

BEGINNER

MONTGOMERY COUNTY FIRE RESCUE SERVICE

12 WEEKS TO CPAT



MEGAN LAUTZ, MS, RDN, TSAC-F
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The Candidate Physical Abilities Test is the standard for measuring your ability to handle the physical demands of being a firefighter. Passing the CPAT requires several weeks of strength, cardiovascular, and mobility training.

This 12 week course provides a balanced strength and conditioning program that will help you pass the CPAT. Just running or strength training alone will not prepare you for the CPAT. Progressing different modalities of training will ensure your fitness improves without injury. Don't skip over the warmup or cool down. Even a minor injury could push you into the next recruit class.

Attending CPAT mentoring will increase your chances of passing CPAT significantly. Instructors will ensure you have proper form and that you are pushing yourself appropriately. You can also practice the test to see if you are fit enough to pass. If you cannot attend CPAT mentoring, try the home practice test provided in this booklet.

If you have questions, reach out to Lt. Smith, MFF Dennison, or Megan. Good luck!

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@RescueRD

SO YOU WANT TO BE A FIREFIGHTER?



CPAT TEST DETAILS

You must complete the eight event course in **10 minutes 20 seconds** or less. You will be accompanied by a test proctor who will keep your time and provide directions for each event. Follow the proctor's directions carefully – if you fail an event, you fail the entire test.

Gear

Helmet
50 lb weight vest
Gloves

Dress Code

Required day of test

Long pants
T-shirt or sweatshirt
Closed toed sneakers
No loose jewelry
Long hair tied back



TEST EVENTS



1. Stair Climb

3 min 20 sec

at 60 steps per minute
+25 lb shoulder weights



2. Hose Drag



3. Equipment Carry

+30 lb saw
+30 lb saw



4. Ladder Raise



5. Forcible Entry

+10 lb sledgehammer



6. Search



7. Rescue

+165 lb dummy



8. Breach & Pull

4 rounds of 3 pushes
and 5 pulls

FITNESS LEVEL

Your fitness level is the number one indicator of a pass on the CPAT. The checklists below will help you determine where you stand. Just because you don't check all of the boxes does not mean you won't pass the CPAT and vice versa. At CPAT mentoring, your ability to pass the stair mill event is used to determine your training level.

If you are in the beginner phase, don't freak out! Take the time to build your base, be consistent, and push yourself harder than you even have before. Allow your body (and mind) to adapt to training by taking the appropriate rest days.

Avoid the temptation to train yourself into the ground, that's how you get injured and perform worse. If you want to do more because you enjoy it, add exercises in gradually or focus on mobility.

Skill (CPAT)

Can you do the skills well?

Function

Can you move well, without pain?

Basic Foundation

Can you move?

1

BEGINNER

New to regular exercise

- < 1 minute on the stair mill at 60 steps/min with 75 lb
- < 5 body weight full-range pushups (without sagging hips)
- Unable to complete a chin up
- Unable to jog 1 mile without stopping

UNLIKELY TO PASS CPAT ON FIRST TRY

6+ months of training before test date

2

INTERMEDIATE

3+ months of regular exercise

- > 1 minute but < 3 minutes on the stair mill at 60 steps/min with 75 lb
- 5 body weight full-range pushups (without sagging hips)
- 1-2 chin ups from a dead hang
- Able to jog 1 mile without stopping, but not 3 miles

POSSIBLE TO PASS CPAT WITHIN THREE TRYs

3+ months of training before test date

3

ADVANCED

6+ months of regular exercise

- 3:20 completed on the stair mill at 60 steps/min with 75 lb
- 10+ body weight full-range pushups (without sagging hips)
- 3+ chin ups from a dead hang
- Able to jog 3 miles without stopping

VERY LIKELY TO PASS CPAT ON FIRST TRY

1-3 months of CPAT specific training

DYNAMIC WARM UP

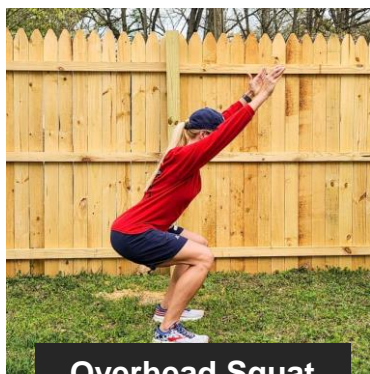
DO NOT SKIP THE WARM UP. The CPAT test and prep workouts are challenging and may result in injury without the proper warmup. Below is the warmup used at CPAT mentoring and during the academy. Familiarizing yourself with the warmup now will help prepare you for the next steps with MCFRS.

