

Should Weight Limits Be Required in Youth Football?

Let me rephrase the issue in its most basic terms: Is it fair to deny or limit participation for larger than normal kids in the name of safety?

The answer is “no”, there is no existing evidence that “unlimited” classes are riskier than “weighted” classes.

Everyone has heard anecdotal stories and personal observations from administrators, coaches, and parents about the occasional urban legend who is significantly heavier, stronger, and faster and who is the source of multiple injuries to much smaller players.

I’m not saying that these stories are not credible, but instead, it is best to look to scientific studies on this topic to determine if these instances are isolated vs. common and to determine if the injuries are more severe than normal.

There is a compelling scientific study by the Mayo Clinic that is dead on point for answering these questions. As you are probably aware, the Mayo clinic has a stellar reputation in the medical community. In other words, this was no “Mickey mouse” study, it was based on pure science.

- I’m in the business of designing injury surveys and analyzing their results and I was blown away by their methodology, statistics, data collection techniques, and attention to detail. The 1997 Mayo Clinic study of a large youth football league was based on 915 players ages 9 to 13 in grades 4 through 8. All of the teams were grouped by grade. Weight categories were not used. The critical findings were as follows:
- A total of 55 injuries occurred during games for the entire season for an incident rate of 5.97%
- Most injuries were minor with most being bruise/contusions which accounted for 60% of total injuries. 7% of total injuries were bad enough to prevent the player from participating for the rest of the season. These were all ankle fractures.
- The risk of injury for an 8th grader was four times the risk of injury for a 4th grader. Therefore, the number one risk factor for injury is age. The higher the age, the higher the chance of injury and as a result, correct age groupings are critical to limiting injuries.
- To the surprise of many, heavier players sustained more injuries than light players. Therefore, specific weight groupings would not appear to protect lighter players.
- The next question is how do other experts interpret data from this study? Dr. Jeff Webb who is an affiliate of the prestigious American Sports Medicine Institute had the following comments on the Mayo Clinic study:
- As to why lighter players are not injured more frequently than heavier players, he cited the old formula that $\text{force} = \text{mass} \times \text{velocity}$.
- He stated that older players get hurt much more often because they run faster and hit harder.
- Youth players who are larger don’t necessarily impact with more force if they aren’t fast and strong.
- The number one determining factor of speed and strength is age maturity and not weight.
- He concluded that lighter players would likely be safe within their own age group.
- It is important to note that neither 6th/7th grade middle school, JV, high school, college, nor pros find it necessary to divide by weight classes. Could you imagine the outrage if these groups were told that they needed to move towards weight classes?

- If 6th/7th grade middle school and 8th/9th grade JV teams are not required to have weight categories for safety purposes, why should they be forced on the same age groups in non scholastic youth football?
- Also, why should the age groups under 6th grade have weight categories forced on them since very few injuries actually occur in these age groups anyway according to the Mayo Clinic study?
- There are other reasons why unlimited classes are superior to weighted classes:
- Many communities are too small to draw enough participants to field teams if restrictive weight categories are used.
- We are in the middle of an obesity epidemic as referenced by our keynote speaker and too many kids who are overweight may have to sit out and not get much needed exercise resulting in health problems down the road.
- Specific weight categories may force youth to drop weight in order to make the weight category and the result can be very unhealthy and even dangerous resulting in increased liability potential. One popular technique for dropping weight involves limiting the intake of fluids. This can lead to dehydration which is the number one cause of heat illness.
- Weight categories that allow younger / heavier players to move up to an older age group can place the younger heavier athlete at increased risk of injury since the primary injury factors are age related based on speed and strength.
- Weight categories that allow older / lighter to move down to a younger age group can place the younger age group participants at a greater risk due to the greater age related speed and strength of the older player.
- Both American Youth Football and Pop Warner Football, the two largest youth football organizations in the US, offer unlimited weight classes. Therefore, a standard has been set for their acceptability.

Summary: I strongly believe that each community should choose based on its own needs whether to use unlimited, weighted, or modified classes. Should they choose to use unlimited classes, they can do so with confidence that there is no scientific basis to suggest that they are riskier than weighted classes. Age groupings and not weight groupings are the best predictor of injuries and safety in youth football.