

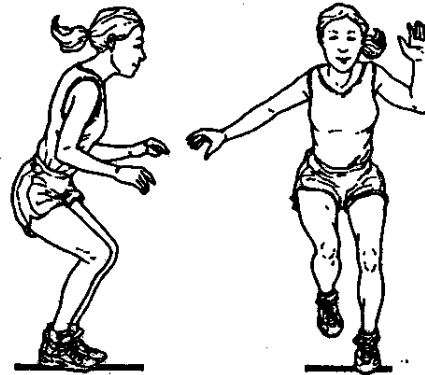
Jump Landing

Following the onset of a pubertal growth spurt, athletes change the way that they land from a jump. This change may be due to decreased neuromuscular control of the knee and may explain why the risk of a knee injury is high. These neuromuscular jump landing drills provide a means of identifying high-risk athletes and the basis for injury prevention. In addition to neuromuscular imbalances, athletes that perform jump landing with “faulty mechanics” may also have weakness of the quads, hamstrings and hip abduction muscle groups and would benefit from appropriate strengthening.

Wrong



Right



Fundamental Motor Skills for Jump Landing

Faulty Mechanics

- Landing with feet, **turned out**
- Landing **off balance** on one foot
- Landing on two feet with **unequal weight** distribution
- Landing with “**knock-kneed**” position
- Landing with knees near full extension or with **hyperextended knees**
- Landing with excessive bending forward of hips
- Landing with spine flexed into a “**hunched back**” position
- Landing with the **head down** and/or eyes closed

Correct Mechanics

- **Soft**, absorbed **landings**, with body weight evenly distributed
- Hips, knees, and ankles **flexed** with knees over 2nd toe
- Trunk muscles tightened to produce a normal, slightly curved spine
- Trunk parallel to lower legs
- **Knees over toes**, no “in” or “out” motion
- Avoid double pumps on jumping

Choose 2-4 of the following jumps. Perform them before practice and games as part of your warm-up. Allow for approximately 20-30 seconds per drill, which will comprise about 60-90 jumps per drill session.

Phase 1 (Basic Jumps)

1. Wall Jumps With knees slightly bent and arms raised overhead. Bounce up and down off toes.	2. Squat Jumps Standing jump, raising both hands overhead. Land in a squatting position.	3. Broad Jumps Two footed jump, land heels first in a squat position. Hold landing for 2 seconds.	4. Cone Jumps Double leg jump with feet together. Quickly jump side to side over a 4-6” cone.	5. 180° Jump Squat Jump with 180° rotation in midair. Hold landing for 2 sec., repeat in reverse direction.	6. Bounding Jump one leg to the other, straight up and down. Gradually increase rhythm and height.
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Phase 2 (More Advanced)

1. Tuck Jumps From a standing position jump up, bring both knees up to your chest.	2. Broad Jumps w/ Vertical Jump Three Broad Jumps followed by an immediate vertical jump.	3. Cone Jumps Double leg jump with feet together. Quickly jump side to side over a 4-6” cone.	4. Scissor Jumps Start in a lunge position, jump up alternating foot positions in mid-air.	5. Hop, Hop, Stick Two single leg hops, then stick the landing for 2 seconds.	6. Bounding for Distance Start Bounding in Place, slowly increase forward distance.
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