

Medical Considerations for Phase II

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1) Welcome to Phase II. The course is physically and mentally challenging, and will require your maximum effort. You must arrive to Phase II physically and mentally prepared, and take responsibility for your health during the course. We have developed some recommendations that will help you prepare for Phase II, and help you perform at peak efficiency.

2) Heat/Humidity:

- You must arrive to Phase II acclimated to exercise in these conditions. This is best accomplished by a gradual exposure to exercise in hot/humid conditions over several weeks. You should start out with 20 minutes of exercise in the heat twice per day, and gradually build up to 1-2 hours of exercise over several weeks. You should not overexert yourself too early in this process: Acclimatization is not accelerated by doing more exercise early on. Acclimatization will reduce the amount of salt in your sweat, and promote efficient body cooling.

-Heat stroke is a serious heat emergency. The hallmark of heat stroke is altered mental status in the setting of high heat and exertion. Contrary to what some of you may have been taught, not all victims of heat stroke are 'hot and dry': It is possible to have heat stroke and still be sweating. Cover Your Buddy! If you notice any of your colleagues start acting strangely, have difficulty walking or talking, or just don't look right, notify the cadre immediately.

3) Hydration:

-You must stay well hydrated at all times during phase II. Dehydration is an insidious process, especially in these environmental conditions. You must get into the habit of drinking often: You may have to force yourself to drink, even though you do not feel thirsty. It is not unusual to require as much as 1 to 1 ½ liters of water per hour during exercise in hot/humid conditions. Symptoms of early dehydration include headache, irritability, and weakness. If

you allow it to continue, nausea, vomiting, dizziness and exhaustion will follow.

-If you are properly hydrated, you will need to urinate every 1-2 hours, and your urine will be either clear or very light yellow. Dark yellow urine is an indication of dehydration.

-Use of 'sports drinks' can help replace electrolytes lost from sweating. However, most commercial sports drinks ('Gatorade' and others) have too much carbohydrate in them for efficient absorption. If you use sports drinks, you should dilute them to about half-strength with water. You should also make sure you eat properly (see below) as this will help replace electrolytes.

-It is best to stay hydrated by drinking in relatively small amounts frequently, rather than taking a water break and trying to pound down a liter or two of water in five minutes. An 'on-the-go' hydration system (like Camelbak and others) is helpful.

-It is important to continue to drink fluids during your off-duty time.

-You should avoid soft drinks, alcohol, and anything containing caffeine. These are diuretics, and will cause you to lose more fluid than you gain by drinking them.

-Salt pills are NOT a good idea, and should not be used. You should get your electrolytes via the food you eat and the fluids you drink.

4) Nutrition:

-You will be burning quite a few calories during Phase II. You must eat to keep yourself in good health and able to meet the challenges presented to you. We estimate that the average candidate needs anywhere between 3000 and 4500 calories per day during selection. The average 'nutrition bar' such as Power Bars has only 250-300 calories: A breakfast of a Power Bar and some yogurt isn't going to hack it. This is not a time for dieting! You should eat well-rounded meals, starting with a good breakfast. Junk food, such as chips and doughnuts are a bad idea. The schedule allows for chow time at the dining facility. Take advantage of this and make every meal, just like the Indoc students. Then get to bed early, just like the Indoc students.

-Nutritional supplements, such as protein powders, protein drinks, and amino acid supplements are not a good idea. Most

of them put a heavy metabolic load on your kidneys, and do not do much to help build muscle. The human body is capable of absorbing and utilizing a maximum of 0.6-0.8 grams of protein per pound of body weight per day. For an average 175-pound male, that comes to 140 grams of protein per day (That's about 5 ounces of protein per day).

-Herbal 'supplements', 'diet aids', or 'ergogenic aids' should not be used. AFI 48-123, Section A7.31.3.8 states that for flying personnel (which includes PJ/CCT/CRO/STO) "Dietary supplements should only be used with the approval of a flight surgeon." Most such 'ergogenic' aids are either ineffective, or contain medications that can be harmful. Many 'herbal ergogenic' supplements contain high levels of ephedrine and caffeine, which have been linked to heat intolerance, kidney damage, and liver damage.

-Vitamin and mineral supplements are not needed in most cases. The vast majority of Americans eating a normal diet have no need for supplemental vitamins. Mega-dose quantities of vitamins serve mainly to increase the vitamin content of your body waste products.

5) Other recommendations:

- Use sunscreen every day
- Make sure your boots and running shoes are broken in and comfortable
- Use insect repellent
- If you've been working in a wooded or grassy area, do tick checks every 8-12 hours
- Rest when you have the opportunity. This is not a time for after-hours partying.