

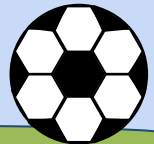
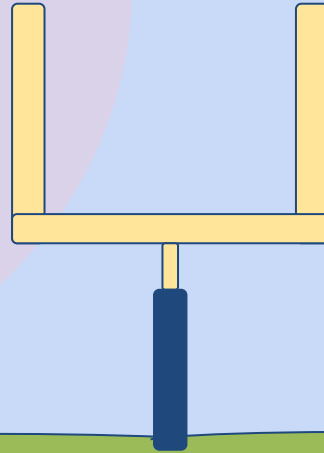
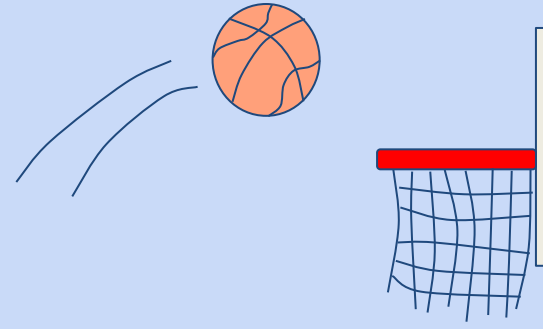
NO PAIN, ALL GAIN

A Sports Injury Prevention Workshop
By: Katelyn Ni

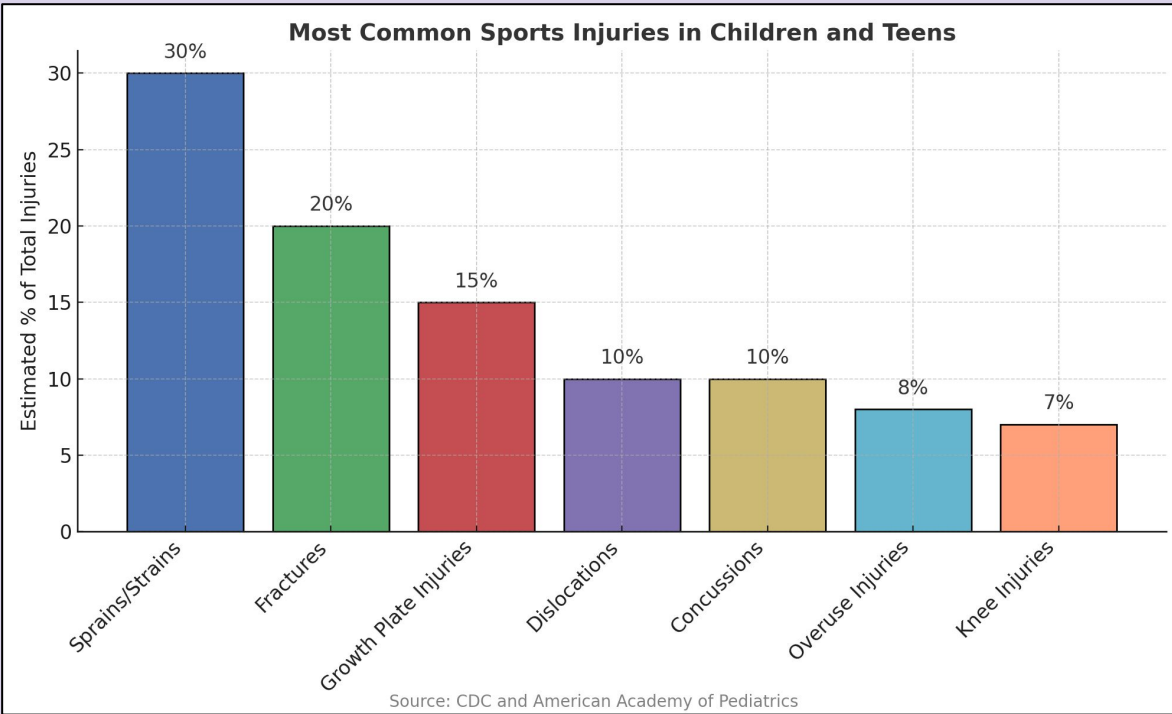


YOUTH SPORTS INJURIES IN THE U.S

- Children aged 5-18 annually have 3.5 million+ sports injuries (CDC). That's more than 233,333 NBA teams!
- Nearly 1 in every 22 children and teens experiences a sports-related injury each year (CDC).
- Injuries most commonly happen in football, basketball, and soccer (CDC).



MOST COMMON SPORTS INJURIES IN TEENS



Sprains/Strains:
Twisting injuries, common in ankles from falls or rapid movements.

Fractures:
Bone breaks, often in arms or wrists due to impact.

