

USCGA Health and Physical Education Fitness Preparation Guidelines



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USCGA Health and Physical Education

Fitness Preparation Guidelines

HOW THIS GUIDE WORKS

This guide provides you with advice and a sample workout to get you ready for Swab Summer at the US Coast Guard Academy. The main goal is to prepare you for the physical and mental demands of Swab Summer, and to get you physically fit. By preparing for Swab Summer you will reduce the risk of preventable overuse injuries such as shin splints and rhabdomyolysis.

MUSCULAR STRENGTH

Muscular strength and endurance can be improved by systematically increasing the load (resistance) that you are using. Any overload will result in improvement, but higher intensity and effort will result in greater improvements. Start at a level that is easy for you to perform and complete, then add resistance gradually. Apply these general weight training principles when beginning the strength program.

AEROBIC OR CARDIOVASCULAR FITNESS

Aerobic exercises are those that strengthen your heart and improve circulation. The running portion of the program has the following elements:

1. **Easy Run:** the largest part of the cardio program, completed as a single continuous run at a comfortable pace (not a jog). Talking to a running partner shouldn't be a problem, but if you can chat continuously, it may be too slow.
2. **Marathon Pace:** Faster than a long or easy run and still able to speak in sentences, but you should actively be thinking about running to hold this type of pace. You should never be exhausted finishing a marathon paced run. A session at marathon pace is a small part of the program and completed as either one continuous effort, or as two intervals with no more than 2:00 rest. Warm up and cool down before any Marathon paced run.
3. **Tempo Pace:** Faster than Marathon; you can still speak in a full sentence if asked, but you won't want to. A session at Tempo pace should be done as a single continuous run or repetitions as short as 4 minutes. Any tempo run should have a warmup and cool down.
4. **Mile/800 Meter Effort:** these workout sessions are conducted during weeks 4-7 and only after running the 1.5 Mile Time Trial during week 4. The goal paces for these workouts are listed on the "Recommended Running Pace" table on page 4 and are based off of your time from the 1.5 Mile Time Trial.
5. **Strides:** Running very fast, but smooth and under control. Aiming for 90% of maximum effort for the distance you are covering. Repetitions can range from :10 sec up to :30 sec. Rest between 1:00-1:30 between reps. Thoroughly warm up and cool down for any speed work.
6. **Non-running:** A day where you should do your scheduled time for running as a non-running cardio exercise, such as biking, swimming, etc.

FLEXIBILITY

Muscles and joints become stiff and lose their range of motion with inactivity or activity overload. The Dynamic Flexibility and Movement Prep warm-up listed on page 4 is designed to maintain good joint mobility, reduce injury risk, improve the ability of your muscles to adapt to physical stresses, and enhance overall muscle performance. This is a whole body warm-up that target major areas of the body such as lower back, hips, hamstrings, quadriceps, shoulders, etc. If you feel the need to take a few extra minutes to stretch after the prescribed warm-up below, you may conduct static stretching by holding each stretch 10-20 seconds and any muscle group desired. Don't over-stretch to the point of pain and avoid bouncing movements.

RECOVERY

Recovery is a critical part of your weekly training program. There are several ways rest is built into the program. First, there are times when a "Rest" day is planned, which means no exercise should take place. This will allow your body to rest and recover in an effort to prepare for the next conditioning session. Next, there are "Active Rest" components to the conditioning program that appear as "Non-Running" or "Easy-Runs". These are less intensive on the body, but still provide both valuable training opportunities and to aid in the recovery process.

CLOSING NOTES

Although not every prospective swab will have identical levels of physical fitness, enclosed in this document, you will find a program to help get you ready for the demands of Swab Summer. You will find a Master Schedule (8 Weeks in total), followed by more detailed instructions on each of the components of the workout. This includes suggested paces for your runs, sample circuit training workouts, and an entry level swimming program.

Exercises should begin the first week in May in order to accommodate the full eight week training period.

