# Sample Resource: Not on me head, son – is heading a football a health hazard for kids?

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The issue of head injuries in football, [predicted the world players’ union Fifpro](http://www.theguardian.com/football/2014/jul/14/concussion-players-union-pressure-rules-change) after a number of players suffered concussions during last year’s World Cup, was about to become “a tidal wave that will engulf” the sport. Evidence that even lightweight balls can wreak lasting brain damage continues to grow. Last week, the Guardian [reported](http://www.theguardian.com/football/blog/2015/nov/01/football-heading-brain-damage) on work by researchers which found that in the women’s game, the force of heading back goal kicks was comparable to punches in boxing, or American footballers colliding. This week, [the US Soccer Federation announced](http://www.nytimes.com/2015/11/10/sports/soccer/us-soccer-resolving-lawsuit-will-limit-headers-for-youth-players.html?module=WatchingPortal&region=c-column-middle-span-region&pgType=Homepage&action=click&mediaId=none&state=standard&contentPlacement=5&version=internal&contentCollection=www.nytimes.com&contentId=http%3A%2F%2Fwww.nytimes.com%2F2015%2F11%2F10%2Fsports%2Fsoccer%2Fus-soccer-resolving-lawsuit-will-limit-headers-for-youth-players.html&eventName=Watching-article-click) it would be issuing guidelines that will limit the number of headers 11- to 13-year-olds can take in training, and ban them altogether for younger children.

There is, says [Dr Michael Grey](http://www.birmingham.ac.uk/schools/sport-exercise/staff/profile.aspx?ReferenceId=9921), a reader in motor neuroscience at the University of Birmingham’s School of Sport, “increasing evidence to suggest there may be a problem” with head injuries in football, and particularly in younger players.

Even if a player doesn’t suffer an obvious concussion from heading the ball (or going for a header – more often concussions occur from head-to-head or elbow contact with other players, or hitting the ground), the cumulative effect of repeatedly heading a ball could be damaging. “We call these subconcussive events that might not lead to [an obvious] brain injury each time but a little bit of damage builds up over time. There is some belief that these subconcussive blows may lead to neuro-degeneration.”

And children are more susceptible to head injuries than adults, he says. Children’s heads are disproportionately large, and their neck muscles are not sufficiently strong to brace against the impact of a header. “Therefore the brain is shaking around in the cranium more. Maybe we need to be looking at things like training for neck strength, and not allowing heading practice for children with particularly weak neck muscles.” Children develop at different rates, so it’s not enough to limit headers simply by age, he says. Another difference is brain maturity – for instance, the brains of children and adolescents haven’t fully developed the myelin that covers nerve cells, and could be more vulnerable to brain injuries.

Should there be a similar ban in the UK? A spokesperson for the told us that “The FA is committed to making the game as safe as possible and has noted today’s new rule changes outlined by US Soccer and will closely monitor any available new research in this area.” It also added that it was soon to announce “new guidelines – formed by an independent expert panel – which look at how to identify, manage and treat suspected head injuries and to manage a player’s safe return to play at all levels of football.”

Headway, the brain injury association, says there is “currently insufficient evidence on the risk of brain injury to justify a similar ban in the UK at this stage”.

Grey says there needs to be more research, but adds he is “in favour of the idea of restricting this type of contact for very young children. Because there is increasing evidence that would suggest that this might be a problem, at least for children we need to err on the side of caution.” In the absence of a ban, should parents try to stop their children heading the ball? “If I had a child of that age, I would have them playing football – all kids should be out there playing sport – but I would have them on a team that doesn’t practise headers.”