

Swatara Township Police Department Physical Fitness Test Standards

The standard used in the physical fitness test were derived from law enforcement physical fitness norms that are based on a representative sample of approximately 4000 officers that were stratified (by age and gender) and randomly selected from 40 municipal, state and federal agencies.

The Swatara Township Police Department has selected the 30th percentile as the standard for passing the test. This means that 70% of the officers who took this test, scored above the standard which we require.

The physical fitness test measures those job-related physical fitness areas that have been shown to be underlying and predictive factors for officer physical abilities to perform the essential physical tasks and functions of the job.

Fitness Area Measured	Fitness Test
Aerobic power	1.5 mile run
Anaerobic power	300 meter run
Upper body muscular endurance	Maximum push ups
Abdominal muscular endurance	1 minute sit ups
Leg power	Vertical jump

Source: Physical Fitness Assessments and Norms for Adults and Law Enforcement, The Cooper Institute, pg. 44 and 45.

Physical Fitness Test

Applicants for the position of "Police Officer" must demonstrate a fitness level which would allow them to perform the essential job functions of a police officer. Applicants must perform each of the following exercises in accordance with the indicated standards. Each exercise will be scored as PASS/FAIL. **If an applicant fails one event, they fail the entire test and will not advance to the written test.** The exercises must be performed in the following order:

1. **Vertical Jump**-Applicant will be provided three attempts to jump as high as possible from a standing position. The standard is **15"**.
* 2 minute rest
2. **1 Minute Sit-Ups**-Applicants will have 1 minute to complete **28 sit-ups**. This exercise shall consist of the applicant lying on the floor with the knees bent 90' and feet held in position. The applicant will interlock their fingers behind their head and touch their elbows to their knees without pulling on their neck or raising their hips off of the floor.
* 5 minute rest
3. **300 Meter Run**-Applicant will run 300 meters on a level surface within **70.1 seconds**.
* 5-10 minute rest
4. **Push-ups**-Applicant will place their hands on the ground, approximately shoulder width apart. Applicant's feet may be up to 12" apart. The body must be in a straight line from shoulders to ankles. **24 correct push-ups** must be performed to pass this test.
* 5 minute rest
5. **1.5 Mile Run**-The applicant will run a level 1.5 mile course within **15 minutes and 55 seconds**.

Swatara Township Police Department

Applicant Fitness Test

(This is a pass/fail test)

1. **Vertical Jump: (15 inches)** This measures leg power, and consists of measuring how high a person jumps.
2. **One Minute Sit Ups: (28)** This measures abdominal, or trunk, muscular endurance. While lying on his/her back, the participant will be given one (1) minute to do as many bent leg sit ups as possible.
3. **300 Meter Run: (70.1 seconds or less)** This measures anaerobic power, or the ability to make an intense burst of effort for a short time period or distance. This component consists of sprinting 300 meters as fast as possible.
4. **Maximum Push Ups: (24)** This measures the muscular endurance of the upper body. This component consists of doing as many push ups as possible until muscular failure.
5. **1.5 Mile Run: (15:55 minutes or less)** This measures aerobic power or cardiovascular endurance (stamina over time). For this component you must complete, as fast as possible, a distance of 1.5 miles.

Protocol for Vertical Jump

Purpose

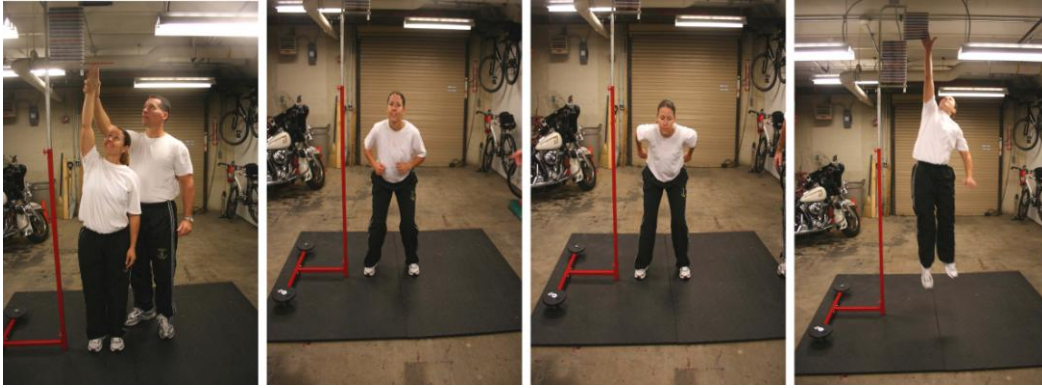
This is a measure of jumping or explosive power.

