



Pre and Post-Test Stretching and Tissue Mobilization

Warm up and Stretching to Prepare for the Physical Ability Test (PAT)

The Physical Ability Test (PAT) has been designed to test Emergency Medical Service (EMS)-specific strength, flexibility and anaerobic conditioning. To prepare for the PAT the following exercises, stretches and self mobilization techniques are recommended.

The following exercises have been included as they represent a strong correlation and crossover to the specific tasks in the PAT. The ability to follow and meet these exercise recommendations will greatly increase your chance of successfully passing the test but in no way guarantee a passing time. It takes time to build the strength, conditioning and flexibility needed to pass this test, the sooner you begin a regimented and specific conditioning program the greater your chance of success.

To aid you in your physical fitness endeavors with the ultimate goal of passing the PAT we have included a functional training routine. Many of these exercises will seem strange to you as they involve full body contractions with balance and flexibility while others are tried, true and more recognizable. The fitness routine is progressive in nature and designed to be periodized; essentially we start with small simple movements and build in complexity and intensity. All the exercises in the routine are specific to the test stations in the PAT.

The exercise routine has been written as protocol of 3 resistance training days, 3 aerobic conditioning days and 1 day of total rest. If you cannot meet the time requirement due to schedule issues, an alternative is to train 3 days per week with the cardio following resistance training on the same day.

Warm up

The warm up for this program has two distinct steps: Step 1 is self massage and Step 2 is specific stretches.

Step 1: Self Massage

Self Myofascial Release (SMR) focuses on the treatment of what is known as the body's fascial system. Fascia is a thin sheath of connective tissue that covers all organs of the body. Muscle fascia covers every muscle and each fiber within every muscle.

When muscle fibers become injured or chronically shortened, fascial adhesions and "trigger points" often develop. These adhesions limit mobility, create tightness and tenderness in muscles, and place undue stress on the joints and vertebrae.

With the use of the foam roll, one can break up these adhesions as well as stimulate the muscles to relax and allow increased elongation of the soft tissue. SMR is a very effective form of flexibility training that, when performed consistently and correctly, can have lasting effects.

SMR is best performed prior to static stretching and exercise. Using SMR and other flexibility training methods can give you increased mobility and performance, as well as improved quality of life.

SMR techniques can be painful over some areas of the body, especially the outer thigh and lat's. Always use caution to not apply too much pressure and avoid direct pressure over joints and bony prominences, this technique should identify and allow you to address areas of the body that may be limiting your performance. Similar to massage remember to breathe through all the releases and allow the trigger points to slowly release before moving on to the next point, this process takes time so be patient.

Be diligent with the SMR techniques to not place your back in uncomfortable positions. Some of the positions are difficult to hold and can be a work out in themselves.

Technique: Find the painful spots (healthy tissue does not hurt to touch) and roll over the spots until the pain lessens. This technique is the same all over the body. Additionally you can hold consistent pressure over a point to achieve a deeper tissue release.

*Most sporting goods stores carry foam rollers and they can be found online from numerous retailers.

Preparation

- Lie on your side while placing the foam roll under the low armpit area.

Movement

- Slowly roll your from your armpit down area until a tender spot is found.
- Upon finding the tender spot hold in place until your feel a (75%) release in discomfort.
- Slowly move to the next tender spot and repeat the steps.

Tips

- Roll your torso backward to find additional tender spots.
- Your lat runs from under the arm to the lower back.



Preparation

- Sit on the foam roll, cross your leg and slightly roll to that side of your buttocks.
- Place your outside hand on your knee.

Movement

- Slowly roll your hip and buttocks until a tender spot is found.
- Upon finding the tender spot hold in place until your feel a (75%) release in discomfort.
- Slowly move to the next tender spot and repeat the steps.

Tips

- Pull your knee towards your chest to open the hip and increase effectiveness.



Preparation

- In the face down position place your inner thigh on the foam roll.

Movement

- Slowly roll your inner thigh until a tender spot is found.
- Upon finding the tender spot hold in place until you feel a (75%) release in discomfort.
- Slowly move to the next tender spot and repeat the steps.

Tips

- Bend your knee to release some pressure and extend your leg to increase pressure.
- Remember to roll from the groin to just above the knee.



Preparation

- Lie on your side while placing your outer thigh on the foam roll with your top foot placed on the floor in front of you.

Movement

- Slowly roll your outer thigh until a tender spot is found.
USE CAUTION: Tender Area of the body.
- Upon finding the tender spot hold in place until you feel a (75%) release in discomfort.
- Slowly move to the next tender spot and repeat the steps.