Upon arrival at the Coast Guard Academy for Swab Summer you will be completing a Physical Fitness Exam (PFE). This exam will be given in the first week of training as well as at the end. Following the summer training period, cadets take the PFE two times a year. The PFE consists of push-ups (2 minutes), sit-ups (2 minutes) and a 1.5 mile run. The first two items measure the muscular strength and endurance of the upper body and the abdominals. The 1.5 mile run is a measure of your cardio-respiratory fitness.

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Swab Summer Readiness Program Endurance Notes

Recommended Running Pace (Based on PFE 1.5 Mile Time Performance)

1.5 Mile Time	1.5 Mile (in Seconds)	Mile Effort Pace		800 Effort Pace
		300 meters	400 meters	200 meters
7:30	450	51	1:08	31
8:00	480	55	1:13	33
8:30	510	58	1:17	35
9:00	540	1:01	1:22	38
9:30	570	1:05	1:26	40
10:00	600	1:08	1:31	42
10:30	630	1:12	1:35	44
11:00	660	1:15	1:40	46
11:30	690	1:18	1:45	48
12:00	720	1:22	1:49	50
12:30	750	1:25	1:55	52
13:00	780	1:29	1:58	54
13:30	810	1:32	2:03	56
14:00	840	1:35	2:07	58
14:30	870	1:39	2:12	1:00
15:00	900	1:42	2:16	1:03
15:30	930	1:46	2:21	1:05
16:00	960	1:49	2:25	1:07

Movement Prep & Dynamic Flexibility		
EXERCISE	Wks 1-4	Wks 5-8
Low Skip with Arm Hugs	2 Sets/20 yds	2 Sets/30 yds
Side Shuffles w/Lateral Arm Swings (Right)	1 Set/20 yds	1 Set/30 yds
Side Shuffles w/Lateral Arm Swings (Left)	1 Set/20 yds	1 Set/30 yds
Walking Hip Circle	2 Sets/20 yds	2 Sets/30 yds
Carioca Left	1 Set/20 yds	1 Set/30 yds
Carioca Right	1 Set/20 yds	1 Set/30 yds
Lunge with Twist	2 Sets/20 yds	2 Sets/30 yds
Walking Quad Stretch	2 Sets/20 yds	2 Sets/30 yds
Hamstring Kicks	2 Sets/20 yds	2 Sets/30 yds
High Knees	2 Sets/20 yds	2 Sets/30 yds
Butt Kicks	2 Sets/20 yds	2 Sets/30 yds
Accelerations	2 Sets/20 yds	2 Sets/30 yds

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Swab Summer Readiness Program

Week 1

Monday
Easy Run
10-12 min run at easy/conversational pace

Tuesday
Physical Fitness Test
<u>Dynamic Flexibility & Movement Prep followed by....</u>
Execute the Coast Guard Academy Physical Fitness Exam.
Part 1: Begin with Push-ups on a cadence (1 sec up & hold, 1 sec down & hold) for 2:00. Max for Men is 60, Max for Women is 48
Part 2: Proceed to Sit-ups. Execute as many Sit-ups in 2:00 as possible. Max is 100 Sit-ups.
Part 3: Run 1.5 miles as fast as possible.

Wednesday
Non-Running Workout
Elliptical, Bike, Swim, etc for 15-20 min
See Swim Workout tab for swimming ideas

Thursday
Circuit Training
<u>Dynamic Flexibility & Movement Prep followed by....</u>
Complete as Many Rounds in 5:00
10 Box / Bench Jumps Overs
:30 sec Plank
Rest 3:00
Complete as many rounds in 5:00
10 Burpees
10 Back Extensions

Friday
Easy Run
10-12 min run at easy/conversational pace
Speed Session (after run)
Strides: 5x:10 sec of controlled hard stride

Saturday
Rest

Sunday
Rest

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Swab Summer Readiness Program

