

U.S. PUBLIC HEALTH SERVICE COMMISSIONED CORPS

# ANNUAL PHYSICAL FITNESS TEST (APFT) PROCEDURES & INSTRUCTIONS

President's Challenge Eliminated 1 July 2015 ● Revised APFT Effective 1 January 2016

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Per policy, beginning 1 July 2015, the President's Challenge will no longer be an option for Commissioned Corps officers to satisfy the physical readiness component of the required basic readiness precept. As of 1 July 2015, all Commissioned Corps officers are required to:

- Complete and pass the Annual Physical Fitness Test (APFT) (Note: Medical waivers may be
  obtained for the individual exercises that cannot be completed due to medical limitations. If the
  officer completes a medical waiver for a specific component of the APFT, the officer will still be
  required to perform the other components), or
- 2. Possess an approved medical waiver for each exercise category of the APFT.

The revised APFT is effective 1 January 2016. Instructions for completing and scoring the APFT are found in this document. Medical waiver information is on the CCMIS website under the Medical Affairs tab (look for Medical Waivers). Additional information, including Frequently Asked Questions is on the CCMIS website under the Readiness tab [look for Annual Physical Fitness Test (APFT)]. An instructional video will also be added.

# **General Instructions**

- Officers must perform the APFT in front of another person who evaluates the officer to ensure
  compliance with these instructions and standards. If possible, officers should be evaluated by an
  active-duty commissioned officer from the USPHS or one of the other Uniformed Services.
  When unavailable, officers can be evaluated by an active-duty commissioned officer remotely
  (via live or recorded video) or by a federal employee non-officer adult in person.
- The person evaluating the officer is referred to as the testing official.
- APFT exercises may be performed or repeated in any order provided the entire APFT is completed within the two-hour period. For example, it is NOT acceptable to complete the run on one day and the push-ups, plank, and seated toe touch on another day.
- It is the responsibility of the testing official to ensure that the officer performs the exercises in accordance with this procedure manual.
- The testing official may spend as much time as necessary prior to the start of the APFT to review the proper technique for each exercise.
- The testing official must be careful to count only properly performed repetitions and to alert the officer to the count after each repetition.
- Form PHS-7044 (APFT Readiness Standards Report) should be completed by the testing official after the officer completes each exercise. The form must be signed by the testing official and include the email address of the testing official.
- The officer must enter his/her APFT results into Direct Access and retain a copy of the completed Form PHS-7044.

# Annual Physical Fitness Test Exercise Categories

The Annual Physical Fitness Test (APFT) is comprised of indicators of cardiorespiratory endurance, upper body endurance, core endurance, and flexibility. Each officer must complete one exercise in each category.

### **Cardiorespiratory Endurance**

Cardiorespiratory endurance is determined by the ability of the heart, lungs and muscles to deliver and use oxygen for sustained work. It is associated with the ability to carry out strenuous activity throughout the day without undue fatigue.

## **Upper Body Endurance**

Strength and endurance in the muscles of the upper body, specifically the chest, shoulders, triceps is a good indication of overall fitness and demonstrates the ability to meet some of the physical demands of deployment.

### **Core Endurance**

Reflecting one of the largest muscle groups in the body, the core includes the muscles of torso, including the abdomen, back, sides and hips. Core endurance is essential to posture, balance, back injury prevention, and overall fitness.

#### **Flexibility**

Flexibility of the low back, hips and legs is an important element of physical capacity and injury prevention.

### **APFT EXERCISES**

- 1. Cardiorespiratory Endurance: Run
- 2. Upper Body Endurance: Push-ups
- 3. Core Endurance: Plank
- 4. Flexibility: Seated toe touch

### **ALTERNATIVE APFT EXERCISES**

- Cardiorespiratory Endurance: Swim, elliptical, stationary bike
- **Core Endurance:** Side bridge, sit-ups

