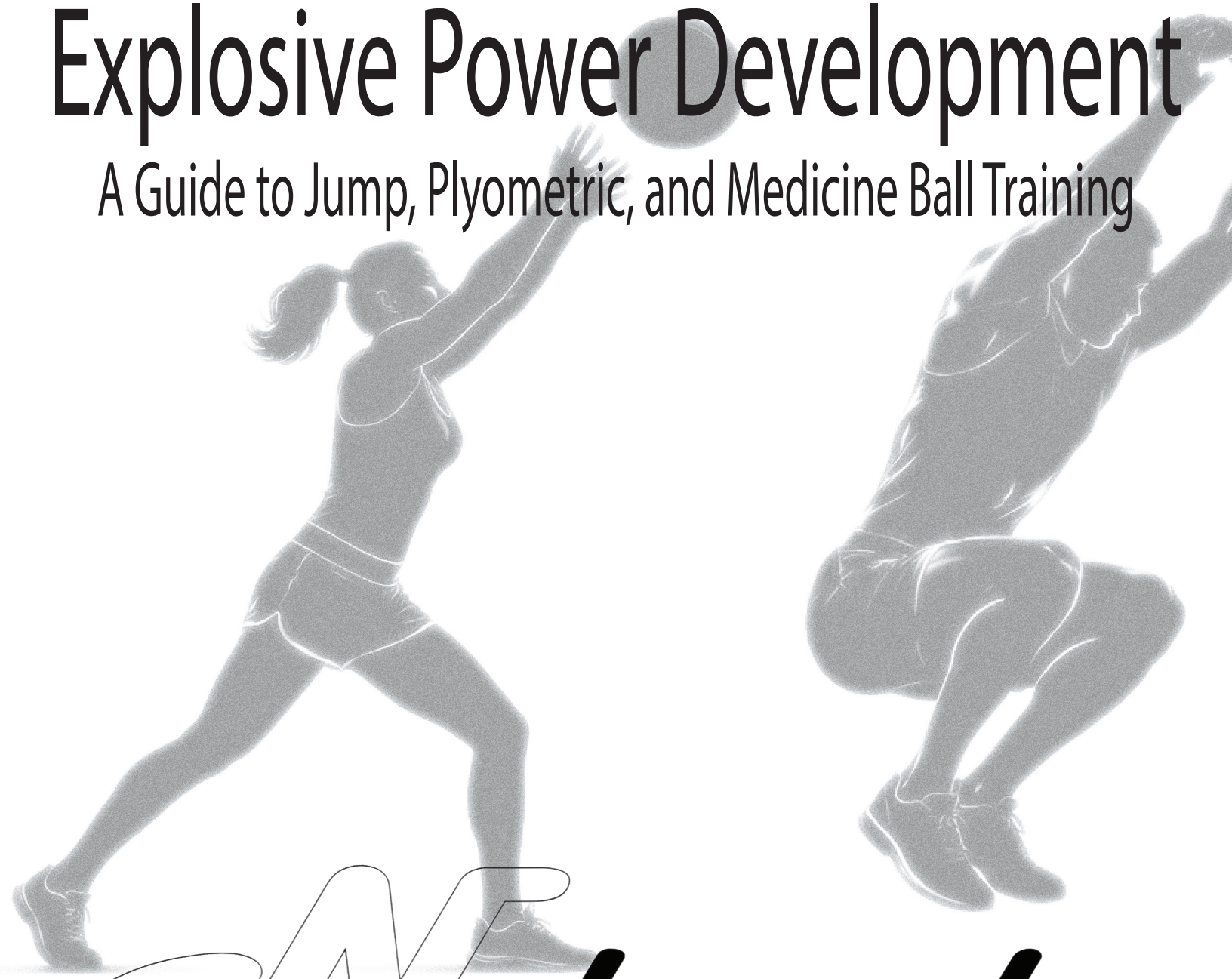
Explosive Power Development

A Guide to Jump, Plyometric, and Medicine Ball Training



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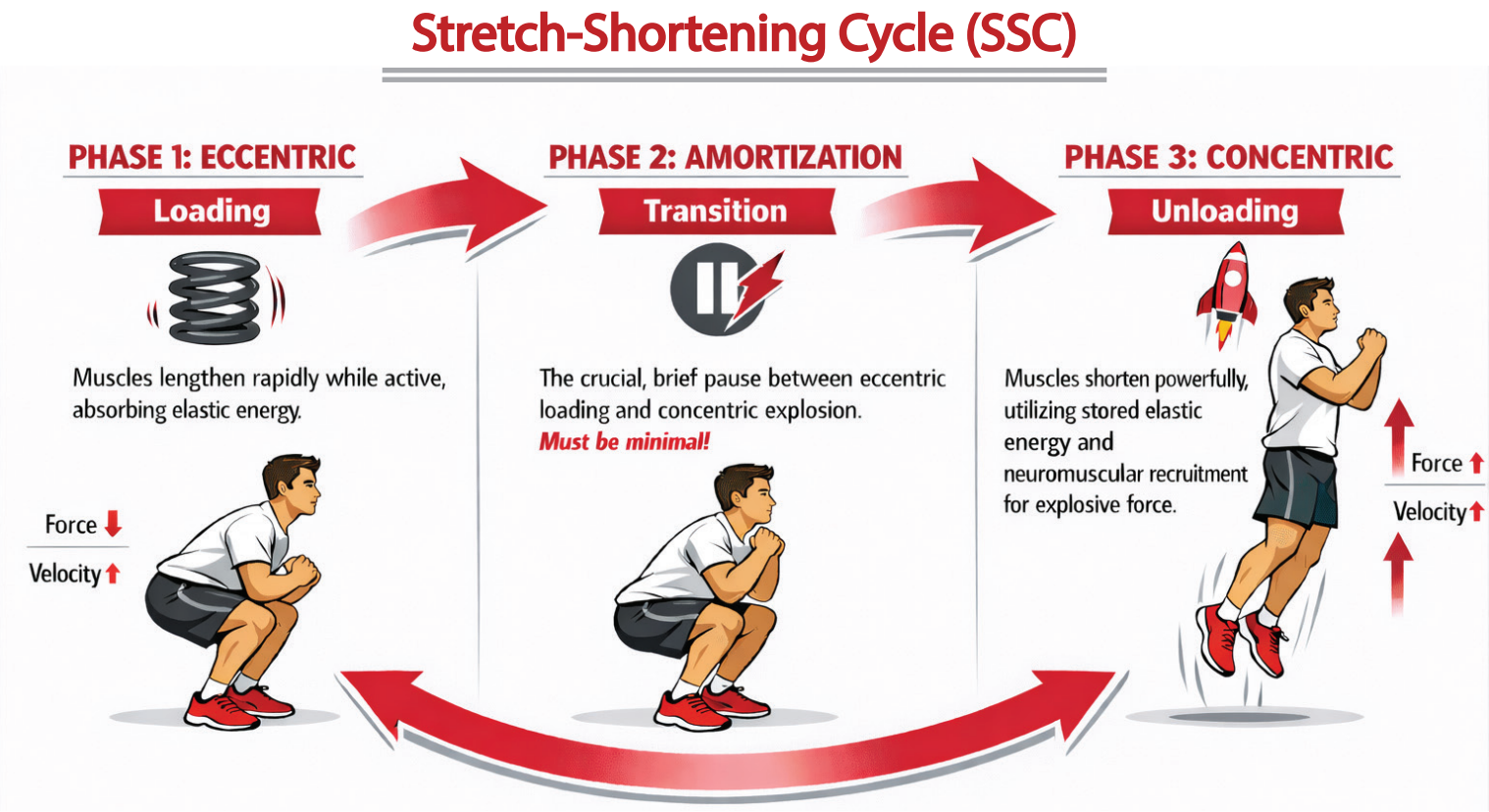
Developing Explosive Power

Explosive power is an athlete's ability to generate a maximal amount of force in the shortest possible time. It is the critical quality that enables higher vertical jumps, faster sprints, and more powerful striking or swinging motions. This guide provides a framework for a comprehensive explosive power program through three key modalities:

- **Jump Training:** Focuses on maximizing vertical and horizontal displacement. The primary goal is to jump higher and farther.

