



# THE LEAN BERETS

## AVENGERS OF HEALTH!

### **“Speed, Agility, & Quickness Basics”**

**INTRODUCTION:** SAQ (Speed, Agility, & Quickness) drills are designed to teach and improve running mechanics and enhance running performance. **\*Quality of movement is priority #1.** Strive for 90% perfection or modify until you can get 90% rather than just grinding through a lot of poor movement. More often than not, a person needs to “regress” SAQ drills until they can control them. Make the drills as simple as needed to preserve quality and safety then “progress” as they can be controlled after you develop proper form and conditioning. *Stay focused yet relaxed as excess tension decreases “speed.”*

**SPEED:** “Speed” is basically about max velocity or how fast you can run. Interestingly, most people probably need “quickness” drills more than all out speed drills because their sport efforts use much shorter bursts. Generally, max speed development requires at least 4-5 seconds at max effort. ***If you want metabolic improvement for true speed, don’t run “speed” drills slow—run them FAST!***

**AGILITY:** Think of good agility as your ability to transition from one movement into the next with control and coordination. Simply put—***agility is coordinated movement.***

**QUICKNESS:** Being quick is related to speed but not the same. You might be able to run fast if you have enough time to increase your speed, but how fast can you move off the line? This is “quickness.” ***If you can perform a movement task in a very brief amount of time, you are quick.*** Many sport plays never allow enough time for max velocity, so quickness is actually more important!

**PLYOMETRICS:** ***This is simply jump training.*** Historically, people did a lot of jump training with gymnastic vaults, warm up, military-style training, etc. Many of the warm-up drills involve hops and jumps. ***The key is landing more than the jumping.*** Always land softly and absorb force through your joints instead of landing hard and jamming your knees, hips, and back. Keep “amplitude” low meaning you don’t jump very high until you ***earn the right to land safely***—then increase amplitude as needed.

- **VOLUME MUST BE KEPT LOW TO PRESERVE QUALITY!** A common mistake with SAQ is thinking more is better; it’s not. More “high volume” means form and safety breaks down. You can only control a very small amount of whole-body explosive efforts at one time. Short breaks are critical for recovery, and the overall volume for a particular day must be limited especially for those new to plyo and SAQ drills. Generally recommendations are 60-150 “strikes” per session with many short rest breaks in-between.



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**SURFACE:** Ideally, these are done on grass which is a softer surface. You need about 30-100 yards depending upon the drill, but most of the shorter actual SAQ warm-up drills only need about 30-40 yards.

## FOUNDATIONAL STRUCTURE & ALIGNMENT

- **Feet:** Should be aware of “Tripod” position, using balls of feet and arch to absorb shock, and concerns with “heel striking” and force production. Be aware of “Chi Running” or barefoot running technique on balls of feet.
- **Shoes:** “Motion Control” shoes prevent feet from working naturally. These can actually “increase” force into ankles, knees, hips, and spine.
- **Ankles:** Ankles need good “mobility” (freedom of movement) to facilitate proper running and navigate uneven ground. Ankles also need “stability” (control of movement) so they don’t collapse under stress—often resulting in pronation where the foot folds inward towards midline. If you have an ankle problem—you won’t have efficient running form, so pay attention to true foundations of running which are feet and ankles...and what you put on them too.
- **Knees:** With linear “straight line” running, knees should track over feet generally. Be aware of “valgus” forces which mean knees collapse inward to midline putting excessive force on inside knees.
- **Hips:** Should be neutral meaning they line up knees and feet pointing FORWARD instead of externally rotating outwards. If you want to run forward without knee injuries—get hips aligned so knees don’t point in wrong directions. Hips must be mobile to deliver proper leg swing and align big toes for proper leverage during gait whether walking or running. Tight hips can also force spine to move laterally as hips swing up and down.
- **Arms:** Should swing naturally from shoulders and not cross midline. Cross-body movements decrease running efficiency. Arm swing intensity increases with maximal efforts like sprinting or running uphill. Proper arm swing helps *distribute ground forces* generated with foot strikes.
- **Torso:** Chest should be “open” to facilitate good breathing. Shoulders should not be rounded forward collapsing chest and limiting lung capacity.
- **Head & Neck:** Run with your legs and arms—not your head and neck. Gaze should be forward not up or down. If you need to look down—use eyes as much as possible—not neck. Also, “use eye movement” for peripheral vision as much as possible as turning neck sideways alters gait and impacts concentration.



