

Lawrence Berkeley National Laboratory

LBL Publications

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Environmental Health and Safety Department

Lawrence Berkeley Laboratory,

University of California, Berkeley

CPSC Warns of Hot Tub Temperatures

Safety officials frequently warn about the dangers of drinking and driving. Now the U. S. Consumer Product Safety Commission (CPSC) cautions that drinking and hot-tubbing do not mix well either.

According to CPSC, hot-tubbing in water above normal body temperatures can cause drowsiness which may lead to unconsciousness and result in drowning.

The risk of drowning is increased if alcoholic beverages are consumed while, or prior to, soaking in hot water. The CPSC has been informed of 10 hot tub deaths in 1979, three of which involved alcohol-related drownings in water heated to approximately 110°F.

Even if no alcohol is consumed, extremely hot water during hot tub use can threaten life. Soaking in a hot tub with water heated to 106°F, can raise human body temperature to the point of heat stroke (impairment of the body's ability to regulate its internal temperature). These conditions can be fatal even to healthy adults.

As hot tubs have gained in popularity, so have concerns at CPSC that consumers learn how to use these products safely. Accordingly, CPSC urges consumers to observe the following safety rules for hot tub use.

- Hot tub water temperatures should never exceed 104°F. A temperature of 100°F is considered safe for all healthy adults, but special caution is suggested for young children.

- Pregnant women should not use water hotter than 100°F. Soaking in water above 102° F can cause fetal damage during the first three months of pregnancy, resulting in the birth of a brain-damaged or deformed child.
- Before entering the hot tub, check the water temperature with an accurate thermometer. Hot tub thermostats may err in regulating water temperatures by as much as four degrees.
- Persons with medical history of heart disease, circulatory problems, diabetes or blood pressure problems should obtain their physician's advice before using hot tubs.
- Persons taking medications which induce drowsiness, such as tranquilizers, anti-histamines or anti-coagulants, should not use hot tubs.
- Excessive drinking during hot tub use can cause drowsiness which could lead to unconsciousness and result in drowning.

The CPSC currently is working with the "Spa and Tub Association" and the "International Spa and Tub Institute" as they develop safety standards for the manufacture, installation, and use of hot tubs. These standards, which are expected to reflect many of the above safety warnings, may take effect as early as this spring.

For Emergency Assistance

At LBL - Call 5333.
In Berkeley - Dial 911.

For Reference

Not to be taken from this room

PUB 338

Methyl Ethyl Ketone Peroxide

A serious eye hazard associated with exposure to Methyl Ethyl Ketone Peroxide (MEKP) has been reported to the National Institute of Occupational Safety and Health (NIOSH). MEKP is a catalyst which is added to fiberglass resin. It is used predominantly in the manufacture of reinforced plastics, however, exposures can occur from many other occupational situations.

An eye specialist has stated that a drop of the catalyst in the eye will result in blindness unless immediate action is taken (within 4 seconds) to wash the catalyst from the eye with water. Reports on one experience described disastrous results. The victim had both eyes contaminated while fibreglassing a chair at home. Though he did make an effort to wash his eyes out, several minutes apparently elapsed before he found water. Vision in one eye was lost immediately, the other gradually over a period of about 8 years.

NIOSH estimates approximately 41,000 people are occupationally exposed to MEKP. In 1975, 6.36 million pounds of MEKP were produced. Because of the serious eye hazard associated with exposure to MEKP and other reported toxicity in animals, NIOSH is evaluating data for a potential Current Intelligence Bulletin (CIE).

Driver Awareness Schedule

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All Engineering and Technical Services Division Personnel are required to attend prior to authorization to operate Laboratory motor-vehicles. In addition, the show is recommended for all employees, especially new hires.

Any employee desiring to attend may do so. Attendance during work hours must be cleared through you supervisor.

Editor: Jack Izzo
Ext. 5251

Furnace Hazards

The U. S. Consumer Product Safety Commission (CPSC) estimates that last year 6,500 consumers received hospital emergency room treatment for injuries associated with central furnaces, and 1,600 received treatment for floor furnace accidents. For Example:

- A two-year old boy crawled onto the hot grate of a floor furnace. He received second and third degree burns to his hands and legs.
- A woman stuffed a towel into the intake vent for her furnace because the air was making her utility room cold. This deprived the furnace of the oxygen it needed to burn the fuel, and large quantities of carbon monoxide were produced. The woman was found dead from carbon monoxide poisoning.
- In trying to light the pilot light in his furnace, a man ignited the gas which had accumulated in the combustion chamber. His shirt caught fire, and he received burns over 50% of his body.

