

## **Side Stitch**

At Fleet Feet we have been asked by runners about side stitches. A side stitch is basically a cramp in the diaphragm which is a large, flat muscular membrane that separates the chest and organs located in the abdomen. The diaphragm helps to push air in and out of the lungs while breathing. Any runner of any level can get a side stitch - a statistic pulled off the web notes that 70% of regular runners suffered from a side stitch in the last 12 months. But it can be even more common for a new runner who is just learning the proper techniques of breathing, pace and diet as they work to increase their mileage and endurance.

It is interesting to note that more than 70% of humans exhale when their left foot strikes the ground, while less than 30% exhale when their right foot hits the ground.

When you inhale, your lungs fill with air and force your diaphragm downward. Conversely, when you exhale your lungs contract and your diaphragm rises. This pattern of rising and falling occurs quite rapidly when you're running and as most side stitches occur on the right hand side, consider what happens to your diaphragm when your right foot strikes the ground.

### **What are some of the causes of a side stitch and what can you do to alleviate that awful pain ?**

Here are a few theories on what can bring on that awful pain in your side:

- Tugging on the diaphragm by ligaments attached to internal organs. Exhaling at the same time your foot lands during your stride pulls on the liver while the diaphragm is at its highest point. This may cause a cramp or spasm.
- Intense levels of exercise can decrease the blood flow to the diaphragm again causing a spasm.
- Air in the lungs not expelled can press downward on the diaphragm at the same time ligaments are pulling down which can result in decreased blood flow and guess what a cramp and that nasty side stitch.
- Eating too close to exercising and gas trapped in the intestines are also possible causes of a side stitch.

### **So what do you do out on your run when one of these strike?**

- Try to belly breathe while exercising - breathe deeply and slowly expanding both the chest and the belly
- Grunt - exhale and make a grunting sound or try pushing in the area of the stitch with your fingers and exhale as hard as you can
- Slow down - especially if you are new to a program, out of condition and exercising at too high of a level can cause you to breathe quicker and shallower
- Watch when you eat before beginning your workout - use a one hour rule and keep your snack or meal on the light side
- Massage the side stitch - massage can increase the blood flow to an area and help to alleviate the stitch and that sharp pain
- Stop and walk if the pain is too intense and start running again when comfortable
- Improve the strength of your diaphragm and abdominal muscles - practice running fast either in a full workout or by adding intervals in a more moderately paced run. This will help to both increase your endurance and strengthen the diaphragm. Work on increasing the strength of your core - lots of ways to do that from crunches to Pilates to yoga.
- If you are one of the runners in that 70% group, hope these tips help to manage your side stitch problem.

