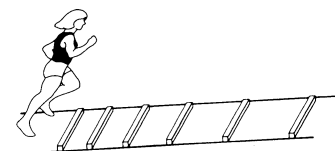


ACCELERATION LADDER



ALL athletes need SPEED

Acceleration ... The Stick Drill

Stride Length increases (should increase) at a (relatively) regular rate over the first 8-10 strides.

The “Stick Drill” attempts to establish an acceleration rhythm with consistent stride length increases, and, progressive reduction in “ground time”.

- The **aims** are:
1. rapid leg speed,
 2. minimal ground contact time, and
 3. regular stride length progression.



Acceleration Ladder is a fun, group drill .. paint several ladders on the grass, - chalk lines on the bitumen, then step back and watch the fun.

Placement of the Sticks: 50 cm. / 15 cm. (6-9 sticks); or, 40 cm. / 10 cm. (6-9 sticks).

e.g. Start >>>>> 50cm. >>>>>>> 1.15m. >>>>>>>> 1.95m. >>>>>>>>>> 2.90m. >>>

█ (50cm.) █ (65cm.) █ (80cm.) █ (95cm.) █

Complete Recoveries

Sticks: e.g. strips of rubber; chalk; wooden slats; half sections of poly pipe; masking tape; painted lines; ...

With experience (practice) efficiency improves. Spacing may be adjusted according to athlete leg length, and the performance level of the athlete. A good starting point for juniors is: 40/10.

- Procedure:**
1. Normal standing start position; ball of lead foot just beyond (on) the first stick.
 2. **First Step:** project hips past first stick; rear foot / knee brought through a normal (high) range of sprint motion. (**Cue:** “Knee Punch”)
 3. **Accelerate:** retain instep contact (slight) with each stick; extend the sprint off the final stick to 15 metres. Record the times of your efforts.
 4. **Session:** Full Competition Warm-Up; include extra drills; also, task familiarisation (demonstration).
2-3 x 15-20m accelerations off a 3pt. start;
2-3 stick runs to 15m for task awareness;
5-6 stick runs for speed: timed efforts (15m);
timing from first movement of back foot ... **consistency is critical.**
10-15 minutes Hurdle/Sprint Drills. Warm Down.
 5. **Variations:** e.g. Speed Belt: towing (light assistance) over the sticks.
Contrast Drills: 2 x 6H (single stepping, ankle weights) ▶ 1 x 6H (no ankle weights)
Competitions: block starts v. stick drill to 20-25m.

High Knees

Only Plenty of Perfect Practice Produces Perfect Performance(s)
50 repeats forms a habit BUT thousands to change the habit

We are seeking to form the habit of regularity of stride increase when accelerating ..
we are **not** saying 50/15 is *the* stride pattern of that increase.

The stick drill will feel **very** strange at first ... ensure the athlete perseveres, as with all drills, **efficiency comes with practice.** (Resist (initially) the temptation to increase the spacing between sticks.)
One session per week can yield significant improvements in performance.

If you want to time efforts: times taken to the next highest .1; e.g. 2.81 = 2.9, but, just **fast fun** is often enough; 3 pt. start .. watch starts at first movement of back foot.

| Date _____ | MY efforts to 15 metres | | | | Av. of Best Four |
|------------|-------------------------|--|--|--|------------------|
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50 / 15: Start line ▶ (.50) Stick 1 @ .50 (.65) Stick 2 1.15 (.80) Stick 3 1.95 (.95) Stick 4 2.90 (1.10) Stick 5 4.00 (1.25) Stick 6 5.25
40 / 10: Start line ▶ (.40) Stick 1 @ .40 (.50) Stick 2 .90 (.60) Stick 3 1.50 (.70) Stick 4 2.20 (.80) Stick 5 3.00 (.90) Stick 6 3.90