- **Plyometrics:** Advanced drills using the Stretch-Shortening Cycle (SSC) to produce rapid movements. The emphasis is on minimizing ground contact time to improve reactive strength.

- **Medicine Ball Training:** Develops upper-body and core power through dynamic throwing and slamming. It is uniquely effective at building **Rotational Power**.



Core Concepts & Modalities

1. Jump Training: Building the Foundation

Fundamental for lower-body power, it teaches proper force absorption (landing) and production (jumping). Athletes must master landing mechanics for injury prevention before progressing to intense drills.

- **Vertical Jumps:** Translates to basketball rebounding or volleyball spiking.
- **Broad Jumps:** Translates to acceleration and covering ground quickly

2. Plyometrics: Honing Reactive Strength

Trains muscles to exert maximum force in minimal time by conditioning the SSC (rapid lengthening followed by powerful shortening).

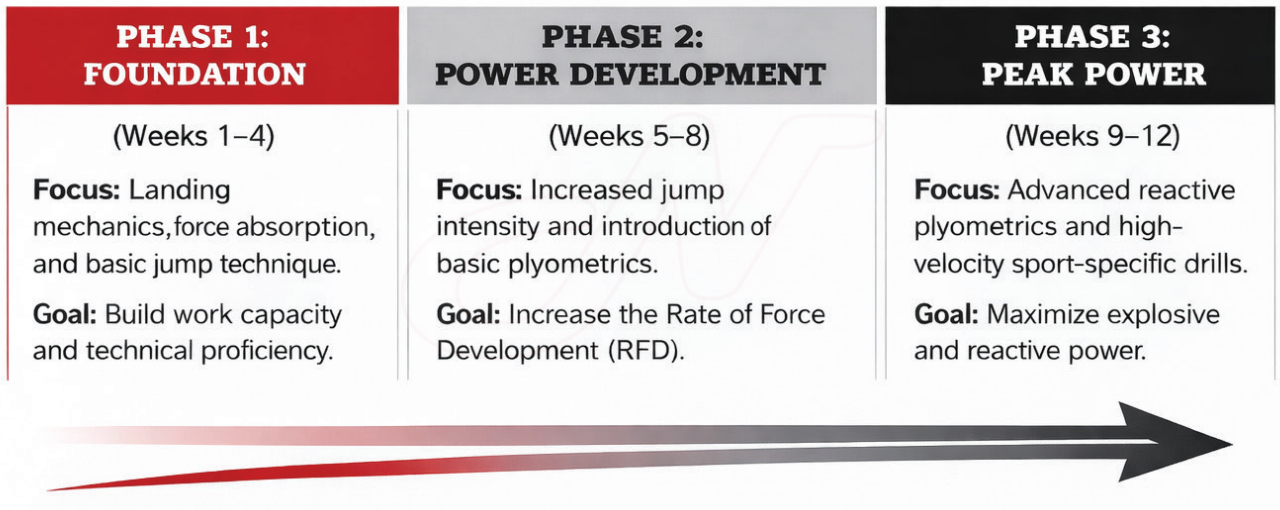
- **Amortization Phase:** The brief time between eccentric loading and concentric explosion; the goal is to keep this as short as possible.
- **Ground Contact Time:** Aim to be "quick off the floor".

3. Medicine Ball Training: Total Body Power

Allows for high-velocity movements in multiple planes (forward, sideways, rotational) difficult to replicate with weights.

- **Rotational Power:** Essential for baseball, golf, and quarterbacks.
- **Overhead/Slamming Power:** Essential for volleyball, football, and wrestling.

