



Swimming Injuries

With more than a million swimmers in the United States, swimming is among the most popular fitness activities. Competitive swimmers often train 10,000 to 20,000 yards per day. This amount of swimming puts a great deal of stress on the shoulders, knees, hips and even back, increasing overuse injuries. However, with advances in swimming stroke biomechanics, injuries can be reduced.

What causes swimming injuries?

Repetitive motions can cause fatigue and weakness of muscles, hindering your swimming stroke and other techniques. This can inevitably lead to injuries, pain and tendinitis in the shoulders and knees.

What are some of the most common swimming injuries?

1. Swimmer's Shoulder

Shoulder injuries are most common in swimmers and may include rotator cuff impingement (pressure as the arm is lifted) or biceps tendinitis (painful inflammation of the biceps tendon).

2. Lower Body Injuries

If you practice the breaststroke, you may experience knee or hip pain from inflammation in the tendons. The dolphin kick can also cause lower injuries in your back, putting pressure on spinal discs.

How have swim stroke biomechanics changed?

More recent studies of the swim stroke biomechanics now emphasize body rotation as an important component of swimming. The S-shaped pull down does not take this into consideration.

Five components to swimming

1. Make sure your body position is streamlined and balanced in the water
2. Roll your body from the hips and the trunk, not your shoulders
3. Use a straight through arm pull stroke with an early exit at the hips
4. Kick to improve body stabilization and to keep the hips from dropping
5. Alternate your breathing pattern to produce a more symmetrical stroke

How can swimming injuries be prevented?

- Use good stroke technique
- Don't swim when you are fatigued or injured
- Lessen repetitive strokes that can cause an overuse injury
- Perform cross-training exercises
- Develop core strength to achieve symmetrical body roll and streamlined position
- Use periods of rest to recover
- Perform exercises and stretches to improve strength and flexibility in shoulders, hips and knees
- Create a nutrition plan for before, during and after exercise
- Speak with a sports medicine professional or athletic trainer about injury concerns or prevention strategies

Need immediate treatment for a swimming injury?

The Children's HealthSM Andrews Institute for Orthopaedics & Sports Medicine offers treatment for all sport-related injuries. Call to book your appointment today. With same-day and next-day appointments, we can get you in and back in the game.

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