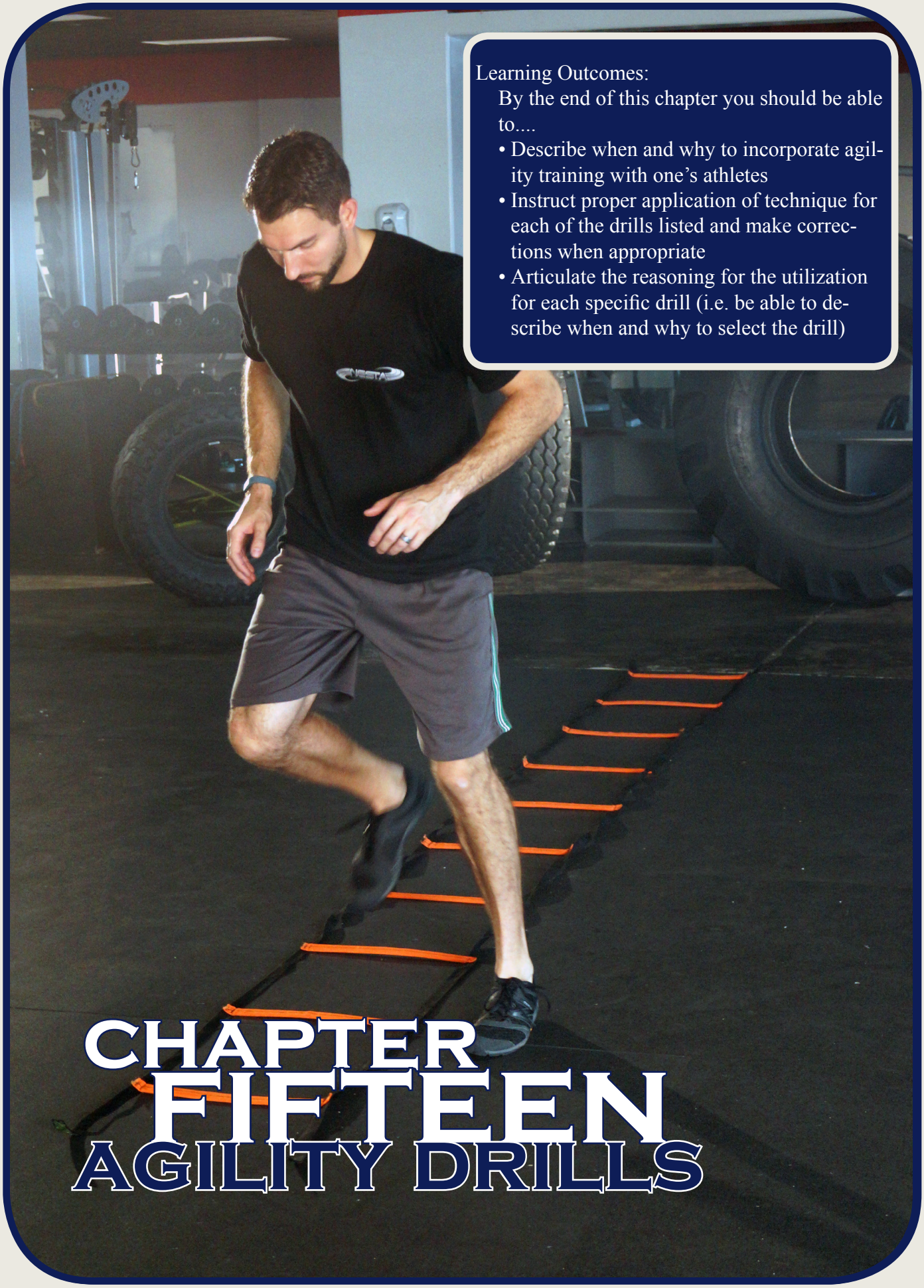


Learning Outcomes:

By the end of this chapter you should be able to....

- Describe when and why to incorporate agility training with one's athletes
- Instruct proper application of technique for each of the drills listed and make corrections when appropriate
- Articulate the reasoning for the utilization for each specific drill (i.e. be able to describe when and why to select the drill)

CHAPTER FIFTEEN
AGILITY DRILLS

AGILITY

Definition: *The ability to move, change direction, and position the body effectively while under control.*

Looking at the most popular sports being played today (soccer, football, basketball, tennis, etc.), notice that the majority of movements occur within 10 yards (Taskin, 2008). These movements, which include rapid acceleration, deceleration, rotation, level changes, and changes in direction, are all characteristics of agility. Knowing that most of an athlete's movements occur in this fashion, we can see the importance of this type of training.