# **Cardiorespiratory Endurance**

# Primary Cardiorespiratory Endurance Exercise RUN

#### **Instructions**

- The exercise consists of running or walking (or any combination) 1.5 miles as quickly as possible.
- The run shall be conducted on a track or outdoor course where he or she deems the surface to be flat and solid. The exercise may also be performed on a treadmill.
- The run exercise shall be conducted on a track or outdoor course as follows:
  - All officers shall stand at the start line.
  - The testing official shall signal the start for the officer being tested and call out time intervals until completion of the test.
  - Time is recorded with a stopwatch to the nearest second.
- Officers may conduct the exercise on a treadmill where appropriate facilities and equipment are available. The treadmill shall have ALL of the following features:
  - o Motor-driven running surface belt with emergency stop button.
  - o Adjustable speed displayed in miles per hour.
  - Inclination adjustment.
  - o Odometer that accurately measures distance traveled in miles.
- The exercise shall be conducted on a treadmill as follows:
  - o Officer straddles the treadmill belt with the **treadmill inclination set to 1.0 percent**.
  - The testing official shall signal the start and the officer starts the treadmill at the desired rate.
  - The testing official calls out time intervals as requested by the officer until completion of the test.
  - Time is recorded with a stopwatch to the nearest second.
  - Treadmill speed may be adjusted to the officer's comfort anytime during the test.
- The exercise is ended if the officer:
  - Stops running or walking other than to retie a shoelace or remove a foreign object from the shoe (only applies on a track or outdoor course), or
  - Changes the treadmill inclination from 1.0 percent.

# Alternate Cardiorespiratory Endurance Exercise SWIM

- The exercise consists of swimming 500 yards or 450 meters in the fastest time possible. Any swim stroke and turn may be used.
- The swim shall only be conducted in a standard 25 or 50 yard/meter swimming pool.
- The swim exercise shall be conducted as follows:
  - Swimmers begin the test in the water.
  - The testing official shall signal the start for the officer being tested and call out time intervals/lengths until completion of the test.

- Time is recorded with a stopwatch to the nearest second.
- o Swimmers may push off from the sides with hands and feet after each pool length.
- o Resting is permitted by holding the side of the pool, standing, or treading water.
- Swimmers may use goggles, facemasks, swim caps, and/or ear plugs. Fins, snorkels, flotation, wet suits, and propulsion devices are not allowed.
- The exercise is ended if the officer:
  - o Receives or requires assistance from a lifeguard or other person, or
  - Exits the pool for any reason.

# Alternate Cardiorespiratory Endurance Exercise ELLIPTICAL

- The exercise consists of 12 minutes on an approved elliptical machine to determine a "score" calculated by a formula using calories burned added to an offset value for the machine divided by body weight. See the <a href="Scoring the Elliptical and Bike">Scoring the Elliptical and Bike</a> section for the complete list of approved machines and how to calculate the results for this exercise.
- Only approved elliptical machines may be used for this exercise.
- Officers are encouraged to train and familiarize themselves with the authorized equipment, including safety measures, start/stop/etc. prior to attempting this exercise.
- The elliptical exercise shall be conducted as follows:
  - o Ensure elliptical machine is "approved" by checking the <u>Approved Elliptical Offset Values</u> table
  - o Ensure machine data is cleared prior to programming for the exercise.
  - Select manual program with the resistance of the officer's choice.
  - Enter body weight in pounds.
  - Set timer on machine for 12 minutes (adjust as required for machines that utilize automatic cool-down).
  - Begin test. Officers can adjust resistance or stride rate during the exercise to maximize performance. Except for making brief adjustments to resistance setting, hands must remain on handlebars throughout test.
  - At the 12 minute mark, testing official records the number of calories burned from the machine.
  - Calculate "score" using the offset value from the machine and body weight and use that value to determine "score" using <u>Table 1 Standards for Males</u> or <u>Table 2 Standards for</u> Females.
- The exercise is ended if the officer:
  - Stops to rest,
  - Stops the machine, or
  - Removes hands from the handlebars (other than momentarily, e.g. to adjust the resistance).

# Alternate Cardiorespiratory Endurance Exercise STATIONARY BIKE

- The exercise consists of 12 minutes on an approved stationary bike to determine a "score" calculated by a formula using calories burned added to an offset value for the machine divided by weight. See the <a href="Scoring the Elliptical and Bike">Scoring the Elliptical and Bike</a> section for the complete list of approved machines and how to calculate the results for this exercise.
- Only approved stationary bikes may be used for this exercise.
- Officers are encouraged to train and familiarize themselves with the authorized equipment, including safety measures, start/stop/etc. prior to attempting this exercise.
- The stationary bike exercise shall be conducted as follows:
  - Ensure stationary bike is "approved" by checking the <u>Approved Stationary Bike Offset</u> <u>Values</u> table.
  - o Ensure machine data is cleared prior to programming for the exercise.
  - o Select manual program with the resistance of the officer's choice.
  - o Enter body weight in pounds.
  - Set timer on machine for 12 minutes (adjust as required for machines that utilize automatic cool-down).
  - Begin test. Officers can adjust pedaling rate or cadence during the exercise to maximize performance. Hands must remain on handlebars throughout test. Officers must remain seated throughout the exercise and may not stand while pedaling.
  - At the 12 minute mark, testing official records the number of calories burned from the machine.
  - Calculate "score" using the offset value from the machine and body weight and use that value to determine "score" using <u>Table 1 Standards for Males</u> or <u>Table 2</u> Standards for Females.
- The exercise is ended if the officer:
  - Stops to rest,
  - Stops the machine,
  - o Lifts body off the seat of the bike or stands up on the bike, or
  - Removes hands from the handlebars (other than momentarily, e.g. to adjust the resistance).