Complete a 5-10 minute light jog, then run through the 10 minute warm up below.

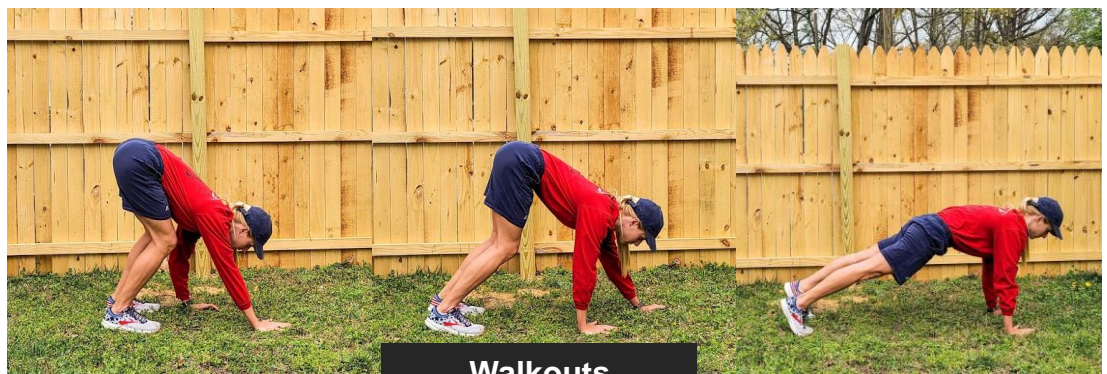
10 overhead squats
10 walkouts
10 runner's pushups
10 single leg hip bridge
20 walking knee to chest

20 walking heel to butt
20 side squat walks
20 straight leg walks
20 heel walks
20 toe walks

