Sports Injury & Mental Health Awareness Webinar

SafeStrongSport Organization

Safe Strong Sport

OUR BODY

IS
REMARKABLE,
ADAPTABLE

Us

Mental

- Unyielding

Physical

- Discipline

Competition

- Opportunity

Sports

- Passion

Striving for athletic success; **Without harming an athlete's health, Mentally and Physically**

PHYSICAL

ACUTE INJURY

Sudden Trauma

ACL Tears, Ankle Sprains, Fractures etc.

Deliberating

May Require Surgery/Physical Therapy

Symptoms

Immediate Pain, Swelling & Loss of Function

Immediate Action

Rest, Ice, Compress, Elevate

Safe Strong Sport

OVERUSE INJURY

Cumulative

Repetitive Stress on Muscles & Joints

Silent but Deadly

Often take months to heal with chance to reoccur

Minor Discomfort in Joints (Wrists, Elbow, Ankle) -> Pain/Swelling

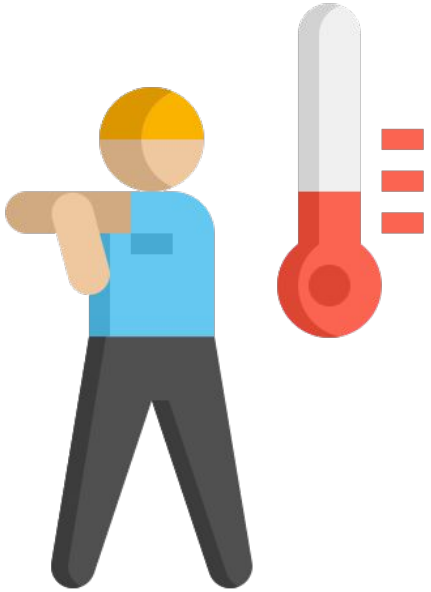
Symptoms

Good Communication with Coaches & Parents

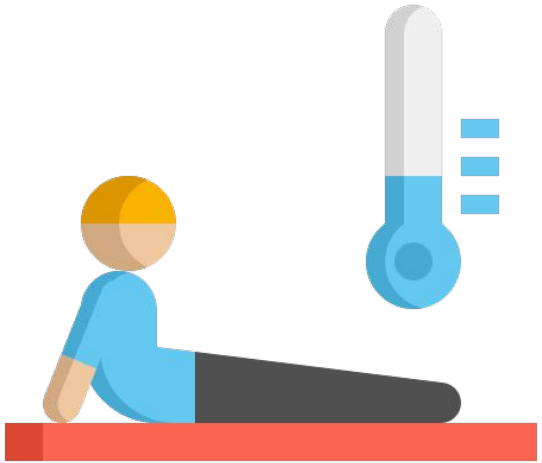
Proactive

Warm-up

- Increases blood flow
- Prevents Injury & promotes muscle connection
- Warm-up Exercises:
  - Side shuffles
  - High knees
  - Forward/Side lungs



Cool-down



- 5-10 min after the sport
- Removes lactic acid from muscles
- Reduces Soreness
- Cool-down exercises:
  - Butterfly
  - Touch your toes
  - Child's Pose

TENNIS

FORM MATTERS

- Lower chance of Injury
- Sustainability
- Improved Performance

COMMON MISTAKES

- Arming the Ball
- Incomplete Follow Through
- Poor Footwork

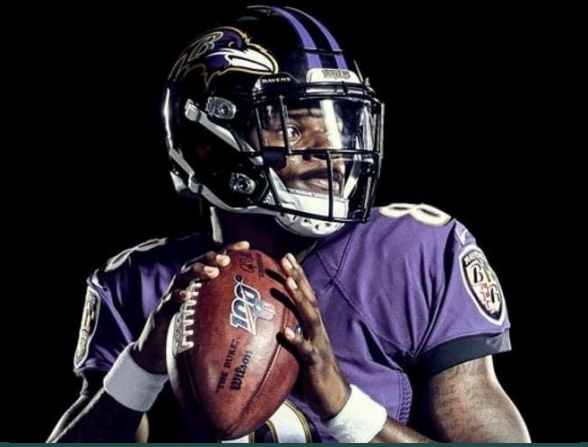
DEVELOPING GOOD FORM

- Listening to Coaches
- Discipline
- Prioritize Big Muscles

BASEBALL

Baseball Injury Prevention

- **Common Injuries:** Shoulder/elbow (pitchers), sprains, concussions.
- **Prevention Tips:**
  - Limit pitch counts for youth.
  - Emphasize proper throwing mechanics.
  - Use protective gear (helmets, face guards).
  - Stretching and strengthening exercises for arms and shoulders.



