Idaho POST Academy

Physical Fitness Test Battery

PHYSICAL FITNESS TEST BATTERY

INTRODUCTION

Peace officers have unique job functions, some of which can be physically demanding. An officer's capability to perform those functions can affect personal and public safety. Physical fitness underlies an officer's ability to perform the frequent and critical job tasks demanded. The minimum fitness standards identified are levels below which an officer's capacity to safely learn and perform frequent or critical job tasks is compromised. Higher levels of fitness are associated with better performance of physical job tasks required of Idaho peace officers.

Physical Fitness Test Battery (PFTB) Administration

The Idaho Peace Officer PFTB is comprised of five tests:

1. Vertical Jump
2. One Minute Sit-Ups
3. Maximum Push-Ups
4. 300-Meter Run
5. 1.5-Mile Run/Walk

Tests should be administered in the above order. The test battery process should be sequenced as follows:

I. **Warm-up** (7-10 minutes)
   A. General warm-up - 2-3 minutes of easy jogging, jumping jacks, squat-thrusts, etc.
   B. Stretching (active and/or static) - 5-7 minutes, include stretches for shoulders, back, upper/lower legs

II. **Physical Fitness Test Battery** (PFTB)
   A. Vertical Jump (3 minutes rest)
   B. One Minute Sit-Ups (5 minutes rest)
   C. Maximum Push-Ups (10 minutes rest)
   D. 300-Meter Run (15 minutes rest)
   E. 1.5 Mile Run/Walk

III. **Cool-down** (5 minutes)
   A. Walking (keep walking to avoid blood pooling in legs)
   B. Easy stretching

Test Protocols

Strict adherence to the following protocols is *mandatory*. Variances from these procedures render results meaningless and limit ability to gauge fitness progress.

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VERTICAL JUMP TEST

Purpose

This test measures leg power, which is important in jumping or vaulting objects such as walls and ditches, and in moving heavy objects such as people.

Equipment

Hardboard or white paper with scale, tape measure, or yardstick (1/2" increments) affixed to wall. Can use carpenter's chalk on finger to measure, or a commercial or homemade device. (Recommended commercial source: "Reach 'N' Jump Board" #7438P, cost $37.50 from M-F Athletic Co., P.O. Box 8090, Cranston, RI 02920-0090, phone 1-800-556-7464)

Procedures (refer to Figures 1-4)

1. Read the instructions to the participants.
2. Demonstrate the test, pointing out common errors.
3. Have participants warm up by practicing the test.
4. Have the participant stand with one side toward the wall, heels together, and reach upward as high as possible. Record the maximum standing reach. Then, using a rocking, one-step approach ("step-feet together-jump"), have the participant jump as high as possible, reaching upward at the same time. Record the maximum jumping reach.
5. The number of inches between the standing reach and the jumping reach, measured to the nearest half inch, is the score. **Use the best of three trials as the score.**

Figure 1

Script

Use the following script to prepare the participants. *The vertical jump measures leg power. After you warm up, stand with one side to the wall. With your heels together, reach upward as high as possible with your hand against the measuring device on the wall. Your maximum standing reach will be recorded. Then, using a rocking, one-step approach, jump as high as possible while extending the arm nearest the wall.*

Figure 2

Figure 3

Figure 4

Your maximum jumping reach will be recorded. You will have three tries at this event, with your best effort counting as your score. Watch this demonstration . . . . Are there any questions?

Tips for the Test Administrator

Assure the maximum standing reach is a true "maximum."

You may have to physically check for maximal extension of arm upward. A double jump or "crow hop" is not permitted upon take-off. The correct sequence is: stride forward with one foot, bring trailing foot up to meet lead foot while flexing knees, jump off both feet. If the participant prefers, a standing squat jump (without a step) is acceptable.

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ONE MINUTE SIT-UP TEST

Purpose

This test measures the muscular endurance of the abdominal muscles. This is important for performing tasks that involve the use of force, and it helps maintain good posture and minimize lower back problems. Perform this test on a mat or carpeted surface.

Figure 5

Equipment

- Mat
- Stopwatch or a clock with a sweep second hand
- Partner

Procedures (refer to Figures 5-6)

1. Read the instructions to the participants.
2. Demonstrate the event, pointing out common errors.
3. Have the participant lie on his or her back, knees bent, heels flat on the floor. Hands should be held behind the head, with elbows out to the sides. A partner holds down the feet.
4. Have the participant perform as many correct sit-ups as possible in one minute. In the up position, the individual must touch the elbows to the knees and then return to the lying position (shoulder blades touch the floor) before starting the next sit-up.
5. The score is the number of correct sit-ups.

