

Running Ergonomics

By Dr. Jon DeGorter, DC



Posture is not only important when you are standing or sitting, it is essential while running. Good running ergonomics reduces tension and strain, which helps prevent muscle fatigue. An important element of your running form, good posture allows you to move more efficiently, which not only increases performance, but also helps prevent injury. Running efficiency enables you to run longer distances at a greater intensity with less pain and discomfort.

Improve Your Running Form

One of the best ways to run more ergonomically and reinforce proper body mechanics is to Run Tall. Keep your spine straight and shoulders back with a slight forward lean. Run with your head up so the chin is parallel to the ground. Running tall increases lung capacity, which will give you more endurance. Good posture contributes to a better center of gravity and helps maintain proper alignment, which will prevent injuries.

To run tall, hold your head high, centered between your shoulders, and your back straight. Imagine your body is hanging from a string that is attached to the top of your head. Do not bend your head forward, which can lead to fatigue and tightness in the neck, as well as the shoulders, back and even your hamstrings. Conversely, avoid a backward lean, which puts greater tension on your back and legs.

Focus your gaze in front of you. Looking down while running puts strain on the neck muscles and spine, which leads to fatigue, especially in the latter part of your run. Relax your jaw and neck. Too much tension in your face and neck can lead to tension in other parts of your body, making for an inefficient and tiring run. Keep your shoulders relaxed and parallel to the ground. If your shoulders rise toward your ears or tense up during your run, drop your arms and loosely shake them out occasionally during your run. Stay relaxed throughout the body. It is especially important to relax muscles not directly involved in the running motion, such as the facial muscles, jaw, neck, shoulders, and hands.

A general sense of relaxation has a positive psychological effect by promoting feelings of ease, comfort and control. It can also improve performance by saving the body's supply of oxygen for the muscles needed for the running motion. Less tension gives the joints increased range of motion more fluid movements.

Exercises to Improve Your Form

Strengthening and elongating the muscles involved in running will help improve your form. Creating a strong base is central to maintaining proper running form. Working on core and leg strength will help keep the core engaged during each running movement. Exercises that help build a strong base include squats, lunges and abdominal planks.

Stay flexible. To run with good form means striding properly and engaging the hips and core. This makes flexibility incredibly important to maintaining proper running ergonomics. Good flexibility makes for a strong kinetic chain. And don't forget about consistent warm-up and cool-down routines.

Avoiding Injury

Think about your posture during your next run. Be aware of any built up tension in your shoulders and neck and refocus on your run, especially when running long distances. With longer mileage comes greater fatigue, and you'll find yourself running sloppy, which only reinforces your feeling of exhaustion. Avoid pounding your feet and land gently. To protect your knees, avoid overstriding and instead strike your foot directly under your knee instead of in front of it. This is particularly important when running downhill.

Reset your posture with a chiropractic adjustment. When your spine and posture are out of alignment the added strain and stress on your body limits your mobility and ability to run properly. If you have recurring or persistent muscle pain or soreness, take time to recover and cut back on your training. Before your pain becomes acute and you risk losing more training time, see a sports injury specialist to evaluate your pain or injury, identify the cause of it, and help you fully recover and make the necessary corrections to prevent it from recurring.

Jonas Chiropractic Sports Injury Care

Our goal is helping every athlete reach their personal performance goals. We design athlete-specific treatment plans that take into consideration your individual training goals, using joint mobilization techniques with soft tissue repair in addition to the strengthening and coordination regimens offered by physical therapy. As athletes we understand the need to repair injury without losing valuable training time.

Active Release Technique® involves intense active movement-based massage treatments, which sets it apart from passive massage techniques and physical therapy treatment. **ART®** promotes faster recovery, restoration of normal tissue function and helps prevent injury by reducing scar-tissue build-up and promoting ideal muscle length through the healing process. While other therapies can provide relief, **ART®** combined with specific stretching and exercise heals the tissue in the shortest time with the lowest incidence of re-injury.

Dr. Jon DeGorter is the USATF-Long Island Chair of the Sports Medicine Committee, and part of the Jonas Chiropractic Sports Injury Care team. Dr. Jon specializes in treating runners and triathletes — keeping athletes doing what they love to do.