# 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.

## **UNITED STATES COAST GUARD ACADEMY** Swab Summer Readiness Program Endurance Notes Recommended Running Pac<u>e (Based on PFE 1.5 Mile Time Performance)</u>

		Mile Effort Pace		800 Effort Pace
1.5 Mile Time	1.5 Mile (in Seconds)	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

*Swab Summer Readiness Program Week 1* 

## Monday

Easy Run

10-12 min run at easy/conversational pace

#### Tuesday

Tuesuay		
Physical Fitness Test		
Dynamic Flexibility & Movement Prep followed by		
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		
	Dynamic Flexibility & Movement Prep followed by	
	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

<mark>Sunday</mark> Rest

*Swab Summer Readiness Program Week 2* 

#### Monday

Easy Run

10-12 min run at easy/conversational pace

Tuesday		
Bodyweight Circuit		
Dynamic Flexibility & Movement Prep followed by		
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
Dynamic Flexibility & Movement Prep followed by
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

## 7

## **UNITED STATES COAST GUARD ACADEMY** 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

Dynamic Flexibility & Movement Prep followed by ....

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 Reduceinth Direction

RodAmeidut circuit		
Dynamic Flexibility & Movement Prep followed by		
Pull-up Circuit		
1, 2, 3, 4, 5to Max		
15 Seconds Rest Between Each Set or Level of the Pyramid		
5 Circuits of the following in order		
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

**UNITED STATES COAST GUARD ACADEMY** 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

*Swab Summer Readiness Program 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**

Dynamic Flexibility & Movement Prep followed by.... 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	
Dynamic Flexibility & Mov	vement Prep followed by
Pull-u	p Circuit
1, 2, 3, 4,	5to Max
15 Seconds Rest Between Ea	ich Set or Level of the Pyramid
10 Circuits of the	following in order
Reps for Me	n & (Women)
Push-u	ıp x 5 (3)
Crunc	hes x 10
Wide Push	n-ups x 5 (3)
Leg Ra	ises x 10
Narrow Pus	sh-ups x 5 (3)
Sit-u	ps 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

*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 Wor	kout				
Ellipti	Elliptical, Bike, Swim, etc for 20-25 min				
See S	See Swim Workout tab for swimming ideas				
Bodyweight Circu	it				
Dyn	namic Flexibility & Movement Prep followed by				
	Pyramid (level 1 - 10)				
	Pull-ups x 1				
	Push-ups x 2				
	Sit-ups x 3				
	Example:				
Lev	vel 1 of Pyramid: 1 Pull-up, 2 Push-ups, 3 Sit-ups				
Lev	rel 2 of Pyramid: 2 Pull-ups, 4 Push-ups, 6 Sit-ups				
Lev	el 3 of Pyramid: 3 Pull-ups, 6 Push-ups, 9 Sit-ups				
Contir	nue 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
Dynamic Flexibility & Movement Prep followed by
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 Continous 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

*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	
Dynamic Flexibility & Movement Prep followed by	
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
Dynamic Flexibility & Movement Prep followed by
Pull-up Circuit
1, 2, 3, 4, 5to Max
15 Seconds Rest Between Each Set or Level of the Pyramid
10 Circuits of the following in order
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
<b>Speed Sess</b>	ion (after run)
	10x:10 sec of controlled hard stride

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

Sunday Rest

*Swab Summer Readiness Program Week 8* 

#### Monday Easy Run

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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

Dynamic Flexibility & Movement Prep followed by.... 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

2		-			=	-				-
H	11	C	П	t	Т	ra	1	П	П	a
-		-		-						-

Dynamic Flexibility & Movement Prep followed by
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

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Sunday Rest **UNITED STATES COAST GUARD ACADEMY** 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 Intermeidate 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 Breastroke

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

## **UNITED STATES COAST GUARD ACADEMY** Swah 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 Intermeidate 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 3<sup>rd</sup> 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 Breastroke & 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

<u>Warm-up:</u> 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

<u>Swim Set:</u> 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