Figure 6

Script

Use the following script to prepare the participants. *The sit-up measures the muscular endurance of the abdominal muscles. Lie on your back, with your knees bent at a 90 degree angle, and your heels on the mat. Your feet may be together or apart, but the heels must stay in contact with the mat. Your partner can hold them for you (but can't kneel on them). Your fingers must stay interlocked behind your head, or hands cupped behind the ears, throughout the event. When I say "Go," lift your upper body by bending at the waist. Touch your elbows to your knees, and return to the starting position. When returning to the starting position, the shoulder blades must touch the mat. I will count a repetition each time you return to the starting position. You may rest, but only in the "up" position. Do not arch your back or lift your buttocks from the mat. If you fail to keep your fingers interlocked or hands cupped behind the ears, fail to touch your elbows to your knees or shoulder blades to the mat, or if you arch your back or lift your buttocks, you will receive a warning. After one warning, incorrect repetitions will not count. You will have one minute to do as many sit-ups as possible. I will give you signals at 30, 15 and 5 seconds remaining. Your score is the number of correct sit-ups. Watch this demonstration . . . . Are there any questions?*

Tips for the Test Administrator

- Make sure that the hands remain interlocked behind the head or cupped and touching the head behind the ears. Interlocked means that some parts of the fingers overlap.
- The knees must remain at a 90 degree angle throughout the exercise.
- The buttocks must remain in contact with the floor at all times.
- Any resting must be done in the "up" position.

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MAXIMUM PUSH-UP TEST

Purpose
This test measures the muscular endurance of the upper body muscles in the shoulders, chest, and back of the upper arms (the extensors). This is important for use of force involving any pushing motion.

Equipment: None

Figure 7

Figure 8

Procedures
(refer to Figures 7-10)

1. Read the instructions to the participants.
2. Demonstrate the test, point out common errors.
3. Have the participant get down on the floor into the front leaning rest position.
4. Have the participant lower the body until the upper arms are parallel to the floor, then push up again. The back must be kept straight, and in each extension up, the elbows should lock. Resting in the up position (only) is allowed.
5. The score is the maximum number of push-ups completed with no time limit.

Script
Use the following script to prepare the participants. *The push-up measures the muscular endurance of the upper body (chest, shoulders, and triceps). Place your hands on the ground wherever they are comfortable, approximately shoulder width apart.*

Figure 9

Figure 10

Your feet may be together, or up to 12 inches apart. Both feet shall touch the mat. Your body should be in a straight line from the shoulders to the ankles, and must remain that way throughout the exercise. Keep your head up and spine in alignment. When I say "Go," lower your body by bending your elbows until your upper arms are parallel to the ground. Then return to the starting position by straightening your arms. You may rest in the up position. If you fail to keep your body in a straight line, descend to where your upper arms are parallel to the floor, or to lock your elbows in the "up" position, you will receive a warning. After one warning, incorrect repetitions will not count. There is no time limit. Do as many correct push-ups as possible. Your score is the number of correct repetitions. Watch this demonstration . . . Are there any questions?

Tips for the Test Administrator

- Ensure that participants maintain a relatively straight line from their shoulders to their ankles.
- Be alert for "head bobbers," participants who move their heads up and down without lowering/raising their bodies.
- The person who is counting repetitions should position him/herself at a 45 degree angle to the participant's head and shoulders. From there he can see if the participant lowers the body until the upper arm is parallel to the ground at the same time that he checks for correct body alignment.
- The participant may have to touch the floor with his chest to attain or approach the "parallel" position.
- Ensure that a non-slip surface is available. A mat, carpet or solid floor are acceptable.
- Minor changes in hand position are allowed during the event.
- Participants who wear glasses should remove them for this event if they do not have a retaining band.

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300-METER RUN TEST

Purpose

This is a test of anaerobic capacity, which is important for performing short intense bursts of effort such as foot pursuits, rescues and use of force situations.

Equipment

- Stopwatch
- Track or marked course (300 meters = 328 yards or 984 feet)
- Visible or audible starting device (starter's pistol, whistle, flag, etc.)

Procedures

1. Read the instructions to the participants.
2. Have participants warm up for one minute and keep loose while waiting for start.
3. Instruct participants to cover the distance as fast as possible.
4. Have participants line up at the starting line. Give the command "Go" (audible or visual) and begin timing.
5. The score is the time (to the nearest tenth of a second) it takes to complete the course.