The Speed section touched upon the importance of strength training and how that translates into a more powerful, less injury-prone athlete. Those strength-training benefits apply to agility training as well. A stronger athlete will be more powerful and able to generate more force into the ground while performing change-of-direction drills (like the cone box drill). A great quote to support this concept comes from Lee Brown and Vance Ferrigno (2005) in their book, Training for Speed, Agility, and Quickness: "The key to improving agility is to minimize the loss of speed when shifting the body's center of gravity."

How do we minimize that loss of speed? Proper technique training, adequate progressions, and focusing on both acceleration and minimizing ground contact time during movements, will make the difference.

Amortization Training

In addition to increased force production, this Agility section focuses on the amortization phase of training. Also called a transition phase, it is the time between the eccentric and concentric phases of a movement. Simply put, it is the ground contact time between repeated jumps.

The longer an athlete is on the ground, or the longer it takes an athlete to absorb and push off to accelerate into a new direction, the less powerful that next movement will be. This longer transition phase is encompassed in the stretch shortening cycle (SSC) that occurs in most activities. This is basically comprised of three elements: the initial eccentric phase, the transition phase, and then the concentric phase, when the athlete produces force that results in the next movement. This SSC involves storing elastic energy, the stretch reflex that will be used to powerfully move the athlete into a jump or a change of direction (Bosco, Komi & Ito, 1981).

If an athlete performs a box-depth jump and pauses on the ground (transition phase) for two seconds, then jumps onto the box, the results will suffer. The stored energy initially created in the eccentric phase will be lost and the athlete will be less powerful (Baechle & Earle, 2000). With this information, it's important to focus on improving the amortization phase of an athlete's movements. Keep this phase as short as possible to take full advantage of the stored elastic energy that is produced in the muscles during all the movements listed below.

LINE DRILLS

Line drills are great for beginners, as a warm-up tool, and can be a simple alternative if a ladder is not available. A straight line on a sports field/court (e.g. , basketball, volleyball, football, soccer) will suffice. A simple piece of tape on the floor will work as well. For all line drills, focus on keeping the upper body "quiet" by avoiding a lot of upper-body shifting back and forth. The movement should come from the lower body and the torso, so the body's center of gravity remains over the line.

DRILL: Forward/Backward Hop

WHY:

Enhance balance, foot speed, and coordination.

HOW:

- Stand facing toward the line and begin to hop back and forth over the line for a specified time.
- Stay on the balls of the feet throughout the drill and avoid scuffing the ground.
.
- Perform the hops as fast as possible while maintaining proper technique.

EQUIPMENT:

- A straight line on the floor

VARIATIONS:

- Single leg or travelling

Single leg variation

DRILL: Lateral Hop

WHY:

Enhance balance, foot speed, and coordination.

HOW:

- Stand parallel to the line and begin to hop back and forth over the line for a specified time.
- Stay on the balls of the feet throughout the drill and avoid scuffing the ground.
- Perform the hops as fast as possible while maintaining proper technique.

.

VARIATIONS:

- Single leg or travelling

EQUIPMENT:

- A straight line on the floor

Single leg variation

DRILL: Scissor Hop

WHY:

Enhance balance, foot speed, and coordination.

HOW:

- Start the drill straddling the line (one foot in front and one in back).
- Switch the feet back and forth over the line as rapidly as possible while maintaining proper form.
- Stay on the balls of the feet throughout the drill and avoid scuffing the ground.

VARIATIONS:

- Single leg or travelling

EQUIPMENT:

- A straight line on the floor

DRILL: Hexagon Test

WHY:

Enhance balance, foot speed, and coordination.

HOW:

- Create a hexagon shape on the ground using tape and have each side two feet in length.
- Begin in the middle of the hexagon in an athletic position.
- When the trainer cues the start, hop over line #1 (see image) and then hop back to the center. Repeat this process for all six sides for three total revolutions.
- Perform this in both directions to ensure a balanced routine and be sure to record times to track progress.

EQUIPMENT:

- Tape and a timer

CONE DRILLS

Cones are used to provide direction during agility drills. They enhance change of direction, coordination, and body awareness. Cone drills can be used as part of a dynamic warm-up routine or as stand-alone drills. While there are countless cone drill variations, the following drills will generate the most benefits.

DRILL: Cone Box Drill (with Variations)

WHY:

Enhance change of direction and coordination through a preset drill.