20 front bear crawls
20 backwards bear crawls
20 side bear crawls



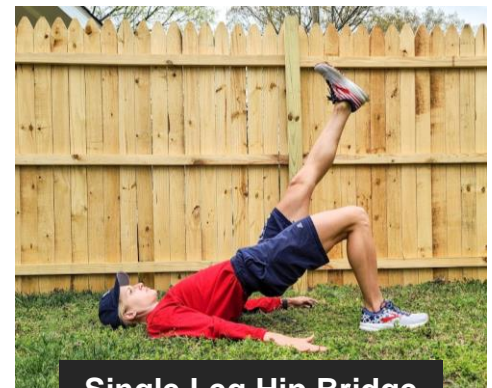
Overhead Squat



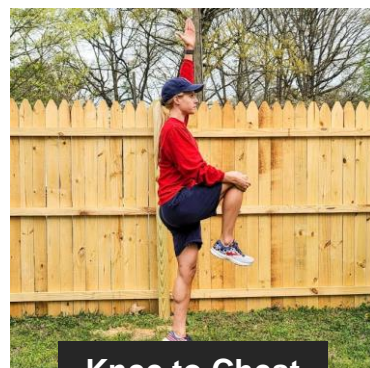
Walkouts



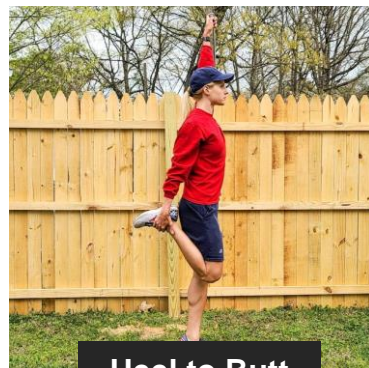
Runner's Pushup



Single Leg Hip Bridge



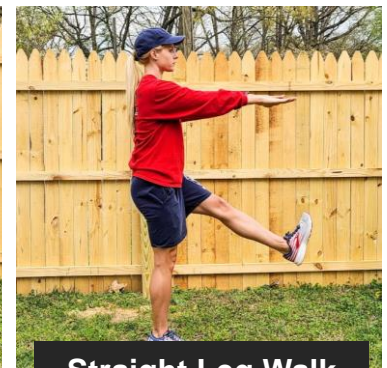
Knee to Chest



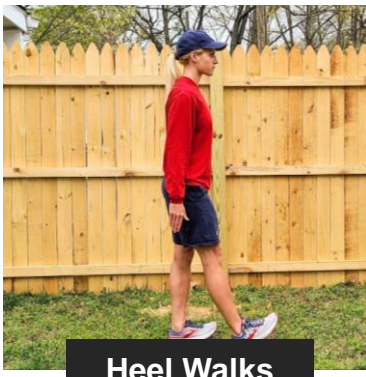
Heel to Butt



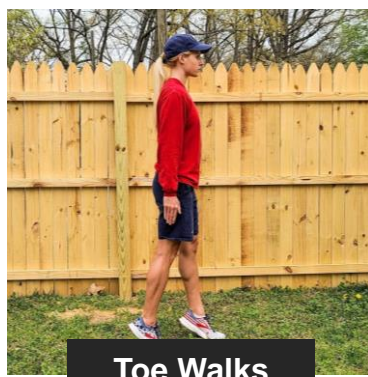
Side Squat Walk



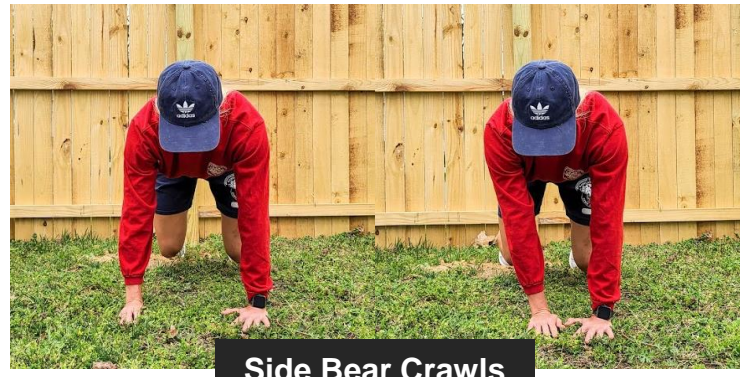
Straight Leg Walk



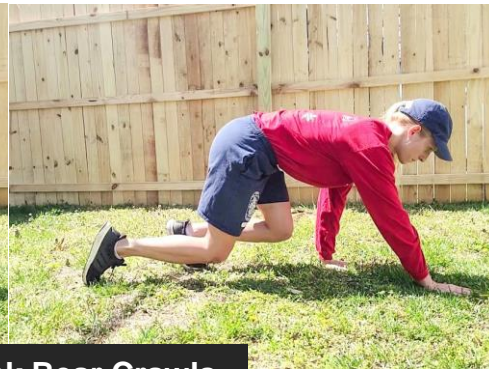
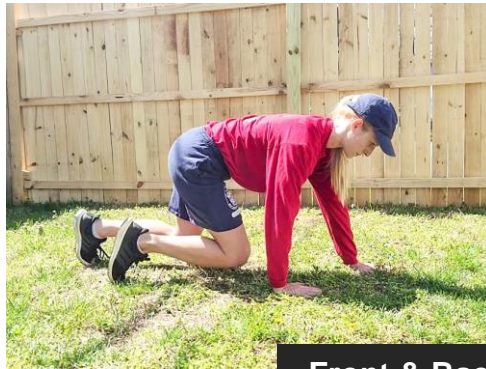
Heel Walks



Toe Walks



Side Bear Crawls



Front & Back Bear Crawls

SHOULD I STATIC STRETCH OR FOAM ROLL?