Week 2

Monday
Easy Run
10-12 min run at easy/conversational pace

Tuesday
Bodyweight Circuit
<u>Dynamic Flexibility & Movement Prep followed by....</u>
Pyramid (level 1 - 5)
Pull-ups x 1
Push-ups x 2
Sit-ups x 3
Example:
Level 1 of Pyramid: 1 Pull-up, 2 Push-ups, 3 Sit-ups
Level 2 of Pyramid: 2 Pull-ups, 4 Push-ups, 6 Sit-ups
Level 3 of Pyramid: 3 Pull-ups, 6 Push-ups, 9 Sit-ups
Continue Until Level 5, Rest :30 sec Between Levels

Wednesday
Non-Running Workout
Elliptical, Bike, Swim, etc for 15-20 min
See Swim Workout tab for swimming ideas

Thursday
Circuit Training
<u>Dynamic Flexibility & Movement Prep followed by....</u>
Complete the Following Circuit 8x
100 Yard Run
10 Push-ups
20 Sit-ups
30 Bodyweight Squats
Rest :30

Friday
Easy Run
10-12 min run at easy/conversational pace
Speed Session (after run)
Strides: 5x:15 sec of controlled hard stride

Saturday
Rest

Sunday
Rest

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Swab Summer Readiness Program

Week 3

Monday
Easy Run
10-15 min run at easy/conversational pace
Speed Session (after run)
Strides: 5x:20 sec of controlled hard stride

Tuesday
Circuit Training
<u>Dynamic Flexibility & Movement Prep followed by....</u>
Complete 5 Rounds of the Following for Time:
15 Push-ups
30 Sit-ups
40 Bodyweight Squats

After the Completion of 5 Rounds, Run an 800m at PFE Race Pace

Wednesday
Non-Running Workout
Elliptical, Bike, Swim, etc for 15-20 min
See Swim Workout tab for swimming ideas

Thursday
Bodyweight Circuit
<u>Dynamic Flexibility & Movement Prep followed by....</u>
<u>Pull-up Circuit</u>
1, 2, 3, 4, 5....to Max
15 Seconds Rest Between Each Set or Level of the Pyramid

<u>5 Circuits of the following in order</u>
Reps for Men & (Women)
Push-up x 5 (3)
Crunches x 10
Wide Push-ups x 5 (3)
Leg Raises x 10
Narrow Push-ups x 5 (3)
Sit-ups x 10
Repeat 5 Times (:30 sec rest between)

Friday
Easy Run
10-15 min run at easy/conversational pace
Speed Session (after run)
Strides: 5x:15 sec of controlled hard stride

Saturday
Optional Easy Run
10-15 min run at easy/conversational pace

Sunday
Rest

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Swab Summer Readiness Program

Week 4

Monday
Speed Session
5-7 min warmup
1.5 Mile Time Trial
5-7 min cooldown

Tuesday
Non-Running Workout:
Elliptical, Bike, Swim, etc for 15-20 min
See Swim Workout tab for swimming ideas
Bodyweight Circuit
Dynamic Flexibility & Movement Prep followed by....
Pyramid (level 1 - 7)
Pull-ups x 1
Push-ups x 2
Sit-ups x 3
Example:
Level 1 of Pyramid: 1 Pull-up, 2 Push-ups, 3 Sit-ups
Level 2 of Pyramid: 2 Pull-ups, 4 Push-ups, 6 Sit-ups
Level 3 of Pyramid: 3 Pull-ups, 6 Push-ups, 9 Sit-ups
Continue Until Level 7, Rest 30 Sec Between Levels

Wednesday
Marathon Run
10-15min warmup, 2x4 min at Marathon (no more than 2:00 rest between), 5-10 min cool down.