HOW:

- Set up four cones in a square, five yards apart.
- Begin in a sport-specific ready position just to the outside of cone #1 (lower left corner of the box) facing up to cone #2 (top left corner).
- Start by accelerating up to cone #2. Plant the outside foot, stay low in an athletic position, and perform a lateral shuffle (don't cross the feet) over to cone #3.
- At cone #3, backpedal to cone #4
- Finally, plant the outside foot and laterally shuffle back to the start

EQUIPMENT:

- Four cones

VARIATIONS:

- Sprint -> sprint -> sprint -> sprint
- Sprint -> carioca -> backpedal -> carioca
- Sprint -> side skip -> backpedal -> side skip
- Add a final sprint to any of these variations by accelerating from cone #1 and passing cone #2 as fast as possible

DRILL: Cone Circle Drill

WHY:

Enhance change of direction and coordination through a preset drill.

HOW:

- Set up five cones in a straight line, five yards apart.
- Begin in a sport-specific ready position in front of the first cone, facing the line of cones.
- Circle the first cone using short, choppy steps on the balls of the feet.
- Advance up to the next cone and repeat the movement.
- Avoid stepping up and over the cones as this defeats the purpose of the drill.

EQUIPMENT:

- Five cones

DRILL: Cone Lateral Circle Drill

WHY:

Enhance change of direction and coordination through a preset drill.

HOW:

- Set up five cones in a straight line, five yards apart.
- Begin in a sport-specific ready position, standing perpendicular to the first cone in the line.
,
- Circle around the first cone using short, choppy steps on the balls of the feet.
- Shuffle to the next cone and repeat the movement.
- Perform this drill by circling the cones in both directions to ensure a balanced routine.

EQUIPMENT:

• Five cones

DRILL: Zig Zag Cone Drill

WHY:

Improve acceleration and deceleration through a predetermined drill..

HOW:

- Set up five cones in a straight line, five yards apart.
- Begin in a sport-specific ready position in front of the first cone facing toward the line of cones.
- Shuffle laterally in a diagonal direction until halfway between the first and second cones.
- Change direction and shuffle across the line of cones in front of the first cone until parallel with the second cone.
- Change direction again and repeat this diagonal direction change until all the cones are passed.

EQUIPMENT:

- Five cones

DRILL: Acceleration/Backpedal Cone Drill (Zig Zag Pattern)

WHY:

Enhance change of direction and coordination through a preset drill.

HOW:

- Same set up as the Zig=Zag Cone drill.
- Begin in a sport-specific ready position, standing perpendicular to the first cone.
- Accelerate in a diagonal direction until halfway between the first and second cones.
- Change direction and backpedal across the line of cones, in front of the second cone until parallel with the second cone.
- Change direction again until halfway between the second and third cones. Repeat this diagonal direction change until all cones are passed.

EQUIPMENT:

- Five cones

SPEED AGILITY QUICKNESS
NESTA
SAQ
Click Here for Video
SPECIALIST

DRILL: Shuttle Run (Pro Agility) (5-10-5)

WHY:

Improve acceleration, deceleration, and change of direction.

HOW:

- Set up three cones in a straight line, five yards apart.
- Begin in an athletic position in front of the middle cone.
- Start the drill by moving to the right and touching the ground with the right hand at the right cone.
- Turn, sprint 10 yards to the far left cone and touch the ground with the left hand.
- Turn and accelerate back past the starting line (middle cone).
- The drill is timed from the first movement until the athlete passes the middle cone the second time.
- Perform this drill in both directions.

EQUIPMENT:

- Three cones

DRILL: Three-Cone Drill

WHY:

Enhance change of direction and coordination through a preset drill.

HOW:

- Set up three cones five yards apart, forming a 90-degree angle (L shape).
- Begin in a sport-specific ready position (typically three-point) at cone #1.
- Run to cone #2 and touch the cone with the right hand.
- Turn, return back to cone #1 and touch the cone with the right hand.
- Turn, run around the outside of cone #2 and then run down to cone #3 in a figure 8 configuration, running around the cone from the inside to the outside.
- Run back around the outside of cone #2 and finish by running through the start line.

EQUIPMENT:

- Three cones (A fourth cone can be used if you want to set up a four-foot starting lane as shown in image).

DRILL: T Drill

WHY:

Enhance change of direction and coordination through a preset drill.

