ENVIRONMENTAL, SAFETY AND OCCUPATIONAL HEALTH (ESOH) NEWSLETTER JUNE 2000

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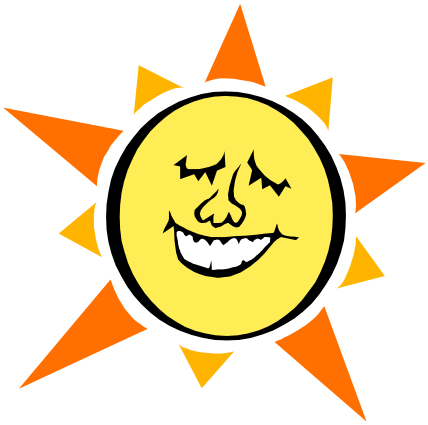
Since summer is upon us, let's take some time to focus a bit on safety in the sun…

101 Critical Days of Summer

26 May - 4 September 2000



What are the 101 Critical Days? 101 Critical Days refers to the period between Memorial Day and Labor Day when the warm weather encourages off-duty participation in a variety of outdoor recreational activities. During the early 1970's the Air Force incurred large numbers of fatalities throughout the summer months. The significant number of AF members' deaths led to the development of this program to help reduce personnel losses; thus, the 101 Critical Days program was born.

The 101 Critical Days Program is an intense safety campaign strongly supported by the Chief of Staff of the Air Force. Although the Air Force maintains a vigorous safety posture throughout the year, the summer months' off-duty activities pose high risks to our personnel. It is only logical that we increase our efforts to promote safety awareness and safety culture during the summer season. With involvement at all levels this will be the safest summer ever.

Water Safety

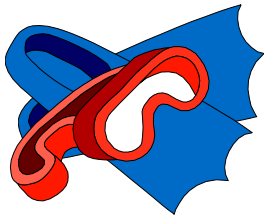
Here are some good safety tips to remember when swimming!

GENERAL SAFETY

- Never swim alone; bring a "buddy" with you.
- If you get a leg cramp, try not to panic. Float on your back and bring your leg to the surface. Rub the muscle with both hands, with a kneading action. Don't be afraid to rub hard. Try swimming slowly back to shore using a different stroke than the one you used when you got the cramp.
- A stomach cramp is more serious. Swimming hard in cold water on a full stomach usually causes it. If the pain is very bad, try to keep your head above water and shout for help. If it is not too severe, try floating on your back and take slow deep breaths to help relax the muscles. You can also try bending your knees to your chest and then extending them again.

POOL SAFETY

- Don't run around the pool edge, you could slip and get hurt, or fall in.
- It is dangerous to duck people, and it can destroy their confidence.
- Be thoughtful of other swimmers. Watch where you are going so you don't collide with anyone.
- If you are allowed to use equipment, be careful with it. Flippers can hurt someone if you run into them, and snorkels could make you lose your sense of direction and you may swim under the diving area by accident.



- Never jump into the water without first checking to make sure the area is clear of other swimmers.
- Never throw someone in as a joke. They may hit their head on the side of the pool.

SWIMMING IN OPEN WATERS

- If you are not sure if an area is safe for swimming, don't swim there.
- Never swim right after a meal. Allow about an hour for food to digest.
- Never swim if danger flags are flying.
- Check whether the tide is going in or out.
- Don't swim near piers or breakwaters. The currents there may be very strong, even for the best of swimmers.
- Stay clear of boats. They take time to change direction and they may not even see you.
- Swim parallel to the shore. If you swim out too far, you may be too tired to swim back.
- Open water is usually much colder than a pool, so don't swim out too far.

Take Action to Beat Heat Stress

By Senior Airman Thomas Rampley,
Bioenvironmental Engineering Flight

One of the responsibilities of Bioenvironmental Engineering flight is to monitor heat stress — a term used to describe how the sun and other environmental factors affect the body.

The sun and heat can cause heat-related illnesses if you are not careful. Some examples **are sunburn, heat rash, heat exhaustion, heat cramps, and heat stroke**. Protect yourself from the sun. With the sun beating down on you, the midday effects could be deadly.

Sunburns form very rapidly. Wear a wide-brimmed hat to keep your head and face cool. This will also provide protection from damaging sun exposure. Ball-style caps provide little protection except to the face. A hat should also protect the neck and ears. Keep your sleeves rolled down. Applying sunblock with an SPF factor of 15 or above will also help to minimize your chances of sunburn.

