



SELF-MANAGEMENT: PATIENT SECTION

## The ABC's of movement literacy<sup>☆</sup>

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### Is the strongest person usually the best athlete?

Who is a better athlete the body builder or basketball player (e.g. Michael Jordan). Many people can lift heavy objects, but they are not good athletes. Why? Because they lack quickness, speed, power, or the ability to change direction rapidly. Another example is from track and field. Why do you think the world's fastest runners rarely make good American football running backs or wide receivers or soccer stars? Because they only have straight ahead speed, but lack the power and agility to stop and start or to speedily change directions. An American football player hardly ever runs more than 30 yards at one time. This is why short, powerful bursts of speed define our athletes from football, basketball, baseball, tennis, etc. (Vescovi et al., 2008; Vissing et al., 2008).

Many years ago in Russia a new training approach called plyometrics was developed to train the ABC's of agility, balance, and coordination. The essence of plyometrics is that it involves exercise where the time spent on the ground is minimized while the distance jumped is maximized (Hewett et al., 2002; Newton et al., 1997). This involves training both shock absorption ability upon landing and spring or elastic recoil ability when jumping. Traditional strength and flexibility involves slow, static movements and thus did not build dynamic stability, tissue elasticity, speed or power. It is the rapid

deceleration and acceleration or change of direction ability of plyometrics that defines how stable one is, or their athleticism.

A few plyometric exercises are described below.

### Hopping and the athletic position

*Start:* Jump up and down as quickly and high as possible.

*Technique:*

- Tighten your leg muscles so your knees do not bend too much.
- Jump from the balls of your feet—springing as high as possible.
- Land softly like a feather, using your feet as shock absorbers.
- Spring up again as quickly and high as possible.
- Perform 4 or 5 repetitions each time landing on the same footprint.
- On your last repetition land in an athletic position.
- Land on your toes first, then rock to your heels so your feet are flat.
- The athletic position is a squat where your chest is lifted up in front and your hips and pushed back.
- Your chest should be over your knees.

*Avoid:*

- Slouching, slumping or stooping.
- Your knees moving forward of your toes or pointing inwards.

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- Landing on your heels first or heavily (Figs. 1a and b).

### The scissor lunge

*Start:* Jump up and down as quickly and high as possible.

*Technique:*

- Land with your feet split slightly apart.
- Tighten your leg muscles so your knees do not bend too much.
- Jump from the balls of your feet—springing as high as possible.
- Land softly like a feather using your feet as shock absorbers.
- Spring up again as quickly and high as possible, alternating your feet position each time.
- Perform 4 or 5 repetitions and then land in a broad lunge position.
- When you land, your feet should be parallel, and you should be on the balls of your back foot.

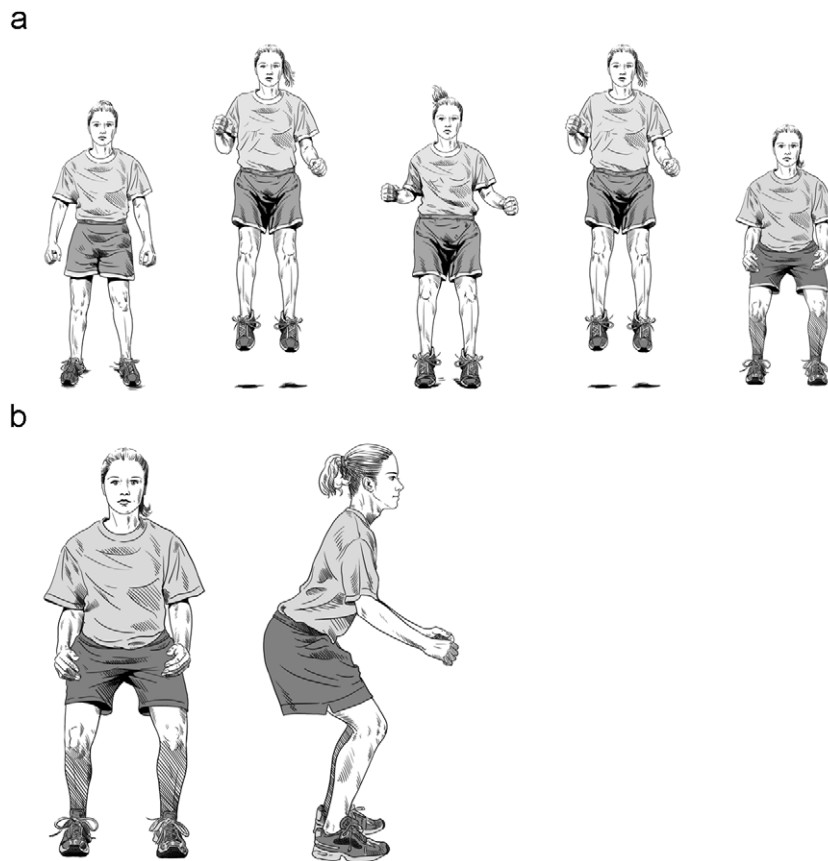


Fig. 1 (a) Hopping up/down and landing in athletic position and (b) the athletic position.

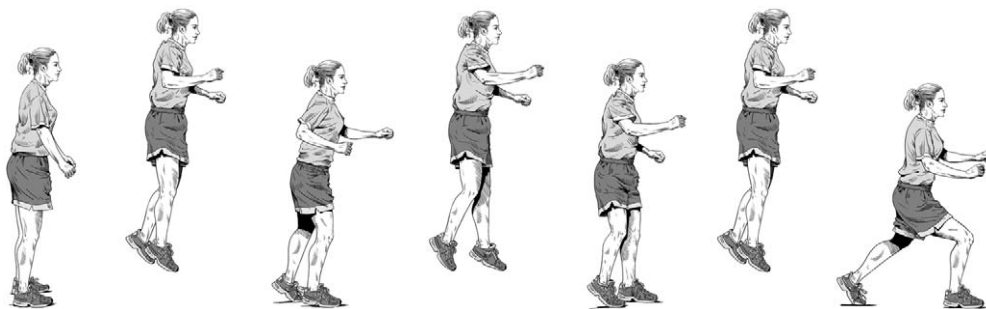


Fig. 2 Scissor lunge.



Fig. 3 180° squat.

*Avoid:*

- Slouching, slumping or stooping.
- Your back foot turning out.
- Your front knee moving forward of your toes or pointing inwards (Fig. 2).

### The 180° squat

*Start:* Jump up and down as high as possible and land in the athletic position (see hopping and the athletic position exercise above).

*Technique:*

- From the athletic position jump up as high as you can.
- Rotate 180° in the air and land facing the opposite direction in an athletic position.
- Land on your toes first, then rock to your heels so your feet are flat.
- Perform 3–4 times each time landing on the same footprint.

*Avoid:*

- Slouching, slumping or stooping.
- Your knees moving forward of your toes or pointing inwards.
- Landing on your heels first or heavily (Fig. 3).

### References

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