# **Upper Body Endurance**

# Upper Body Endurance Exercise PUSH-UPS

### **Images**









- The exercise consists of repeating as many correct push-ups as possible within a two minute time period.
- Push-ups shall be conducted on a firm or suitably padded, level surface. Shoes are optional.
- Push-ups shall be conducted as follows:
  - Begin in the "front-leaning rest" position, hands placed on floor directly under the shoulders, or slightly wider than shoulder width, both feet together on the floor.
  - The back, buttocks, and legs shall be straight from shoulders to heels and must remain so throughout the test.
  - Toes and hands shall remain in contact with the floor, not a wall or other vertical support surface.
  - The testing official shall signal the start and call out 15-second time intervals until the completion of the exercise.
  - Officers shall lower the entire body as a single unit by bending the elbows until the upper arms, shoulders, and lower back are aligned and parallel to the floor.
  - Officers shall return to the starting position by extending the elbows, raising the body as a single unit until the arms are straight. This completes one repetition.
  - Officers may rest only in the up position while maintaining the arms, back, buttocks, and legs in a straight position.
- Push-ups are repeated as many times as possible in two minutes. The testing official monitors the officer for correct form and counts only the correctly performed push-ups.
- Incorrect push-ups shall not be counted. Incorrect push-ups include:
  - Failing to maintain the hands directly beneath the shoulders or slightly wider than shoulder width,

- Failing to lower the body until the upper arms, shoulders, and lower back are aligned and parallel to the floor, or
- o Failing to raise the body until the arms are completely straight.
- The exercise is ended when time expires or if the officer:
  - o Rests any part of the body except hands and feet on the floor,
  - o Raises one or both feet or hands off the floor or ground, or
  - o Fails to maintain a straight line from shoulders to heels.

# **Core Endurance**

# Primary Core Endurance Exercise PLANK

### **Images**





- The exercise consists of maintaining a plank position for as long as possible.
- The plank shall be conducted on a firm or suitably padded, level surface. Shoes are optional.
- The plank should be conducted as follows:
  - Begin in push-up position with feet hip-width apart. Elbows should be bent and lowered to the ground so that the forearms are lying flat on the ground. Elbows should be aligned below the shoulders with forearms parallel to the body at about shoulder width distance. Hands must be on the ground, either in fists with pinky side of the hand touching the ground or lying flat with palms down.
  - Hips should be lifted off the ground with feet flexed and the bottom of the toes on the ground.
  - The back, buttocks, and legs shall be straight from head to heels and must remain so throughout the test.
  - Toes, forearms, and fists/palms shall remain in contact with the floor, not a wall or other vertical support surface.
  - Officers should look at the floor to keep the head in line with the shoulders, back and legs.
  - Hold this position for as long as possible.
- Once the officer is in the correct position, the testing official shall signal the start and call out 15second time intervals until the completion of the exercise. Time is recorded with a stopwatch to the nearest second.
- The exercise is ended if the officer:
  - Touches the floor with any part of the body except the elbows, forearms, fists/palms and toes,
  - Raises one or both feet or hands off the floor, or
  - o Fails to maintain the back, buttocks, and legs in a straight line from head to heels.

# Alternate Core Endurance Exercise SIDE BRIDGE

# **Image**



- The exercise consists of maintaining a side-bridge for as long as possible.
- The side bridge shall be conducted on a firm or suitably padded, level surface. Shoes are
  optional.
- The side bridge exercise shall be conducted as follows:
  - Begin by moving to the side-lying position on the dominate side, supported by the elbow, forearm, fist (or palm) and legs. The foot of the bottom leg (leg closest to the ground) is then wrapped behind the ankle of the top leg so that the inner edge of the foot of the top leg is contacting the ground.
  - Firmly press into the ground with the supporting arm, and then raise the trunk and pelvis straight upward until they form a straight line with the legs. The trunk should not rotate forward or backward or bend at the waist. The sole (bottom) of the supporting foot should not make contact of the ground; only the inner edge should be touching the ground.
  - The non-supporting arm can be placed in any position (e.g. on the hip or across the chest), but must not make contact with the ground or any other surface other than the officer's body.
  - Hold this position as long as possible.
- Once the officer is in the correct position, the testing official shall signal the start for the officer and call out 15-second time intervals until the completion of the exercise. Time is recorded with a stopwatch to the nearest second.
- The exercise is ended if the officer:
  - Touches the floor with any part of the body except the elbow, forearm, fist/palm and foot of the top leg, or
  - o Can no longer properly hold the position.

