

# Why smart technology is the best defense against concussions

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# Concussions can hide in plain sight

A player can look fine and still need medical attention.

**7/10**

sports/recreation concussion  
ER visits are among children  
17 or younger

**45%**

of those youth visits are linked to  
contact sports like football,  
basketball, and soccer



# Three solutions exist — one has the clearest advantage

## 1. Self-reporting

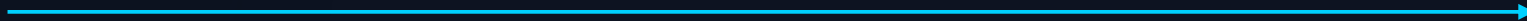
Athletes tell staff when symptoms start. Useful, but it depends on honesty and willingness to speak up.

## 2. Sideline checks

Medical staff evaluate athletes after a concerning hit. Stronger, but someone must first notice the problem.

## 3. Smart mouthguards

Sensors collect real-time head-impact data. Best because it adds objective evidence to the decision.



# Self-reporting matters, but athletes have reasons to stay quiet

## “I’m fine.”

### Strength

Only the athlete knows exactly how they feel.

### Weakness

Athletes may hide symptoms to stay in the game.



# Sideline checks add expertise — after someone notices a problem

## Strength

Trained medical staff can evaluate symptoms and guide return-to-play.

## Weakness

In a fast game, not every hit is clearly seen.



# Smart mouthguards measure the hit, not just the reaction

Sensors track linear and rotational head movement during contact.

## Real-time data

Works during practices and games.

## Objective signal

Adds data even if an athlete says they are fine.

## Medical support

Helps staff decide when evaluation is needed.



# Smart mouthguards solve the biggest weakness of the other options

## Self-reporting

Athlete may hide symptoms



Adds data the athlete cannot fake

## Sideline observation

Staff may miss the hit



Captures head movement during contact

## Concussion testing

Starts after concern is raised



Can flag an impact earlier

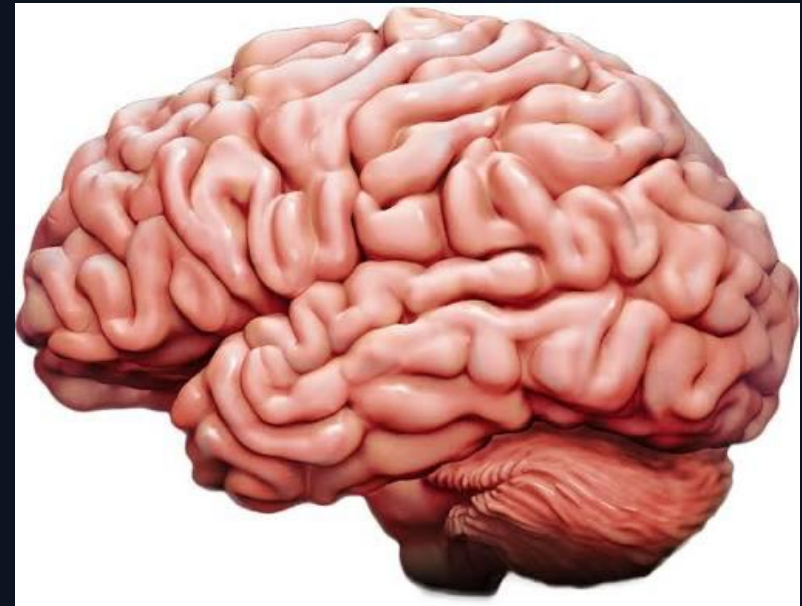
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**A regular mouthguard protects teeth.**

**A smart mouthguard helps protect the brain.**

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The future of concussion safety should be based on better data, better decisions, and better protection.



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