

Plyometric Progressions for Throwing Program

This overview details the proper plyometric progressions required to prepare the body for a throwing program. This gradual approach helps with enhancing stress absorption, power generation, and the efficiency of the stretch-shortening cycle (SSC). This culminates in modified throws that closely simulate the throwing action. This helps systematically build stress while cultivating confidence within the athlete. This sequence is designed to progressively load the tissues of the arm to better facilitate more confident throwing mechanics once the throwing program has started.

Purpose

The intent of this detailed plyometric continuum is to systematically load the tissues of the arm to drive adaptation through proper build of stress. Athletes will typically follow a two-handed to one-handed progression within each phase. Athletes, coaches, and movement professionals should keep in mind that this is a continuum rather than a specific, stepwise progression. Athletes may begin in phase one and blend into phases two and three within the same session or in a condensed amount of time. This continuum can even be used within session to structure the order of the chosen plyometrics. This program should be monitored by a movement/rehab professional or coach. **Keep in mind that these are simply examples and coaches/movement professionals should take the general loading strategy and apply it with their own exercise selection preferences to fit the athlete. All unilateral exercises can be done on both sides.**

Plyometric Continuum

Phase 1: Stress Absorption (Eccentric Emphasis)

- Objective: Develop ability to effectively absorb force and expose elbow to high contractile speeds

Two-Handed Progression

Exercise	Set	Rep	Notes	Link
Supine MB Catch	2	10	Absorb first, then "stick" rep once comfortable	Link
Fall Into Wall Elbows Bent	2	10		Link
Fall into Wall Elbow Straight	2	10		
Supported or Unsupported Nordic Falls	2	8-10	Can support with band under armpits	Link

One-Handed Progression

Exercise	Set	Rep	Notes	Link
Trampoline "Force Acceptance" Catch	2	20	Throw with opposite arm and "catch" with involved arm	Link
Quadruped Plyo Ball T Drop Deceleration	2	20	Drop and "Stick"	Link
Off Box Force Acceptance	2	6-8	Try to maintain scapular stability	Link
Half Kneeling Over the Shoulder Deceleration Catch	2	15-20	Play with arm angles - cue is to slow body down right after catch	Link

Phase 2: Isolated Concentric Exposure

- Objective: Concentric focused development

Two-Handed

Exercise	Set	Rep	Notes	Link
Supine Paused MB Press	3-4	4-6	Explosive after pause	Link
Supine Paused OH MB Throw	3-4	4-6	Fast up after pause	Link
Standing MB Chest Pass	3-4	4-6	Explosive, concentric only	Link
Paused Tall-Kneeling LM Press	3-6	2-4	Explosive	Link

One-Handed

Exercise	Set	Rep	Notes	Link
90/90 Concentric Only IR Rebounder/Plyo	3-4	10-12	Promote shoulder IR independent of ER	Link
Push Up Position Box "Bound" w/Pause	3-4	4-6	Short load, pause, then go	Link
Paused Reverse Throw (Half kneeling)	2	10	Try to create full torso turn	Link
Half Kneeling Paused Landmine Press	2-6	2-4	Explosive	Link

Phase 3: Low Amplitude Stretch Shortening Cycle (SSC)

- Objective: Begin to integrate the eccentric and concentric phases with minimal delay, focusing on **quick**, reactive movements.

Two-Handed

Exercise	Set	Rep	Notes	Link
Bilateral Standing MB Chest Press	3-4	4-6	Promote speed	Link
Double Arm "Box Hop"	3-4	4-6	Small load, low box	Link
OH MB Short Amp Lat "Dribbles"	2	10-15	Short, quick – drive with pec/lat	Link
Supine MB Plyo Press	3-6	2-4	Quickly catch/press	Link

One-Handed

Exercise	Set	Rep	Notes	Link
ER/Y Band Dribbles	3-4	6-8 seconds	Move arm as quickly as possible between each band	Link Link
Prone/Quadruped Y/T Ball Drops	2-3	30-50 reps	Emphasize stable shoulder blade	Link
Low Amp Wall Plyo Ball Wall dribbles	2	40-50	Drive motion from shoulder, not wrist	Link
LM Drop Catches	2-6	2-4	Quickly drop/catch	Link

Phase 4: High Amplitude Stretch Shortening Cycle (SSC)

- Objective: Increase the intensity and amplitude of the SSC movements to progressively load UCL.