# Alternate Core Endurance Exercise SIT-UPS

# **Images**







- The exercise consists of repeating as many correct sit-ups as possible during a two minute time period.
- Sit-ups shall be conducted on a firm or suitably padded, level surface. Shoes are optional.
- Sit-ups shall be conducted as follows:
  - Officers shall start by lying flat on their back with knees bent at a 90 degree angle and soles of feet lying flat on the floor. Heels of the feet can be together or slightly separated. Arms shall be folded across and touching the chest, with hands touching upper chest or shoulders.
  - o Feet shall be held to floor only by a partner's hands.
  - The testing official shall signal the start for all officers and call out 15-second time intervals until the completion of the exercise.
- The officer curls the body up, touching elbows to thighs while keeping hands in contact with the chest or shoulders.
- After touching elbows to the thighs, the officer lies back, touching lower edge of shoulder blades to floor. This completes one repetition.
- Officers may rest in either the up or down position provided that proper form is maintained.
- Sit-ups are repeated as many times as possible in two minutes. Testing official monitors officer
  for correct form, and counts only the number of correctly performed sit-ups. Incorrectly
  performed sit-ups shall not be counted.
- The exercise is ended when time expires or if the officer:
  - Raises one or both feet off the ground/floor,
  - Lifts buttocks off the floor,
  - o Fails to keep arms folded across and touching chest, or
  - o Fails to keep hands in contact with chest or shoulders.

# **Flexibility**

# Flexibility Exercise SEATED TOE TOUCH

### **Images**





- The exercise consists of reaching forward while sitting to touch the toes.
- The seated toe touch shall be conducted on a firm or suitably padded, level surface. Officers should warm-up (e.g., walking or gentle stretching) and then remove shoes.
- The seated toe touch shall be conducted as follows:
  - Begin sitting on the floor with feet and heels together straight out in front of the body. Knees should not be bent.
  - o Place one hand on top of the other with the finger tips even.
  - The neck should be in a neutral position.
  - The officer should stretch forward with both hands as far as possible and hold this
    position for one second. Do not lunge or bob.
- The testing official documents whether the officer can touch his/her toes while holding for one second.
  - o If the officer is able to touch toes while holding for one second, the exercise is done.
  - o If the officer is not able to touch toes while holding for one second, the exercise may be attempted two more times with a few seconds rest between attempts.
  - If the officer cannot touch toes while holding for one second after three attempts, the exercise is scored as unsatisfactory.

# Scoring and Standards

# **Scoring the APFT**

#### **Pass**

To pass the APFT, an officer must meet or exceed the satisfactory performance level for one exercise in each of the cardiorespiratory endurance, upper body endurance, and core endurance categories.

### Fail

Failure to meet satisfactory requirements in <u>any</u> of the cardiorespiratory, upper body, or core endurance exercise categories constitutes failure of the APFT, regardless of the performance level on the other exercise categories. If the average overall APFT score is "Satisfactory" and the officer scores unsatisfactory on the seated toe touch, the officer will fail the APFT.

- Cardiorespiratory endurance, upper body endurance, and core endurance exercises have 6 levels (Maximum, Outstanding, Excellent, Good, Satisfactory, Failure) with corresponding point values:
  - Maximum = 100 points
  - Outstanding = 90 points
  - Excellent = 75 points
  - Good = 60 points
  - Satisfactory = 45 points
  - Failure = 0 points
- For each exercise, points are only awarded at the discrete values (100, 90, 75, 60, 45, or 0) based on the performance level achieved. If an officer's performance in a single exercise falls between two levels, the testing official rounds down to the lower level and assigns the corresponding number of points for that exercise. For example, a 44 year old male who does 60 push-ups would have a level of "Excellent" (75 points).
- The flexibility seated toe touch is scored as satisfactory or unsatisfactory.
- If each component of the APFT is passed, the final APFT score is based on the *average* of the scores from the cardiorespiratory endurance, upper body endurance, and core endurance exercises. If an officer has a medical waiver for one or more exercises, the APFT score is based on the average score of the exercises completed.
  - Scoring unsatisfactory on the seated toe touch will lower the overall APFT score by one level (e.g. "Excellent" to "Good"). If the average overall APFT score is "Satisfactory" and the officer scores unsatisfactory on the seated toe touch, the officer will fail the APFT.
- Overall APFT levels and point values:
  - Maximum = 100 points (i.e., scored maximum level on each exercise)
  - Outstanding = 90-99 points
  - Excellent = 75-89 points
  - Good = 60-74 points
  - Satisfactory = 45-59 points
  - Failure = <45 points