Equipment

Vertec* Vertical Measuring device, or vertical measuring apparatus.

Procedure

1. Participant stands with one side toward the Vertex, feet together, and reaches up as high as possible to mark his/her standard reach.
2. Participant jumps as high as possible and marks the highest point of the jump. Participant must jump from both feet in a stationary stance. Arms may be pumped and thrust upward.
3. Score is the total inches, to the nearest 1/2 inch, above the standard reach mark.
4. The best of three trials is the recorded score.



How To Prepare For Vertical Jump

You Must Train To Meet The Standards

Training must be specific to the target activity, and therefore each component has a different training routine.

Vertical Jump:

A good way to prepare for this component is to do plyometric training. The basic plyometric exercise routine consists of three exercises: double leg vertical jump, single leg vertical jump and the double leg hop. Perform each exercise with 1 set of 10 repetitions, 3 days a week. Do the repetitions ballistically without stopping. Rest 3 minutes between each set of each exercise.

Double Leg Vertical Jump:

Intensity Level: High

Starting Position: Stand with the feet shoulder-width apart.

Direction of Jump: Vertical

Arm Action: Double arm action

Starting Action: Perform a rapid counter movement and jump as high as possible

Ascent: Thrust arms upward vigorously and reach as high as possible

Descent: When the feet hit the ground, jump again immediately without a stutter step.

Double Leg Hop:

Intensity Level: Medium

Starting Position: Stand with the feet shoulder-width apart.

Direction of Jump: Horizontal, with a vertical component as well

Arm Action: Double arm action

Starting Action: Jump off of both legs and strive for maximum distance

Ascent: Think about “hanging” in the air

Descent: Land in the starting position and immediately repeat the movement

Single Leg Vertical Jump:

Intensity Level: High

Starting Position: Stand with one foot on the ground

Direction of Jump: Vertical

Arm Action: Double arm action

Starting Action: Perform a rapid counter movement and jump as high as possible

Ascent: The arms should be thrust upward vigorously and reach as high as possible

Descent: When the foot hits the ground, immediately jump without a stutter step

(Emphasis should be placed on maximum height and quick, explosive takeoffs. Repeat this exercise with the opposite leg after a brief rest of 15-30 seconds)

Protocol for One Minute Sit-ups

Purpose

This measures abdominal muscular endurance.

Procedure

1. The participant starts by lying on his/her back, knees bent, heels flat on the floor, with the fingers laced and held behind the head. Avoid pulling on the head with the hands. The buttocks must remain on the floor with no thrusting of the hips.
2. A partner holds the feet down firmly.
3. The participant then performs as many correct sit ups as possible in 1 minute.
4. In the up position, the subject should touch elbows to knees and then return until the shoulder blades touch the floor.
5. Score is total number of correct sit ups. Any resting must be done in the up position.
6. Breathing should be as normal as possible, making sure the participant does not hold his/her breath as in the Valsalva maneuver.



How To Prepare For Sit-ups

1. Determine the number of correct sit ups you can do in one minute.
2. Multiply that number by .75 (75%). Round off the result to the lowest number. This will be the number of repetitions (sit ups) you will do per set.
3. Warm up with some light activity of your choice, such as a stationary bike, walking or jogging on the treadmill, light calisthenics, etc.
4. Perform the number of sit ups (correct form) determined in the calculation done in #2 above.
5. Rest no longer than 60 seconds, and do another set of repetitions.
6. Repeat #4 and #5 until you have done 3 to 5 sets of repetitions. Even though the last sets may be difficult, maintain proper form. If you have to hesitate longer on the floor on the last sets to get in the full number, then do so but rest no longer than necessary. It is important that you get in all the repetitions.
7. Do this routine every other day. Increase the number of reps per set by 1 or 2 each week.

NOTE: If you are unable to do at least 5 reps per set, you will need to modify your routines in order to get in sufficient repetitions to address muscular endurance. You should follow a crunch or curl routine for your abdominals, and also get assistance in designing leg exercises (multi-hip machine or leg lifts) to address the hip flexors. Also, you could use an abdominal machine in a fitness facility using a light enough resistance to get in 15 reps per set for 3 sets.

Protocol for 300 Meter Run

Purpose

This is a measure of anaerobic power.

Equipment

400 meter running track, or any measured 300 meter flat surface with sufficient distance to slow to a stop.

Procedure

1. Warm up and stretching should precede testing.
2. Participant runs 300 meters at maximal level of effort. Time used to complete distance is recorded.
3. Participant should walk for 3 -5 minutes immediately following test to cool down. This is an important safety practice.