Thursday
Circuit Training
Dynamic Flexibility & Movement Prep followed by....
For 10 min, each min, On the min Complete the Following:
5 Burpees
5 Push-ups
5 Bodyweight Squats
After the Completion of 10 min Circuit, Run 1 Mile For Time

Friday
Easy Run
10-15 min run at easy/conversational pace
Speed Session (after run)
Strides: 5x:20 sec of controlled hard stride

Saturday
Optional Easy Run
10-15 min run at easy/conversational pace

Sunday
Rest

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Week 5

Monday
Easy Run
12-17 min run at easy/conversational pace
Speed Session (after run)
6x:15 sec of controlled hard stride

Tuesday
Circuit Training
<u>Dynamic Flexibility & Movement Prep followed by....</u>
Complete 4x Through the Following
400 meters at PFE Race Pace
1st Time: 25 Burpees, 2nd Time: 20 Burpees, 3rd: 15, 4th: 10

Wednesday
Tempo Run
10-15 min warm-up, 2x5 min at Tempo (no more than 2:00 rest between), 5-10 min cool-down

Thursday
Bodyweight Circuit
<u>Dynamic Flexibility & Movement Prep followed by....</u>
<u>Pull-up Circuit</u>
1, 2, 3, 4, 5....to Max
15 Seconds Rest Between Each Set or Level of the Pyramid
<u>10 Circuits of the following in order</u>
Reps for Men & (Women)
Push-up x 5 (3)
Crunches x 10
Wide Push-ups x 5 (3)
Leg Raises x 10
Narrow Push-ups x 5 (3)
Sit-ups x 10
Repeat 10 Times (:30 sec rest between)

Friday
Mile Effort Session
10-15 min warm-up, 4x400 meters at Mile Effort (based on PFE Time), 2 min active rest between, 5-10 min cool down

Saturday
Easy Run
12-17 min run at easy/conversational pace

Sunday
Rest or Optional Easy Run
12-17 min run at easy/conversational pace

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Swab Summer Readiness Program
Week 6

Monday
800m Effort Session
10-15 min warmup, 6x200 meters at 800 meter Effort (based on PFE time), 1:30 min rest in between, 5-10 min cool-down

Tuesday
Non-Running Workout
Elliptical, Bike, Swim, etc for 20-25 min
See Swim Workout tab for swimming ideas
Bodyweight Circuit
<u>Dynamic Flexibility & Movement Prep followed by....</u>
Pyramid (level 1 - 10)
Pull-ups x 1
Push-ups x 2
Sit-ups x 3
Example:
Level 1 of Pyramid: 1 Pull-up, 2 Push-ups, 3 Sit-ups
Level 2 of Pyramid: 2 Pull-ups, 4 Push-ups, 6 Sit-ups
Level 3 of Pyramid: 3 Pull-ups, 6 Push-ups, 9 Sit-ups
Continue Until Level 10, Rest 30 Seconds Between Levels

Wednesday
Marathon Run
5-10 min warm-up, 8-10 min at Marathon, 5-10 min cool-down

Thursday
Circuit Training
<u>Dynamic Flexibility & Movement Prep followed by....</u>
Complete the Following Circuit as Many Times as Possible in 14 min
:30 Second Plank Hold (on Elbows)
10 Walking Lunges Each Leg (With Weight if Available)
10 Hand Release Push-ups (Belly on Ground, Hands Release Ground Each Time)
5 Standing Continuous Broad Jump Leaps
20 Mountain Climbers

Friday
Easy Run
12-17 min run at easy/conversational pace
Speed Session (after run)
5x:25 sec of controlled hard stride

Saturday
Easy Run
12-17 min run at easy/conversational pace

Sunday
Rest

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Swab Summer Readiness Program

Week 7

Monday
Mile Effort Session
5x300 meters at Mile Effort (based on PFE time), 2 min rest in between, 5-10 min cool-down