Heat rash, also known as "prickly heat," can keep your body from releasing heat. Heat rash occurs in humid conditions when perspiration cannot evaporate from the skin. People who wear protective clothing may be at risk for heat rash since the protective clothing may prevent air circulation. To prevent heat rash, keep skin dry and clean and wear loose-fit clothing.

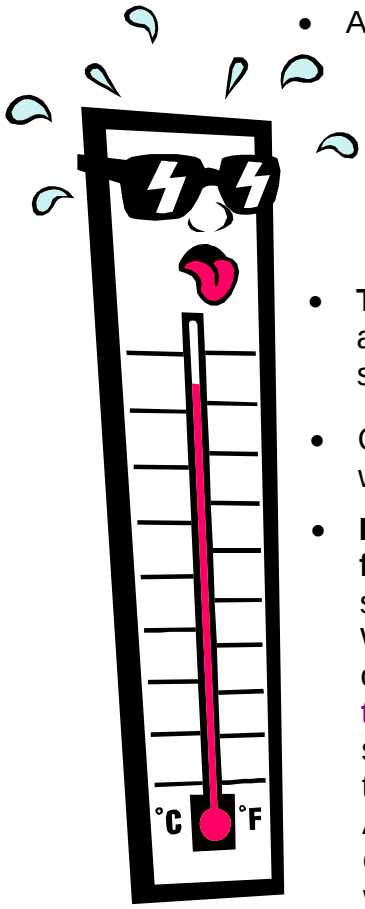
Heat cramps or muscle cramping usually indicates the onset of heat exhaustion has begun. Treat the heat exhaustion victim quickly until signs and symptoms disappear. Move the victim to a cool place; give cool fluids; gently massage affected muscles; apply cool, moist towels or cloths to forehead and affected areas. **Call 911 if the signs and symptoms don't subside.**

The lack of fluids and prolonged exposure to heat, humid weather and increased activity can cause **heat exhaustion**. Signs include weakness and fatigue, pale clammy skin, profuse sweating, muscle spasms, low to normal body temperature, nausea and possibly vomiting. The best treatment for heat exhaustion is prevention — drink lots of water.

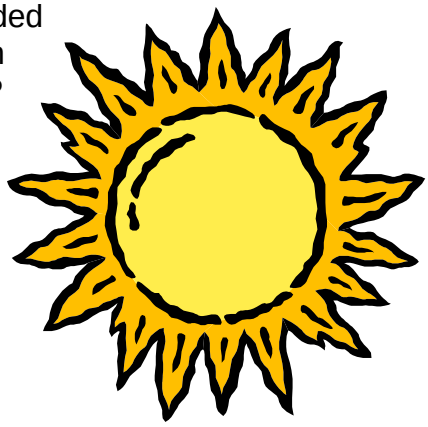
Heat stroke is a true medical emergency, which can occur suddenly and requires immediate medical attention. The signs should be easy to recognize. Among them are loss of consciousness or mental confusion, hot dry skin, high body temperature, and a rapid heart rate. First aid includes cooling the victim by removing clothing, applying cool damp compresses or spraying them with water. Cool their face by airing them with a fan or newspaper.

Some Tips on how to Battle Heat-Related Illnesses:

- An essential part of preventing these illnesses is **fluid replacement.** Thirst is not an indicator of the need for fluids. If you're exposed to sunlight outdoors, your body needs cool, non-alcoholic, non-caffeinated, non-carbonated drinks like water, lemonade and sports drinks. Sports drinks are concentrated and absorb slowly into your system; dilute them with an equal amount of water. Urine color is also an indicator of hydration; if your urine is dark yellow, your body needs fluids.



- A **balanced diet** is a great way to prevent heat-related disorders. Eating light foods like fruits and vegetables will help combat the heat.
- Lifestyle, which includes **plenty of sleep and routine exercise**, can help your body absorb the shock of the heat. Sleep keeps your body charged up and exercise helps develop the energy necessary to raise your body's endurance.
- **Take it easy in the heat at first**. Then, when your body gets used to it, do a little more. *Acclimatization* is a term used to describe the process of slowly getting used to the heat.
- Other ways to beat the heat include shade, cooling vests, and doing heavy work when it isn't so hot.
- **Heat stress is the combination of environmental and physical work factors that make up the total heat load imposed on the body.** Heat stress is measured by means of a **Wet Bulb Globe Temperature** meter. WBGT is a temperature index, measured in degrees Fahrenheit, calculated from several weather factors: **humidity in the air, actual air temperature and strength of the sun.** This measurement is provided to supervisors of people who work outdoors. The bioenvironmental flight takes this temperature and compares it to a table provided by the American Conference of Governmental Industrial Hygienists. The purpose of this table is to give supervisors a recommended work and rest regimen per hour based on workload. See the table below for work/rest cycles (MOPP 0 is equivalent to civilian attire without personal protective equipment).



