

Date of Hearing: January 10, 2024

ASSEMBLY COMMITTEE ON ARTS, ENTERTAINMENT, SPORTS, AND TOURISM

Mike Gipson, Chair

AB 734 (McCarty) – As Introduced February 13, 2023

**SUBJECT:** Youth tackle football

**SUMMARY:** This bill would prohibit youth tackle football leagues, and youth sports organizations that conduct tackle football programs, from allowing the participation of any person younger than 12 years of age.

Specifically, **this bill:**

- 1) Prohibits a youth sports organization that conducts a tackle football program, or a youth tackle football league, from allowing a person younger than 12 years of age to be a youth tackle football participant through the organization or league.
- 2) Delays implementation of its prohibition until January 1, 2026.

**EXISTING LAW:**

- 1) Defines “youth sports organization” as an organization, business, or nonprofit entity that sponsors or conducts amateur sports competition, training, camps, clinics, practices, or clubs. (Health and Safety Code (HSC) Section 124240(b)(10))
- 2) Defines “youth tackle football league” as the organization that groups together youth sports organizations that conduct youth tackle football, administers rules, and sets game schedules. It may or may not be associated with a national organization. (HSC 124240(b)(11))
- 3) Requires a youth sports organization to comply with certain requirements related to athletes suspected of sustaining a concussion or head injury, including removal from the athletic activity and a prohibition on returning until he or she is evaluated by a licensed health care provider. (HSC 124235(a)(1)(A))
- 4) Requires youth sports organizations to give a concussion and head injury information sheet to each athlete on a yearly basis. (HSC 124235(a)(3)(A))
- 5) Requires a youth sports organization to offer concussion and head injury education, or related educational materials, to each coach and administrator of the youth sports organization, and requires each coach and administrator to successfully complete this education at least once, either online or in person, before supervising an athlete. (HSC 124235(a)(4)-(5)(A))
- 6) Prohibits a youth tackle football team from conducting more than two full-contact practices per week during the preseason and regular season. (HSC 124241(a))
- 7) Prohibits a youth tackle football team from holding a full-contact practice during the off-season. (HSC 124241(b))

- 8) Limits the full-contact portion of a youth football team practice from exceeding 30 minutes in any single day. (HSC 124241(c))
- 9) Requires a youth football team coach to annually receive a tackling and blocking certification from a nationally recognized program that emphasizes shoulder tackling, safe contact and blocking drills, and techniques designed to minimize the risk during contact by removing the involvement of a participant's head from all tackling and blocking techniques. (HSC 124241(d))
- 10) Requires each youth tackle football administrator, coach, and referee to annually complete all of the following: (HSC 124241(e)(1)-(3))
  - a) The concussion and head injury education required under existing law for coaches and administrators of a youth sports organization;
  - b) The Opioid Factsheet for Patients that existing law requires to be given to each athlete in a youth sports organization; and,
  - c) Training in the basic understanding of the signs, symptoms, and appropriate responses to heat-related illness.
- 11) Requires each parent or guardian of a youth tackle football participant to receive the concussion and head injury information for that athlete, and the Opioid Factsheet for Patients. (HSC 124241(f))
- 12) Requires each football helmet to be reconditioned and recertified every other year, unless stated otherwise by the manufacturer. Restricts the entities who can perform the reconditioning and recertification to only those entities licensed by the National Operating Committee on Standards for Athletic Equipment. Every reconditioned and recertified helmet must display a clearly recognizable mark or notice in the helmet indicating the month and year of the last certification. (HSC 124241(g))
- 13) Requires a minimum of one certified emergency medical technician (EMT), state-licensed paramedic, or higher-level licensed medical professional to be present during all preseason, regular season, and postseason games. Requires the EMT, paramedic, or higher-level licensed medical professional to have the authority to provide prehospital emergency medical care or rescue services, and remove any participant from the game who exhibits an injury, including, but not necessarily limited to, symptoms of a concussion or other head injury. (HSC 124241(h))
- 14) Requires a coach to annually receive first aid, cardiopulmonary resuscitation, and automated external defibrillator (AED) certification. (HSC 124241(i))
- 15) Requires at least one independent non-rostered individual, appointed by the youth sports organization, to be present at all practice locations. Requires the individual to hold current and active certification in first aid, cardiopulmonary resuscitation (CPR), AED, and concussion protocols. Requires the individual to have the authority to evaluate and remove any youth tackle football participant from practice who exhibits an injury, including, but not limited to, symptoms of concussion or other head injury. (HSC 124241(j))

