

Running Form and Efficiency

"I'm not a runner." How many of us have said that at some point in our life? I think I said that to my track coach every year from fifth grade through my senior year in College..."I'm a jumper, not a runner!" And now, almost 10 years later, I can honestly say after some hard work and dedication – "I am a runner!"

Some people are "born runners." We can all recognize their grace and fluidity – their lean, slender build and effortless speed. That's NOT me - I didn't miraculously transform myself, nor do I expect that from you. But, I do think I can make a runner out of anyone willing to learn and practice the basics of proper running form and efficiency.

Head to Toe Tips to becoming "a runner":

HEAD/EYES: Head in neutral position. Eyes gazing out at the ground 10-20ft straight in front.

NOSE/MOUTH/BREATH: Nose/mouth breathing allows for maximum oxygen uptake. Inhale should last two steps (right, left), exhale should last two steps (right, left). If you can't keep a steady two step breathing pattern, slow down! Beginners may find it helpful to speak each breath in step "i-in, ou-out...i-in, ou-out"

JAW/NECK/SHOULDERS: RELAXED! Jaw should be slightly open for easy breathing. Neck should keep head directly in line with spine. Shoulders loose, letting gravity take them "down and back."

CHEST: "Open" and "up" – this posture promotes maximum lung expansion and easier breathing.

ARMS/HANDS: 90degree bend at elbow. Effort should be given to driving the elbow back so the hand sweeps the hip. This generates a forward knee drive and promotes forward efficiency. Take notice of the center line of the body and be sure not to let the hands cross from side to side. Do not waste energy clenching your fists - fingers should relax toward the thumb as if "carefully holding a single potato chip."

TORSO: Slight forward lean from the hips (promotes gravitational forward motion). Too much forward lean will shift your center of gravity and strain the lower back, so think of a string leading you **up** by the chest.

HIPS: Your center of gravity. Slight forward tilt to align with head and shoulders. Slight twisting motion.

KNEES: Minimal knee lift. Just enough to bring the lifted foot beneath the hips. Should **not** straighten.

FEET/STRIDE/CADENCE: Place one foot in front of the other along the center line of your body – striking the ground with the mid-section of the foot directly beneath the hips to support and propel your center of gravity with maximum ease and efficiency. In order to do this you must keep your stride short and your cadence quick (80+ steps per minute). My token term for this is: "Flintstone Feet"

I recommend implementing one tip at a time in the order listed above. Changing your feet without first adjusting the resting your body may cause a drastic shift in the stress lines of your body. This can lead to energy inefficiencies due to discomfort in the running muscles and joints - or worse yet, injury!

TIP TEST: If you think you've got it down, you can test yourself by running on a treadmill. Make sure you can see yourself through a front or side mirror. Warm-up to your 80+ cadence... then, LOOK and LISTEN. You should **NOT**: 1) **hear** your feet striking the treadmill or 2) **see** your head bobbing up and down. If you can maintain this pace for at least 5 min without "seeing or hearing" yourself as described, I'd have to say – congratulations...You too, are now "A RUNNER!"

Form Running Drills

Form drills should be done after a proper 5 minute warm-up preceding any training run/race. When repeated regularly, they help improve running mechanics and improve speed as they are specific to the primary running muscles: **quadrecepts** (specifically the hip flexor known as the rectus femoris, responsible for lifting your knee and extending the knee), **hamstrings** (used when bending the knee), **gastrocnemeus/soleus** (otherwise know and the calf, used in pushing off the ground and moving the body forward)i **tibilais anterior** (muscle that runs from the front of your knee to your ankle, responsible for lifting your toes to clear the ground).

ARM SWINGS: This drill should be done sitting with your feet straight out in front of you. (If you have tight hamstrings, prop yourself up on the edge of a pillow, blanket or towel. You can use a curb if you are at a run location.) Hold your upper body as practiced in your running form tips and concentrate on driving your elbows back so your hand sweeps your hip and guide your forward swinging arm straight forward. Start out very slow and controlled...getting faster and faster and faster every 30 sec over 2 minutes. Repeat 2-3 times.

MARCHING (hip flexors and calf): Heels should not touch the ground during the exercise. Walk forward on your toes using small 12 –18 inch steps. Begin slow single leg marching by raising your right knee to hip height as you flex your right toe (foot parallel to ground). Concentrate on alignment – torso straight up and down, head held high, right arm drives back (left arm forward) in a 90 degree bend. Repeat 20 knee drives on the right side and repeat with your left side. Then combine right, left marching for 20 alternating knee drives on each side.

SKIPPING (hip flexors, hip extensors and calf): Similar to the marching drill, but the cadence is faster. Use short strides and focus on pushing off with your toes. Heels should not touch the ground during the exercise.

BUTT KICKERS (hamstrings): Heels should not touch the ground during the exercise. Knees should point downward keeping thighs perpendicular to the ground as you try to kick your butt with your heel.

HOT FEET (all running muscles): Think about what it would be like to run on hot coals. Keep a low knee lift, with short quick strides (remember your efficient running tips and ally them here!). Form, body control and smoothness of the motion are key (not speed). Repeat 2-3 times over 10-20 yards.

Form Running Exercises

Form exercises should be done after a proper 5 minute warm-up at least 2 times per week. They should not be done 1 week before or 1 week after a "race". When repeated regularly, they help improve the strength and resilience of the running muscles mentioned above:

Reverse/Forward LUNG w/ KNEE DRIVE (hip flexors, hip extensors, gluts): Using 5 - 20lb dumbbells and a 6-12" step. 1. Step-up 2. knee-drive 3. step down 4. reverse lunge repeat 10–20 times on right side and then left. Rest between sides. Do 2-4 sets.

CHALLENGE: add bicep curls to this movement for the first 10 or so reps of each side.

BALL WALL SQUATS (quadriceps, gluts): Using 5 - 20lb dumbbells and an exercise ball against the wall. 1. feet out from the ball about 12" 2. lean into ball places at your low/mid back 3. keep back straight as you roll down to a 90degree knee bend 4. back to standing repeat 10–20 times. Rest between sets. Do 2-4 sets.

CHALLENGE: add shoulder press to this movement for the first 10 or so reps of each set.

Dead-lifts (hamstrings): Using 5 - 20lb dumbbells bend forward at the hips (flat back) and slowly return to an upright position. Repeat 10-20 times. Rest between sets. Do 2-4 sets.