	Example 1	Example 2	Example 3
Cardiorespiratory	Run: MAXIMUM	Elliptical: OUTSTANDING	Stationary bike: SATISFACTORY
Endurance	(100 pts)	(90 pts)	(45 pts)
Upper body	Push-ups: GOOD	Push-ups: GOOD	Push-ups: SATISFACTORY
endurance	(60 pts)	(60 pts)	(45 pts)
Core Endurance	Plank: EXCELLENT	Side bridge: GOOD	Sit-ups: SATISFACTORY
Core Endurance	(75 pts)	(60 points)	(45 pts)
Flexibility	Seated toe touch:	Seated toe touch:	Seated toe touch:
riexibility	SATISFACTORY	UNSATISFACTORY	UNSATISFACTORY
Calculation	100 + 60 + 75 = 235	90 + 60 + 60 = 210	45 + 45 + 45 = 135
Calculation	235 ÷ 3 = 78 points	210 ÷ 3 = 70 points	135 ÷ 3 = 45 points
Overall Score	EXCELLENT	SATISFACTORY	FAILURE
		The score averages to GOOD,	The score averages to
		but the overall score is one	SATISFACTORY, but the overall
Notes		level lower due to the	score is one level lower due to
		unsatisfactory score on the	the unsatisfactory score on the
		seated toe touch	seated toe touch

# Scoring the Elliptical and Stationary Bike

Only the approved elliptical machines and stationary bikes can be used for the cardiorespiratory endurance alternate exercises. Some military installations may have these machines; a resource for finding military installations is <a href="here">here</a>. The goal for the individual being tested is to maximize the amount of calories expended in a 12 minute timed test. The below formula uses the machine's estimated number of calories burned, a machine-specific offset value, and body weight to determine performance using the standards depicted in Table 1 Standards for Males or Table 2 Standards for Females.

- Calculate adjusted calories: calories from machine + offset value for respective machine model
- Divide adjusted calories by body weight in pounds: (calories from machine + offset value) ÷ body weight (pounds)

$$Calculation = \frac{(Calories from machine + Offset value for that machine)}{Body Weight (lbs)}$$

• Use <u>Table 1 Standards for Males</u> or <u>Table 2 Standards for Females</u> to determine level obtained and the corresponding number of points.

Approved Stationary Bike Offset Values	
Approved Stationary Bikes	Offset Value
Life Fitness 95Ci	0
Life Fitness 95CiXXL	0
Life Fitness Classic Series (CLSC)	0

Approved Elliptical Offset Values	
Approved Elliptical Machines	Offset Value
LifeFitness 91X / Classic Series (CLSX)	-1.585
LifeFitness 91Xi	-1.585
LifeFitness 95Xi (Quiet Drive Version Only)	-20.743
LifeFitness 95X (Model may be Inspire or Engage)	22.980
LifeFitness CT 9500	-32.947
LifeFitness CT 9500 HR	-32.947
Nautilus (Model E9 16)	-12.855
Precor EFX-556NAVY / EFX-556iNAVY	-24.322
Precor EFX-556i	5.769
Precor EFX-576i / EFX-835	5.769
Technogym Excite Synchro 700 (Series)	-22.502

<u>Elliptical Example</u>: A 35 year old male weighing 180 pounds burned an estimated 200 calories on the Nautilus Model E9 16.

- Calculate adjusted calories (calories + offset value) = 200 + (-12.885) = 187.115
- Divide adjusted calories by body weight = 187.115 ÷ 180 pounds = 1.039
- Use <u>Table 1 Standards for Males</u> to determine level obtained. A score of 1.039 corresponds to 60 points or "Good."

<u>Stationary Bike Example</u>: A 43 year old female weighing 130 pounds burned an estimated 105 calories on the LifeFitness CLSC.

- Calculate adjusted calories (calories + offset value) = 105 + 0 = 105
- Divide adjusted calories by body weight = 105 ÷ 130 pounds = 0.807
- Use <u>Table 2 Standards for Females</u> to determine level obtained. A score of 0.807 corresponds to 75 points or "Excellent."