- 16) Requires safety equipment to be inspected before every full-contact practice or game to ensure that all youth tackle football participants are properly equipped. (HSC 124241(k))
- 17) Requires every youth tackle football participant removed from a game or practice to comply with provisions of law requiring a parent or guardian to be notified, and that require written clearance from a licensed health care provider to return to athletic activity. Requires the injury to be reported to the youth tackle football league. (HSC 124241(l))
- 18) Requires each youth tackle football participant to complete a minimum of ten hours of noncontact practice at the beginning of each season for the purpose of conditioning, acclimating to safety equipment, and progressing to the introduction of full-contact practice. Prohibits youth tackle participants from wearing any pads, and to only wear helmets if required to do so by the coaches, during this noncontact practice. (HSC 124241(m))
- 19) Requires a youth sports organization to annually provide a declaration to its youth tackle football league stating that it is in compliance with this bill, and to either post the declaration on its internet website or provide the declaration to all youth tackle football participants within its youth sports organization. (HSC 124241(n))
- 20) Requires a youth tackle football league, on and after January 1, 2021, to establish youth tackle football participant divisions that are organized by relative age or weight or by both age and weight. (HSC 124242 (a))
- 21) Requires a youth tackle football league, on and after January 1, 2021, to retain de-identified information for the tracking of youth sports injuries. Requires this information to include the type of injury, the medical treatment received by the youth tackle football participant, and return to play protocols followed by the participant. (HSC 124242 (b))
- 22) States that nothing in this article, known as the California Youth Safety Act, shall prohibit any youth sports organization or youth tackle football league from adopting and enforcing rules intended to provide a higher standard of safety for youth tackle football participants than the requirements established under this article. (HSC 124243)

**FISCAL EFFECT:** None. This measure has been keyed non-fiscal by the Legislative Counsel.

**COMMENTS:**

- 1) Author's statement. According to the author, "AB 734 will protect a child's brain development from unnecessary injury and trauma by requiring a child to be at least 12 years old in order to play tackle football. The Centers for Disease Control and Prevention (CDC), National Institutes of Health (NIH), and Boston University research is clear. Children that play tackle football sustain 23 times more hard head impacts than children playing flag football."
- 2) Background. In 2015, the movie Concussion was released starring Will Smith as Dr. Bennet Omalu, who first discovered chronic traumatic encephalopathy (CTE) in the brain of NFL Hall of Famer Mike Webster in 2002. The movie, based on a 2009 article called "Brain Game" published in GQ magazine, detailed conflicts between Dr. Omalu and the NFL over

his research on CTE, and the possible nexus between this neurodegenerative disease and tackle football. This committee hosted a screening of the film in 2016, and many of the issues raised in the movie led to policy discussions regarding athlete safety that have seen their way into law.

Research to-date suggests that CTE is caused in part by repeated traumatic brain injuries, including concussions, and repeated hits to the head, called sub-concussive head impacts. Symptoms can include difficulty thinking, impulsive behavior, depression or apathy, short-term memory loss, emotional instability, substance abuse, suicidal thoughts or behavior, and difficulty planning or carrying out tasks. The disease often gets worse over time similar to Alzheimer's Syndrome and dementia. Most documented cases have occurred in athletes involved in contact sports such as football, wrestling, ice hockey, rugby, and soccer, as well as striking-based combat sports like boxing and mixed martial arts.

The exact amount of trauma required for the condition to occur is unknown, and a definitive diagnosis can only occur posthumously during autopsy. There is no specific treatment for the disease. There is no known cause for why some people develop CTE, but not others. There is also no proven association with the number of head injuries, the severity of head injury, or the duration of time an athlete is exposed to potential head injury. CTE has been found in teenagers, young adults, and middle aged persons.

- 3) Latest data and research. According to a study published by Nature Communications in June 2023, there is a large correlation between the increasing years of football played, as well as the cumulative exposure measures, and CTE status.<sup>1</sup> Research shows that the human brain does not fully develop until a person's mid-20s. Therefore, young athletes experiencing head injuries are at greater risk of long-term brain damage if injured during the critical stages of brain development.