Script

Use the following script to prepare the participants.

The 300-meter run measures your anaerobic capacity. You must complete the run without any help. At the start, you will line up behind the starting line. When I say "Go" (or describe a visual command, such as dropping a flag or clipboard) the clock will start. You will run (describe the course, including a clear description of the finish line). Your goal is to run the distance as quickly as possible. I (we) will record your finish time. After the run, continue walking for a few minutes to cool down. Are there any questions?

Tips for the Test Administrator

Participants may finish very close to each other in this event. Have assistance in recording times or run participants in heats.

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1.5-MILE RUN/WALK TEST

Purpose

This test is a measure of cardiorespiratory endurance or aerobic power, which is determined by the body's ability to transport and utilize oxygen to produce energy. This is important for performing tasks involving stamina and endurance (pursuits, searches, prolonged use of force situations, etc.) and for minimizing the risk of cardiovascular health problems.

Equipment

- 440-yard track or marked, measured level course
- Stopwatch or a clock with a sweep second hand
- Numbered vests or other participant identifiers (if needed)

Procedures

1. Read the instructions to the participants.
2. Have participants warm up and stretch before the run.
3. Instruct participants to cover the distance as fast as possible but begin at a pace they think they can sustain 10-15 minutes (not too fast).
4. Have participants line up at the starting line. Give the command "Go" and begin timing. If several participants run at once, have one administrator call out times at the finish while an assistant records the names and respective times.
5. Have participants cool down after running the course by walking for an additional five minutes or so. This prevents venous pooling, a condition in which the blood pools in the legs so less is returned to the heart. Walking enhances the return of blood to the heart, prevents light headedness, and aids recovery.
6. The score is the time it takes to finish the course to the nearest second.

Script

Use the following script to prepare the participants. *The 1.5 mile run/walk measures your cardiorespiratory endurance or aerobic power. You must complete the course without any help. At the start, you will line up behind the starting line. When I say "Go," the clock will start. You will begin running at your own pace. To complete the 1.5 miles, you will (tell the runners how many laps they must run, or describe the course, including the finish line, if not run on a track). Your goal is to finish the 1.5 miles in as fast a time as you can. Try not to start too fast, but at a pace you can sustain for about 10 to 15 minutes. You may walk, but walking will make it difficult to meet the standard. You may run alongside another runner for help with the pace, but you may not physically assist or be assisted by another runner. I will call off your time at the end of each lap (if run on a track), and will record your finishing time. At the end of the run, continue walking for about five minutes to cool down. Are there any questions?*

Tips for the Test Administrator

- Have runners in sight at all times, and have quick access to EMS (cell phone, car radio, etc.).
- Be aware of environmental conditions. Extreme heat, humidity, elevation or poor footing will affect performance times and could increase risk of injury. Choose your testing site and schedule with these factors in mind. If conditions are warm, have water available.
- If not running on a measured track, measure your course carefully. Automobile odometers may not be accurate. A measuring wheel is better.
- If running on a track, instruct the participants to move out of the inside lane if they decide to walk.
- Using an assistant test administrator will give you flexibility in case someone needs help during the event. The assistant can either take over timing duties or provide help to the participant. The assistant can also be used to assist with recording times if there are many runners.
- The timer should call off the times in minutes and seconds as the runners cross the finish line.

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Preparing for the PFTB

Whereas many training routines can be used to improve performance in the PFTB, participants should keep in mind that physical training is *specific*. That is, one improves in activities practiced. If one wishes to optimize push-up performance, push-ups should be included in the training program. Many other exercises can also be included to strengthen the chest, shoulders and arms, but push-ups should be included in the routine. Ideally, muscles and the aerobic and anaerobic energy systems should be gradually, progressively trained over several weeks or months to achieve significant fitness gains. Physical adaptations occur gradually in response to regular, consistent overloads, i.e. doing more than your body is accustomed to doing. Everyone is different - a stimulus resulting in an appropriate, moderate overload to one person may be impossible for another person to perform, while yet another person is not stressed at all. A participant who has been inactive for a significant period of time should ideally take six to twelve weeks to train for the PFTB.

The training routine should include exercises to train upper body strength and muscular endurance, abdominal muscular endurance, leg power, cardiorespiratory endurance and anaerobic capacity. Strength and cardiorespiratory endurance activities should be performed about every other day, or three days per week, to allow adequate recovery and positive adaptations to occur. Anaerobic (high intensity) training should be done once per week, and can be performed in lieu of a cardiorespiratory training session. For flexibility enhancement, good back health, and injury prevention, stretching exercises should be performed before and after training sessions, and can be done on off days as well.