**Table 1. Standards for Males** 

Age for Males	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65+
CARDIORESPIRATORY	ENDURANCE									
1.5 mile run (minutes)										
Maximum (100 pts)	8:30	8:55	9:20	9:25	9:30	9:33	9:35	10:42	11:21	11:41
Outstanding (90 pts)	9:15	9:38	10:00	10:08	10:15	10:30	10:45	11:25	12:04	12:43
Excellent (75 pts)	10:30	10:52	11:15	11:23	11:45	12:08	12:30	13:12	13:53	14:34
Good (60 pts)	12:00	12:53	13:45	14:08	14:30	14:53	15:15	16:15	17:47	18:13
Satisfactory (45 pts)	15:12	15:12	15:52	15:52	16:28	16:28	17:29	17:29	18:52	20:35
Failure (0 pts)	>15:12	>15:12	>15:52	>15:52	>16:28	>16:28	>17:29	>17:29	>18:52	>20:35
UPPER BODY ENDURA	NCE									
Push Up (number perfo	rmed in 2 mi	nutes)								
Maximum (100 pts)	87	84	80	76	72	68	64	60	57	48
Outstanding (90 pts)	81	77	74	70	67	63	59	56	52	44
Excellent (75 pts)	71	67	64	60	56	52	49	46	44	36
Good (60 pts)	47	44	41	37	34	32	30	16	14	10
Satisfactory (45 pts)	37	34	31	27	24	21	19	10	8	4
Failure (0 pts)	<37	<34	<31	<27	<24	<21	<19	<10	<8	<4
CORE ENDURANCE										
Plank (seconds)										
Maximum (100 pts)	180	180	180	180	180	180	180	180	180	180
Outstanding (90 pts)	150	150	150	150	150	150	150	150	150	150
Excellent (75 pts)	120	120	120	120	120	120	120	120	120	120
Good (60 pts)	90	90	90	90	90	90	90	90	90	90
Satisfactory (45 pts)	60	60	60	60	60	60	60	60	60	60
Failure (0 pts)	<60	<60	<60	<60	<60	<60	<60	<60	<60	<60
FLEXIBILITY										
Seated Toe Touch										
Satisfactory	Can touch t	oes								
Unsatisfactory	Cannot touc	ch toes								

Age for Males	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65+
CARDIORESPIRATORY	ENDURANCE	ALTERNATI	VES							
500 yard swim (minutes	s)									
Maximum (100 pts)	6:30	6:38	6:45	6:53	7:00	7:08	7:15	7:17	7:20	7:25
Outstanding (90 pts)	7:30	7:38	7:45	7:53	8:00	8:08	8:15	8:17	8:20	8:25
Excellent (75 pts)	8:45	8:53	9:00	9:08	9:15	9:23	9:30	9:47	10:05	10:30
Good (60 pts)	11:30	11:38	11:45	11:53	12:00	12:08	12:15	12:33	12:50	13:20
Satisfactory (45 pts)	13:00	13:08	13:15	13:23	13:30	13:38	13:45	13:55	14:05	14:15
Failure (0 pts)	>13:00	>13:08	>13:15	>13:23	>13:30	>13:38	>13:45	>13:55	>14:05	>14:15
450 meter swim (minut	es)									
Maximum (100 pts)	6:20	6:28	6:35	6:43	6:50	6:58	7:05	7:07	7:10	7:15
Outstanding (90 pts)	7:20	7:28	7:35	7:43	7:50	7:58	8:05	8:07	8:10	8:15
Excellent (75 pts)	8:35	8:43	8:50	8:58	9:05	9:13	9:20	9:37	9:55	10:20
Good (60 pts)	11:20	11:28	11:35	11:43	11:50	11:58	12:05	12:23	12:40	13:10
Satisfactory (45 pts)	12:50	12:58	13:05	13:13	13:20	13:28	13:35	13:45	13:55	14:05
Failure (0 pts)	>12:50	>12:58	>13:05	>13:13	>13:20	>13:28	>13:35	>13:45	>13:55	>14:05
Elliptical (calculated va	lues based or	n 12 minutes	of exercise)							
Maximum (100 pts)	1.375	1.364	1.353	1.342	1.331	1.320	1.309	1.298	1.287	1.276
Outstanding (90 pts)	1.253	1.242	1.231	1.220	1.209	1.198	1.187	1.176	1.165	1.154
Excellent (75 pts)	1.131	1.120	1.109	1.098	1.087	1.076	1.065	1.054	1.043	1.032
Good (60 pts)	0.929	0.918	0.907	0.896	0.885	0.874	0.864	0.852	0.841	0.830
Satisfactory (45 pts)	0.865	0.854	0.843	0.832	0.821	0.810	0.800	0.788	0.777	0.766
Failure (0 pts)	<0.865	<0.854	<0.843	<0.832	<0.821	<0.810	<0.800	<0.788	<0.777	<0.766
Stationary Bike (calcula	ited values bi	ased on 12 n	ninutes of ex	ercise)						
Maximum (100 pts)	0.959	0.947	0.938	0.927	0.916	0.904	0.893	0.884	0.873	0.861
Outstanding (90 pts)	0.857	0.846	0.836	0.825	0.814	0.803	0.792	0.782	0.771	0.760
Excellent (75 pts)	0.755	0.745	0.734	0.723	0.712	0.702	0.691	0.680	0.669	0.659
Good (60 pts)	0.602	0.591	0.580	0.569	0.559	0.548	0.537	0.526	0.516	0.505
Satisfactory (45 pts)	0.553	0.542	0.531	0.520	0.510	0.499	0.488	0.477	0.466	0.456
Failure (0 pts)	<0.553	<0.542	<0.531	<0.520	<0.510	<0.499	<0.488	<0.477	<0.466	<0.456