Static stretching, or holding a stretch for 30 seconds, is not typically recommended before a workout. However, if you feel better after stretching a tight spot pre-exercise, go for it! Some common areas are the hip flexor, hamstring, and chest. **Limit any static stretching to 2-3 minutes.**

Foam rolling is a better option before a workout, especially if you focus on 3-4 sore/tight spots. Gently roll over the muscle until you find a tender spot, then hold over that spot until tenderness dissipates for 30 seconds. **Limit pre-exercise foam rolling to 3-5 minutes.**



Calf

Foot, ankle, shin, low back, hip pain



Shin

Shin pain (may need to cut back on running mileage)



Outer /Front Hip

Low back, hip pain



Low Back

Low back pain



Hip/Buttocks

Low back, hip pain



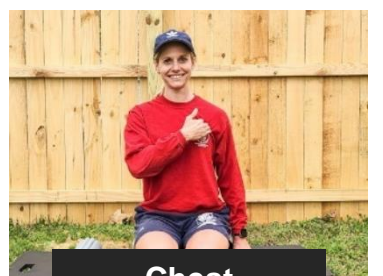
Front Thigh

Low back, hip pain



Inner Thigh

Low back, hip pain



Chest

Neck, shoulder pain

STRENGTH TRAINING

Running alone will not make you a good firefighter or prepare you for the CPAT. It absolutely has its place, but adding in resistance training will make lifting heavy patients and equipment easier.

You will complete the same total body workout three times per week. This workout will take 60-75 minutes including the warmup and cooldown. As the weeks go on, the weight/intensity will go up as the repetitions go down.

There are four supersets in each workout. A **superset** is two exercises done consecutively without rest until both exercises are complete. Take the designated rest period after each superset.

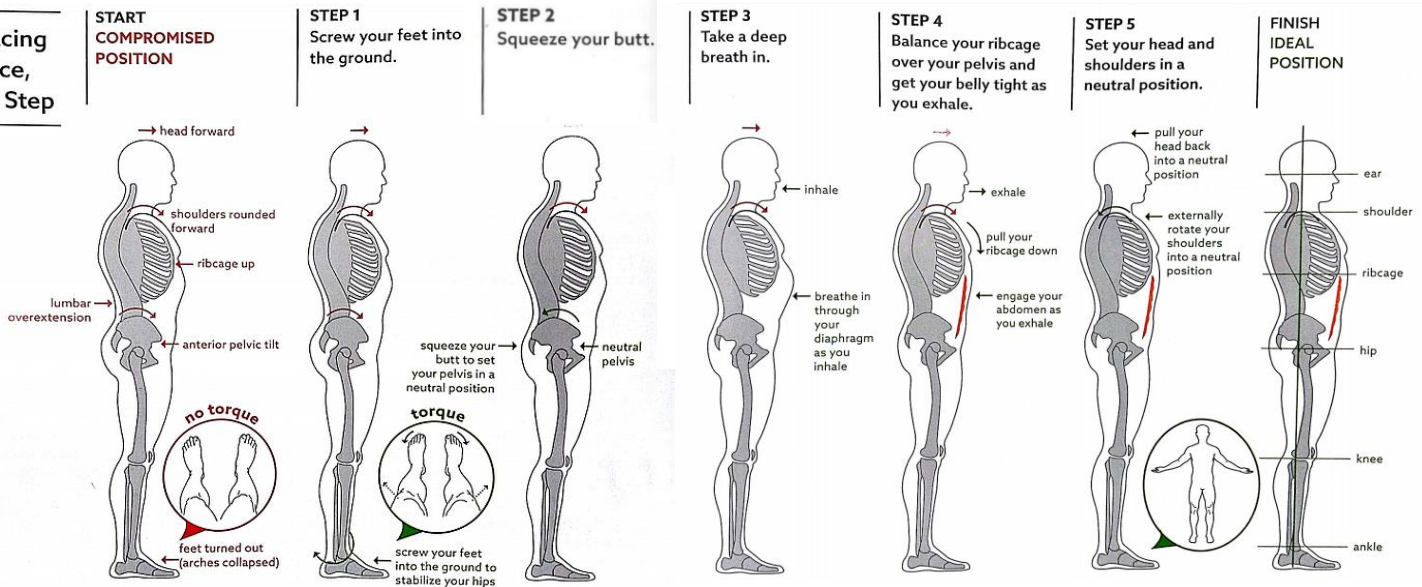


BRACING

Looking at the image below, it may seem like too much to learn how to properly brace your core. Having proper posture when lifting or exercising will help prevent injury. This is particularly important if you currently have low back or hip pain.