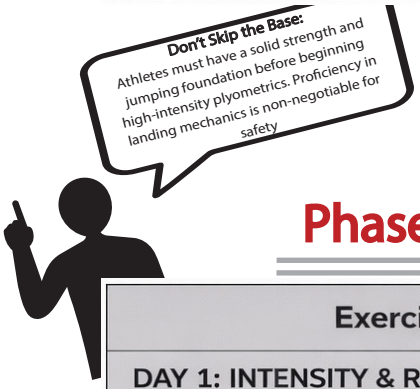
12-Week Periodization Roadmap

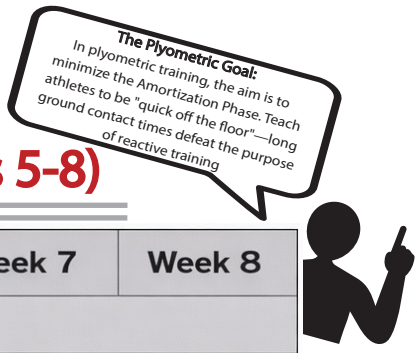


Sample 12-Week Explosive Program

Phase 1: Foundation (Weeks 1-4)

Exercise	Week 1	Week 2	Week 3	Week 4
DAY 1: JUMPS & MED BALL				
DB Squat Jump (Pause)	3 x 5	3 x 5	4 x 4	4 x 4
Broad Jump	3 x 5	3 x 5	4 x 4	4 x 4
MB Overhead Slam	3 x 8	3 x 8	4 x 6	4 x 6
MB Chest Pass	3 x 8	3 x 8	4 x 6	4 x 6
DAY 2: JUMPS & MED BALL				
Seated Box Jump	3 x 5	3 x 5	4 x 4	4 x 4
Tuck Jump	3 x 6	3 x 6	4 x 5	4 x 5
MB Rotational Slam	3 x 6/side	3 x 6/side	4 x 5/side	4 x 5/side
MB Scoop Toss	3 x 8	3 x 8	4 x 6	4 x 6





Phase 2: Power Development (Weeks 5-8)

Exercise	Week 5	Week 6	Week 7	Week 8
DAY 1: INTENSITY & REACTIVITY				
Box Jump (Mod. Box) + Landing	3 x 4	4 x 4	4 x 3	5 x 3
DB Squat Jump (Repeated)	3 x 5	3 x 5	4 x 4	4 x 4
Low Hurdle Hop	3 x 5 hurdles	3 x 5 hurdles	4 x 4 hurdles	4 x 4 hurdles
MB Overhead Slam (Heavy)	3 x 6	4 x 6	4 x 5	5 x 5
MB Rotational Pass (to wall)	3 x 6/side	4 x 6/side	4 x 5/side	5 x 4/side
DAY 2: LATERAL & LINEAR POWER				
Broad Jump (Repeated)	3 x 2+2	4 x 2+2	3 x 3+3	4 x 3+3
Skater Hops (Plyo)	3 x 5/side	3 x 5/side	4 x 5/side	4 x 5/side
Kneeling MB Overhead Throw	3 x 6	4 x 6	4 x 5	5 x 5
MB Side Toss (Distance)	3 x 5/side	4 x 5/side	4 x 4/side	5 x 4/side

Multi-Planar Power:
Medicine balls allow for high-velocity movements in planes of motion that traditional weights cannot reach. Prioritize rotational work for athletes in "swinging" or "throwing" sports

Phase 3: Peak Power (Weeks 9-12)

Exercise	Week 9	Week 10	Week 11	Week 12
DAY 1: PEAK REACTIVE POWER				
Hurdle Hops (Linear)	3 x 5 hurdles	4 x 5 hurdles	4 x 5 hurdles	5 x 4 hurdles
Depth Jump (to Box)	3 x 4	3 x 4	4 x 3	4 x 3
MB Overhead Slam (Height)	3 x 5	4 x 5	4 x 4	5 x 4
MB Rotational Slam (Speed)	3 x 5/side	4 x 5/side	4 x 4/side	5 x 4/side
MB Rotational Pass (to wall)	3 x 6/side	4 x 6/side	4 x 5/side	5 x 4/side
DAY 2: SPORT-SPECIFIC VELOCITY				
Bounding (for Distance)	3 x 30yds	4 x 30yds	4 x 30yds	5 x 25yds
Single Leg Pogo Hops (Plyo)	3 x 10s/side	3 x 10s/side	4 x 10s/side	4 x 10s/side
MB Shotput Throw	3 x 4/side	4 x 4/side	4 x 3/side	5 x 3/side
Supine MB Chest Throw (Height)	3 x 5	4 x 5	4 x 4	5 x 4