Growth Plate Injuries:
Affects growing bones; caused by stress or trauma.

Dislocations:
Joints pop out, especially shoulders or fingers.

Concussions:
Brain injuries from head collisions or falls.

Overuse Injuries:
Includes tendonitis; result of repetitive motion.

Knee Injuries:
Includes ACL/meniscus tears; often from pivoting in sports.

HOW DO THESE INJURIES HAPPEN?

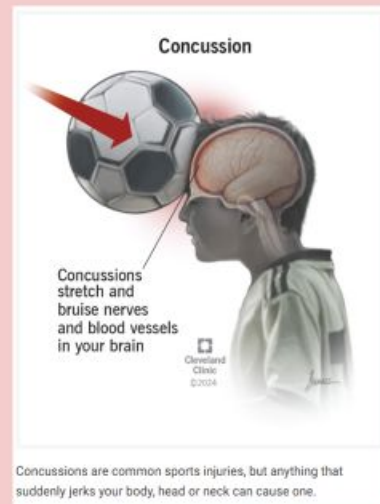
ACL and Meniscus tears ~ a powerful twist (changing directions) that stresses these parts beyond its limits results in tears.

Stress Fractures ~ overusing bones with physical activity almost always causes stress fractures. If something keeps putting pressure on the bone, it can crack over time.

Strains & Sprains ~ Strains are the stretching of a muscle or a tendon. A Sprain is an injuries to ligaments that connect joints to bones. Both can be caused by falls or twists, and overuse or repetitive movements.

Concussions ~ happen when something jolts or shakes your body. If the force is strong enough, it can make your brain move back and forth or side to side and damage it. Concussions stretch and injure nerves and blood vessels in your brain.

CTE (Chronic Traumatic Encephalopathy) ~ a brain disease likely caused by repeated head injuries, has been found in the brains of people who played U.S. football and other contact sports, including boxing.



WHY DOES IT MATTER?

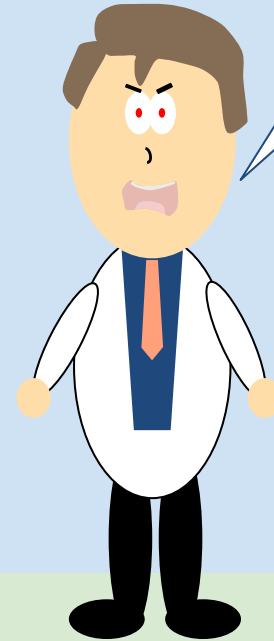
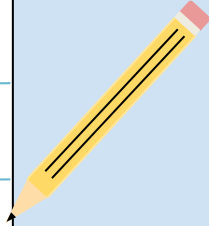
Sports injuries often require medical attention leading to missed school days, long recovery times, and in some cases, long-term health impacts.

50% of these injuries are preventable with proper training (CDC).



WHAT CAN CAUSE THESE INJURIES TO HAPPEN?

- 1. GROWTH SPURTS
- 2. MUSCLE IMBALANCE
- 3. OVERUSE
- 4. POOR TECHNIQUE
- 5. NO WARMUP



Why is your right arm so much bigger than your left!?!

uh..



WARMING UP & COOLING DOWN

Warm-Up

- At least 10 minutes
- When warming up, do some easy moves to loosen up your muscles—especially the ones you'll use most. It helps your body stay flexible and can seriously lower your chance of getting hurt. Add in light cardio and dynamic stretches to get your body game-ready.



Cool-down

- Just like warming up gets your body ready, cooling down helps it recover.
- After any workout or practice, take at least 10 minutes to do light moves—like walking or stretching—so your heart rate and muscles can chill back to normal.