Engage your core while breathing is a challenging task for a beginner. The goal is to tighten the abdominals without distending or sucking in. Walk through the image below and practice throughout the day. Imagine someone pressing on your stomach at any point during your workout. To prevent injury, your abdomen should be guarded and tight. [Abdominal Bracing Video](#)

The Bracing Sequence, Step by Step



BREATHING

In general, exhale while you're doing the hardest work, and inhale as you're coming back to your starting position. For example, inhale when descending into a squat/pushup and exhale pressing back up. Proper breathing will make it easier to perform the exercise.

	Mon	Tues	Wed	Thurs	Fri	Sat	Sun
Week 1	Strength Training	Easy run 1 min, walk 2 min. Repeat 6x	Rest	Strength Training	Easy run 1 min, walk 2 min. Repeat 6x	Strength Training	Easy run 1 min, walk 2 min. Repeat 10x
Week 2	Strength Training	Easy run 2 min, walk 2-4 min. Repeat 5x	Rest	Strength Training	Easy run 1 min, walk 1 min. Repeat 5x	Strength Training	Long Run: 1.5K (1 mile)
Week 3	Strength Training	Easy run 3 min, walk 3 min. Repeat 4x	Rest	Strength Training	Easy run 3 min, walk 3 min. Repeat 4x	Strength Training	Easy run 3 min, walk 1-3 min. Repeat 5x
Week 4	Strength Training	Easy run 5 min, walk 3 min. Repeat 3x	Rest	Strength Training	Easy run 5 min, walk 3 min. Repeat 3x	Rest	CPAT HOME MOCK TEST
Week 5	Rest	Easy run 7 min, walk 2 min. Repeat 3x	Rest	Strength Training	Easy run 7 min, walk 2 min. Repeat 3x	Strength Training	Long Run: 2K (1.25 miles)
Week 6	Strength Training	Easy run 8 min, walk 2 min. Repeat 3x	Rest	Strength Training	Easy run 10 min, walk 2 min. Repeat 2x	Strength Training	Long Run: 2K (1.25 miles)
Week 7	Strength Training	Easy run 12 min, walk 2 min. Repeat 2x	Rest	Strength Training	Easy run 12 min, walk 2 min. Repeat 2x	Strength Training	Long Run: 3K (1.86 miles)
Week 8	Strength Training	Easy run 15 min, walk 1-3 min. Repeat 2x	Rest	Strength Training	Easy run 15 min, walk 1-3 min. Repeat 2x	Rest	CPAT HOME MOCK TEST
Week 9	Rest	20 min run	Rest	Strength Training	20 min run	Strength Training	Long Run: 3K (1.86 miles)
Week 10	Strength Training	20 min run	Rest	Strength Training	20 min run	Strength Training	Long Run: 3K (1.86 miles)
Week 11	Strength Training	20-30 min run	Rest	Strength Training	20 min run	Strength Training	Long Run: 4K (2.5 miles)
Week 12	Strength Training	30 min run	Rest	Strength Training	20 min run	Rest	CPAT HOME MOCK TEST

STRENGTH: WEEKS 1-4

The first few weeks of strength training are designed to strengthen your brain to muscle connection. Prioritize your form this month. Consider recording yourself to see how your form matches up to the images below. The first four weeks of this program could be completed at home if you have a few sets of dumbbells and a moderately heavy band.



Goblet Box Squat

[Video Guide](#)

Stand with feet shoulder-width apart and holding a dumbbell at chest height. Inhale, sit back and descend into a squat until your glutes touch the box (16-18 inches). Exhale, rise through the whole foot and return to standing.

Common Errors: knees cave in, toes or heels raise off the ground, knees track excessively over toes.



Dumbbell (DB) Shoulder Press

[Video Guide](#)

Stand with feet shoulder-width apart and holding a dumbbell with palms facing out at shoulder height. Exhale and press the weights overhead.

This exercise can be done seated or standing. Standing requires more stability and may be more challenging.

Common Errors: excessive low back arch (ribs flare).



Step Up

[Video Guide](#)

Start with a step or stable bench that is 8-16 inches high. Step with your whole foot (including ankle) onto the bench. Exhale, drive through the front foot, and extend the knee to stand up fully *without pressing off the ground with the back leg*. Squeeze the glute of the front leg at the top, and lower back to the starting position.

Common Errors: front heel hanging off the step, pressing off the ground with the back foot.