The committee held an informational hearing in October 2023 on youth tackle football and improving athlete safety. According to Dr. Stella Legarda, a board certified pediatric neurologist, clinical neurophysiologist, and epilepsy specialist, and the current President of the California Neurology Society, a research study that included 214 former American football players found that those who began playing football before the age of 12 had more than two times the probability for clinically meaningful impairments in reported behavior regulation, apathy, and executive function, and more than three times the probability for clinically elevated depressions scores.<sup>2</sup>

Dr. Legarda's presentation also included information from a study conducted by the CDC which states that youth athletes who play tackle football sustain 23 times more high-magnitude impacts per athletic exposure than a child who plays flag football.<sup>3</sup> The findings suggest that non-contact or flag football programs may be a safer alternative for reducing head impacts and concussion risk for youth football athletes under age 14. According to her

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<sup>1</sup> Daneshvar, D.H., Nair, E.S., Baucom, Z.H. et al. Leveraging football accelerometer data to quantify associations between repetitive head impacts and chronic traumatic encephalopathy in males. *Nat Commun* 14, 3470 (2023). <https://doi.org/10.1038/s41467-023-39183-0>

<sup>2</sup> *Transl Psychiatry* (2017) 7, e1236; doi:10.1038/tp.2017.197

<sup>3</sup> Waltzman et al, *Sports Health* 13(5):454-462;

[https://www.cdc.gov/traumaticbraininjury/pubs/youth\\_football\\_head\\_impacts.html#](https://www.cdc.gov/traumaticbraininjury/pubs/youth_football_head_impacts.html#)

presentation there are more than 3.9 million pre-high school tackle football players between the ages of 6-14. That number drops significantly to 1.1 million high school football players, then just over 19,000 NCAA players, and almost 1,700 NFL players.

A study published in the *Annals of Neurology* in October 2019 found that there was a strong dose-response relationship for the number of years of football played with CTE neuropathology, doubling odds of disease every 2.6 years and doubling odds of severe disease among those with CTE every 5.3 years. Another April 2018 study published in the *Annals of Neurology* found that younger age of exposure to tackle football was not associated with CTE pathological severity, but predicted earlier neurobehavioral symptom onset.

According to a research by the Boston University School of Medicine, which was conducted through telephone clinical interviews with family and friends of 246 deceased football players, those who began tackle football before age 12 experienced symptoms an average of 13 years earlier than those who started playing at age 12 or older.<sup>4</sup> The researchers, who controlled for total years of play, level of play, and factored in what decade athletes started playing (to account for different styles of play and protection through the years), found that each year younger that athletes began to play tackle football correlated with an earlier onset of cognitive problems by 2.4 years, and behavioral and mood problems by 2.5 years.

A leading research group in the field of CTE stated the problem as, “The exact relationship between repetitive mild traumatic brain injury, with or without symptomatic concussion, and CTE is not entirely clear, although it is possible that repetitive axonal injury sets up a series of metabolic, ionic, and cytoskeletal disturbances that trigger a pathological cascade leading to CTE in susceptible individuals. . . . Longitudinal research efforts are underway to shed additional light on the specific variables related to head trauma, neuropathology, and clinical presentation of CTE that remain unanswered.”<sup>5</sup>

- 4) Age of first exposure. Data provided to the committee by representatives of the NFL include studies published in journals and publications and were conducted by researchers representing institutions such as MIT, University of Pennsylvania, University of Texas, Medical College of Wisconsin, University of Delaware, Massachusetts General Hospital Institute of Health Professions, University of Michigan, Indiana University School of Medicine, Harvard Medical School, Spaulding Research Institute, The Ohio State University, University of North Carolina, Mass General Hospital for Children Sports Concussion Program, Princeton University, University of California, New York University, Stanford School of Medicine, Perelman School of Medicine, among others. Six of these seven studies encompass 9,000 individuals in comparative aspects of playing tackle football before and after 12 years of age. In addition, one study’s cohort included national representation of 7th-12th graders. Studies were conducted from 2017-2023.

