



# AIR CONSUMPTION TEST

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*One Day SWEAT Test For Fire Fighters*

*This test can be used for a fire fighter to measure his or her working capacity on a single SCBA cylinder. It is deliberately simple and short, yet the movements and energy systems mimic those used at a working fire incident.*



# STRENGTH AND CONDITIONING PROGRAMS

## PREPARE SWEAT RECOVER | The O2X Methodology

Tactical athletes meet physical demands as a job requirement. This includes enduring extended time on their feet, operating on unpredictable terrain, and moving in asymmetrical positions - often while wearing, or carrying heavy gear. As a result, it is crucial for tactical athletes to account for these known factors by targeting potential areas of weakness. Doing so requires proper preparation for workouts, as well as regular rehabilitation routines aimed to prevent injuries and mitigate job-related risks.

So, how do you incorporate injury prevention into your training plan? The PREPARE SWEAT RECOVER methodology: start your workout with 5 minutes of movement (Run/Bike/Row) that will get your blood flowing. Then, focus on warming up individual body parts by moving through the dynamic exercises listed below (Prepare). Finally, after your workout, complete a proper cool down (Recover) to maximize the benefits of your training and enhance your body's ability to recover.

If you miss or skip a workout day, don't stress. Continue with the plan on your next available day, starting from where you left off. You'll notice that PREPARE and RECOVER are still listed on rest days. You should still be moving on your recovery days and PREPARE/RECOVER are great ways to do it!

Complete the training sessions in this program as efficiently as possible and limit your rest in between sets and exercises. Follow prescribed rest intervals if specified.

Unless otherwise specified, loading for all resistance exercises should be challenging, but you should be able to complete all sets. Fewer repetitions per set require higher intensity loads (heavier) to produce the desired adaptation. For example, a protocol that calls for 3 sets of 5 repetitions (3x5) is meant to be completed with more intense loading than 3 sets of 8 (3x8), but less than for 3 sets of 2 (3x2).

Base your loading on your ability, not your ego and note that some days you'll feel stronger than others. There are a lot of variables that can affect tactical athletes day to day and your training should adjust to account for them.

### PREPARE

*(complete each exercise for the provided time/distance)*

1. Run/Bike/Row (5 mins)
2. Forearm Plank (20 secs)
3. Straight Arm Side Plank (20 secs)
4. Hip Bridge (20 secs)
5. Mini Band Walk (Lateral) (10 yards/2 sets)
6. Mini Band Walk (For/Back) (10 yards/2 sets)
7. Walking Knee Grab (10 yards)
8. Walking Heel Grab (10 yards)
9. Traveling Butt Kicks (10 yards)
10. High Knees (10 yards)
11. Lateral Lunge (Right/Left) (10 yards)
12. Push Up w/ Inchworm (10 yards)

### RECOVER

*(complete each exercise for 20-30 seconds)*

1. Quad Foam Roll
2. IT Foam Roll
3. Glute Foam Roll
4. Back Foam Roll
5. Shoulder Foam Roll
6. Forward Fold
7. Downward Dog
8. Hip Stretch
9. Quad Stretch
10. Knee to Chest Stretch
11. Hamstring Stretch
12. Spinal Twist Stretch
13. Prone Glute Stretch
14. Bent Arm Chest Stretch
15. Tricep Stretch

### LEGEND

KB = Kettlebell  
DB = Dumbbell  
BB = Barbell  
RB = Resistance Band  
MB = Medicine Ball

For more information on how to complete all exercises, please visit [o2x.com/exercise-gallery](https://o2x.com/exercise-gallery)

Before attempting this plan, or any exercise program, please consult with and get approval from your personal health care provider. Significant illness or injury can come from attempting an exercise, or workout program, without proper approval from your personal health care provider. The information contained in this plan is intended to be general and educational in nature, and not meant to replace or supplant the advice of your personal health care professionals.



*The purpose of this protocol is to establish a consistent format with which a firefighter can routinely measure his or her working capacity on a single SCBA cylinder. Each time the test is repeated it should be done with as few variations as possible from the previous attempt.*

*The test is deliberately simple and able to be accomplished relatively quickly, yet the movements and energy systems targeted closely mimic those used at a working fire incident.*

*This protocol can also be used to test the effectiveness of different breathing techniques, although your first attempt should be without one to establish a baseline.*

## **Materials:**

- PPE and SCBA
- 20" plyometric box or step
- 55# Kettlebell (males)/35# Kettlebell (females)

## **Set Up:**

- Place the 20" step on a flat hard surface.
- Place the KB 36" in front of the box, allowing plenty of room for step ups in between the box and the KB, mark it's position.
- You'll need a running timer set up where you can see it easily.



## **Protocol:**

- 1) Don full PPE with SCBA (no gloves), ensure SCBA cylinder is filled to 1000psi.
- 2) Leave regulator disconnected until testing begins.
- 3) Stand with your feet shoulder width apart and the KB between your legs.
- 4) Clip in your regulator and start the timer, beginning the test:
  - a. Lift the KB from the ground
  - b. Perform 10 KB swings (two arm)
  - c. Gripping the base of the KB, perform 10 OH presses (two arm)
  - d. Replace the KB onto the mark
  - e. Step forward and address the box
  - f. Perform 10 step ups onto the box
  - g. Step back over the KB
  - h. Repeat
- 5) Complete the circuit at a slow, deliberate pace until your SCBA cylinder is COMPLETELY empty – this is not a race. You should be completing 1 repetition every 2 seconds.
- 6) When your air supply is completely depleted (mask sucks to your face), stop the timer, and disconnect your regulator.
- 7) Record your total time.