Two-Handed

Exercise	Set	Rep	Notes	Link
MB "Fake" Throw Scoop Toss	3-4	4-6	Work to decelerate as quickly as possible	Link
Assisted/Resisted Plyo Push Up	3-4	4-6	Start assisted – work to resisted	Link
Alternating Lateral MB OH Slams	2	10-15	Get into the hip, rotate the back leg	Link
Supine MB Stretch OH Throw	3-6	2-4	Full stretch and go quickly	Link

One-Handed

Exercise	Set	Rep	Notes	Link
Off Box Land into Reactive Bound	3-4 each side	6-8 reps	Catch and explode quickly	Link
Half Kneeling Landmine Barbell Catch/Press	3-4	4-6	Catch and explode quickly	Link
Large Amplitude Plyo Wall Dribbles (ER/IR)	2	40-50	Allow arm to lay back	Link
Lat-Based OH MB "Dribbles"	2	15-20	Drive with lat/pec	Link

VI. Phase 5: Modified Throws

- Objective: Transition plyometric gains into throwing-specific movements, integrating technique with power.

Exercise	Set	Rep	Notes	Link
Mound-Based OH Medball Work	2-3	4-6 throws	Make sure to evenly distribute pushing force through both hands to prevent excessive loaded layback	Link
Throwing Sock/Throw Holds	2	10-15 throws	Use 11 oz to 1 lb ball for trained individuals	Link
Football Catch	1-2	15-30		
Plyoball Drills	1-2	6-10 each drill	Focus placed on proposed mechanical changes at around 50-60% RPE	-Coaches choose

Implementation Notes

- As mentioned before, this can be treated as a continuum and not a strict "progression" based on athlete presentation
- Pay close attention to athlete response both during and after (how athlete recovers from session to session) implementation

Pre/Post Throw Routine - Phase Specific

Goal of the pre-throw routine is to help prepare the body for the specific demands of the specific phase of throwing. Athletes will complete these exercises after a total body dynamic warm up and resistance band routine. This routine should be created by the movement professional or strength coach and tailored to individual athlete needs utilizing the movements below as a guideline.

I. Pre-Throw Exercises

Phase 1 - Fascial Sling Emphasis, Total Body Athleticism, LE/UE Plyometrics

Exercise	Set	Rep	Notes	Link
Dynamic Reverse Lunge with Twist + Side Bend	1 each side	6-8	Emphasize stability/balance throughout	Link
High Plank Opposite Foot Touch	1	8-10 each	Drive hips back with hands	Link
Medial Hop Into 90 Degree Turn	1	4-6 each side	Stick landing - minimal knee bend after initial foot contact	Link
Plyo Push Up	1	4-6	Can do assisted/resisted or on elevated surface	Link

Phase 2 - Total Body Athleticism - Exposure to End Range Positions

Exercise	Set	Rep	Notes	Link
Lunge Stance Band Forward Press into OH Reach	1 each side	10	Keep rib cage down	Link
Standing Shoulder CAR	1	8-10 each	Keep rib cage still	Link
Lateral Heiden Jump (Load and Go)	1	6 each side	Load into the hip	Link
Banded Eccentric Shoulder IR "Catches"	1	8	Quick release "catch"	Link

