Sink or Swim?

Treating and Preventing Swimming Injuries

Swimming is one of the most popular sports in the world. We swim in the sea, pools, lakes, streams, rivers and even ponds. And given 70% of the Earth's surface is water, we're not short of opportunities.

Swimming is considered a 'low-impact' sport due to the fact that the water supports a large percentage of your bodyweight. And exactly for that reason it's often used in the rehabilitation of injuries to joints affected by weightbearing ie. back, hips, knees and ankles.

However, if you swim for general fitness, or in competition, the risk of developing an overuse injury is high because of the repetitive and forceful nature of the shoulder revolutions as well as stress on the back, to hold you level in the water.

In fact, 84% of regular swimmers suffer from overuse type injuries. So, what does all of this mean to you? You shouldn't swim? You should reduce your training or change your sport? Let's face it, anyone who is prepared to have their head in the water for hours, essentially participating in a solitary sport, must love doing it and therefore want to be able to manage their injury risk and still continue to swim.

The benefits of swimming - whether it's for general fitness and physical activity, the desire to win competitions, or just to find your quiet place for stress relief - far outweigh the risk of injury.

With this in mind, we've put together a set of resources to help you manage, or better yet prevent, swimming injuries altogether.

SINK OR SWIM - THE INJURIES

So, let's dive in at the deep end and explore the injuries that are most likely to sink your swimming efforts.

The Shoulder

If you've invested even a moderate amount of time training swimming up and down that black lane line, it's likely that you will have encountered some form of 'swimmer's shoulder.' Given that swimmers annually perform hundreds of thousands of arm rotations it should be no surprise to learn that this type of work and frequency places a lot of stress on the shoulder muscles and joint.

It will probably come as no surprise, that swimmer's shoulder is the most common injury in swimming. It is basically a blanket term for a number of things that can be injured in and around the shoulder joint. During one arm revolution, the shoulder is in a position of impingement (pinching structures) for 25% of the time. Multiply that by a million strokes per annum and it's hardly surprising that there will be some cumulative damage to the squashed structures.

And before you assume it's an injury that only affects freestyle and butterfly swimmers, the research has shown that shoulder injury is common across all strokes, at any age or level of swimming competition. It doesn't discriminate! This may be due to the fact that with all strokes between 50–90% of the power

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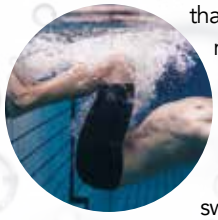
generated to propel you forward comes from the arms and shoulders, and because freestyle is the primary stroke for training and fitness, regardless of your stroke specialism. However, the shoulder alone is not the only joint susceptible to injury.

Swimmer's Knee



Knee pain closely follows shoulder pain in swimming. This is more specific to breaststroke swimmers who usually develop pain on the inner side of the knee. Again, this is due to repeated loading of the knee joint in unnatural angles. If you're a Darwin supporter, maybe somewhere along the evolutionary timeline our 'legs' kicked like frogs, but the current human knees were not designed to bend and kick with the foot turned out. This applies extreme loads to the inner knee structures and muscle attachments resulting in injury over time.

Neck and Back Pain in Swimmers

Neck and lower back pain are also common complaints in swimmers. These are often closely related to poor posture 'on land.' Swimming may not be the primary cause, the pain merely expresses itself in the water. Strong stabilising muscles on the front of the neck, as well as strong core muscles are crucial to ensure good alignment of the vertebrae and reduce strain on the joints. Identifying problems with your stroke is critical but remember to look elsewhere too and focus on the activities you do most during the day such as sitting, driving, lifting and carrying, computer work – if the ergonomics of these activities are not addressed you will battle to completely eliminate your pain.

REHABILITATION

Injuries can take up to 6 weeks to recover, even longer for those left untreated initially, which can require a prolonged rehabilitation, often 3 months or more before returning to full training and competition. Shoulder surgery is not that successful in swimming injuries either. Often the exact cause of the pain is not identified and therefore not corrected. Post-surgical rehabilitation of the shoulder can take as long as 6 months; that's nearly the entire season! What's more 75% of swimmers are unable to train or compete at the same level post-surgery. So, whatever you do, don't leave a niggle and accept it as part of being a swimmer.

Yes, you may have to stop swimming for a while, or at least reduce the intensity and duration of your sessions, which for an outsider may not seem an unrealistic request. But for someone who has been waking up at 4am day after day, putting in 5 hours of training a day, sacrificing social events and late nights, wearing that ever present Eau de Chlorine…. this can seem like the end of the world.

Everyone's dreams and desires are different; however there is no question that an injury that impacts your ability to succeed, no matter how big or small, is devastating and it's personal too.

People respond differently to injury, some deny it and attempt to soldier on, while others may be angry, sad, frustrated and even depressed. An injury so often is not just about the anatomy or damaged tissue in front of you. There is often a realm of emotions, psychological and social components that need to be addressed to ensure a successful return to swimming.

DON'T LET MUSCLE IMBALANCES DROWN YOU

Our routine daily activities like sitting for long periods at desks, already predispose us to a whole host of muscle imbalances. Due to the repetitive nature of swimming, the same action, same movements, same muscle contractions over and over again, it is no surprise that certain muscles become extremely well developed and strong, while others get weak.

Balanced muscle strength around a joint is crucial to support the joint, allow fluid motion and maintain good alignment of the moving parts. Identifying muscle imbalances and applying strengthening or stretching exercises is key to preventing and managing an injury. A physical therapist can help assess this and teach you appropriate exercises. Hands on mobilisation can also help to restore balance to tight, shortened muscles.

With all the strokes there is also likely to be a component of poor technique that can be contributing to the development of an injury. Identifying problems with your stroke that could be overloading or straining certain structures is the second key step to preventing and managing an injury.

PRE-HABILITATION

Pre-habilitation involves performing specific stretches and strengthening exercises on a regular basis as part of your routine training, with the specific goal of preventing injury. Having regular massages and seeing a physical therapist to mobilise or loosen any stiff, tight structures may help you avoid developing a serious, debilitating injury. In an ideal world pre-hab would be as important as the activity itself.

We have put together a set of resources to summarise common causes of injuries, treatment and rehabilitation tips and training tips. This also includes a cheat sheet on common stroke technique errors that lead to injury, and how to with tips on how to improve them.

There is also a set of exercise and advice leaflets on each of the most common swimming injuries.

If you have a swimming injury and would like some advice, or you would like us to send you copies of these leaflets, just drop us an email, or give us a call.

If you can avoid an injury using our advice on prevention that would be first prize, otherwise focus on getting the right treatment and making changes to your training and technique where possible.

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