

## **Training tip: Running Form**

Everyone's form is different. Even among the elite, world class runners, you will see many different running styles. Some run low to the ground with little knee lift while others run powerfully, with high knee lift and a strong kick. The great American sprinter, Michael Johnson, runs with style that many criticized as inefficient. Today, his very upright style of running is the most often copied running form.

Despite the large variety in running forms, there are a number of elements that are common to most successful running styles. Each of these elements can be practiced and adjusted. Good running form is not something a runner is born with. It is a learned skill. I have been running for more than 30 years and I am still continually making small adjustments to my form.

### **Posture**

The most efficient posture is one that is upright and relaxed. Do not lean forward or backward. Your chest should be out and your shoulders back. If you lean too far forward, a braking action with each step will be the result. You will also put excessive stress on your knees and back. A backward lean will cause you to land heavily on your heel, which will also stress your knees, hips and back. A visualization that may help is to imagine a line perpendicular to the ground, passing through your ear and straight down through your hips.

Keep your hips pressed forward and your butt tucked in. Visualize standing face first against a wall. Press your hips forward so that the bones of your hip touch the wall. Running with your hips forward will help your knee lift higher, with less effort.

Another common form error is called "sitting in the bucket". This is especially common among beginning runners. This style is caused by the hip and butt being pushed back, into a slight sitting position. This causes your feet to be in front of your body with a very weak push off behind your body. Keeping your hips pressed forward will eliminate this form fault.

Keep your body as relaxed as possible. Tense muscles will slow you down and force you to work harder. Concentrate on keeping your shoulders, jaw, torso and legs nice and loose.

### **Stride length**

The most common form I have observed in runners I have coached is over striding. Forcing a long stride length will not improve speed or running efficiency. Just the opposite happens. Overstriding will result in reaching out in front of your body with your foot and landing heavily on your heel. This will cause a braking action with each step that you take. In a proper stride, your foot should land directly under your body with every step.

Stride length will vary greatly from athlete to athlete. Some will prefer a shorter, quicker stride and others prefer a longer, more powerful stride. Your stride length will depend on your individual make up and your abilities as a runner. You should find a good balance between stride length and stride frequency. You will need both to run your best. As you improve as a runner, you will find both your stride length and frequency of stride increasing.

Overstriding is a form flaw, but in order to run as efficiently as possible, you must extend your stride to its maximum, without overstriding.

You should increase your stride length by pushing off powerfully with your rear foot and driving your knee forward. You should reach out with your forward foot and use the forward momentum of your body to center your body over the foot at touchdown. Your forward foot should land directly under your body. If you reach out too far with the forward foot, the forward momentum of your body will not be sufficient to "catch up" with your foot and you will land on your heel and initiate a braking action with each step. This will excessively stress your knees, hips and back, in addition to slowing you down. Pushing off strongly with your rear foot will increase your stride behind you and propel you powerfully forward.

### **Stride mechanics**

All of your effort should be directed forward. There should be very little up and down motion. Runners that bounce or hop when they run are wasting energy. They are also putting excessive stress on the knees, hip and back. You should feel as if you are gliding along. Imagine you are running with a beanbag on your head. If you bounce too much the beanbag will fall off.

Your stride should be quick and light. Visualize trying to sneak up on someone while you are running. Your steps should be light and quiet. If your steps are heavy and noisy, you are running with too much up and down motion, or are leaning forward too much.

You should not exaggerate your knee lift when running long distances. A high knee lift is much more important when sprinting or when running hard for the finish line. An exaggerated knee lift will require the use of too much energy to maintain for a long period of time. Knee lift is a very misunderstood term. Many believe that knee lift means to lift your knee straight up, which results in a bouncy, up and down motion which wastes a lot of energy. A proper knee lift should feel like you are driving your knee forward, not up. A forward knee drive will result in a low to the ground and efficient forward running motion.

### **Arms**

The main purpose of an arm swing is to provide balance and coordination with the legs. The arms should hang loose and relaxed, close to the body. Avoid excessive movement. You want to avoid any tenseness in the shoulders. Your wrists should be loose and floppy. Do not clench your fists. Your hands should be held in a relaxed manner. You may try imagining that you are holding a butterfly in your fingers. Do not crush the butterfly. Any tightness in your hands will transfer all the way up your arm.

During the arm swing, your hands should not travel above your chest or behind the midline of your body. Try to avoid crossing your hand in front of your body. All motion should be forward.

### **Foot Plant**

When your foot strikes the ground it will land either; toes first, ball of the foot first, or

heel first. So which landing is best? Most runners have a foot plant that comes natural. The most natural and efficient style is ball of the foot first. The heel of the foot contacts the ground a split second later. Landing heel first causes more impact and can be the cause of some injuries. A heel first foot plant also means you are overstriding. Your foot should be touching down almost directly under your center of gravity which is under your hip. If you are reaching out in front of your body, you will land heel first and will be putting on the brakes with each step. If you naturally land heel first, it may not be a good idea to try to change your foot plant. Trying to change the mechanics of the foot can be the cause of injury. Landing toes first is not an efficient style for distance running. Toe first landings result in a lot of up and down motion and puts a lot of stress on the calf muscles. Toe running is more appropriate for sprinting than

An athlete can run as fast as his or her technique will allow. Without proper form, an athlete cannot properly execute the drills and exercises that help improve speed. A little bit at a time is the goal. "Practice makes perfect!"

Six rules of running form:

1. Run efficiently (no wasted energy)
2. Elbows 90 - 110 degrees (relaxed, not locked; hands drive behind hips and go to shoulders)
3. Neck, shoulders, arms, hands relaxed
4. Stay on balls of feet (drive feet under center of gravity, pushing not pulling with legs)
5. Keep acceleration lean (straight line from ear to ankle)
6. Keep head up (focus where you are going)