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Neck Pain in Swimming

by **Jessica Seaton, DC**

Is Your Swimming Giving You a Pain in the Neck?

In my practice I see both swimmers and non-swimmers who have occasional or chronic neck pain. I have not found that masters swimmers have more neck pain than others. However, faulty stroke technique may aggravate existing neck pain.

Possible Origins of Neck Pain

The anatomy of the neck is very complex due to its function and great mobility. The bony part of the neck is known as the cervical spine, and consists of seven vertebrae. The spinal cord runs through the vertebrae, from the brain to the lower back, with offshoots, known as spinal nerves, exiting between the vertebrae. These spinal nerves travel to the muscles, joint, and skin of the hands, arms, shoulder joints, shoulder girdles, superficial muscles of the upper back and the latissimus dorsi muscle in the lower back, as well as the structures of the neck. Furthermore, there are many muscles in the neck, several of which span the neck and upper back. This means that pain, tingling, numbness, or weakness in any of the areas mentioned above may originate in the neck.

Faulty Stroke Mechanics

If you are having neck problems, even if you don't think your neck pain is related to your stroke, you should have a coach evaluate your stroke. Coaches can point out subtleties, which may be affecting your neck directly or indirectly. I will just mention a few of the more obvious stroke problems:

FREESTYLE

- Don't allow your head to deviate from the long axis when breathing, by lifting your head forward or up. Pretend that a skewer is running straight through your body from head to toe. West Hollywood Aquatics coach Amanda Dobbs says that many swimmers tend to tuck their chin toward their shoulder when breathing, which not only deviates from the long axis, but can also cause neck pain, along with arm numbness and tingling.
- Look straight down at the bottom of the pool, without lifting your head, when swimming. A few years ago coaches were still recommending a slightly extended neck position, as in looking slightly forward. Newer thinking has one looking straight down and keeping good body balance.
- Don't over-rotate your neck when breathing. This is an error many lap swimmers make. Remember, because the water next to your head is not flat, but cupped, you only need to rotate your head so your mouth is just barely out of the water.
- It is important to have good body rotation along the long axis. Poor body rotation results in having to over-rotate your neck in order to breathe. If your body is properly rotated along its long axis, you shouldn't have to turn your head more than 45° in order to breathe. That is less rotation than you need for driving a car safely.
- For most swimmers, bilateral breathing is better. A common error if you are training yourself to breathe on your "bad" side, may be not rotating your body enough, and instead over-rotating your head. Have a coach check your stroke often during this transition period.

BACKSTROKE

- In order to keep your head afloat, you need to use the muscles on the front of your neck. If it has been a while since you've done a lot of backstroke, you might find these muscles are fatigued and sore after a long workout. Like with any other "new" exercise, proceed slowly and build up your yardage.
- Poor body rotation puts a lot of stress on the shoulder muscles and joints. This in turn may affect the neck.

FLIP TURNS

- Be sure your turn is smooth with no jerking motions. Your head should be in a tuck, not extended at the neck.

BREASTSTROKE

- Hold your head and neck still during breaststroke. You shouldn't be tilting your head back in order to breathe or to look at the end of the pool. Instead, your face should be facing the water and your neck should be aligned with your back. This is not only easier on your neck, but will also allow you to go faster: when you tilt your head back, it forces your hips to drop, thus creating more drag.

BUTTERFLY

- A weak kick, a lack of upper body strength, or a combination of both may not give you the height to breathe correctly.
- Butterfly is very much a timing stroke. The most common error is breathing too late: that is trying to breathe while both arms are out of the water. This is a very awkward position: the shoulders are directed down and forward with the neck and head tilted back. Take your gulp of air and get your head back down immediately.

Everyday actions which may aggravate the neck

If you suffer from chronic neck pain, I strongly recommend you evaluate your office space for proper ergonomics. Is your computer screen at eye level? Does your office chair offer good back support? Is your keyboard positioned so that your forearms are parallel to the floor, with your shoulders relaxed?

Other things in your life you may look at:

- Do you clamp the telephone between your ear and shoulder? I strongly recommend using a headset, even if you don't think you spend that much time on the phone.
- Instead of carrying a heavy shoulder bag slung over one shoulder, you may try carrying a backpack using both straps, or using a fanny pack, or even a cart.
- Other exercise activities beside swimming may aggravate your neck, such as the yoga head stands, shoulder stands, and the "Plow." Bicycling may also contribute to neck pain due to the head being held in extension.
- You should have your posture evaluated by someone trained in that area, such as a physical therapist, a chiropractor, or someone trained in Alexander technique. If you have slumping shoulders with a forward protruding head, either while sitting or standing, you are a candidate for some postural work. This may include stretching your tight muscles, strengthening your weak muscles, and increasing your postural awareness.

TREATMENT

If you're experiencing neck pain see a practitioner, such as a chiropractor, a physiatrist, or a physical therapist who is well trained in problems dealing with the spine and with athletes. A good practitioner will take a complete history of your problem before prescribing treatment. Of course, if you've just experienced any serious trauma to the neck, you should seek expert professional advice immediately.

Until you can receive professional treatment, rest your neck and apply ice for 15 minutes in hourly increments. Depending on the practitioner, your treatment will vary. Chiropractors and osteopaths will manipulate the joints of the neck in appropriate cases. Physical therapists and chiropractors may use non-force techniques such as mobilization (gently stretching your neck in different directions), muscle energy techniques, ultrasound, electrical current, and specific stretching exercises. If the problem is mainly in the muscles, massage by a qualified massage therapist may help; if the problem is in the joints, massage may be only a temporary solution.

If your neck hurts when you swim, don't swim until you've had your neck examined and treated. However, if you haven't had any trauma to your neck, and it just feels a bit stiff, going for a swim may actually help your neck.

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