

## **Athletic Stitch**

The pain is caused by a spasm of the diaphragm, the muscle that controls your breathing. There are a number of possible reasons for this. If your breathing isn't controlled and disciplined, the diaphragm may be complaining. If you are running too soon after eating, your heavy stomach may literally be tugging at the ligaments connected to the diaphragm. Or you may simply be running too fast for your body's breathing machinery to keep up.

When a stitch strikes, change your breathing pattern so that the leg on the opposite side of the body from the stitch is the one that hits the ground whenever you breathe out.

Implementation of this simple rule can frequently relieve the intense pain of stitching almost immediately. Strangely enough, loud grunting as you breathe out can also be helpful, possibly because the strenuous protestations force the diaphragm to move out of its hyper-tight position.

### **Ways to prevent stitching:**

To keep stitches from striking in the first place, use the following techniques:

#### 1. Warm Up.

It is very important to warm up before jogging and cool down afterward. Most authorities advise devoting no less than 10 minutes to stretching and strengthening exercises.

#### 2. Unkink and strengthen your diaphragm.

As you make your diaphragm stronger and more flexible, you'll reduce your risk of stitching, since the diaphragm will be better able to both support and move with the liver's violent tuggings. To fortify your diaphragm, Tim Noakes (author of *The Lore of Running*) recommends 'belly breathing', in which the abdominal area moves out dramatically with each inspiration and plunges in on every expiration, while the chest moves relatively little. To learn how to belly breathe, lie on your back on the floor and place a set of heavy books on your stomach. Breathe so that the books rise significantly as you breathe in and move downward as you breathe out. Repeat this belly-out, belly-in action when you are standing (without the heavy books). Concentrate on repeating a similar abdominal action whenever you run during your sporting activity.

#### 3. Strengthen your abdominal muscles.

It's not exactly clear why this helps, but athletes with strong abdominal muscles seem to have a much lower risk of stitching. Perhaps increased abdominal-muscle tone helps to support internal organs and keeps them from jostling up and down quite as much. To strengthen your stomach muscles, lie down on your back with your hips and knees flexed and the soles of your feet on the floor, and then simply raise your head and upper chest repeatedly by about 30 degrees or more. Don't just flop back down after each raise; lower yourself gradually so that you will get nice, controlled, eccentric contractions of your abdominal muscles.

Other abdominal exercise can be important. Seek out a Pilates Instructor, Personal Trainer or see a good Sports Physio. Although abdominal work is vital, it will not be a sudden cure; things will just gradually improve.

#### 4. Food & Water intake

If you are stitch-prone, don't take in any food or water for a couple of hours before you exercise. Eating or drinking shortly before exercising does increase the chances of stitch, possibly because the increased weight of a full stomach creates a stronger downward tug on the diaphragm as the stomach is jolted with each footstrike (cyclists usually don't have to worry about this rule - unless they are riding on a bumpy road; uneven roads often give their internal organs enough jostling to increase the chances of stitching). Note, though, that if you are going to be exercising continuously for more than an hour, you will want to take in some sports drink 10 minutes before the beginning of your exertion (to begin moving carbohydrate toward your muscles). In this case, you'll have to rely on tips 1, 2, and 4 to keep you out of stitch trouble.

#### 5. Relax

Stitches occur much more frequently in tense athletes. After you've completed the warm-up routine, begin your jog at a relaxed, uniform pace, breathing deeply with your mouth open. Once you've loosened up and started to sweat, which generally occurs somewhere around the one-mile mark, gradually pick up the pace.

Before a competition or strenuous workout, spend some time taking deep breaths, and make sure your stomach is moving out expansively as you breathe in. Continue to breathe deeply until your diaphragm feels loose and free.

If you experience a stitch, slow down but don't stop. You can ease this sudden and sharp pain by using proper breathing techniques: deep inhalations, pushing the air downward past the navel; and complete exhalations, forcing the air upward out of the abdominal area and ultimately out of the body. Do this 3-4 times, then continue at a slower pace.

Visualise yourself exercising with non-tightened abdominal muscles and relaxed but forceful breathing. As your competition begins, monitor your abdominal area for tightness and concentrate on maintaining good belly breathing.

#### 6. Running Posture

Proper posture and form is important in running.

**Posture:** Long distance runners need to run with their backs straight, perpendicular to the horizon. This helps lessen the stress on muscles and shifts body weight to the load-bearing bones. Follow this advice even when running up or down hills. Don't lean forward.

**Arms:** Keep your arms in a comfortable position. When you run, your hands should swing in an arc between your nipples and hip bone. Keep your arms as loose as possible. Don't clench your fists. If you find your fingers swollen or your ring too tight after a run, it could be due to improper running technique.

**Breathing:** Breathe comfortably through the mouth. Follow the "talk test"; if you can't carry on a conversation while running, you're going too fast. Slow down. Conversational running is the safest and most efficient way to train.

**Legs:** Leg movement should be free and easy. The stride of a long distance runner tends to be shorter than that of a sprinter. You shouldn't feel uncomfortable while running.

#### 7. Footwear

Wear well cushioned footwear, and run on softer surfaces where possible (treadmill or grass).