

POSITION STATEMENT

Plyometric Exercises

It is the position of the National Strength and Conditioning Association that:

1. The stretch-shortening cycle, characterized by a rapid deceleration of a mass followed almost immediately by rapid acceleration of the mass in the opposite direction is essential in the performance of most competitive sports, particularly those involving running, jumping and rapid changes in direction.
2. A plyometric exercise program which trains the muscles, connective tissue and nervous system to effectively carry out the stretch-shortening cycle can improve performance in most competitive sports.
3. A plyometric training program for athletes should include sport-specific exercises.
4. Carefully applied plyometric exercise programs are no more harmful than other forms of sports training and competition, and may be necessary for safe adaptation to the rigors of explosive sports.
5. Only athletes who have already achieved high levels of strength through standard resistance training should engage in plyometric drills.
6. Depth jumps should only be used by a small percentage of athletes engaged in plyometric training. As a rule, athletes weighing over 220 lbs. should not depth jump from platforms higher than 18 inches.
7. Plyometric drills involving a particular muscle/joint complex should not be performed on consecutive days.
8. Plyometric drills should not be performed when an athlete is fatigued. Time for complete recovery should be allowed between plyometric exercise sets.
9. Footwear and landing surfaces used in plyometric drills must have good shock absorbing qualities.
10. A thorough set of warm-up exercises should be performed before beginning a plyometric training session. Less demanding drills should be mastered prior to attempting more complex and intense drills.