Band Lat Pulldown

[Video Guide](#)

Anchor a resistance band to the top of a door or pole above your head. Get into a kneeling position and hinge at the waist. Raise your hands overhead and grab the band with the palms facing down. Exhale, pull the band back and down to shoulder height. Inhale, release to starting position.

Common Errors: sitting straight up, using too light of a band, allowing the band to snap back up without control.



Plank [Video Guide](#)

Set up in a pushup position with your hands or elbows under your shoulders and your toes under your ankles. Tuck your hips slightly towards the ground to help engage your abdomen. Hold and breathe into the stomach.

Common Errors: hips sag or pike up, tucking the chin to the chest.



Hands Elevated Pushup [Video Guide](#)

Set up in a pushup position with your hands on a wall, table, or bench. The closer your hands are to the ground, the harder the exercise will be. Tuck your hips slightly towards the ground to help engage your abdomen. Inhale, bend your elbows and descend towards the ground until your elbows are at 90°. Exhale, press through the hands and return to the starting position.

Common Errors: hips sag or pike up, tucking the chin to the chest.



Band or Cable Chop [Video Guide](#)

Set a band or cable to the height of your belly button. Stand with feet shoulder-width apart and toes pointing forward. Extend the band out in front of you, exhale and pivot as if you were ramming a door open.

Common Errors: toes turning out, losing control of the band.



Dumbbell (DB) Floor Bridge [Video Guide](#)

Lay on your back on the floor with your arms at a 45° angle relative to your torso. Exhale, bridge your hips by squeezing your glutes and driving your heels into the ground. Lower your hips back to the starting position.

Common Errors: heels raise off the ground, low back arches, knees flare out or cave in.

STRENGTH: WEEKS 5-8

Weeks 5-8 is designed to help increase muscular size, otherwise known as hypertrophy. The reps go down from the previous weeks, so the weight/intensity should go up. No need to double the weight, increase it just enough to keep your form in that rep range. To increase intensity without changing weight, lower your box squat height, narrow your band chop stance, and lower your pushup bench height.



Goblet Low Box Squat

[Video Guide](#)

Stand with feet shoulder-width apart and holding a dumbbell at chest height. Inhale, sit back and descend into a squat until your glutes touch the box (8-12 inches). Exhale, rise through the whole foot and return to standing.

Common Errors: knees cave in, toes or heels raise off the ground, knees track excessively over toes.



Dumbbell (DB) Shoulder Press

[Video Guide](#)

Stand with feet shoulder-width apart and holding a dumbbell with palms facing out at shoulder height. Exhale and press the weights overhead.

This exercise can be done seated or standing. Standing requires more stability and may be more challenging.

Common Errors: excessive low back arch (ribs flare).



Step Up

[Video Guide](#)

Start with a step or stable bench that is 8-16 inches high. Step with your whole foot (including ankle) onto the bench. Exhale, drive through the front foot, and extend the knee to stand up fully *without pressing off the ground with the back leg*. Squeeze the glute of the front leg at the top, and lower back to the starting position.

Common Errors: front heel hanging off the step, pressing off the ground with the back foot.

Band Lat Pulldown

[Video Guide](#)

Anchor a resistance band to the top of a door or pole above your head. Get into a kneeling position and hinge at the waist. Raise your hands overhead and grab the band with the palms facing down. Exhale, pull the band back and down to shoulder height. Inhale, release to starting position.

Common Errors: sitting straight up, using too light of a band, allowing the band to snap back up without control.



Plank with Alternating Hand Lift (Renegade Row Regression)

Set up in a pushup position with your hands or elbows under your shoulders and your toes under your ankles. Tuck your hips slightly to help engage your abdomen. Lift your right hand without twisting your hips (as best you can). Replace the hand and switch.

Common Errors: hips sag or pike up, tucking the chin to the chest.



Hands Elevated Pushup

[Video Guide](#)

Set up in a pushup position with your hands on a wall, table, or bench. The closer your hands are to the ground, the harder the exercise will be. Tuck your hips slightly towards the ground to help engage your abdomen. Inhale, bend your elbows and descend towards the ground until your elbows are at 90°. Exhale, press through the hands and return to the starting position.

Common Errors: hips sag or pike up, tucking the chin to the chest.



