

COREFX Ballistic Training

Coach Kennedy : COREFX Master Coach and Instructor

I. Ballistic Training Defined

- A. Explosive-power training for a body performing in a 3-D world of movement.
- B. Properly sequenced movement patterns where timing and rhythm represent athleticism and a skill-based training approach.
- C. Where elite athlete training, top performance and optimal results meet.
- D. Uses various approaches—including elements of plyometric training, the stretch reflex, quick coupling, preloading, loading/unloading and deceleration/acceleration training.
- E. Takes advantage of the torque that can be created via the bony skeletal structure, muscles and the fascial web system.
- F. Includes focus on deceleration. Acceleration is less likely to be enhanced if force absorption is not optimal. Deceleration training helps to maximize the stretch shortening cycle, which leads to increases in force and power output, and reduces the risk of injury when absorbing a jump or during a change-of-direction force.
- G. Results in an ultimate outcome of explosive, quick *force production* that can be repeated or sustained as needed.
- H. Is scalable to any fitness level, but optimizes a warrior athlete's training.

II. Ballistic Power Training

- A. Athleticism requires movement that is based on...
 - 1. A foundation of mobility, stability, rotation, balance, integrated whole body coordination, motor control and strength
 - 2. Power expression
- B. Optimal power expression
 - 1. Arguably the most important physical attribute to train
 - 2. Maximal Power vs. Sustained Power
- C. Power and Sequential Force Transfer
 - 1. Timed and ordered movement that represents full power development for a loaded movement pattern, or series of movements.
 - 2. Core link—the literal bridge between upper and lower body
 - 3. Plyometric power for core, upper and lower body
- D. Importance of Building Skill Sequences
 - 1. Break it down
 - 2. Proper sequence and “deep, deliberate practice”

III. Mobility & Prep for Skill-Based Movement

1. Squat Roll Up	2. Squat Hinge-Arms OH (center, right, left)
3. Rotation Upper/Lower Body Separation	4. Rotation Heel Release
5. Rotation 1, 2, 3, Down/Up	6. Alternating Lunge Carry-the-World R/L
7. Plank to Down Dog Alternating Heel Press	8. Set Plank to Swinging Arm Planks
9. Kneeling Lunge Hip Push R/L	10. Kneeling Lunge Lateral Hip Opener
11. Kneeling Lunge Look-in Hip Opener	12. Set Plank-10x Down Dog

IV. COREFX Ballistic Training: Break It Down

CORE Power Bracing & Stabilization Training Focus

Drill and Equipment	Execution	Notes
Kneeling Power Chest Pass (CFX Wall Ball)	From a kneeling position on floor w/ Wall Ball positioned at chest height, explosively push WB to partner while falling to a braced position on dome; absorb impact; return to start; receive WB and repeat;	Use partner or wall; vary tempo/load; throw/release focus
Supine RDL (CFX Wall Ball)	From a supine position on floor, lift one leg and bring Wall Ball overhead; forcefully hinge torso upward, throwing WB as lifted leg drives to floor; receive ball; return to start; repeat on other leg	Use partner or wall; vary tempo/load; throw/release focus
Standing Shovel Pass (CFX Wall Ball)	From a standing position hold Wall Ball to side; preload movement by flexing ankle, knees, hips; lower body initiates rotary motion; shift weight, keeping "hands/arms back" and release WB; repeat other side	Use partner or wall; vary tempo/load; throw/release focus
Roundhouse Slam Burpee Partner Pass (CFX Slam Ball)	Bend down, place hands on floor, either side of SB; jump to plank; perform push touching chest to SB; snap back to feet; take ball to side, move ball around shoulder and overhead; slam to ground; execute R/L; pass to partner who executes sequence; repeat exchange	Change tempo, use heavier ball; throw/release focus
Standing SL RDL Slam (CFX Slam Ball or Wall Ball)	Stand on one leg holding SB overhead; hinge from the hip and forcefully throw SB to ground; pick up ball and slowly return to overhead position w/ hip hinge; repeat on one leg, then other; partner coaches	Change tempo; use heavier ball, vary tempo/load; throw/release focus
Goblet Squat Jump (CFX Slam Ball)	Stand cradling SB at chest height; lower into deep squat and explode upward 5x; maintain hand position; pass to partner; repeat 5x exchange	Change tempo or use heavier ball
Halo & Lunge (Wall Ball or Slam Ball)	Stand holding Wall Ball at waist; lift and rotate WB to the right, around shoulder/back of head; continue motion while stepping fwd. w/ left outside leg; lower WB to outside of knee; control momentum and return by executing in opposite direction; partner coaches	Vary tempo, reps, load or range of motion
Split Stance Anti-Rotation Throw (Wall Ball or Slam Ball)	Stand sideways to partner about 3-4 feet apart; position outside leg (closest to partner) forward; e.g., if throwing laterally left, left leg is forward; coach faces direction of the lateral throw and catches or blocks and returns ball; same person repeats 10x R/L; switch roles/repeat	Vary reps, load, temp, ROM; use partner or wall; throw/release focus
Clean & Split Lunge Overhead Press (Wall Ball)	Stand holding Wall Ball at waist; lower WB toward ground (like goblet squat); triple flex ankles, knees, hips; keep upright stance; clean to rack position; pause/triple flex/press overhead (OH) while jumping to split lunge OH press; alternately switch legs; partner coaches	Vary tempo, reps, load; regress to bilateral press OH; or use bar
Single Arm (SA) Power Row (CFX Landmine Post/Handle)	Notes:	Stage demonstration
Single Arm (SA) Press Overhead (CFX Landmine Post/Handle)	Notes:	Stage demonstration
SA Row to Power Press OH (CFX Landmine Post/Handle)	Notes:	Stage demonstration
Single Leg (SL) RDL (CFX Landmine Post/Handle)	Notes:	Stage demonstration
Standing Rotary Core (CFX Landmine Post/Handle)	Notes:	Stage demonstration
Prone Push-Away Knee Tuck Push-Up (CFX Landmine Post/Handle; Strength Band)	Notes: Start in prone position w/ band anchored around right ankle and landmine handle; push Olympic bar away while left arm/feet support plank position; flex right arm and tuck left knee; repeat both sides	Stage demonstration