Tips

- Raise your body off the floor to increase pressure and effectiveness.
- Releasing this region of the body will greatly aid your performance.



Preparation

- Place the back of your leg on the foam roll just above the knee.

Movement

- Slowly roll the back of your leg until a tender spot is found.
- Upon finding the tender spot hold in place until you feel a (75%) release in discomfort.
- Slowly move to the next tender spot and repeat the steps.

Tips

- Raise your body off the floor to increase pressure and effectiveness.
- Rotate your leg in and out to find additional tender spots.
- Place your free leg on top of the roller leg to increase pressure. (Increased pressure will result in a faster more effective release.)



Preparation

- In the face down position place your thigh on the foam roll.

Movement

- Slowly roll your thighs until a tender spot is found.
- Upon finding the tender spot hold in place until you feel a (75%) release in discomfort.
- Slowly move to the next tender spot and repeat the steps.

Tips

- Bend your knee to release some pressure and extend your leg to increase pressure.
- Rotate your leg in and out to find additional tender spots.

Preparation

- Place the back of your lower leg on the foam roll just above ankle.

Movement

- Slowly roll the back of your leg until a tender spot is found.
- Upon finding the tender spot hold in place until your feel a (75%) release in discomfort.
- Slowly move to the next tender spot and repeat the steps.

Tips

- Raise your body off the floor to increase pressure and effectiveness.
- Rotate your leg in and out to find additional tender spots.
- Place your free leg on top of the roller leg to increase pressure. (Increasing pressure will result in a faster more effective release.)



Preparation

- Lie on your back and cross your arms with the foam roll placed across the middle back.
- While bracing your abs, raise your hips.

Movement

- Slowly roll your middle back until a tender spot is found.
- Upon finding the tender spot hold in place until your feel a (75%) release in discomfort.
- Slowly move to the next tender spot and repeat the steps.

Tips

- Placing your arms behind your head will enhance the ability to find tender spots.

Step 2: Stretching

Once you have spent 5-8 minutes mobilizing your tissue with self massage it's time to stretch. The PAT is designed to test job specific flexibility, the stretches included in this program are designed to help you move safely and effectively and can reduce your chance of injury.

Stretching should be 'mildly uncomfortable' never painful. Longer is better with all stretching, relax and breath while performing the stretches. Of course NEVER bounce and pay strict attention to your posture.

Hold all stretches for NO LESS THEN 30 seconds each side before and AFTER you exercise.

Preparation

- *Option 1:* Lie on your back with feet flat. (basic)
- *Option 2:* Stand with one foot on a raised surface. (advanced)

Movement

- *Option 1:* Brace your abdominals, grab the rear of your raised leg and gently pull it towards your chest. Keep your back flat, do not allow the hips to roll up.
- *Option 2:* Brace your abdominals, slowly lean forward from the hip until you feel a strong stretch in the hamstring area.
- Hold for 45-60 seconds.
- Return to the start position and repeat on the opposite side.

Tips

- Be sure not to round your back when leaning forward. (Option 2)
- **A chair, a step, or the 'Truck' can all be used for Option 2**



Preparation:

Place your leg on a **table, counter, desk**, or any other knee to waist high object.

Movement:

Keeping your back flat and your head up, slowly lean forward until a stretch is felt in the hip and glutes.

Tips:

Step in closer if you need less of a stretch, step farther back if you need a greater stretch.

There should never be pain in the knee with this stretch, discontinue if pain is felt in the knee.

**Preparation**

- Place your hand against the door frame at shoulder height.

Movement

- Brace your abdominals, retract the cervical spine. (Neutral Spine Position)
- Slowly turn your body away from the door until you feel a stretch across the chest as well as the shoulder and bicep.

Tips

- To increase the stretch raise the sternum and or increase your rotation.
- Avoid twisting the spine.
- **Can also be done against a tree, wall, pillar, or car door frame.**

Preparation

- Grasp a **handle (sink, pole, railing, tree, car door with open window or door handle).**

Movement

- Slowly lean back and lower your butt, bending from the hips, until a stretch is felt.

Tips

- This is a great stretch for the lats, upper back, shoulders, lower back and hamstrings.
(hamstring stretch requires straighter legs)

Progression

- Moving feet closer and changing your torso angle will change the location of the stretch in the back.
- Perform with one arm.



- **Preparation:** Place your foot on the edge of a **table, counter top, desk or car hood.** Stand tall with your balance leg slightly in front of you.
- **Movement:** Without leaning or arching your back slowly bend the balance leg knee until a stretch is felt in front of the opposite leg.
- **Tips:** Never arch your back. The deeper you bend your balance leg, the greater the stretch.

