

Dr. Thomas Hunt
(Hand and Wrist)

Dr. William Levine
(Shoulder)

Jim Maurer
(Athletic Trainer)

Dr. Thom Mayer
(NFL Players Association)

Dr. Brett Owens

Dr. Kurt Spindler
(Research Methodology)

Dr. James Voos

Joint Pain Management Committee

Dr. Kevin Hill

Dr. Geoff Ling

Dr. Thom Mayer

Dr. Allen Sills

Comprehensive Mental Health and Wellness Committee

Dr. Thom Mayer

Dr. Nyaka NiiLampti

Dr. Allen Sills

ADVANCING WELLNESS THROUGH MENTAL HEALTH

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The NFL and NFL Players Association (NFLPA) implemented the Behavioral Health Agreement to standardize robust behavioral health resources across all 32 clubs. All NFL players, Legends, and their families have access to clinical resources including the Cigna EAP (work/life resources), the NFL Life Line, and a skilled team clinician. Through the NFL's Total Wellness platform, the Behavioral Health agreement expands those resources, ensuring a variety of avenues for players and their families, coaches, and team staff to strive for positive mental health.



NFLPA

TEAM CLINICIANS

Per the Behavioral Health Agreement, every NFL team has a licensed mental health clinician on staff.

PROVIDING ON-SITE CONSULTATIONS

- Clinicians spend 8-12 hours per week providing consultations and support to players and staff.

DELIVERING MENTAL HEALTH EDUCATION

- Clinicians implement organization-wide education.

CREATING A REFERRAL NETWORK

- Clinicians create a referral network where players can access specialized care outside of the team clinician.

SPEARHEADING CLUB MENTAL HEALTH AND WELLNESS TEAMS

- Clinicians collaborate with other team staff including Team Physicians, Directors of Player Engagement, Athletic Trainers, and the Team Chaplain to promote mental health services and combat stigma.

PROACTIVELY SUPPORTING VULNERABLE PLAYER GROUPS

- Clinicians actively support vulnerable player groups such as injured players.

OFFERING TRANSITION SUPPORT

- Clinicians guide and support players during their transition process.

RESPECTING CONFIDENTIALITY

- Clinicians maintain strict confidentiality, ensuring that players' information is protected.

ADVANCING WELLNESS THROUGH MENTAL HEALTH

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EMERGENCY PREPAREDNESS

The behavioral health agreement requires that every NFL Club have a Mental Health Emergency Action Plan outlining resources and procedures to be utilized in the event of any mental or behavioral health emergency. This includes suicidal or homicidal ideation or intent, agitated or threatening behavior, player or family member death, or other major event that could cause extreme mental stress. The plans outline the primary point of contact, appropriate referral facilities, and procedures to be followed for a range of possible scenarios.

COMPREHENSIVE MENTAL HEALTH AND WELLNESS COMMITTEE

The agreement establishes a Comprehensive Mental Health and Wellness that is charged with developing mental health educational programs for players and their families, coaches, and club personnel, as well as collaborating with local and national mental health organizations to promote mental health related stigma reduction.

The committee members include:



AMBER CARGILL, PSY.D
NFLPA DIRECTOR OF PLAYER WELLNESS



SIDNEY HANKERSON, MD, MBA
ASST. PROFESSOR OF CLINICAL PSYCHIATRY, COLUMBIA UNIVERSITY



THOM MAYER, MD
NFLPA MEDICAL DIRECTOR



NYAKA NIILAMPTI, PH.D
NFL VICE PRESIDENT OF WELLNESS AND CLINICAL SERVICES



ALLEN SILLS, MD
NFL CHIEF MEDICAL OFFICER



GEORGE WRIGHSTER
ENTREPRENEUR, WRITER, SPEAKER