Timing & Movement Sequencing For Power Development Focus

Drill and Equipment	Execution	Notes
Rotary Hip Block w/ Straight Arms (CFX 6' Toner)	Perform rotary hip block R/L with partner anchoring. Focus on down up aspect and proper sequencing; initiate movement with the legs	Change tempo or load
Rotary Hip Block Push-Press Progression (CFX 6' Toner)	Repeat above sequencing and add push-press	Change tempo or load
Rotary Hip Block Push-Press Progression (Wall Ball)	Partner and perform Rotary Hip Block using a release skill, after progressing from 1) ball on hip & 2) self-toss progressions	Throw/release focus
Lateral Rotary 180-Switch Shuffle (CFX 6' Toner)	With partner anchoring, hold handles & shuffle laterally to a point of tension; perform rotary hip block right/180-switch/then left; shuffle toward partner; repeat shuffle out sequence/180-switch; facing in new direction; partner coaches and actively anchors, 10x reps/switch	Change tempo or load; perturbations
Wall Ball Slip Throw (CFX Wall Ball)	Squat with ball between legs, "throw-heave"	Throw/release focus
Hi-Row Pull Progression (CFX 6' Toner)	Holding handles of toner perform grounded row w/ heel lift; vertical jump row, back/front row; focus on overall consistent execution replication and foot print; partner actively anchors and coaches	Change tempo or load; perturbations
Partner Seated Lean-Back Row (CFX 2 Toners or 2 Red Strength Bands)	Perform the movement with bent or straight arms. One partner stays upright as the other pulls (like rowing); as the partner returns the other partner performs the same movement	Change tempo or load
Bilateral Push Progression (CFX 6' Toner)	Use same progression as hi row, grounded, to heel lift, to jump to quick fwd/bwd, except that athlete is facing away from line of pull/anchor	Change tempo or load
Bull Dawg Power Leg Press (CFX 6' Toner or harness; BOSU optional)	Assume a 4-point stance on ground; attach a rear line of resistance around waist; perform move by extending from the ankle, knee and hip, driving horizontally forward; land on floor or BOSU dome; return to start	Landing on and off BOSU dome is optional

Jump Training & Landing Mechanics Focus

Drill and Equipment	Execution	Notes
Jump On/Step Off (CFX Plyo Box)	Choose appropriate box height; set the arms back as you triple flex at the ankles, knees and hips; avoid a deep squat for take off; land with an athletic stance, "butt high"; exit by walking off	Loaded or unloaded
Jump On/Double Jump to Stick/Hip Dominant Squat/Step Off (CFX Plyo Box)	Choose appropriate box height; set the arms back as you triple flex at the ankles, knees and hips; avoid a deep squat for take off; land with an athletic stance butt high, perform double jump & squat; exit walking off	Loaded or unloaded
Jump to Single Leg Landing/Step Off Forward to 2-foot Landing (R/L) (CFX Plyo Box)	Choose appropriate box height; set the arms back as you triple flex at the ankles, knees and hips; avoid a deep squat for take off; land SL with an athletic stance, "butt high"; exit by jumping off to a 2-foot landing, "butt high"; focus on sticking the landing	Loaded or unloaded
Stair Step Jumps to 2-foot Drop/Stick Landing (CFX hurdle & Plyo Box)	Build a progressive "stair step" line of jumps moving from low height (adjustable hurdles) to medium and more challenging heights. Focus on quick coupling. For example, the rhythm for 3 box heights is quick, quick, quick (on top of highest box), exit by sticking a 2-foot landing.	Loaded or unloaded
Vertical Squat Jump (CFX Strength Band, Vest or Free Weight)	Begin with no load; focus on hip dominant landing where the hips are back to unload the acl and to activate the hip musculature	Loaded or unloaded
Broad & Lateral 2-foot Jump, to Lateral Single Leg Jump (unloaded, for distance)	After technique is set w/ this 3 tiered progression, use markers (e.g., cones) to gauge distance; landing consistency and alignment from the ground up are keys to focus on	Loaded or unloaded
SL Lateral Bound, & SL Skip/Forward Bound (Floor; to Adj. CFX Hurdles)	After technique is set w/ no equipment, use markers (eg., cones) to gauge distance or hurdles to add an element of challenge	Loaded or unloaded
Broad Jump (CFX Strength Band or toner; or harness)	Perform Broad Jump unloaded and progress to resisted; land butt high, Set up with feet about shoulder-width apart in an athletic stance with arms up at chest height. Then, during the loading phase, simultaneously swing the arms while flexing at the hips and knees, loading up the legs.	Focus on loading, exploding, landing; progress to resisted broad jump
On/Off Front, Right, Left (FRL) (CFX Toner, floor based, plyo box, BOSU)	Stand on floor w/ toner around waist; line of pull anchored from behind; perform 5x each front jumps, right lateral jumps, left lateral jumps (FRL); partner actively anchors and coaches; on/off floor, BOSU, or plyo box	Change tempo or load; vary line of pull