One study concluded that age the of first exposure to tackle football before 12 years old was not associated with worse behavioral, cognitive, psychological and physical (oculomotor functioning and postural stability) outcomes. The current findings suggest that timing of

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<sup>4</sup> <https://www.bu.edu/articles/2018/youth-football-linked-to-earlier-brain-problems/>

<sup>5</sup> Chronic Traumatic Encephalopathy: A Potential Late Effect of Sport-Related Concussive and Subconcussive Head Trauma, Gavett, Stern, and McKee, *Clin Sports Med.* 2011 January ; 30(1): 179–xi. doi:10.1016/j.csm.2010.09.007.

onset of football exposure does not result in poorer functioning in adolescence and young adults and may contribute to resilience through decreased levels of physically related psychological distress.<sup>6</sup>

Another study concluded that those playing football before 12 versus after the age of 12 did not differ significantly in their ratings of depression, anger, anxiety, headaches, migraines, neck or back pain, chronic pain, concentration problems, or memory problems. There were no statistically significant correlations between the age of first exposure to football.<sup>7</sup>

- 5) American Academy of Pediatrics. In November of 2015, the American Academy of Pediatrics (AAP) published a policy statement on tackling in youth football. AAP stated that the cumulative effects of concussions and the potential for a cumulative effect of subconcussive blows to the head, have been hypothesized as a causative risk factor for CTE. The recognition of these injuries and the potential for long term consequences have led some physicians to call for a reduction in the number of contact practices, a postponement of tackling until a certain age, and even a ban on high school football. The most commonly injured body parts in football at all ages are the knee, ankle, hand, and back. The head and neck sustain a relatively small proportion of overall injuries, ranging from 5% to 13%. Tackling is the most common player activity at the time of injury, and at the time of severe injury. The AAP includes the opinion that delaying the age at which tackling is introduced to the game would likely decrease the risk of injuries for the age levels at which tackling would be prohibited; however, once tackling is introduced, athletes who have no previous experience with tackling would be exposed to collisions for the first time at an age at which speeds are faster, collision forces are greater, and injury risk is higher. AAP stated that removing tackling from football altogether would likely lead to a decrease in the incidence of overall injuries, but it recognizes removing tackling from football would also lead to a fundamental change in the way the game is played.

A more recent study published by AAP in November 2019 found that while football had the highest overall incidence of concussions of the sports reviewed, nine other sports had a higher incidence of recurrent concussions, including baseball, wrestling, cheerleading, girls and boys lacrosse, basketball and soccer. The study noted that rates of football practice-related concussions and recurrent concussions across all sports have decreased.

- 6) The California Youth Football Act. California has instituted various laws which require concussion prevention and coaches training in both schools and in youth sports, including requirements that schools must have concussion and return to play protocols for all sports. AB 1 (Cooper) of 2019, established the California Youth Football Act, which based on the standards proposed by AAP established a comprehensive safety scheme for youth tackle football including, among other things; not conducting more than two full-contact practices per week during the preseason and regular season; not holding a full-contact practice during the off-season; having coaches receive a tackling and blocking certification; having designated personnel annually complete specified concussion and head injury education, a specified factsheet related to opioids, and designated training relating to heat-related illness,

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<sup>6</sup> Brett, Benjamin L., Daniel L. Huber, Alexa Wild, Lindsay D. Nelson, and Michael A. McCrea—Sports Health 11, no.4. (2019) 332-342

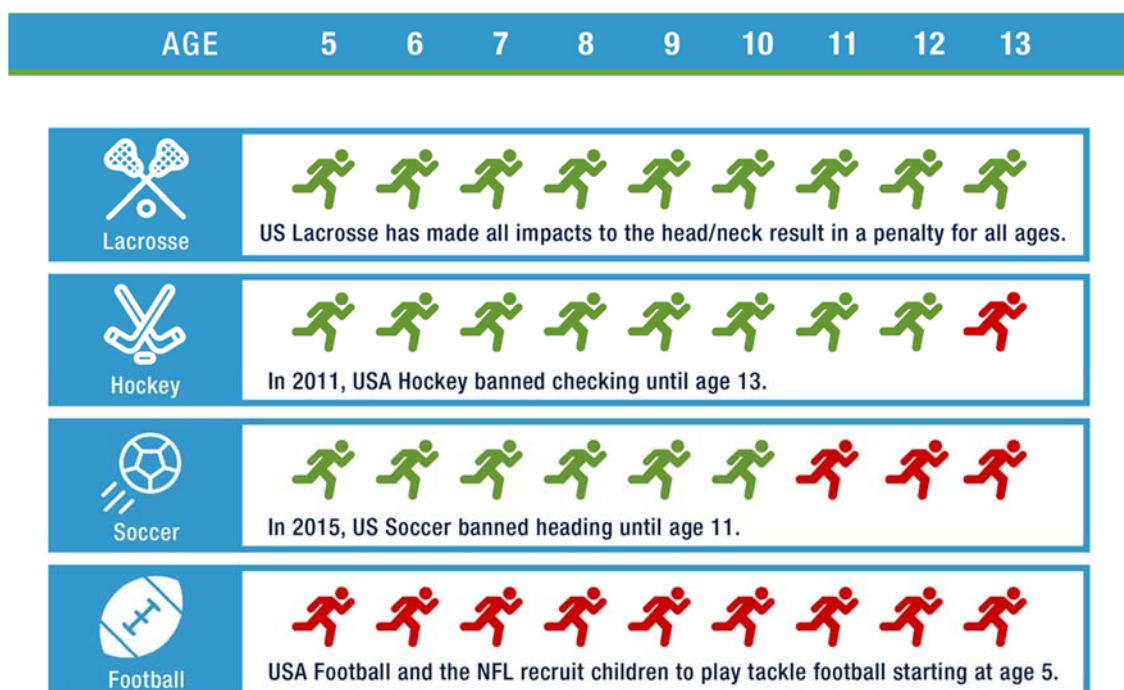
<sup>7</sup> Iverson, Grant L., Jaclyn B. Caccese, Zachary C. Merz, Fionn Büttner, and Douglas P. Terry --Frontiers in neurology 12 (2021): 585.