Age for Males	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65+
CORE ENDURANCE ALT	<b>TERNATIVES</b>									
Side bridge (seconds)										
Maximum (100 pts)	120	120	120	120	120	120	120	120	120	120
Outstanding (90 pts)	94	94	94	94	94	94	94	94	94	94
Excellent (75 pts)	71	71	71	71	71	71	71	71	71	71
Good (60 pts)	60	60	60	60	60	60	60	60	60	60
Satisfactory (45 pts)	44	44	44	44	44	44	44	44	44	44
Failure (0 pts)	<44	<44	<44	<44	<44	<44	<44	<44	<44	<44
Sit-ups (number perform	ned in 2 mini	utes)								
Maximum (100 pts)	105	101	98	95	92	88	85	81	75	65
Outstanding (90 pts)	98	95	92	88	85	81	78	74	70	60
Excellent (75 pts)	87	84	81	78	76	73	71	62	56	44
Good (60 pts)	58	54	51	47	44	40	37	36	26	36
Satisfactory (45 pts)	46	43	40	37	35	31	29	26	20	10
Failure (0 pts)	<46	<43	<40	<37	<35	<31	<29	<26	<20	<10

**Table 2. Standards for Females** 

Age for Females	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65+
CARDIORESPIRATORY	ENDURANCE									
1.5 mile run (minutes)										
Maximum (100 pts)	9:47	10:17	10:46	10:51	10:56	10:58	11:00	12:23	13:34	14:45
Outstanding (90 pts)	11:30	11:45	12:00	12:08	12:15	12:30	12:45	13:57	15:08	16:19
Excellent (75 pts)	13:15	13:23	13:30	13:45	14:00	14:08	14:15	15:20	16:25	17:30
Good (60 pts)	14:15	14:53	15:30	15:53	16:15	16:30	16:45	17:48	18:51	19:54
Satisfactory (45 pts)	17:21	17:21	18:00	18:00	18:31	18:31	19:30	19:30	19:43	20:52
Failure (0 pts)	>17:21	>17:21	>18:00	>18:00	>18:31	>18:31	>19:30	>19:30	>19:43	>20:52
UPPER BODY ENDURA	NCE									
Push Up (number perfo	ormed in 2 mi	nutes)								
Maximum (100 pts)	48	46	44	43	41	40	38	30	26	22
Outstanding (90 pts)	44	43	41	39	37	35	33	26	22	18
Excellent (75 pts)	39	37	35	34	32	30	28	20	16	12
Good (60 pts)	21	19	17	14	12	11	10	6	5	4
Satisfactory (45 pts)	16	13	11	9	7	5	2	2	2	1
Failure (0 pts)	<16	<13	<11	<9	<7	<5	<2	<2	<2	<1
CORE ENDURANCE										
Plank (seconds)										
Maximum (100 pts)	180	180	180	180	180	180	180	180	180	180
Outstanding (90 pts)	150	150	150	150	150	150	150	150	150	150
Excellent (75 pts)	120	120	120	120	120	120	120	120	120	120
Good (60 pts)	90	90	90	90	90	90	90	90	90	90
Satisfactory (45 pts)	60	60	60	60	60	60	60	60	60	60
Failure (0 pts)	<60	<60	<60	<60	<60	<60	<60	<60	<60	<60
FLEXIBILITY										
Seated Toe Touch										
Satisfactory	Can touch to	oes								
Unsatisfactory	Cannot touc	ch toes								