SUPERVISOR'S HEAT INJURY PREVENTION CHART						
Instructions: Obtain WBGT from Bioenvironmental Engineering or the Bio web page, identify heat category and recommended water intake and work/rest cycles.						
	WBGT				Recommended Work/Rest Cycles	
Heat Condition Category	MOPP 0 & Alpha	MOPP 1 & 2	MOPP 3 & 4	Water intake (liters/hr)	Acclimated Personnel (minutes)	Unacclimated Personnel
I	< 81	< 76	< 71	0.5	Continuous	Continuous
II	82 - 84	77 - 79	72 - 74	0.5 - 1	50/10	Use discretion in planning heavy activities
III	85 - 87	80 - 82	75 - 77	1	45/15	Suspend strenuous activities during first three weeks of heat exposure. Activities may be continued on a reduced scale after the second week of heat exposure. Avoid activity in direct sunlight.
IV	88 - 89	83 - 84	78 - 79	1	30/30	Curtail strenuous activities for all personnel with less than 3 weeks of hot weather exposure
V	> 89	> 84	> 79	1	20/40	Consider suspending physical training and strenuous activities. Essential, non-training, operational activities, where risk of heat casualties may be warranted, are excluded from suspension. Enforce water intake to minimize expected heat injuries.

The above information is based on FM 21-10-1, "Field Hygiene and Sanitation," October 1989

For further information concerning WBGT visit the Bioenvironmental Engineering Flight Web Page and the Heat Stress Page at: http://www.bio.wpafb.af.mil/heat.htm or call their office at 255-6815 ext. 277, or 295.

Plug into Electrical Safety

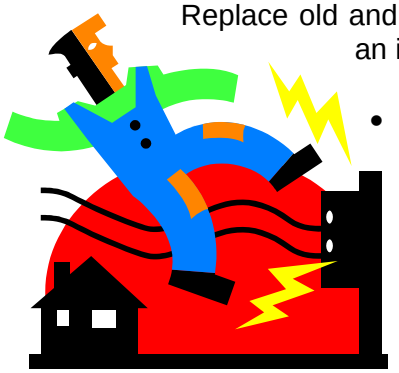
CPSC and NESF Urge Consumers to "Plug Into Electrical Safety". More than 41,000 Electrical-Related House Fires, 350 Deaths Occur Each Year

WASHINGTON, D.C. - The U.S. Consumer Product Safety Commission (CPSC) and the National Electrical Safety Foundation (NESF) are urging consumers to look for and correct electrical safety hazards in their homes. Each year, incidents involving electrical equipment, such as extension cords, outlets and light bulbs, result in more than 41,000 residential fires that claim about 350 lives and cause over 1,400 injuries. These fires also cause more than $620 million in property damage annually.

"Many of these electrical-related incidents are preventable," said CPSC Chairman Ann Brown. "The simple act of removing electrical cords from under rugs could help prevent many house fires. If every household installed ground fault circuit interrupters (GFCIs), deaths from electrocution in and around the home could be reduced by one-half. I urge consumers to look around their homes and correct electrical hazards."

You can help protect yourself from electrical hazards by taking a few minutes to check your home for unsafe conditions:

- Make sure cords are in good condition. A frayed or cracked cord could cause a shock or fire. Replace old and damaged extension cords with new ones having the certification label of an independent testing laboratory on the cord.



- Check to see that extension cords are not overloaded, as indicated by the ratings labeled on the cord and the appliance. Overloaded extension cords can cause fires. Change the cord to a higher rated one or unplug some appliances, and remember that extension cords should only be used on a temporary basis and are not intended as permanent household [or office] wiring.

- To reduce the risk of electric shock, make sure that GFCI protection is provided for outlets at kitchen counters, in bathrooms, and at outdoor receptacles. Test GFCIs monthly to make sure they are working properly.