as defined; meeting specified requirements relating to safety equipment; having a licensed medical professional present during games, as specified; having coaches receive first aid, cardiopulmonary resuscitation, and automated external defibrillator certification; and inspecting safety equipment.

The provision of the California Youth Football Act took effect on January 1, 2021. It is important to note that the Act requires leagues and organizations to retain information for the tracking of youth sports injuries, but no statewide organization is currently gathering that information. Additionally, the Act specifically does not prohibit any youth sports organization or youth tackle football league from adopting and enforcing rules providing a higher level of safety than the requirements of the Act.

- 7) Next steps to improve athlete safety. The committee and its members have heard the perspectives of many youth tackle football coaches and league administrators from across the state. Most believe that the safety measures in current law have been effective, and that more time and data is needed in order to demonstrate changes in youth athlete injury statistics. They also believe in a variety of the sport's positive impacts to communities and young athletes, which range from improving physical and social skills, to diversions from engaging in negative activities, especially in urban areas and disadvantaged communities with lower socioeconomic attainment.

The committee's October 2023 informational hearing received testimony from Dr. Chris Nowinski. A concussion in 2003 inspired him to start researching concussions and CTE, and he has been an advisor to the NFL Players Association since 2010 and an advisor to the Ivy League since 2011. In his testimony, he pointed out age restrictions in youth contact sports other than football as a reason for why legislation such as AB 734 is necessary to prevent children from receiving preventable repetitive head impacts.



- 8) Arguments in support. According to the bill’s sponsor, the California Neurology Society, in support, “This bill protects a child’s critically developing brain helping to ensure healthful passage into puberty and adolescence, a pivotal phase in their psychosocial development. Children who play contact sports during their most critical years of brain development are at a significantly greater risk for neurological impairment and CTE later in life. Children’s brains are especially vulnerable in the 8-12 age range, undergoing dramatic change and maturation in response to environmental influences. Compared to other sports in youth, tackle football is associated with the highest incidence of so-called “mild” traumatic brain injury (mTBI)... Early childhood brain development lays a critical foundation for long-term cognitive and mental health outcomes. Injuries to the brain before it is fully developed are particularly damaging to normal long-term development and intelligence.”
- 9) Arguments in opposition. According to the California Youth Football Alliance in opposition, “As the voice of the California youth tackle football community, we believe AB 734 is a misguided discriminatory piece of proposed legislation that will only lead to immediate and harmful statewide negative outcomes for California’s youth... While only in its infancy, [The California Youth Football Act] is the only youth sports safety act of its kind in the country that addresses the safety needs of its youngest athletes. In a very thoughtful and progressive fashion, California now leads the nation in youth tackle football safety due to AB 1... Youth tackle football is often embedded in large statewide underserved communities often serving as an alternative to drug abuse, gang violence, and many other pitfalls facing California’s Youth. AB-734 would only serve to negate the positive impact youth coaches, volunteers, and mentors have on California’s youth.”
- 10) Committee Amendments. The committee has proposed amendments to the author that would phase in the prohibition on youth tackle football participants under the age of 12, by breaking it down into three age groups and delaying the implementation. The first phase would prohibit participants under the age of 6 years old effective January 1, 2025. The second phase would apply to participants under 10 years old effective January 1, 2027. The final phase would apply to participants under 12 years old effective January 1, 2029. According to the author’s office, the ban under 6 would cover very few youth players, but it is the opinion of the committee that should this bill pass, a more phased in approach would allow existing youth tackle football organizations additional time to explore available options, such as a conversion to flag football.
- 11) Prior and related legislation.
  - a) AB 2127 (Cooley), Chapter 165, Statutes of 2014, limited interscholastic football teams to two full-contact football practices per week during preseason and regular season, prohibited the full-contact portion of a practice from exceeding 90 minutes in any single day, and completely prohibit full-contact practice during the off-season. The bill also required a student-athlete who has suffered a concussion or head injury to complete a graduated return-to-play protocol of at least seven days.
  - b) AB 2007 (McCarty), Chapter 516, Statutes of 2016, requires a concussion and head injury information sheet to be signed and returned by the athlete and athlete’s parent or guardian before an athlete begins practice or competition in one of 27 sports offered by youth sports organizations, and proscribes return to play protocols for concussed athletes.



