



## STAYING HEALTHY

# Gymnastics Injury Prevention

Gymnastics is a rigorous sport, requiring long hours of practice and complex physical movements. In addition to the weight-bearing stresses placed on the upper body during many gymnastic moves, the countless twists, flips, and landings put gymnasts at risk for injury.

Some of the more common upper body injuries include tears of the tendons and other tissues that support the shoulder, elbow dislocations, and wrist sprains.

Fractures, sprains, and strains frequently occur in the lower body, most often affecting the knees and ankles. The bends and twists required in many gymnastics movements can lead to lower back injuries.

Several strategies can help to prevent gymnastics injuries, from vigilant spotting to properly maintained equipment.



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## Proper Preparation

- **Maintain fitness.** Be sure you are in good physical condition at the start of gymnastics season. During the off-season, stick to a balanced fitness program that incorporates aerobic exercise, strength training, and flexibility. If you are out of shape at the start of the season, gradually increase your activity level and slowly build back up to a higher fitness level. It is essential to rebuild your strength, endurance, and skill level before attempting more complex gymnastics moves.
- **Warm up and stretch.** Always take time to warm up and stretch. Research studies show that cold muscles are more prone to injury. Warm up with jumping jacks, or running or walking in place for 3 to 5 minutes. Many warm-ups include sport-specific stretches. If your warm-up includes stretching, be sure to perform them slowly and gently, holding each stretch for 30 seconds.
- **Cool down and stretch.** Stretching at the end of practice or competition is too often neglected because of busy schedules. Stretching can help reduce muscle soreness and keep muscles long and flexible. Be sure to stretch after each training practice to reduce your risk for injury.
- **Hydrate.** Even mild levels of dehydration can hurt athletic performance. If you have not had enough fluids, your body will not be able to effectively cool itself through sweat and evaporation. A general recommendation is to drink 24 ounces of non-caffeinated fluid 2 hours before exercise. Drinking an

additional 8 ounces of water or sports drink right before exercise is also helpful. While you are exercising, break for an 8 oz. cup of water every 20 minutes.

## Dress Appropriately

- A variety of footwear can be worn safely, depending on the activity, the performing surface, and the experience of the gymnast. There are many types of special gymnastic shoes, each geared toward a specific event. Other options include bare feet and athletic shoes. Discuss with your coach the type of footwear that would be best for you, according to your events and your skill level.
- A range of safety gear is available for young gymnasts – much of it is required depending upon the event. These include:
  - Hand grips
  - Wrist, ankle, or torso belts
  - Knee, elbow, or heel pads
  - Braces (ankle, knee, elbow, wrist)

## Ensure Equipment Safety

- Always check the equipment to make sure it is properly maintained.
- Equipment must be placed far apart to prevent gymnasts from colliding with other athletes or equipment.
- The training facility should have appropriate floor padding to help reduce the force from a landing. Mats must be placed under the equipment and must be secured properly.

## Focus on Technique

- Before attempting any new move, a gymnast should talk to a coach. The coach must make sure the gymnast is physically prepared for the move and understands how to safely execute it.
- Spotting (watching and monitoring) is essential. A coach should spot gymnasts during all practice sessions, especially when complex or challenging routines are being performed.
- Safety harnesses should be used when a gymnast is learning new, complex skills.

## Prepare for Injuries

- Coaches should be knowledgeable about first aid and be able to administer it for minor injuries, such as facial cuts, bruises, or minor strains and sprains.
- Be prepared for emergencies. All coaches should have a plan to reach medical personnel for help with more significant injuries such as concussions, dislocations, contusions, sprains, abrasions, and fractures.

## Safe Return to Play

An injured athlete's symptoms must be completely gone before returning to gymnastics. For example:

- In case of a joint problem, the gymnast must have no pain, no swelling, full range of motion, and normal strength.
- In case of concussion, the gymnast must have no symptoms at rest or with exercise, and should be cleared by the appropriate medical provider.

## Prevent Overuse Injuries

Because many young athletes are focusing on just one sport and are training year-round, doctors are seeing an increase in overuse injuries. The American Academy of Orthopaedic Surgeons has partnered with [STOP Sports Injuries](http://www.stopsportsinjuries.org/) to help educate parents, coaches, and athletes about how to prevent overuse injuries. Specific tips to prevent overuse injuries include:

- Limit the number of teams in which your child is playing in one season. Kids who play on more than one team are especially at risk for overuse injuries.
- Do not allow your child to play one sport year round – taking regular breaks and playing other sports is essential to skill development and injury prevention.

### Last Reviewed

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