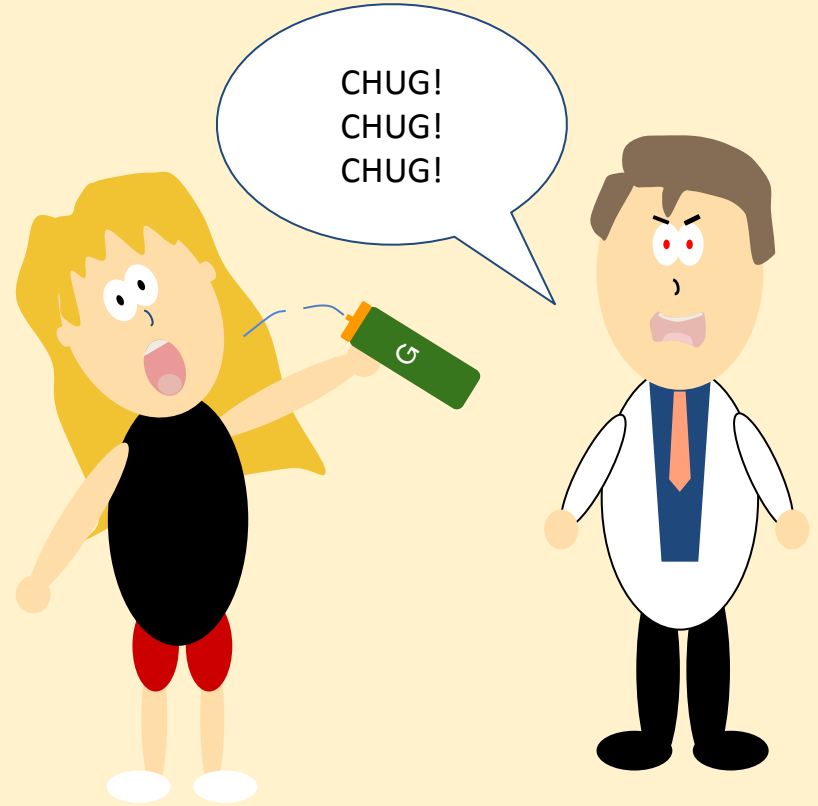
STAYING HYDRATED

No matter what sport you're into, staying hydrated is a must. If you don't drink enough water, your body can't cool down properly.

This can lead to cramping, which may result in strains and tears. Additionally, dehydration can cause joint pain, heat illnesses, and impaired judgement.

The general rule of thumb among physicians is to drink whenever you're thirsty (Mayo Clinic Doctor).

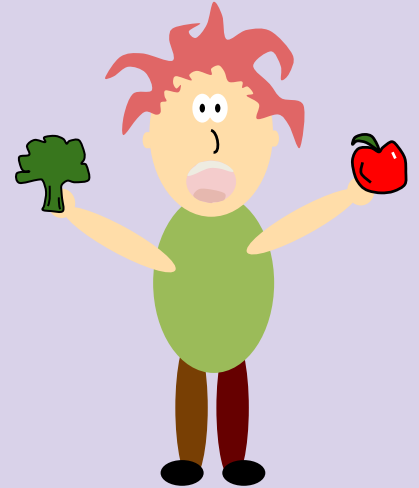
It's recommended by Mayo Clinic Family doctor that people consume about half their fluids in water and half their fluids in a beverage that contains electrolytes without an enormous amount of sugar.



EATING HEALTHY

Nutrition plays a key role in athletic performance. When you're active, your body needs the right foods to stay energized, strong, and ready to recover.

A balanced diet supports your training, helps you perform at your best, and keeps you feeling healthy every day!



Breakfast powers your day and sets the pace for success.

In the morning, your body and brain need a balance of:

- Lean protein
- Carbohydrates
- Healthy fats
- Vitamins
- Minerals
- Antioxidants
- Fluids



Performance Tip

Greek yogurt parfait with oats, flaxseed, and fresh berries



Prepare and recover from a workout using good nutrition.

Fuel up and hydrate pre-workout with:

- Carbohydrates
- Water

Refuel, rebuild and rehydrate immediately post-workout with:

- Carbohydrates
- Fluids; 20-24 oz. for every pound lost during training
- Protein; aim for 15-30g



Performance Tip

Pre-workout—
Granola bar, or banana, and water



Post-workout—
8-10 oz. low-fat chocolate milk



Snacking provides a steady flow of energy to sustain high performance.

Throughout the day, your body needs:

