

## **Dynamic Warm-Up and its Effects on Injury Prevention and Muscle Fiber Size Preservation**

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Dynamic Warm- Up, including active mobility exercises and transit exercises (multiplanar) is the best way to shunt blood to the periphery from the core, and properly prepare the body for exercise and sport performance. Dynamic warm- up with active movements maintains muscle integrity and fiber size, while taking the joints and limbs through range of motion activities that mimic the movement patterns the body will partake in during the training program. Static stretching, stretches that are held for 10-30 seconds at a time, elongate the muscle fibers, thus hindering their ability to contract. This limits their ability to generate force, which can last anywhere from 30min- 1hour based on the individual. It is dangerous to static stretch a cold muscle because damage can be done to the muscle and surrounding joint capsule. Static stretching is recommended post workout to help cool the body down and increase in range of motion.

### ***Dynamic Warm- Up Sample for Athletes***

#### **Warm Up**

##### **Transit Mobility Warm Up Progressions**

1. Toe Walks x 10 yards
2. Heel Walks x 10 yards
3. Walking Knee Hugs
4. Walking Quad Stretch x 10 yards
5. 5 Hand Walks
6. Straight Leg Marches x 10 yards
7. Walking Lunge and Twist x 10 yards
8. Backward Walking Lunge and Twist x 10 yards
9. ½ speed build up run 2 x 30 yards

##### **Dynamic Mobility Warm Up Progressions**

10. Groiners x 5e
11. Crossovers x 5e
12. Scorpions x 5 e
13. Blackburn Circuit (I, Y, T, Arrow) x 20 e
14. Inverted Toe Touch 5e
15. Palms Up, Small Arm Circles Forward and Backward x 10e
16. Palms, Up Large Arm Circles Forward and Backward x 10e

17. Arm Hugs x 5e
18. Trunk Twists x 5e

**Transit Mobility Warm Up Progressions**

19.  $\frac{3}{4}$  speed buildup run 2 x 30 yards
20. Squat Step Lateral L/R x 10 yards e
21. Inverted Toe Touch x 10 yards
22. Leg Cradles x 10 Yards
23. Carioca w/Knee Punch L/R x 20 yards
24. Max Speed Sprints 2 x 30 yards