Age for Females	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65+
CARDIORESPIRATORY	ENDURANCE	ALTERNATI	VES							
500 yard swim (minute:	s)									
Maximum (100 pts)	7:15	7:23	7:30	7:45	8:00	8:15	8:30	8:45	9:00	9:15
Outstanding (90 pts)	8:45	9:00	9:15	9:30	9:45	9:53	10:00	10:07	10:15	10:23
Excellent (75 pts)	10:00	10:15	10:30	10:45	11:00	11:08	11:15	11:25	11:35	11:50
Good (60 pts)	13:15	13:30	13:45	14:00	14:15	14:30	14:45	15:00	15:15	15:30
Satisfactory (45 pts)	14:30	14:45	15:00	15:15	15:30	15:38	15:45	16:00	16:15	16:30
Failure (0 pts)	>14:30	>14:45	>15:00	>15:15	>15:30	>15:38	>15:45	>16:00	>16:15	>16:30
450 meter swim (minut	res)									
Maximum (100 pts)	7:05	7:13	7:20	7:35	7:50	8:05	8:20	8:35	8:50	9:05
Outstanding (90 pts)	8:35	8:50	9:05	9:20	9:35	9:43	9:50	9:57	10:05	10:13
Excellent (75 pts)	9:50	10:05	10:20	10:35	10:50	10:58	11:05	11:15	11:25	11:40
Good (60 pts)	13:05	13:20	13:35	13:50	14:05	14:20	14:35	14:50	15:05	15:20
Satisfactory (45 pts)	14:20	14:35	14:50	15:05	15:20	15:28	15:35	15:50	16:05	16:20
Failure (0 pts)	>14:20	>14:35	>14:50	>15:05	>15:20	>15:28	>15:35	>15:50	>16:05	>16:20
Elliptical (calculated va	lues based or	n 12 minutes	of exercise)							
Maximum (100 pts)	1.306	1.290	1.274	1.260	1.244	1.228	1.213	1.195	1.170	1.163
Outstanding (90 pts)	1.186	1.170	1.154	1.139	1.123	1.107	1.092	1.075	1.059	1.043
Excellent (75 pts)	1.066	1.050	1.034	1.018	1.002	0.986	0.971	0.955	0.939	0.923
Good (60 pts)	0.874	0.858	0.842	0.827	0.811	0.795	0.780	0.763	0.747	0.731
Satisfactory (45 pts)	0.810	0.794	0.778	0.762	0.747	0.731	0.716	0.699	0.683	0.667
Failure (0 pts)	<0.810	<0.794	<0.778	<0.762	<0.747	<0.731	<0.716	<0.699	<0.683	<0.667
Stationary Bike (calcula	ited values bi	ased on 12 n	ninutes of ex	ercise)						
Maximum (100 pts)	0.959	0.947	0.938	0.927	0.916	0.904	0.893	0.884	0.873	0.861
Outstanding (90 pts)	0.857	0.846	0.836	0.825	0.814	0.803	0.792	0.782	0.771	0.760
Excellent (75 pts)	0.755	0.745	0.734	0.723	0.712	0.702	0.691	0.680	0.669	0.659
Good (60 pts)	0.602	0.591	0.580	0.569	0.559	0.548	0.537	0.526	0.516	0.505
Satisfactory (45 pts)	0.553	0.542	0.531	0.520	0.510	0.499	0.488	0.477	0.466	0.456
Failure (0 pts)	<0.533	<0.542	<0.531	<0.520	<0.510	<0.499	<0.488	<0.477	<0.466	<0.456

Age for Females	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65+
CORE ENDURANCE ALT	TERNATIVES									
Side bridge (seconds)										
Maximum (100 pts)	120	120	120	120	120	120	120	120	120	120
Outstanding (90 pts)	94	94	94	94	94	94	94	94	94	94
Excellent (75 pts)	71	71	71	71	71	71	71	71	71	71
Good (60 pts)	60	60	60	60	60	60	60	60	60	60
Satisfactory (45 pts)	44	44	44	44	44	44	44	44	44	44
Failure (0 pts)	<44	<44	<44	<44	<44	<44	<44	<44	<44	<44
C' / / /										
Sit-ups (number perforn	nea in 2 mini	ites)								
Maximum (100 pts)	105	101	98	95	92	88	85	81	75	65
Outstanding (90 pts)	98	95	92	88	85	81	78	74	70	60
Excellent (75 pts)	87	84	81	78	76	73	71	62	56	44
Good (60 pts)	58	54	51	47	44	40	37	36	26	20
Satisfactory (45 pts)	46	43	40	37	35	31	29	26	20	10
Failure (0 pts)	<46	<43	<40	<37	<35	<31	<29	<26	<20	<10