PLYOMETRIC TRAINING

Plyometrics are a type of exercise that typically include hops, jumps, and medicine ball exercises that make use of the muscles' cycle of lengthening and shortening to increase muscle power.

The following are general guideline to follow when incorporating plyometric drills into a training session:

1. Plyometric drills involving a particular muscle/joint complex should not be performed on consecutive days.
2. Plyometric drills should not be performed when an athlete is fatigued. Time for complete recovery should be allowed between plyometric exercise sets.
3. Footwear and landing surfaces used in plyometric drills should have good shock absorbing qualities and lateral support.
4. The athlete should have a good base level of strength, balance, and mobility in order to perform a plyometric training routine. Thus, the athlete should be able to demonstrate these abilities through proper movement mechanics and landing techniques prior to participating in such a program.
5. A generalized and specific warm-up utilizing dynamic flexibility drills should be performed before a plyometric training session.
6. To safely and systematically progress plyometric activities and drills, the frequency, intensity, and/or volume of training can all be manipulated to continue challenging the athlete.

Frequency - Plyometric training should be performed from1-to-3 times per week on non-consecutive days. Athletes should schedule plyometric training sessions at least 48-72 hours apart in order to allow the involved muscle groups an adequate amount of time to recover.

Intensity - Drills that are less demanding should be mastered prior to attempting more complex drills. Factors affecting the intensity of plyometrics are the number of foot/hand contacts, speed, height of the drill, the participant's weight. In order to avoid overtraining it is important to remember that intensity of training is inversely proportionate to the volume of training. In general, intensity should increase as volume decreases throughout the year/season

Volume - (the number of foot contacts (lower body) or throws or catches (upper body). Beginners should only perform between 80-100 contacts per training session, whereas the intermediate may be able to perform 100-120 per session. Older and more advanced athletes may perform as many as 120-140 contacts per session.

References:

1. Potash D.H., Chu, D.A. (2008). Plyometric Training. In RW Earle and TR Baechle (Eds.), Essentials of Strength Training and Conditioning (pp.413-456). Champaign,IL: Human Kinetics