These safety tips, along with many more, are published in the pamphlet entitled "A Home Electrical Safety Check". To receive a free pamphlet, go to NESF's web site at www.nesf.org, or send a 55 cent stamped, self-addressed envelope to
NESF, 1300 North 17th Street, Suite 1847, Rosslyn, Va. 22209.

UPCOMING ESOH TRAINING and OPPORTUNITIES:

ERGONOMICS TRAINING

22 June 00

This class will be taught by Public Health at Bldg 125 area B from 10:00-11:30. This course will cover body mechanics, cumulative trauma or repetitive motion injuries and illnesses, proper workstation height, neutral positions and movements, proper lifting and sitting, rest breaks, exercises and stretches to reduce pain. A video specific to ergonomics in the laboratory will also be shown. Following the briefing, the CAP office will give a presentation on ergonomic equipment available on loan and can suggest or purchase ergonomic equipment for you.

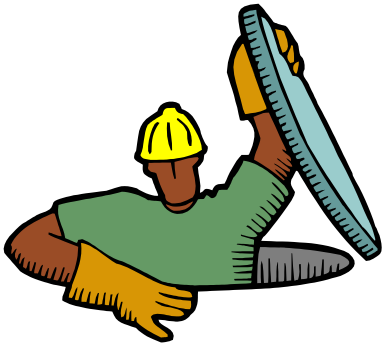
Schedule with Mary Shelly via e-mail or at 59000

CONFINED SPACE TRAINING

26 – 30 June 00

This will be a satellite broadcast, offered at Bldg 125 room 1311D from 12:00 - 16:00 daily. The course focuses on the requirements of 29 CFR 1910.146 a through k. Due to limited availability, registration will be on a first come first served basis.

To schedule, contact ASC/SEG
Mel French x43383 or Kerry Thomason x43391



CHOLESTEROL SCREENING BROUGHT TO AFRL

27 June 00

The Health and Wellness Center (HAWC) will be coming to AFRL to provide any interested military or civilian employee with cholesterol testing. You must schedule with Mary Shelly, 59000 or mary.shelly@afrl.af.mil. There are still plenty of slots open! We need 40 people for the Wellness Center to come to AFRL. Right now only 22 people are signed up.

Testing will be performed on 27 June beginning at 8:00 and results will be provided on 7 July, 9:00. Take advantage of this free screening as it provides a good baseline for determining your cardiac risk factors. Cardiac disease is still the number one cause of death to both men AND women in the U.S. A presentation covering what is considered “normal” cholesterol and how to lower cholesterol levels will be presented with the results. Individuals may also make a one-on-one appointment with a dietitian.

Contact the Health and Wellness Center at 79896 for additional dates.

RCRA HAZMAT/HAZWASTE TRAINING:

Initial Training: 20 Jul, and 21 Sep 00
Annual Refresher Training: 20 Jun 00
(Schedule both with Mary Shelly, 59000)

OPERATIONAL RISK MANAGEMENT (ORM) TRAINING

Level II training is required for supervisors and managers per WPAFBI 91-202. Supervisors are to subsequently provide their employees with "Level III" ORM Awareness training. An ORM video is available for loan from the safety office to assist supervisors with the Level III training.

To schedule ORM Training, contact Chuck Swankhaus at 43390

ESOH AWARENESS TRAINING:

11 July, 10 Oct 00 – schedule with Public Health at 52515

This course is highly recommended for all employees and contractors. We also go "on the road" and will present this course at your organization.

New ESOH Training Videos Available:

These videos are on a wide variety of ESOH topics and are a great resource for supplementing training such as monthly supervisor safety training.
Contact Mary Shelly for an electronic list of video titles to choose from.

Air Force Form 813s - Request for Environmental Impact Analysis

Don't forget to submit your AF Form 813s to Mary Shelly at AFRL/MLOF. For more information on AF Form 813s, see Environmental Management's Home Page:
http://www.abwem.wpafb.af.mil/em/emp/impact_analysis/impact.htm
Contact Mary Shelly to get electronic instructions for completing the AF Form 813 for both on-base and off-base work.

For more information on ESOH topics, visit the following Home Pages:
ASC/SEG Safety Office: http://www.asc.wpafb.af.mil/asc/safety/index.html
88 ABW Environmental Management: http://www.abwem.wpafb.af.mil/em/default.cfm
Bioenvironmental Management: http://www.bio.wpafb.af.mil/