Plyo Angulation Jumps (BOSU)	Introduce instability to landing challenge with controlled tempo lateral jumps with stick on floor; progress to rapid tempo	Add tempo changes, lines of resistance
Plyo Snap Plank (BOSU)	Perform a power burpee to 2-foot landing on floor; progress to 2-foot landing on the BOSU dome	Add tempo changes, lines of resistance

Reactive Plyo & Explosive Power Development Focus

Drill and Equipment	Execution	Notes
FWD High-Knees Quick Feet (CFX Hurdles)	Set hurdles hi; focus on established rhythm, hi knees and minimize contact time with floor	Teaches quickness off ground; timing
Lateral High-Knees Quick Feet (CFX Hurdles)	Progress w/ a timing rhythm of 3 down/2 back	Teaches quickness off ground; timing
2-Down/1-Back Jump (CFX Hurdles)	Progress with a timing rhythm of 2 down/1 back	Teaches quickness off ground; timing
SL Bound R/L (CFX Hurdles)	-Position hurdles across; perform SL bounds down the line -Position hurdles length wise in line; perform lateral 7s down the line	Teaches quickness off ground; timing
Split Stance Clean & Press Overhead (Dumbbells)	Notes:	Demo on stage; key on timing & sequencing flow
Split Stance Snatch Overhead (Dumbbells)	Notes:	Demo on stage; key on timing & sequencing flow
Bilateral Snatch Overhead (Dumbbells)	Notes:	Demo on stage; key on timing & sequencing flow
Plyo Vertical Tuck Jump (CFX Strength Band-red)	Begin with the band anchored at either end (training partners, kettle bells, dumbbells etc.); athlete places toes under band; band is off ground; maintain dorsi flexed ankle position, repeat vertical tuck jump	Anchor w/ trainer or dumbbells; vary tempo re., coupling
Basic Slide Progression (CFX Skill Slide)	Learn the basics of slide training re., athletic stance, ankle/knee/hip flexion, trail leg power and/or drag, lead leg, and weight distribution	Vary tempo, load & lines of resistance
Resisted Lateral Slide (CFX red Strength Band & Skill Slide)	Learn basic slide fundamentals; perform power push-off with coach anchoring the resisted lateral slide motion; focus on loading, unloading the push off leg; stabilize torso and rotational forces; repeat other side	Vary tempo, load & lines of resistance
Prone Power Tuck (CFX red Strength Band & Skill Slide)	Begin prone with hands placed on the slide ramp; attach resistance band around both ankles, stabilize the plank position; draw both knees toward the chest (toes slide on board); return to plank position	Vary tempo, load & lines of resistance
Overhead Slam (CFX Slam Ball)	Triple flex down/up, throw as hard as possible into ground w/ a short-hop; do not flex spine or round shoulders; torso remains upright	Throw/release focus
Banded Push Up (CFX Strength Band)	With band across shoulders and anchored under hands, power up from the ground up and control the decent	Use appropriately weighted band
Incline/Decline Plyo Box Pushup (CFX Soft Plyo Box)	Power off plyo box surface regardless of position, explode and absorb; quick coupling occurs at the bottom of the movement as you transition from eccentric deceleration to concentric acceleration	Vary tempo and load (weighted vest)

V. Ballistic Training Session Goals

- A. Understand how equipment and methodology work together.
 1. Set the client/athlete goal(s)
 2. Solve the training challenge; personalize the plan of action
- B. Learn new exercises and drill sequences.
- C. Develop reactive quickness, strength & explosive power.
- D. Introduce skill-based learning that is a performance-driven power expression.

Thank you for attending this session!
Learn more at www.COREFX.ca