- c) AB 2108 (McCarty) from 2018 would have prohibited any person who is not at least 12 years of age from playing tackle football with a youth sports organization. The bill was withdrawn by the author prior to its hearing in the Assembly Arts, Entertainment, Sports, and Tourism Committee.
- d) AB 1 (Cooper), Chapter 158, Statutes of 2019, established the California Youth Football Act, with the purpose of establishing comprehensive safety measures for youth tackle football. Provisions of the bill included limits on the number of full contact practices per week, the amount of time per practice that can be full contact, specify the training programs that must be completed by coaches and administrators on tackling and blocking as well as concussion and head injury education, and regulate equipment inspections and recertification.
- e) AB 379 (Maienschein), Chapter 174, Statutes of 2019, deleted the specified designation of 27 sports from the definition of youth sports organizations, expanding the scope of the definition to any amateur sports competitions, training, camps, or clubs in which persons 17 years of age or younger participate. The bill added requirements to youth sports organizations for specified protocols relating to sudden cardiac arrest prevention, similar to the concussion protocols required by AB 2007 (McCarty) in 2016.
- f) AB 2300 (Cooper), Chapter 49, Statutes of 2020, revised the California Youth Football Act to delete the ability of an emergency medical technician or paramedic to “evaluate” youth tackle football participants, and instead specified that an emergency medical technician or paramedic has the authority to provide prehospital emergency medical care or rescue services consistent with their certification or license.
- g) AB 1348 (McCarty) from 2022 would have required the Surgeon General to convene a Commission on CTE and Youth Football to investigate issues related to the risks of brain injury associated with participation in youth football, and to provide recommendations to the Governor and Legislature on strategies to reduce this risk, including the minimum appropriate age for participation in youth tackle football. The bill was vetoed by Governor Newsom, who stated that the effectiveness of the California Youth Football Act, which took effect in January 2021, had not been sufficiently assessed and that more research is needed to better understand current safety measures and the risks.

## **REGISTERED SUPPORT / OPPOSITION:**

### **Support**

California Neurology Society (Sponsor)

8 Individuals

### **Opposition**

Anderson Jr Cubs Youth Football and Cheerleading

Armona Youth Football League

Bakersfield Cowboys Youth Football

California Association of Youth Football and Cheer

California Youth Football Alliance

City of Rosemead  
Corcoran Panthers Youth Football & Cheer  
Delano Bengals Youth Football & Cheer  
Dinuba Trojans Youth Football & Cheer  
Exeter Youth Football and Cheer  
Farmersville Youth Football and Cheer  
Fresno Central Ravens Youth Football  
Fresno Central Valley Eagles  
Fullerton Pop Warner Football and Cheer  
Golden Empire Youth Football  
Granite Hills Grizzlies Youth Football & Cheer  
Mindset Athletics Foundation  
National Football Alliance  
Nevada Union Jr Miners Youth Football & Cheer  
Orange County Junior All American Youth Football and Cheer  
Rim Scots Youth Football & Cheer  
River Valley Jr Falcons  
Sadler Insurance- Risk Management  
San Gabriel Valley Jr. All American Football  
Save Youth Football - California  
Sierra Athletic Conference  
South Gate Youth Football and Cheer  
USA Football  
Woodcrest Generals Youth Football  
Youth Elite Standards

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