HOW:

- Set up three cones in a line five yards apart.
- Begin in a sport-specific ready position 10 yards away from the line of cones and aligned with the middle cone.
- Accelerate to the middle cone, cut left and accelerate to cone #2. Run around the cone in a controlled fashion and sprint 10 yards to the other outside cone.
- Run around this cone and accelerate back to the middle cone.
- Turn left and accelerate past the starting line.
- Perform this drill going in both directions to ensure a balanced routine.

EQUIPMENT:

- Three cones (A fourth cone can be used for the starting point as shown in the image).

DRILL: 60-Yard Shuttle (5 & Back, 10 & Back, 15 & Back)

WHY:

Enhance change of direction and coordination through a preset drill.

HOW:

- Set up four cones in a straight line, each five yards apart.
- Begin in a sport-specific ready position, next to the first cone in the line.
- Start by accelerating forward five yards to the second cone and touch the cone with the right hand.
- Turn and run back to the start (cone #1) touching the cone with the left hand.
- Turn and accelerate forward 10 yards to the third cone. Touch the cone with the right hand, turn and run back to the start.
- Finally, accelerate forward 15 yards to the fourth cone. Touch the cone with the right hand, turn and run back through the start.
- The drill is timed from first movement until the client passes through the start line

EQUIPMENT:

- Four cones

DRILL: Illinois Agility Test

WHY:

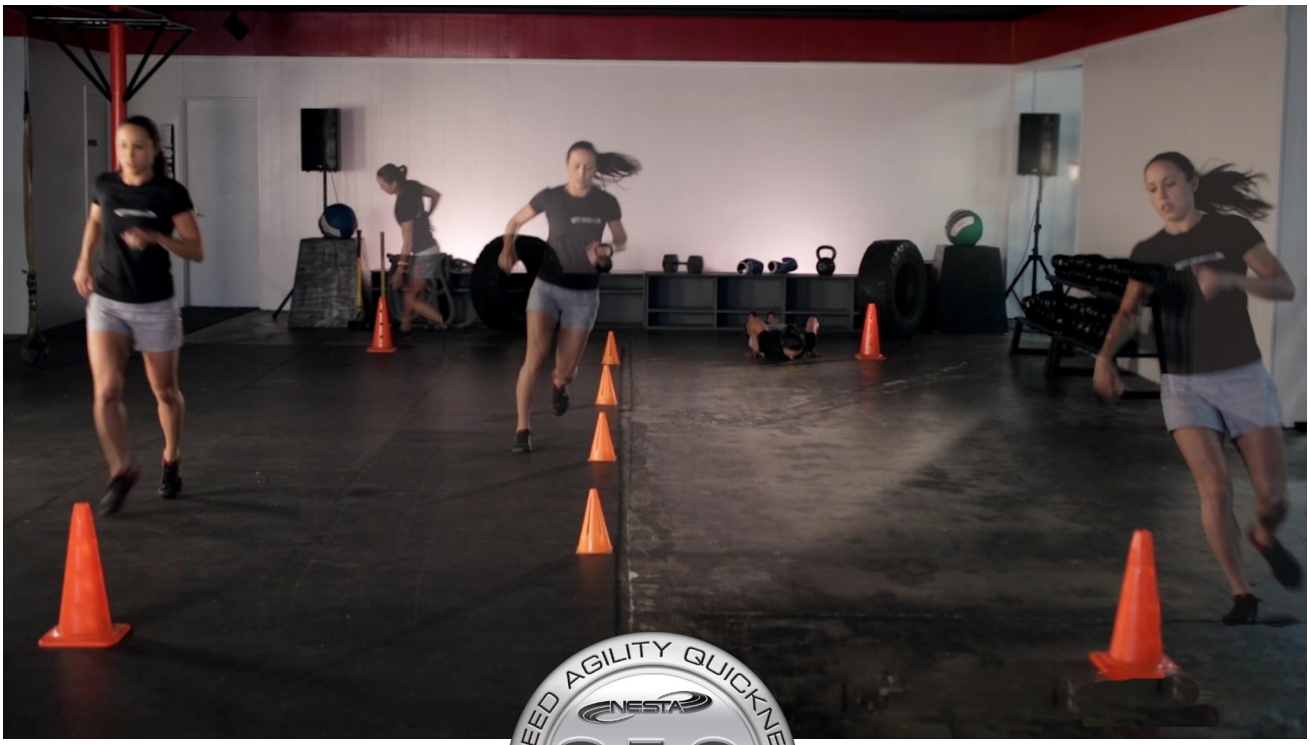
Challenges acceleration, deceleration, and change of direction through a preset drill.