Sample Training Program

Week 1

Monday and Friday

- Warm up, stretch 5 min.
- Regular, wide grip & close grip push-ups - one 30-sec. set of each
- Bent-leg sit-ups (feet secured) - three 30-sec. sets
- Vertical jumping off both feet (easy) - three 15-sec. sets
- Walk/jog/run (moderate intensity) - 15 minutes
- Cool down - easy walk 5 min., stretch 3 min.

Wednesday

- Warm up, stretch 5 min.
- Regular push-ups - 40 sec. maximum reps, 20 sec. max. reps, 10 sec. max. reps
- Crunches (abdominal curl-ups) - three 30-sec. sets
- Vertical jumping one foot at a time (easy) - two 15-sec. sets each
- Jog 3 min. (warm up), 8 reps. of 200 meter sprints (about ¾ speed - quicker than usual jog, but not all-out!), with one minute walking recovery between each rep.
- Cool down - easy walk 5 min., stretch 3 min.

Weeks 2 - 6 *Gradually* increase time or intensity of sets, continue three workouts per week.

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POST PHYSICAL FITNESS TEST BATTERY SCORING

Each of the five PFTB tests measures a different component of physical fitness, each of which is one determinant of an officer's ability to perform essential job tasks. To pass the PFTB, a participant must score a minimum of 10 points on *each* of the five PFTB tests. Performance below the level required for 10 points in any event is substandard and results in failure of the PFTB. Twenty points is the maximum possible for each test, a total of 100 being the highest possible PFTB score.

Fitness Category	POINTS	Vert. Jump (inches)	1-Min. Sit-ups (reps.)	Pushups (reps.)	300 Meter (seconds)	1.5 Mile (min:sec)
	20	21.5 +	55 +	62 +	48.0 -	9:57 -
Excellent	**19**	20.5 - 21.0	51 - 54	56 - 61	48.1 - 51.0	9:58 - 10:50
	18	19.5 - 20.0	47 - 50	50 - 55	51.1 - 54.0	10:51 - 11:43
Good	**17**	18.5 - 19.0	43 - 46	44 - 49	54.1 - 57.0	11:44 - 12:36
	16	17.5 - 18.0	39 - 42	38 - 43	57.1 - 59.0	12:37 - 13:29
Average	**15**	16.5 - 17.0	35 - 38	32 - 37	59.1 - 62.0	13:30 - 14:20
	14	16.0	31 - 34	30 - 31	62.1 - 65.0	14:21 - 14:56
	13	15.5	27 - 30	28 - 29	65.1 - 68.0	14:57 - 15:32
Below Ave.	**12**	15.0	23 - 26	26 - 27	68.1 - 71.0	15:33 - 16:08
	11	14.5	19 - 22	23 - 25	71.1 - 74.0	16:09 - 16:43
Minimum Acceptable	**10**	14.0	15 - 18	21 - 22	74.1 - 77.0	16:44 - 17:17
Substandard	**0**	< 14.0	< 15	< 21	> 77.0	> 17:17

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The POST Council adopted the mandatory Physical Fitness Test Battery (PFTB) on June 5, 1997. The PFTB is a requirement for acceptance into and graduation from the P.O.S.T. Academy and for the challenge certification process.

Applicants must score at least the following minimums on <u>each</u> of the five tests: Vertical Jump: 14.0 inches, 1-Minute Sit-ups: 15 repetitions, Maximum Push-ups: 21 repetitions, 300-Meter Run: 77.0 seconds, and 1.5-Mile Run/Walk: 17 min: 17 seconds.

All tests in the battery must be performed strictly according to the published protocols.

APPLICANTS WHO FAIL TO OBTAIN THE MINIMUM SCORE IN ANY OF THE FIVE FITNESS TESTS WILL BE INELIGIBLE FOR P.O.S.T. CERTIFICATION AS AN IDAHO PEACE OFFICER.

FULL NAME OF APPLICANT TAKING PFTB:_____

DATE OF TEST: _____

DEPARTMENT/AGENCY:_____

		PFTB RESULTS
Test Event	**Raw Score**	**Points**
VERTICAL JUMP	_____	_____
1-MINUTE SIT-UPS	_____	_____
MAXIMUM PUSH-UPS	_____	_____
300-METER RUN	_____	_____
1.5-MILE RUN/WALK	_____	_____
	TOTAL	_____

_____ (Examiner's Signature)

_____ (Examiner's Agency/Title)

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