identifying concussion when athletes collide in playground.

https://www.cdc.gov/heads-up/about/index.html

look for some YouTube video and try to see how collision took place and predict using AI to see if the person needs to be checked out for concussion in brain.

https://www.youtube.com/watch?v=73LwxQEBH1M

Read about concussion.

https://pubmed.ncbi.nlm.nih.gov/30954947/#:~:text=A%20study%20found%20that%20there%20is%20international,form%20the%20basis%20for%20further%20collaborative%20research

Identifying a concussion from video involves

spotting immediate behavioral and physical signs after a head impact, such as becoming motionless, dazed, having a "blank" look, clutching the head, or showing motor incoordination

. While routine scans (CT/MRI) often show no damage, advanced tools analyze eye tracking and pupillary light reflexes to detect brain dysfunction.

**Key Behavioral and Physical Signs in Video:**

- **Motionless or Delayed Response:** Lying on the ground motionless or taking a long time to get up.

- **Motor Incoordination:** Stumbling, struggling to stand, wobbling, or walking unsteadily.

- **Blank or Vacant Look:** Appearing stunned, confused, or dazed, often staring blankly.

- **Impact Seizure or Posturing:** Convulsions or abnormal, stiff body movements (tonic posturing).

- **Clutching Head:** Immediately holding the head after impact.

- **"Floppy" Action:** A sudden loss of muscle tone, appearing limp, or having no protective action during a fall.

**Digital/Image-Based Identification Tools:**

- **Pupillary Light Reflex:** Specialized smartphone apps analyze video to detect how pupils respond to light, as abnormal reactions can indicate a concussion.

- **Eye-Tracking Technology:** Experimental technology analyzes eye movements, as brain injuries often interfere with the ability to move eyes together or track objects.

- **Computerized Screeners:** Apps and computer tests evaluate rapid number naming or balance, which are affected by concussion.

*Disclaimer: Concussions cannot be self-diagnosed; these indicators are for recognizing a potential injury needing immediate professional medical evaluation.*