



## Common swimming injuries

### Shoulders, knees, hips and backs

In the United States, more than a million people swim recreationally and competitively. A low-impact fitness activity, swimming is a great way to increase strength, endurance and cardiovascular health.

Although swimming is generally considered a safe sport, experienced and inexperienced swimmers should take care to avoid swimming-related injuries and accidents. Most swimming injuries are overuse injuries, caused by repetitive motions. Shoulders, knees, hips and backs are susceptible to pain and inflamed tendons (tendinitis), particularly among competitive swimmers with heavy training programs. Drowning is also a concern, particularly for young, inexperienced swimmers.



## Swimming Safety

### Common accidents, serious injuries

**Shoulder pain** A competitive swimmer may take over a million arm strokes per year during training and competition. It's no surprise, then, that too much swimming can lead to inflammation and swelling in the muscles and tendons that connect the shoulder blade (scapula) to the upper arm bone (humerus). It can also cause shoulder instability, in which structures that surround the shoulder joint do not work to maintain the ball within its socket.

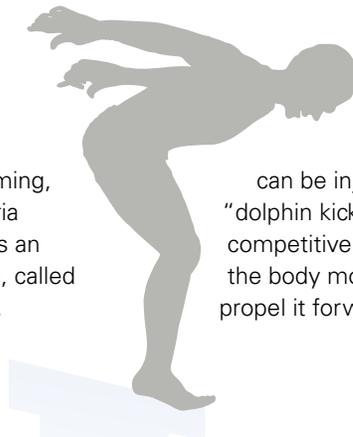
**Swimmer's ear** When water remains in the ear after swimming, the moisture can cause bacteria or fungus to grow. The result is an infection in the outer ear canal, called swimmer's ear (otitis externa).

### Knees and hips

The unique motion of the breaststroke may lead to knee injuries that involve the tendons and ligaments (breaststrokers' knee). Breaststrokers may also experience hip pain from inflammation of the hip tendons.

### Lower back disk problems

The area where the spine meets the pelvis can be injured by the "dolphin kick"—a technique in competitive swimming in which the body moves like a whip to propel it forward underwater.



# How can you prevent swimming injuries?

- **Warming up before swimming stretches the muscles, gets the blood flowing and reduces the risk of injury.** In addition to low intensity aerobic warm-up exercises, try slow, gentle stretches and hold each stretch for about 30 seconds.
- **All swimmers—competitive and recreational—should learn good stroke technique.** Because swimming the wrong way can put extra stress on muscles and lead to overuse injuries, take lessons or follow coaching instructions.
- Away from the pool, **swimmers should stay in shape using core strengthening and cross-training exercises.** In particular, strengthening the muscles around the shoulder and upper back can reduce injury risk.
- **If you're too tired, too cold or overheated, don't swim.** Also, stay out of the water if you have a fever, an upper respiratory problem or otherwise feel ill. Swimming while fatigued or sick may make your condition worse or lead to an injury.
- **You can prevent swimmer's ear by drying out your ear canal after getting out of the pool.**

## Pools, Pond and Beyond

**Accidents can lead to serious injuries, so obey pool rules and use common sense:**

- Don't dive into shallow areas.
- Walk, don't run, in the pool area.
- Don't push or jump on other swimmers.
- Whether in a pool, lake, pond or ocean, never swim alone. Swim in supervised areas where lifeguards are present.

**When swimming in residential pools:**

- Guests should know how deep the pool is and where ladders and diving boards are located.
- Pools should be well lit for night swimming.
- Someone who is trained in water safety and life-saving techniques should be on hand at all times.

**Use caution when swimming in open water:**

- When at the ocean, be sure the water is free of hazards, like rocks and undercurrents.
- Don't swim when there are storms, fog or high winds in the area. Extreme weather can create dangerous conditions in the water.
- When swimming after a storm, look to see if the water is rising or if there is flooding. These conditions may indicate strong currents.



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This piece is part of an informational series on sports injury prevention produced by the Orthopedic Center/Sports Medicine Division at Boston Children's Hospital. For materials on preventing injuries in other sports, call 617-355-3501 or visit [bostonchildrens.org/sportsmed](http://bostonchildrens.org/sportsmed).



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