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#### ***Pre-Running Warm-Up Drills:***

- ✓ Breath Cycles
- ✓ Relaxation Shake Outs (Face, Arms, Ankles)
- Ankle Tilts
- Ball of Foot Circles
- Toe Pulls
- Knee Circles
- Squat/Protract & Reach/Retract
- Arm Flings
- Leg Swings
- Hops + ¼ Turns

#### **Seated Arm Swings:**

- Slow
- Sprint

#### ***SAQ Warm-Up Drills:***

- Skips:
  - Low
  - High
  - Quick
  - Side Shuffle
  - Side Jacks
- High Knee
- Butt Kickers
- Carioca:
  - Walk
  - Jog
  - Run
  - High Knee Pullover



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#### **“Linear Speed” Drills:**

\* **SPEED:** Note that most sports or survival needs require more “quickness” or rapid bursts with change of direction agility than actual all out “straight-line speed. For an introduction class, we don’t have to be at full velocity, but do your best to run at your threshold of control for “your” maximum velocity that can be safely controlled with 90% form perfection or better.

- **Falling Start** (Forward Vector Line)
- **Build Ups** (Intro to Velocity)
  - 10+20+10 (Easy)
  - 30+40+30 (Harder)
- **Fly 30** (Max Speed Development, ↑Transition Acceleration & Speed Changes)
  - Out 15, Fly in *Max speed* for 30, out 10 (55 total yards)
- **Gear Stops** (Speed Strength & 3D Quickness/Deceleration Drill Prep)
  - If help is available, add reactive commands like flag, whistle, body movement of coach or partner to signal the stops. Stop according to step guidelines below. For example, start on flag, stop on flag command, go on whistle, then stop again on whistle or switch it up differently as desired.
  - Mark stop zone #1 @ 15 yards & stop zone #2 @ 30 yards.
  - After 2<sup>nd</sup> stop jog forward 15 yards to stop/start line; repeat coming back other way.
    - ✓ ½ speed=3 steps (Hit ½ speed by 15 yards, stop)
    - ✓ ¾ speed=5 steps (Hit ¾ speed by 15 yards, stop)
    - ✓ Full speed=7 steps (Hit full speed by 15 yards, stop)



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#### **“Agility & Quickness” Change of Direction Drills:**

- \* **AGILITY:** Good agility is your ability to transition from one movement into the next with control and coordination. *Simply put—“agility is coordinated movement.”*
- \* **QUICKNESS:** Quick is related to speed but not the same. How fast can you move off the line? How fast can you cut or change directions? *This is “quickness.”*
- **15-Yard Turn Drill (3 Point):**
  - Set cones in triangle about 5 yards apart. Sprint to first cone then cut around the outside and back to next cone. Cut to the inside of second cone then backspin around as you point yourself back to the third cone. Sprint hard to the final cone.
- **Snake:**
  - Set two lines of cones in Zig-Zag pattern about 5 yards apart. Sprint around the outside of each cone. As you go around, decelerate, drop hips, and reach down to touch top of cone then accelerate to next and repeat.
- **Cut & Spin:**
  - Cut diagonally across inside of cone. Spin on back side then run for next cone.
- **T-Drill:**
  - Sprint forward 10, lateral shuffle right 5, lateral shuffle left 10, lateral shuffle right 5 (back to center) then backpedal 10 to start line.

#### **SAQ “Movement Play” Finishers! ☺**

- Frisbees
- Tennis Ball Drills

**\*By Ron Jones, MS** (Specific to running, Ron has a BA in Physical Education, Secondary Clear Teaching Credential in PE, Health Science, & English, MS in Kinesiology, competed in XC & Track in both high school and college, has coached XC & Track from 2<sup>nd</sup> Grade through Collegiate, consulted internationally for ultraendurance athletes, was a two-time Biathlon All-American in running and cycling, has presented on Mental Skills Training for USA Track & Field Elite Development Camp at the US Olympic Training Center, serves on the Badwater Ultramarathon staff each year as a course official and race photographer, and holds numerous certifications related to neuroscience, biomechanics, strength conditioning & coaching.)