

Agility Ladder Training

Usage Guidelines for Powerladder, Sportladder and Kidzladder

Agility ladders work on the principle of developing general athletic skills, which can then be transferred to sport-specific skills. One critical element to improving overall athletic performance is teaching the neurological system to activate more motor units. The more muscle units a muscle is using, the more force it will have during contraction. A stronger muscle contraction equates to greater power output for speed and quickness, and aids in joint stability and proprioception.

The ladder works by forcing your neurological system to send recruitment information to the muscles at a higher rate of speed, recruiting more motor units. This will create quicker, faster, more agile athletes.

Developing a Ladder Training Program

Using a building block system of skill development is very important to success in training with a ladder. You must work from general to advanced skill development and from full range of motion to smaller, quicker movements. If you keep in mind the principle of working from slow and controlled movements to fast, explosive movements as a teaching and learning progression, you will have a greater success with the ladder.

There are 4 basic skills used when training with a ladder. These are runs, skips, shuffles and jumps/hops. When setting up your training program use the skills in this order, and always come back and do the runs again. Runs are general the skill you are trying to improve the most. Begin your training program using full motion of runs and skips. This will help to teach the body's muscle memory system the basic skill. Once the basic skill is learned, then the athlete can work on improving the speed at which the skill is performed. You must always remember to learn the skills slowly, then add speed with control.

It is important to practice all 4 basic skills because athletes need the stimulus variation. Each skill aids in different motor recruitment and is important to the learning process.

Breaking your workout into sets and reps is also important to maximizing athletic development. Try not to train by whatever comes to mind, but rather have a specific goal and a program to follow. It may take several times down and back through the ladder to get the general skill developed. Most often we use one time down as 1 rep, with 2-4 reps per set. For each skill a minimum of 2 repetitions is recommended. This means that for lateral drills you would need to do 4 repetitions, because each side of the body needs to be trained using 2 reps. Linear drills can use only 2 reps since they work the entire body equally. You

can plan your workout using a few or as many drills as you desire, but typically you will want to do at least 2 drills from each of the 4 basic skills, and one set of each drill is usually sufficient.

Sport-Specific Applications

For sport-specific applications, try to match the skills simulated by the ladder to those most frequently used in the sport. Here are some examples, but be creative! The ladder is very versatile.

Track: Use a variety of linear drills, placing emphasis on runs and skips.

Court Sports: Emphasis should be on lateral movement and agility drills. Many court sports utilize very short bursts of very intense speed. Try breaking the ladder in half and do quick drills through one half of the ladder, breaking and slowing when you hit the end, then resuming the drills through the second half. This would simulate defending a competitor in basketball, for example, or returning a tennis shot.

Football/Soccer: Use a wide variety of drills. These sports demand linear speed as well as lateral movement and agility. You will want to use a combination of full and half-ladder drills, but extra emphasis may want to be placed on using the half ladder for fast footwork drills, exploding into a sprint when the end of the ladder is reached.