Band or Cable Chop

[Video Guide](#)

Set a band or cable to the height of your belly button. Stand with feet shoulder-width apart and toes pointing forward. Extend the band out in front of you, exhale and pivot as if you were ramming a door open.

Common Errors: toes turning out, losing control of the band.



Dumbbell (DB) Floor Bridge

[Video Guide](#)

Lay on your back on the floor with your arms at a 45° angle relative to your torso. Exhale, bridge your hips by squeezing your glutes and driving your heels into the ground. Lower your hips back to the starting position.

Common Errors: heels raise off the ground, low back arches, knees flare out or cave in.

STRENGTH: WEEKS 8-12

Weeks 8-12 emphasizes gaining strength. No need to double the weight, increase it just enough to keep your form in that rep range. If you cannot maintain good form for the designated reps, lower the weight. To increase intensity without changing weight, lower your box squat height, narrow your band chop stance, and lower your pushup bench height.



Goblet Squat

[Video Guide](#)

Stand with feet shoulder-width apart and holding a dumbbell at chest height. Inhale, sit back and descend into a squat. Exhale, rise through the whole foot and return to standing.

Common Errors: knees cave in, toes or heels raise off the ground, knees track excessively over toes.



Dumbbell (DB) Shoulder Press

[Video Guide](#)

Stand with feet shoulder-width apart and holding a dumbbell with palms facing out at shoulder height. Exhale and press the weights overhead.

This exercise can be done seated or standing. Standing requires more stability and may be more challenging.

Common Errors: excessive low back arch (ribs flare).



Dumbbell (DB) Step Up

[Video Guide](#)

Start with a step or stable bench that is 8-16 inches high. Step with your whole foot (including ankle) onto the bench. Exhale, drive through the front foot, and extend the knee to stand up fully *without pressing off the ground with the back leg*. Squeeze the glute of the front leg at the top, and lower back to the starting position.

Common Errors: front heel hanging off the step, pressing off the ground with the back foot.

Assisted Pullup Machine or Band Pull Up

[Video Guide](#)

Attache a band to the bar and loop the end around your foot. Grip the bar with palms facing away from you. Exhale, pull your chin towards the bar. Inhale and return to the starting position

Common Errors: using too light of a band, allowing the band to snap back up without control, not bringing your chin to the bar.



Renegade Row

[Video Guide](#)

Position two dumbbells underneath your hands in a pushup position. Exhale, pull the dumbbell toward your body until the elbow is at 90°. Lower the dumbbell to start, repeat with opposite arm.

Common Errors: hips twist with the movement, not focusing on keeping the core engaged/tight.



Pushup

[Video Guide](#)

Set up in a pushup position. Tuck your hips slightly towards the ground to help engage your abdomen. Inhale, bend your elbows and descend towards the ground until your elbows are at 90°. Exhale, press through the hands and return to the starting position.

Common Errors: hips sag or pike up, tucking the chin to the chest.



Band or Cable Chop

[Video Guide](#)

Set a band or cable to the height of your belly button. Stand with feet shoulder-width apart and toes pointing forward. Extend the band out in front of you, exhale and pivot as if you were ramming a door open.

Common Errors: toes turning out, losing control of the band.



Single Leg Floor Bridge

[Video Guide](#)

Lay on your back on the floor with your arms at a 45° angle relative to your torso. Raise the left leg to 45°. Exhale, use the opposing leg to bridge your hips by squeezing your glutes and drive through the heel.

Common Errors: heels raise off the ground, low back arches, knees flare out or cave in.

HOME CPAT MOCK TEST

CPAT is exhausting – you feel like you have no breath left and your muscles are screaming louder than they ever have. Often, there is a mental block that participants must force through to pass the test.

You must embrace the suck in order to pass.

If you live too far away to attend mentoring or want to try it in advance, doing a home test run will help you understand where you stand. It will help prepare you physically and mentally for the test.

Warm Up for 10-15 minutes minimum

Beginner: no backpack

Intermediate: 1 backpack

Advanced: 2 backpacks



Disclaimer: Always have someone home to help you in case of an emergency. If you feel extreme pain, lightheaded, or nauseous stop the test immediately. Complete the test on stable ground when possible (ex. flat concrete over grass). Warm up and cool down for a minimum of 15 minutes.

