



In Motion

website: <http://www.nasoceana.navy.mil>

Beat the heat before it beats you

Keeping cool when the weather is hot

It's summertime and you head out for a run. Before you even finish the first mile, your body feels as though it might ignite from the heat.

It's not your imagination. Fifteen minutes into your run and your body temperature could be as high as 5° F above normal. If you were to continue at this pace, fatigue and heat illness would no doubt take over.

Strategies to protect yourself from heat illness

The above scenario doesn't have to happen. Drinking enough fluids, whether it be water or a sports drink, is imperative for exercising in hot or humid weather.

Maintenance of body fluids is essential to maintaining proper body temperature. Sweat dispels heat through your skin. If you let your body become dehydrated, you'll find it much more difficult to perform even the lightest of workouts.

But don't wait until you're thirsty to start replenishing those fluids. Chances are, by the time you actually feel thirsty, your body is well on its way to becoming severely dehydrated.

The following strategies will help you protect yourself from the onset of heat illness:

•Hydration - Fluid replenishment before, during and after exercise is essential to avoid progressive dehydration. Always consume more fluids than you think you need before and after exercise, and strive to drink six to eight ounces of fluids every 15 to 20 minutes during exercise.

•Exercise Intensity - You should probably reduce the intensity of your workout, particularly the first few times you are exposed to higher temperatures.

•Temperature - Use the heat stress index table to determine the risk of exercising at various combinations of temperature and humidity. While a 90° F outdoor temp is relatively safe at 10 percent humidity, the heat stress of 90° F at 50 percent humidity is the equivalent of 96° F. When the heat stress index



Family member Jess Salvatore said she always brings along a bottle of water or a sports drink while she enjoys her daily workouts at the NAS Oceana Fitness Center.

Photo by JO3 Amanda Robinson

rises above 90° F, you may want to consider postponing your exercise session until later in the day. Or, plan ahead, and beat the day's heat by working out early in the morning.

•Fitness - Physical training and heat acclimation can increase your blood volume, helping to regulate body temperature more effectively. Interestingly, the acclimatization process can be completed in 7 to 14 days of repeated heat exposure. However, you must always continue to drink fluids before, during and after exercise.

•Clothing - Wear minimal clothing to provide greater skin surface area for heat dissipation. Your clothing should be lightweight, loose fitting, light colored to reflect the sun's rays, and of a material that absorbs water, such as cotton.

•Rest - Know when to say 'no' to exercise. Using common sense is your best bet for preventing heat stress when Mother Nature turns up the heat.

•Heat Illness Prevention During Deployment - Your risk for heat illness is at its highest point as you begin a deployment. Why? Because most likely you are not heat acclimated. Heat acclimation is the body's adaptation to a hot environment. As temperatures rise, you need more and more fluids to meet your body's needs to stay hydrated. Over water, the high temperatures create evaporation from the water surface, causing high humidity. High humidity means the human body can't sweat as easily to cool off. Add to

the mix the gear and clothing you are wearing, no shade, hot exhaust from engines, and increased exertion and you have a pressure cooker for developing heat illness. Many of the risk factors for heat illness can be eliminated to help prevent heat injury by simply drinking water/fluids on a constant basis.

Heat sensation risk of heat injury

- 90°-105° Possibility of heat cramps
- 105°-130° Heat cramps or heat exhaustion likely. Heat stroke possible.
- 130°+ Heat stroke a definite risk.

		Heat Stress Index					
		Air Temperature (F)					
		70°	80°	90°	100°	110°	120°
Relative Humidity	0%	64°	73°	83°	91°	99°	107°
	10%	65°	75°	85°	95°	105°	116°
	20%	66°	77°	87°	99°	112°	130°
	30%	67°	78°	90°	104°	123°	148°
	40%	68°	79°	93°	110°	137°	
	50%	69°	81°	96°	120°	150°	
	60%	70°	82°	100°	132°		
	70%	70°	85°	106°	144°		
	80%	71°	86°	113°			
	90%	71°	88°	122°			
100%	72°	91°					