



STRENGTHEN YOUR CARDIO

Chad Benson MSc, CSCS, BCAA, CanFitPro PTS

Traditional 'aerobics' classes incorporate many isolated muscle and core movements which produce limited functional gain. Bodyweight strength training will integrate 360° functional joint stability and proprioceptive demand. The muscles of the core form the base from which all movement forces are generated, and therefore need to be carefully integrated into any functional strength training.

In addition to extension and flexion of the spine, the core is designed to maintain the **stability & create mobility** required to generate triplanar functional strength. Functional strength training takes advantage of *bodyweight, lever length, mechanical disadvantage*, while varying the *speed, plane and direction of movement*. To properly prescribe core-dinated strength programs an instructor must understand its two most prominent activation patterns **1) setting and 2) sequential firing**. Together they are referred to as the '**set - fire core ACTivation sequences**'.

- **Setting / PreACTivation** of core stabilizers like the TA, Multif, pelvic floor, diaphragm to stabilize the spine and pelvis prior to movement or change of force.
- **Firing / Activation** of core mobilizers, like the obliques, rectus, erectors, QL's etc to create and dissipate movement.

Functional Strength Concepts

- Until clients achieve mobility around stability, all loading the spine should occur with good posture & proper alignment. Loaded flexion, extension and lateral bending of the spine can be added after mobility, stability & maintenance of posture have been achieved.
- Incorporate movements including bridge / table top, plank / quad kneeling, side plank, push, pull, press, bend, lift, chop / rotation, lunge / split squat, squat.
- Use 'agonist – antagonist counterbalanced' 360° Prescriptions: integrate the 4 major core slings (google: myofascial slings for more info) and functional movement patterns above. Think push / pull, flex /extend, adduct / abduct, R rotate / L rotate, Left Bend / R Bend.
- Always be prepared to offer 1 level of regression and 1 level of progression.
 - Load or Lever length: regression = lighten load, shorten lever prescription
 - Speed: regression = slow speed of movement



- Volume / Fatigue: it is safer to use low (i.e. 4-10 reps/exercise) during the mastery of technique phase. Increase repetitions and # of sets when basic technique is mastered.
- To achieve lean, non bulky muscle, it is appropriate to perform higher reps...only after 'mastery of technique'.
- Encourage pain free movement at all times. Help clients understand discomfort associated with fatigue versus instability and injury.
- Introduce Dynamic ROM, core ACTivation and scapular stability training as part of a dynamic warm-up or as recovery between heavy exhaustive sets.

Practical Prescription		
Core ACT+DROM (1-2sets) <i>8-10 min</i>	360° Function (1-2 sets) <i>15-20min</i>	Matt 360' Strength (1-2 sets) <i>15-20 min</i>
<ul style="list-style-type: none"> - Alt Knee Drops (x8/) -Alt Int Ext Sh Rotate (x8/) - Lying Int Ext Rotate (x8/) -Alt Knee Pull Switches (x8/) -Wide Side to Side Knee Drops (x8/) - 90-90 Spinal Rotation (x8/) -Crunch + Straight Leg Stretch (x6) -1ft Bridge + Opposite Knee Hug (x8/) -Kneeling Side Plank + Fwd Bwd Arm / Leg Clock (x8/) -Quad Kneeling Cat Camel (x8) - Wide Groin Squat (x6) -Split Kneeling Hip Flexor + Side Bend & Wrist Hand Diag Lift (x6/) -Pike Calf Walk + <u>1 Leg Lift</u> x3/side -Plank Spiderman Walk (x4) + Wide Squat (repeat 2,3x) 	<ul style="list-style-type: none"> Triangle Pose <u>1</u>LMDB Wrist Hand Lift (x6,8/si) + Kneeling Plyo Push-up (x8,12) 1ft <u>Jump</u> or Drop Squat (x6,8/) + <u>MDB EzC</u> 3 Position Split Squat (6,8/) + Split Kneel Calf Raise (x8,12) 2 or 1ft stiffed legged bow w/ thoracic <u>rotation</u> (x5,8/) + 1ft heel2quad hamstring curl (x8,10/) 1ft partial crossover squat (5,8/)+ Mountain Pose Hold (x20,30 sec) – repeat to the other leg 	<ul style="list-style-type: none"> Kneeling Side Plank + 3 Position Leg Lifts (x3,6 /pos) + Side Seated 45' Straight Leg Lifts (x8,12/) Quad Kneeling / <u>Hand Plank</u> w Knee 2 Opp Elbow Tuck (x6,10/si) + Bow or Locust Pose (3x5,10s) Elbow <u>1ft</u> Bridge w Shoulder Extension + Hand Slide Crunch or Sit-ups (5,8/) + V Seated Shoulders Retractions or 4 Legged <u>Table Top</u> (x20,30s) Pullover Straight Leg Crunch / Sit-up (x3,5/) + Side Seated 45' Knee Tucks (x7,10/) + Opp Arm and Leg Lift (x7,10/)

- **LMDB & HMDB** = Light/Medium/Heavy Dumbbell, **1** or **2ft** =standing on **1** or **2feet**
- **(x10,15)** = prescription for beginner, experienced
- Underline = progression, **shading** = regression