FOOTBALL

Football Injury Prevention

- **Common Injuries:** Concussions, knee injuries (ACL/MCL), ankle sprains.
- **Prevention Tips:**
  - Use proper tackling techniques.
  - Wear appropriate protective equipment.
  - Strengthen core and lower body.
  - Follow concussion protocols.

SWIMMING

Swimming Injury Prevention

- **Common Injuries:** Shoulder impingement, knee pain (breaststroke), muscle strains.
- **Prevention Tips:**
  - Focus on stroke technique.
  - Dryland strength training.
  - Adequate warm-up and cool-down.
  - Listen to body for signs of overuse.

ROWING

Rowing Injury Prevention

- **Common Injuries:** Lower back pain, rib stress injuries, shoulder strains, wrist and forearm overuse
- **Prevention Tips:**
  - Strengthen core and posterior chain to support spinal stability.
  - Emphasize proper rowing technique and sequencing.
  - Gradually increase training volume to avoid overuse injuries.
  - Maintain flexibility in hips, hamstrings, and lower back.
  - Use well-fitted equipment and correct boat setup.

For Rowing

Rowing is a unique sport because it requires high-volume repetitive motion and involves almost every major muscle group. Because of this, injuries are rarely "accidental" (like a fall) and are instead usually "overuse" injuries.

- Rowing injuries are predominantly found in four "hot zones":
  - The Lower Back: Specifically the lumbar spine (disc herniations or muscle strains).
  - The Ribs: Stress fractures (usually the 4th through 9th ribs).
  - The Wrist: Tenosynovitis (inflammation of the tendons), often in the feathering hand.
  - The Knee: Patellofemoral pain (kneecap tracking issues).

Bio-Mechanics: The "Safety" Stroke

Poor technique is the #1 cause of rowing injuries. Focus on these phases:

- The Catch: Avoid "reaching" with the lower back. Keep a neutral spine and use your lats to hang on the handle.
- The Drive: Ensure the sequence is Legs → Back → Arms. Using the back too early (bum-shoving) puts immense shear force on the lumbar spine.
- The Finish: Avoid leaning too far back (beyond 5–10 degrees). Excessive layback strains the hip flexors and lower back.

Preventing the "Rower's Rib"

Rib stress fractures are the most frustrating rowing injuries.

- Cause: Pulling too hard with the arms/serratus muscles before the legs have finished the drive.
- Prevention:
  - Load Management: Don't increase your weekly mileage by more than 10%.
  - Core Strength: Focus on the obliques and serratus anterior to stabilize the rib cage.
  - Check Your Rigging: Heavy gearing (high load) increases the risk.

Protecting the Lower Back

The spine is most vulnerable at the "Catch" when it is under load and flexed.

- Maintain Neutral Spine: Think "hinge at the hips," not "curve the back."
- Hamstring Flexibility: Tight hamstrings pull on the pelvis, forcing the lower back to curve more than it should.
- Core Activation: The "deep core" (transverse abdominis) must be active to protect the vertebrae.

Off-Water Training (The Pre-hab)

Injury prevention happens in the weight room, not just the boat.

- The "Antagonist" Work: Rowers spend all day pulling. You must push to stay balanced.
  - *Exercises:* Push-ups, overhead presses, and planks.
- Thoracic Mobility: If your upper back is stiff, your lower back or ribs will overcompensate.
  - *Exercises:* Foam rolling and T-spine rotations.
- Glute Activation: Strong glutes take the pressure off the lower back.
  - *Exercises:* Glute bridges, clamshells, and deadlifts.

Equipment & Environment

- The Erg: The static ergometer is harder on the back than a boat because there is no ”slip” in the water. Use ”Slides” if available to mimic the water feel.
- Handle Grip: Keep a loose grip. White-knuckling the handle leads to forearm tendonitis.
- Cold Weather: Muscles are less elastic in the cold. Wear layers to keep the lower back warm during long steady-state sessions.

