

Freihofer's Junior 3k Training Program

Basic Running Form Drills

My recommendation is that you incorporate these drills into your pre workout warm-up prior to completing the dynamic warm-up with high knees, butt kicks etc... Do these drills before any speed work or interval session, but at least twice a week.

Reynold's starts with the very basic marching drills for beginners or those that need to start from square one with form. These are great for kids-and fun too!

From REYNOLDS, W. (1995) *Peak Performance*, 65, p 3-6

The major difference between running drills and regular running is in the length of the stride (during drills, the stride is significantly shorter, to allow for better concentration on limb and trunk mechanics). Major benefits of technical running drills include improved intramuscular co-ordination (including the proper timing of arm and leg movements), an enhancement of dynamic balance and an upgrading of the power of the primary running muscles.

Marching "A" drill

Begin by walking slowly forward on the balls of your feet using small (12 to 18 inch) steps. Your heels should not touch the ground during this exercise. Continue by raising your right knee to hip level (with thigh parallel to the ground) on each stride. Your right foot should be "cocked" (making your ankle and foot look like a fishhook) at the top of the leg swing, and your right ankle should be directly under or slightly behind your right knee (your knee should be at a 90 degree angle or slightly less). Rise on the toes of the left foot, extend the left ankle and knee as your body passes over the left foot during the walking stride. Your trunk should be held upright (think "chest tall and slightly forward"), and your chin should be held level. Swing your arms slowly and deliberately in a mock running motion in rhythm with the marching/walking strides. Your elbows should be bent at approximately 90-110 degrees, and your hands should swing to chin level and slightly toward the mid line of your body during the forward arm swing. On the back swing, your hands should move one to six inches past the "hip-pocket" position, to the rear of your body. You probably didn't realize that marching could be so complicated! Repeat this action, raising the right knee to hip level with the left leg moving through a normal walking stride into full extension on the toes, for 20 to 40 metres. Walk back to your starting position and repeat the action, with the left knee rising and the right leg extending, for 20 to 40 metres. Continue to focus on short steps, proper posture and limb mechanics, whole-body balance and control of your marching rhythm. All of your movements should occur in a slow and controlled, not jerky manner. After performing the drill with each leg marching separately, combine the marching actions of both legs over the 20 to 40 metre distance. The marching high knee drill emphasizes proper running mechanics - a driving knee lift, upright posture and a coordinated arm swing - and should be practised and mastered before progressing on to the skipping and running-technique drills.

Marching "B" Drill

Begin this high knee with extension drill in the same manner as the high knee drill walking forward slowly on the balls of your feet. Raise the right knee to hip level with each stride, and as the knee approaches hip height extend the knee by swinging the lower

leg and foot forward to nearly full extension (your entire leg will end up parallel with the ground). Allow your momentum to carry your body forward, and step with the ball of the right foot one to two feet in front of the left foot. Your trunk should be held upright, and your chin should be level throughout the course of the drill. Your arms should compensate for the extended leg action by swinging in a slightly wider arc (100-plus degrees at the elbow) while maintaining rhythm with the strides of the legs. The actions of the left foot, ankle, knee and hip (extended) are similar to their activities in the high knee drill.

Repeat the high knee lift and extension action with your right leg for a distance of 20 to 40 metres. Then rest while walking back to the starting point, before performing the drill with your left leg. Finally, perform the exercise with both legs alternately over the same 20 to 40 metre distance. The marching high knee with extension drill emphasizes hamstring flexibility and body control in addition to other basic aspects of proper running mechanics. It provides the basis for learning more advanced skipping and running drills.

Skipping "A" drill

The skipping high knee drill follows the same basic format for posture and limb mechanics, as does the marching form of this drill. The trunk position and arm and leg actions are identical to those of the march, but the cadence is slightly faster to accommodate the skipping action. Once again, the strides are short (about 12 to 18 inches between opposing foot contacts), and the action is performed primarily on the balls of your feet which helps you develop foot strength and balance.

Practice the skipping drill with one leg at a time before combining the movements (first lift only the right knee, then only the left knee, before alternating right and left legs) over a distance of 20 to 40 metres for each drill. The skipping high knee drill develops inter-muscular co-ordination during fast movements to a greater degree than do the marching drills, which are carried out at a slower tempo. In addition, the load placed on the musculo-skeletal systems is considerably higher during skipping, due to a greater vertical shift of the centre of gravity during the exercise. This additional loading leads to increases in strength in the motor support structures of the feet and lower part of the leg, as well as the thigh, hip and trunk muscles.

Skipping "B" drill

This "B" drill is like the "A" skipping drill, except that a swing forward of the lower part of the leg is added to the driving knee action. The emphasis during this drill should be on the "pulling down" (hip extension) of the swing leg rather than the kicking out of the lower part of the leg during knee extension. This "pawing" motion with the nearly extended leg is important for developing co-ordination and specific strength in the hamstring and gluteal muscles and should help prevent injuries in those areas (especially hamstring strains and tears).

All other aspects of proper running form (as outlined in the descriptions of the previous drills) should be observed. First, move 20 to 40 metres with the right knee driving and extending, then scoot through 20 to 40 metres with the left knee driving and extending, and finish by alternating from right leg to left leg over the same distance. Walk back to your starting point between drills to recover. This skipping "B" drill emphasizes the development of an active foot strike, providing the basis for improved stride length, in addition to strengthening the hamstrings, improving co-ordination and balance and upgrading running posture.

Running "A" and "B" drills

The running "A" and "B" drills are performed in the same fashion as the marching and skipping versions but utilize a short-stride (12 to 18 inch) running motion. These are the most advanced and difficult drills to perform correctly, and they are the most specific of the three drills to the actual neuromuscular patterns used during full-stride running. Movement rhythm, frequency of foot strike, balance and co-ordination requirement, ground impact forces and energy expenditure are at their highest levels during these running drills. It is very important to maintain a forefoot (rather than heel) strike during these running drills in order to allow the foot and lower part of the leg to absorb the high impact forces. Upper torso and arm-swing actions should be similar to those in the previous drills.

Perform all running drills with one knee rising and the opposite leg "jogging" (low knee lift) for a distance of 10 to 20 metres. Walk back to the start and repeat the action with the other leg, before combining the actions and performing the drill with alternating legs. The distance covered (10 to 20 metres) for the running drills are shorter than for marching or skipping due to the greater intensity of effort. Over time, you may gradually increase the distance, but in the interest of maintaining proper technique and therefore positive training adaptations, it is wise to be conservative. It is far better to train over shorter distances with excellent form than it is to work over longer distances with average or poor form.

The running "A" and "B" drills develop specific intramuscular co-ordination, increase the strength of the entire foot/leg/hip/trunk complex, and enhance balance and body awareness during full-stride running. Running drills allow you to strengthen many important links in the running performance chain (posture, specific strength and power, mobility and agility) through specific overload of the various links.

Program

The following sample workouts are designed for runners of various ability levels. Do the following workouts two to three times per week at the end of your warm-up (before the main part of your training session begins) Please note: "1 X 20 metres each" denotes performing the drill for 20 metres with the right leg only, followed by 20 metres with the left leg only, followed by 20 metres of alternating legs. For recovery, simply walk back to the start between repetitions.

Beginner

- March "A": 1 X 20 metres each
- March "B": 1 X 20 metres each
- Skip "A": 2 X 20 metres each
- Skip "B": 2 X 20 metres each

Intermediate

- March "A": 1 X 20 metres each
- March "B": 1 X 20 metres each
- Skip "A": 2 X 30 metres each
- Skip "B": 2 X 30 metres each
- Run "A": 2 X 10 metres each