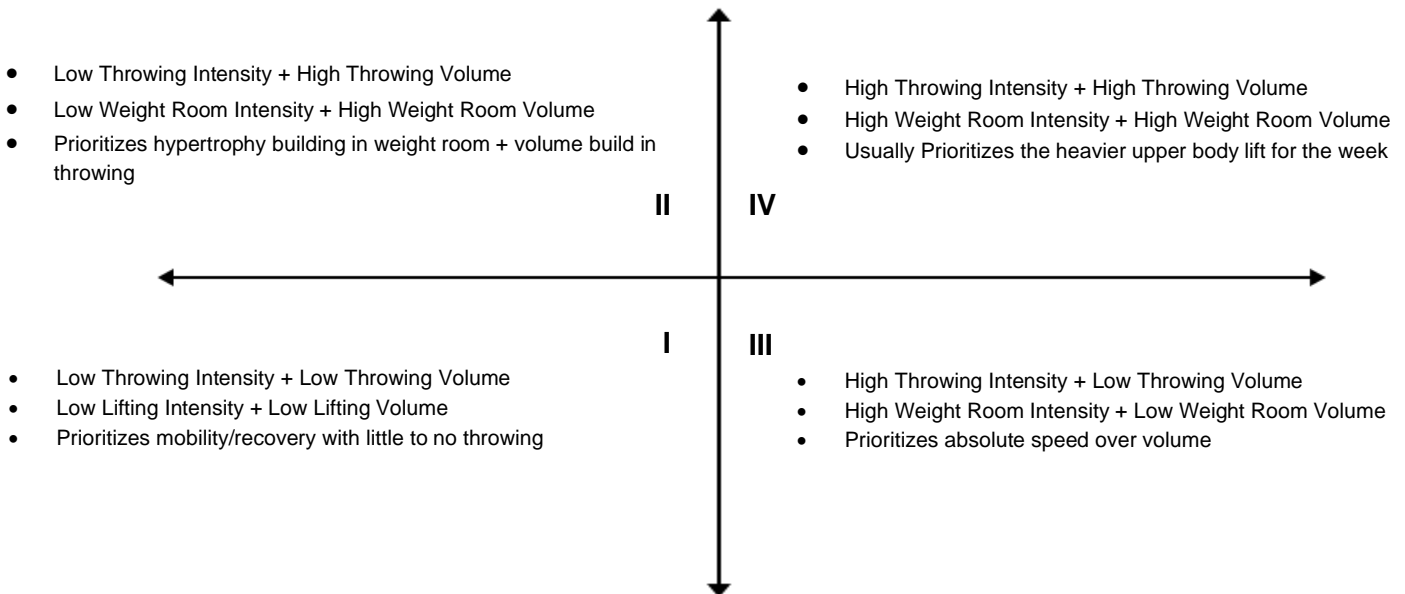
Phase 3 - End Range Exploration, Rate of Force Development Potentiation

Exercise	Set	Rep	Notes	Link
Quadruped Hip Airplane	1 each side	8-10	Belt buckle and sternum move at the same rate	Link
Half Kneeling Bow and Arrow	1	10	Purely spin in the thoracic spine – limit side bend	Link
Single Leg Hop into Lateral Bound	1	4-6 each side	Spend as little time on ground between hops	Link
Supine Band Plyo Lat Pullover w/Slow Eccentric	1	6	Quick, isolated lat activation	Link

Cool Down Tips - To Be Done Following Prescribed Post Throw Strength Work

Exercise	Set	Rep	Notes	Link
Standing or Half Kneeling Shoulder CAR	1 each side	8-10	Keep ribs still while standing	Link
Crab Position Breathing	1	10 breaths	Pull shoulder blades together at top	Link
Quadruped Thread the Needle with Horizontal Adduction Emphasis	1	10 each side	1 inhale/exhale at end range for each rep	Link
Hooklying Cadence Belly Breathing Progression	3-5 min total	I. 2 Second Inhale, 3 Second Hold, 6 Second Exhale II. 3 Second Inhale, 4 Second Hold, 8 Second Exhale	Follow cadence progression listed here	Link

Training Schedule Recommendations - Application of Daniel Bove's "Quadrant System" (High/Low Model)



****Understanding how to properly organize throwing and training/rehab sessions allows for adequate tissue and central nervous system (CNS) recovery. This efficient recovery is essential in avoiding setbacks and frequent need for "deload" periods.***