Recovery & Warning Signs

- Pain vs. Soreness: Muscle soreness is fine; sharp, localized pain or ”tingling” down the leg is a red flag.
- Sleep & Nutrition: The body repairs micro-tears during deep sleep.
- The 24-Hour Rule: If a pain persists for more than 24 hours after a session, see a physio or trainer immediately.

NUTRITION

CARBOHYDRATES

Break down into glucose, the body's main fuel source

PROTEINS

Build hormones and enzymes and repairs muscles and bones, main contributor to growth

FATS

Give the body energy through calories and help it absorb vitamin A, D, and E

FIBERS

Carbohydrates that cannot be digested; improves digestive system and lowers blood cholesterol

NUTRITION

FATS	20%
CARBS	50%
PROTEINS	30%

This is a rough estimate of general intake, and percentages can vary depending on circumstance.

"In spite of everything, I still believe that people are really good at heart."

—Anne Frank

MENTAL

WIN

It lies

LOSS

on a thought

RECREATIONAL

- Participation & Inclusivity
- Few Competitive Opportunities
- Less Pressure to Improve

COMPETITIVE

- Build Discipline & Responsibility
- Lead to burnout/Injury
- Pressure to Perform to a Standard

[Chinese Skateboarder Zheng Haohao]

[U.S. gymnast Hezly Rivera]

[U.S. Track Quincy Wilson]

"ELITE"

"The context in which a young person trains and competes, rather than their performance."

(Mountjoy, 2008)

1

performance outcomes > psychosocial development, enjoyment, participation

2

involvement in sports > psychosocial and educational experiences, non-sports relationships

3

explicit/implicit goal of progression to elite, collegiate, or professional sports

CONTRIBUTING FACTORS

- “free” time spent travelling/practicing
- schoolwork and other extracurriculars
- unnecessary pressure/expectations

DEFINING BURNOUT

- Emotional and Physical exhaustion
- Reduced Level of Accomplishments
- Sport Devaluation

Table 2 Representative Sample Items

Variable	Sample item
Emotional/physical exhaustion	I feel emotionally drained from my swim team participation
Reduced athletic accomplishment	I am not peforming up to my ability in swimming
Sport devaluation	I don't care as much about my swim performance as I used to
Swim commitment	Do you want to keep participating on a swim team?
Benefits	How rewarding is swim team participation?
Costs	To what extent have you experienced costs associated with swimming?
Enjoyment	How fun is swim team participation for you?
Personal investments	How much effort have you put into swimming?
Alternative attractiveness	Compared to swim team participation, there are other things I could do which would be more enjoyable
Social constraints	The people most important to me would be disappointed with me if I were to quit swim team participation
Swim identity	Swimming is the only thing important in my life
Perceived control	I have a say in what I do when participating in swimming

ADVERSE EFFECTS

PHYSICAL

Chronic fatigue, strength and stamina loss, and increased probability of injuries.

AFFECTIVE

Low mood, lack of enthusiasm, and even hostility to the training environment

COGNITIVE

Difficulty concentrating, decreased school performance, and poor sports performance.

THE ONLY **TREATMENT** TO BURNOUT IS **REST**

"RESULTS > EFFORT"

- EXCEEDINGLY high expectations
- OVEREMPHASIS on results
- INAPPROPRIATE pressure to perform

PARENTS, YOU ARE YOUR CHILD'S BIGGEST SUPPORT!

AFTER A LOSS...

- vulnerability
- empathy > logic
- active listening
- feedback with sensitivity

Influence of peers

Social support

- Psychological well-being
- Enjoyment to sport
- Self-worth

Harmful experiences

- Bullying
- Isolation
- Cyberbullying

Universal Injury Prevention Checklist

- **Checklist for Athletes:**
  - Do I warm up and cool down every session?
  - Am I using proper technique?
  - Do I get enough rest?
  - Is my nutrition supporting my activity?
  - Am I wearing the right protective gear?
  - Do I communicate pain or discomfort to my coach/parent?

General Principles of Injury Prevention (All Sports)

- **Warm-up & Cool-down:** Essential for all athletes to prepare muscles and prevent strains.
- **Proper Technique:** Reduces risk of both acute and overuse injuries.
- **Rest & Recovery:** Prevents burnout and chronic injuries.
- **Nutrition & Hydration:** Fuels performance and aids recovery.
- **Protective Equipment:** Helmets, pads, mouthguards, etc.
- **Communication:** Athletes, coaches, and parents should discuss pain or discomfort.

THANK YOU

Q&A