- Lean protein
- Carbohydrates
- Healthy fats
- Fruits*
- Vegetables*

* Pair with a lean protein or healthy fat to increase nutrient density



Performance Tip

On the go—Trail mix with fruits, nuts and seeds

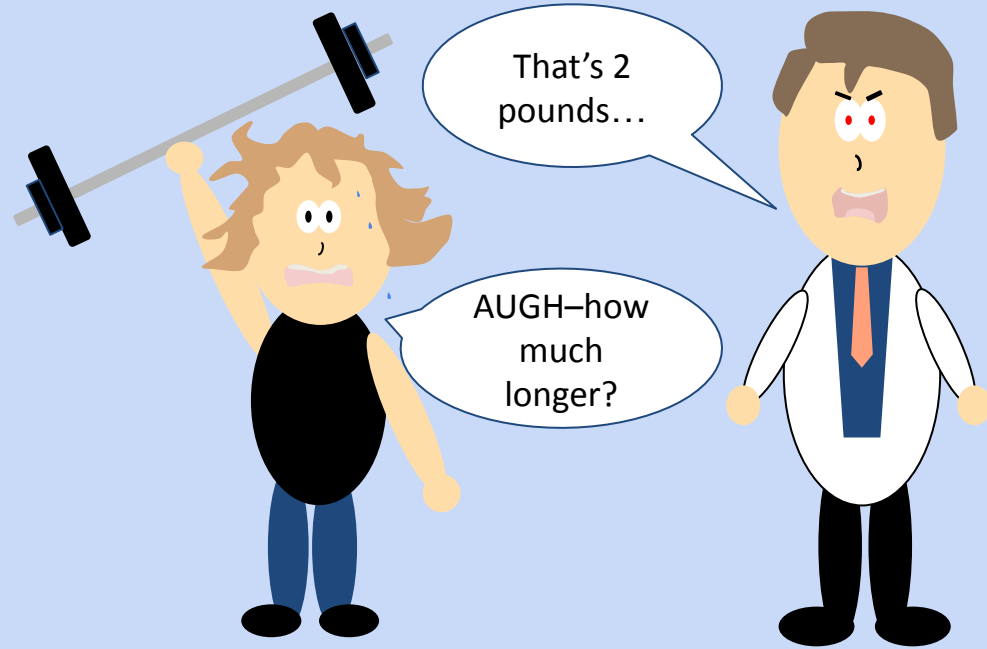


In the fridge—Hard-boiled eggs, fruits and vegetables



STRENGTH & CONDITIONING

- Building a fitness plan that includes cardiovascular exercise, strength training, and flexibility builds resilience, decreasing your chance of injury. Develop a plan that is appropriate for your age, sport, and specific conditions.
- Also remember to stretch! Stretching exercises can improve the ability of muscles to contract and perform, reducing the risk of injury. Stretching should not be painful!



REST & RECOVERY

- Alternate exercising different muscle groups and exercise every other day.
- Rest when tired, avoid exercise when you are tired or in pain. Ensure that you get enough sleep!
- If you do sustain a sports injury, make sure you participate in adequate rehab before resuming intense activity.
- It is important for athletes to change the sports or activities they are doing so they are not continuously putting stress on the same muscles and joints.



STAYING MENTALLY STRONG...

Be Strong in Your Mind:

- Just try your best and don't stress about being perfect.
- Set small goals and be proud when you reach them.

Listen to Your Body:

- Notice if something feels off (limping, moving differently, sore spots).

Speak Up:

- Tell someone (coach, parent, or trainer) if something hurts or feels weird.
- Pain is your body's way of telling you something is wrong.

Know When to Stop:

- If your movement changes or pain doesn't go away stop playing and get checked before playing.



TECHNIQUE & EQUIPMENT

- Proper form reduces injury risk.
- Use sport-specific safety gear.
- Use the correct protective equipment (Helmets, Pads, Mouthguards, etc.).



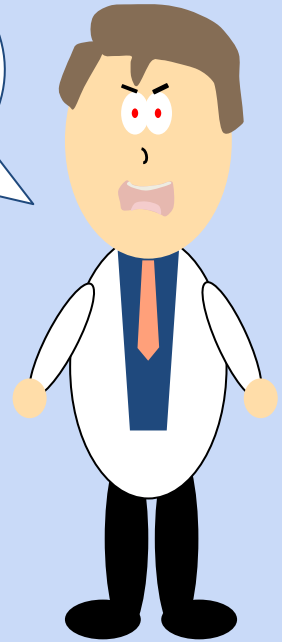
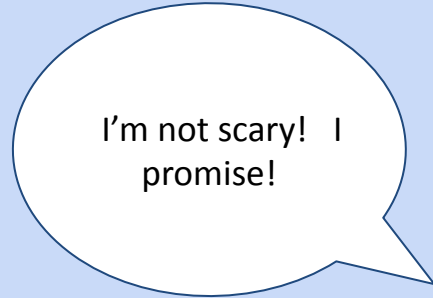
SUPPORT NETWORK

- Coaches, parents, teammates all play a role.
- Encourage reporting and proper care.



WHEN TO REACH OUT TO A DOCTOR?

- Persistent pain that does not improve with rest
- Swelling, especially around joints
- Joint instability or inability to bear weight
- Numbness or tingling sensations
- Visible deformity or bruising
- Recurring injuries
- Dizziness or confusion after a hit



SUMMARY

1. Warm up & cool down
2. Train smart
3. Rest well
4. Use proper technique
5. Speak up about pain



RESOURCES

- CDC
- American Academy of Pediatrics
- STOP Sports Injuries
- Local sports medicine clinics
- [John Hopkins Sports Injury Prevention](#)
- [Mayo Clinic Family doctor](#)
- [Mayo Clinic Staff](#)
- [Midwest Orthopaedics at Rush](#)
- [Cleveland Clinic](#)
- [Better Health Channel](#)
- [Mass General](#)