SETTING UP THE COURSE

Event	Exercise	Equipment	Actual Test Weight
Rest by walking 85 feet or 20 seconds between stations			
Stair Climb	3.5 min stairs (60 steps per minute)	2, 20 lb backpacks	50 lb weight vest + 25 lb shoulder weights
Hose Drag	50 total reps Kneeling alternating row	1 resistance band 2, 20 lb backpacks	50 lb weight vest
Ladder Raise & Extension	30 total reps Squat to pulldown	1 resistance band 2, 20 lb backpacks	50 lb weight vest
Equipment Carry	150 ft Bucket (or dumbbell) farmer's walk	2, water filled 5 gallon buckets 2, 20 lb backpacks	50 lb weight vest + two 30 lb pieces of equipment
Forcible Entry	25 reps Resistance band chop	1 resistance band 2, 20 lb backpacks	50 lb weight vest + 10 lb sledgehammer
Search	64ft with two right 90° turns Backpack bear crawl	1, 20 lb backpack	50 lb weight vest
Rescue	35 ft, 180° turn, 35 ft Duffle "dummy" drag	1, 50+ lb duffle bag 2, 20 lb backpacks	50 lb weight vest + 165 lb dummy
Ceiling Breach & Pull	4 rounds 3 reps squat to press 5 reps squat to pulldowns	2 resistance bands (one high, one waist height) 2, 20 lb backpacks	50 lb weight vest + 60 lb push + 80 lb pull



1. Stair Climb
3 min 20 seconds



2. Hose Drag
50 total reps kneeling alternating band rows



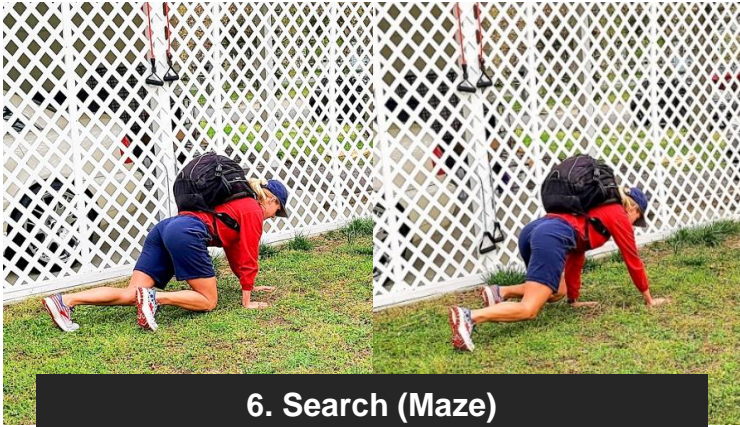
3. Ladder Raise & Extension
25 alternating squat to pulldown



4. Equipment Carry
150 ft bucket carry



5. Forcible Entry
25 band chops



6. Search (Maze)
Weighted bear crawl 64ft with two right 90° turns



7. Rescue (Dummy Drag)
50+ lb duffelbag: 35 ft, 180° turn, 35 ft



8. Ceiling Breach & Pull
4 rounds: 3 reps squat to press, 5 reps squat to pulldown

ABOUT THE AUTHORS



MEGAN LAUTZ, MS, RDN, TSAC-F

Megan Lautz is a Registered Dietitian with a Masters in Sports Nutrition. Megan is also a certified personal trainer and fitness instructor for fire recruits. While a civilian, Megan has strived to understand the challenges firefighters face when trying to stay healthy. She has trained for and passed CPAT, completed a 24 hour ride along with Station 8, and is heavily involved in fire recruit training and nutrition.

Megan's mission is to help firefighters perform better, recover faster, and live longer.



KATIE DENNISON, MS, TSAC-F

Katie Dennison is a Master Firefighter Paramedic and Exercise Physiologist.

DISCLAIMER

This eBook is not intended to be a substitute for the medical advice of a licensed physician. The reader should consult with their doctor in any matters relating to his/her health. The authors advise readers to take full responsibility for their safety and know their limits. Before practicing the skills described in this eBook, be sure that your equipment is well maintained, and do not take risks beyond your level of experience, aptitude, training, and comfort level.