Tuesday
Circuit Training
<u>Dynamic Flexibility & Movement Prep followed by....</u>
30 Walking Lunges (30 Steps), 25 Push-ups, 50 Sit-ups
Run 200 meters
25 Walking Lunges (25 Steps), 20 Push-ups, 40 Sit-ups
Run 200 meters
20 Walking Lunges (20 Steps), 15 Push-ups, 30 Sit-ups
Run 200 meters
15 Walking Lunges (15 Steps), 10 Push-ups, 20 Sit-ups
Run 200 meters
10 Walking Lunges (10 Steps), 5 Push-ups, 10 Sit-ups
Run 200 meters

Wednesday
Tempo Run
10-15 min warm-up, 10-15 min at Tempo, 5-10 min cool-down

Thursday
Bodyweight Circuit
<u>Dynamic Flexibility & Movement Prep followed by....</u>
<u>Pull-up Circuit</u>
1, 2, 3, 4, 5....to Max
15 Seconds Rest Between Each Set or Level of the Pyramid
<u>10 Circuits of the following in order</u>
Reps for Men & (Women)
Push-up x 5 (3)
Crunches x 10
Wide Push-ups x 5 (3)
Leg Raises x 10
Narrow Push-ups x 5 (3)
Sit-ups x 10
(:30 sec rest between)

Friday
Easy Run
15-20 min run at easy/conversational pace
Speed Session (after run)
10x:10 sec of controlled hard stride

Saturday
Easy Run
15-20 min run at easy/conversational pace

Sunday
Rest

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Week 8

Monday
Easy Run
15-20 min run at easy/conversational pace

Tuesday
Non-Running Workout
Elliptical, Bike, Swim, etc for 20-25 min
See Swim Workout tab for swimming ideas
Physical Fitness Test
<u>Dynamic Flexibility & Movement Prep followed by....</u>
Execute the Coast Guard Academy Physical Fitness Exam.
Part 1: Begin with Push-ups on a cadence (1 sec up & hold, 1 sec down & hold) for 2:00. Max for Men is 60, Max for Women is 48
Part 2: Proceed to Sit-ups. Execute as many Sit-ups in 2:00 as possible
Part 3: Run 1.5 miles as fast as possible.

Wednesday
Optional Easy Run
15-20 min run at easy/conversational pace

Thursday
Circuit Training
<u>Dynamic Flexibility & Movement Prep followed by....</u>
100m Run with Descending Pyramid
Start Line - 50 Bodyweight Squats - Then Run 100m
Endline - 10 Burpees - Run back to Start Line 100m
Start Line - 45 Bodyweight Squats - Then Run 100m
Endline - 9 Burpees - Run back to Start Line 100m
Start Line - 40 Bodyweight Squats - Then Run 100m
Endline - 8 Burpees - Run back to Start Line 100m
Start Line - 35 Bodyweight Squats - Then Run 100m
Endline - 7 Burpees - Run back to Start Line 100m
Start Line - 30 Bodyweight Squats - Then Run 100m
Endline - 6 Burpees - Run back to Start Line 100m
Start Line - 25 Bodyweight Squats - Then Run 100m
Endline - 5 Burpees - Run back to Start Line 100m
Start Line - 20 Bodyweight Squats - Then Run 100m
Endline - 4 Burpees - Run back to Start Line 100m
Start Line - 15 Bodyweight Squats - Then Run 100m
Endline - 3 Burpees - Run back to Start Line 100m
Start Line - 10 Bodyweight Squats - Then Run 100m
Endline - 2 Burpees - Run back to Start Line 100m
Start Line - 5 Bodyweight Squats - Then Run 100m
Endline - 1 Burpees - Run back to Start Line 100m

Friday
Easy Run
15-20 min run at easy/conversational pace
Speed Session (after run)
5x15 seconds of controlled hard stride

Saturday
Rest

Sunday
Rest

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Swab Summer Readiness Program Swimming Workouts

Notes:

1 Length of the Pool = 25 yards (Example: 50 yd = 2 Lengths, 100 = 4 Lengths)

Equipment: goggles (optional)