How To Prepare For 300 Meter Run

To prepare for this component, it is a good idea to do interval training. The first step is to time yourself for an all-out effort at 110 yards. This is called your initial time, or IT. The second step is to divide your IT by .80 to get your training time. Then follow the schedule below.

Weeks	Distance	Reps	Training Time	Rest Time	Frequency
1 & 2	110 Yards	10	$IT \div .80$	2 min.	1/week
3 & 4	110 Yards	10	$IT \div .80$ minus 2-3 seconds	2 min.	1/week
5 & 6	110 Yards	10	$IT \div .80$ minus 5-6 seconds	2 min.	1/week
7 & 8	220 Yards	8	$IT \div .80 \times 2$	2 min.	1/week
9 & 10	220 Yards	8	$IT \div .80 \times 2$ minus 4 seconds	2 min.	2/week

Protocol for Maximum Push-ups

Purpose

This measures muscular endurance of the upper body (anterior deltoid, pectorals major, triceps).

Procedure

1. The hands are placed shoulder width apart, with fingers pointing forward. Some part of the hands must lie within a vertical line drawn from the outside edge of the shoulders to the floor. The administrator places one fist on the floor below the participant's chest (sternum).
2. Starting from the up position (arms fully extended with elbows locked, both hands and both feet only touching the floor), the participant must keep the back straight at all times and lower the body to the floor until the chest (sternum) touches the administrator's fist. The participant then returns to the up position with the elbows fully locked. This is one repetition.
3. Resting is permitted only in the up position. The back must remain straight during resting.
4. When the participant elects to stop or cannot continue, the total number of correct pushups is recorded as the score. No time limit.



How To Prepare For Push-ups

1. Determine the maximum number of correct push ups you can do in one minute.
2. Multiply that number by .75 (75%). Round off the result to the lowest number. This will be the number of repetitions (sit ups) you will do per set.
3. Warm up with some light activity of your choice, such as a stationary bike, walking or jogging on the treadmill, light calisthenics, etc.
4. Perform the number of push ups (correct form) determined in the calculation done in #2 above.
5. Rest no longer than 60 seconds, and do another set of repetitions.
6. Repeat #4 and #5 until you have done 3 to 5 sets of repetitions. Even though the last sets may be difficult, maintain proper form. If you have to hesitate longer on the floor on the last sets to get in the full number, then do so but rest no longer than necessary. It is important that you get in all the repetitions.
8. Do this routine every other day. Increase the number of reps per set by 1 or 2 each week.

NOTE: If you are unable to do at least 5 reps per set, then you will have to adjust the above calculations on modified push ups (from the knees) in order to keep the number of reps high enough to address muscular endurance. You should also get assistance in designing a strength routine using selectorized machines including chest, arms and trunk exercises.

Protocol for 1.5 Mile Run

Purpose

The 1.5 mile run is a measure of aerobic power (cardiovascular endurance). The objective in the 1.5 mile run is to cover the distance as fast as possible.

Equipment

1. Stopwatch
2. Indoor or outdoor track or another suitable flat running area measured to 1.5 miles
3. Testing forms to record data

Procedure

1. Participants should not eat a heavy meal or smoke for at least 2 -3 hours prior to the test. Participants should warm up and stretch thoroughly prior to running.
2. The participant runs 1.5 miles as fast as possible.
3. Participants should not physically touch one another during the run, unless it is to render first aid.
4. Finish times should be called out and recorded.
5. Upon completion of the run, participants should cool down by walking for about 5 minutes to prevent venous pooling (i.e., pooling of the blood in the lower extremities which reduces the return of blood to the heart and may cause cardiac arrhythmia).

How To Prepare For 1.5 Mile Run

To prepare for this test, you need to gradually increase your running endurance. The schedule below is a proven progressive routine. Begin at the level you can accommodate, and if you can advance the schedule on a weekly basis, then proceed to the next level. If you can do the distance in less time, then do so.

Week	Activity	Distance in Miles	Duration in Minutes	Times per Week
1	Walk	1	17-20	5
2	Walk	1.5	25-29	5
3	Walk	2	32-35	5
4	Walk/Jog	2	28-30	5
5	Walk/Jog	2	27	5
6	Walk/Jog	2	26	5
7	Walk/Jog	2	25	5
8	Walk/Jog	2	24	5
9	Jog	2	23	4
10	Jog	2	22	4
11	Jog	2	21	4
12	Jog	2	20	4