HOW:

- Set up four cones in a rectangle shape, 10 yards long and 5 yards wide. Set up the other four cones in the middle of the rectangle 3 yards apart (as shown in image).
- Begin at cone #1 in a prone position with hands on the ground.
- Sprint around cone #2, come back towards the start and then weave the middle cones in a figure 8 fashion.
- After circling the first middle cone, sprint to cone #3, circle it, and accelerate past cone #4 to end the drill.
- Perform this in both directions to ensure a balanced routine and be sure to record times to track progress.

EQUIPMENT:

- Eight cones and a timer



LADDER DRILLS

There are countless ladder drills that can improve footwork and coordination. Always perform ladder drills on the balls of the feet and in a quick, but under control tempo. Start with the basic drills before progressing to more advanced variations. While the ladder is good for dynamic warm-up and helps teach footwork and coordination, use caution when using this tool, as less-than-ideal upper-body posture typically occurs. Athletes tend to look down as their feet when performing ladder drills, which can promote an incorrect athletic position. Incorporating visual and kinesthetic cues is an effective way to correct this problem. Some are included in the popular ladder drills below.

DRILL: Run Thrus (1-foot per Box)

WHY:

Enhance footwork, coordination, and lower-body agility.

HOW:

- Begin at one end of the ladder, facing toward the rungs.
- Step into the first box with one foot and then into the second box with the opposite foot.
- Repeat this process running all the way down the ladder.

.EQUIPMENT:

• Ladder

VARIATIONS:

- Perform this in a high-knee fashion or with low fast feet.

DRILL: Two-Foot Run Through

WHY:

Enhance footwork, coordination, and lower-body agility.

HOW:

- Begin at one end of the ladder facing toward the rungs.
- Step into the first box with one foot and then step into the same box with the other foot.
- Repeat this process running all the way down the ladder.

EQUIPMENT:

- Ladder

DRILL: Two-Foot Lateral Run

WHY:

Enhance footwork, coordination, and lower-body agility

HOW:

- Begin at one end of the ladder facing perpendicular to the ladder.
- Step into the first box with the foot closest the ladder and then step into the same box with the second foot.
- Moving to the second box, again step the inside foot into the box and follow it with the second foot.
- Be sure not to cross the feet, and continue this pattern moving rapidly down the ladder.

EQUIPMENT:

- Ladder

VARIATION:

- Toss a ball to the athlete while performing the drill.

DRILL: In-In-Out-Out

WHY:

Enhance footwork, coordination, and lower-body agility.

HOW:

- Begin standing perpendicular to the ladder at one end, outside the first box.
- Step into the first box with the inside foot, then step into the same box with the second foot.
- Step back diagonally out of the first box with the first foot so it is now in line with the second box. Follow with the second food so now lined up with the second box.
- Repeat this movement across the ladder always leading with the inside foot.

EQUIPMENT:

- Ladder

VARIATION:

- Hold a number up using your fingers and have the athlete call it out.

DRILL: Ali Shuffles (Lateral Hip Turn)

WHY:

Enhance footwork, coordination, and lower body agility.

HOW:

- Begin at one end of the ladder, outside the first box, facing the rungs.
- Hop into the first box with the inside foot, keeping the other foot outside the ladder.
- Perform a criss-cross or scissor-like action and alternate the foot that hops into the next box.
- Continue alternating feet down the ladder.
- Perform this drill in both directions to ensure a balanced routine.

EQUIPMENT:

- Ladder

SPEED AGILITY QUICKNESS
NESTA
SAQ
Click Here for Video
SPECIALIST

DRILL: Icky Shuffles

WHY:

Enhance footwork, coordination, and lower-body agility.

HOW:

- Begin besides the first box facing toward the rungs.

.

- Step into the first box with the inside foot and then step into the same box with the other foot.
- Next, step out of the box on to the other side of the ladder with the lead foot. At the same time, step the second foot up to the next box in the ladder.
- Then step the outside leg into the second box as well.
- Repeat the same pattern of steps on the other side of the ladder.

EQUIPMENT:

- Ladder

DRILL: Single Leg Hop

WHY:

Enhance footwork, coordination, and lower-body agility.

HOW:

- Begin at one end of the ladder facing toward the rungs.
- Hop into the first box with one foot and simply repeat this by hopping into every box in the ladder.
- Be sure to perform this drill with both feet to ensure a balanced routine.

EQUIPMENT:

- Ladder

VARIATION

- Perform this drill laterally as well.