Workouts are Novice to Intermediate Workouts. To Increase Difficulty, Complete a Workout 2x

Workout Option 1

Warm-up: 150 yd (6 lengths of the pool continuous; mix up strokes)

4 x 50 yd Freestyle or Front Crawl (:30 sec rest after each 50 yd)

1:00 Rest

1 x 100 yd Freestyle or Front Crawl

1:00 Rest

8 x 25 yd (:15 sec after each 25 yd; choose your stroke)

1:00 Rest

1 x 100 yd Freestyle or Front Crawl

1:00 Rest

4 x 50 yd (:30 sec rest; choose your stroke)

Cooldown 50-100 yd

Workout Option 2

Equipment: goggles, kickboards

Warm-up: 150 yd any stroke

3 x 50 yd Freestyle or Front Crawl (:20 sec rest after each 50 yd)

3 x 50 yd any stroke, (:20 sec rest after each 50 yd)

3 x 50 yd flutterkick with a kickboard

3 x 100 yd = 25 Fr / 25 OTF / 25 flutter with kickboard / 25 free (1:00 rest between 100's)

25 yd Freestyle or Front Crawl

25 yd Choice of Backstroke, Side Stroke, or Breaststroke

25 yd Flutter with Kickboard

25 yd Freestyle or Front Crawl

12 x 25 yd Choose your stroke at easy pace

Cooldown 50-100 yd

Workout Option 3

Equipment: goggles (optional), kickboards

Warm-up: 150 yd (6 lengths of the pool continuous; mix up strokes)

5 x 25 Freestyle or Front Crawl (:15 sec rest)

5 x 25 Freestyle or Front Crawl (:15 sec rest)

100 Any Kick (only) (:30 sec rest)

100 Freestyle or Front Crawl (:30 sec rest)

100 Any Stroke (arms only) (:30 sec rest)

4 x 75 yd= Swim any stroke hard for the middle 25 yd of each 75 yd (:30 sec rest)

Cooldown 200 yd at easy pace

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Swab Summer Readiness Program Swimming Workouts

Notes:

1 Length of the Pool = 25 yards (Example: 50 yd = 2 Lengths, 100 = 4 Lengths)

Equipment: goggles (optional)

Workouts are Novice to Intermediate Workouts. To Increase Difficulty, Complete a Workout 2x

Workout Option 4

Equipment: goggles (optional)

Warm-up: 200 yd (8 lengths of the pool continuous; mix up strokes)

6 x 50 yd = 25 yd Flutter Kicking only (no Kickboard), then 25 yd Choose your stroke
:20 rest

12 x 25 yd = every 3rd 25 yd fast (:15 rest)

2 x 150 yd long (:45 rest)

Cooldown 100 yd

Workout Option 5

Equipment: goggles (optional)

Warm-up: 250 yd (10 lengths of the pool continuous; mix up strokes)

8 x 25 yd Freestyle or Front Crawl (:15 sec rest)

4 x 50 yd Any Kick (only) (:10 sec rest)

2 x 100 yd Freestyle or Front Crawl (:20 sec rest)

1 x 200 yd Alternate Breaststroke & Side Stroke each lap (:30 rest)

2 x 100 Freestyle or Front Crawl (:15 sec rest)

4 X 50 yd = 25 yd Any Kick (only) / 25 yd Any Stroke (:15 sec rest)

8 x 25 yd Choose your stroke and swim fast (:10 rest)

Workout Option 6

Warm-up: 10 min swim loosen up mix up strokes: Crawl, elementary back, sidestroke, breast stroke

Tread water:

6 min: 6 x :30 sec arms and legs / :30 sec legs only, hands out of water

Swim Set:

20 x 25 yd get out at each end (no ladder)

1-5 Freestyle or Front Crawl

6-10 Side Stroke

11-15 Breast Stroke

16-20 Freestyle or Front Crawl