The CPSC has the following suggestions for selection, use, and maintenance of furnaces:

- Be sure that the furnace has a "safety pilot" that automatically stops the flow of fuel when the pilot light goes out, and that it is installed in accordance with local codes.
- Cover the metal grates of furnaces with a metal screen which will prevent children and adults from touching the hot surface.
- Be sure that you don't cut off air necessary for the furnace to burn its fuel properly. If the furnace doesn't get adequate air, carbon monoxide which could poison and kill may be produced.
- Keep flammable liquids away from furnaces.
- Don't attempt to light a pilot light unless you are familiar with the proper procedures. Call PG&E if you are unsure.
- Have your furnace checked annually.

To Report Unsafe Conditions

Inform your supervisor,
Notify your Building Manager,
Contact your EH&S Area Coordinator, or call
the EH&S Department, Ext. 5251.

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1-80/4000

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Earthquake Survival/Safety

Earthquakes are a part of a Californian's life, and we acknowledge the possibility of being in an earthquake of substantial severity. We accept this as a risk associated with living in the pleasant environment of the state. However, many of us fail to give adequate thought to what we should do to help insure our own, and our family's safety. The following suggestions are presented for your consideration.

1. In case of an earthquake, KEEP CALM. Don't run or panic. With proper precautions, the chances are you will not be hurt.
2. REMAIN WHERE YOU ARE. If indoors stay indoors, if outdoors stay outdoors. In earthquakes most injuries result from people entering or leaving buildings being hit by falling walls, glass, electric wires, etc.
3. If you are indoors, take cover under a desk or table, or else sit or stand against an inside wall or in an inside doorway. Stay away from windows and outside doors.
4. If you are outdoors stay away from overhead electric wires, poles, or anything else that might shake loose and fall--such as cornices and glass from tall buildings.
5. If driving, pull off the road and stop as soon as safely possible. Remain in the car until the disturbance subsides. When you drive on, watch for hazards such as falling or fallen objects, downed electric wires, broken or undermined roadways.
6. Keep on hand a few emergency items for your home:
 - Flashlight,
 - Battery-powered radio,
 - Drinking water in plastic container, and
 - Canned food that can be eaten cold.

Traffic Complaints

Recently, there has been an increase of employee complaints concerning unsafe driving habits on the Hill. However, EH&S can do little about enforcing motor vehicle codes. Each of us must take it upon ourselves to drive safely and considerately.

Foremost among complaints is that of excess speed. The roads at LBL are not designed for high speed traffic. Even our major roadways are narrow, and roadside parking requires traffic to move at a relatively slow speed.

Another complaint is that drivers are not observing STOP and YIELD signs. The layout of the roads due to hill and curves increases the likelihood of having an accident if traffic signs are not honored.

The third most common complaint is that of general inconsiderateness in driving and parking. Obviously, if all of us fail to think of others and develop an aggressive driving attitude, traffic problems will continue to grow.

In addition to the above complaints, there have been several reports of drivers leaving the scenes of accidents involving damage to parked vehicles or LBL property.

Each of us who works at the laboratory should evaluate our driving and habits and make an effort to adjust them. We can make driving and working at LBL pleasurable for ourselves and others. Hopefully we'll learn to be considerate of others and drive accordingly.

File 338

Heart Attack Alert*

Can you tell the difference between indigestion and a heart attack? If you can't, you should. Your life may depend on it.

Heart attack can strike anyone. When it occurs, there is not time for delay. Most heart attack victims survive if they recognize the early signals of heart attack and get medical care at once.

The pain of heart attack is not exactly the same for every victim. It might be an intense pain for one person, or a milder pain for another, often misinterpreted as indigestion.

Heart attack victims often hesitate. Some don't want to admit they are ill. Others mistakenly decide that the symptoms do not mean anything or are due to indigestion. They don't know the early warning signals of heart attack. They wait, ignore the warnings and hope the pain will disappear.

Signals vary, but the usual warning of heart attack are:

1. Uncomfortable pressure, fullness, squeezing or pain in the center of the chest for more than two minutes.
2. Pain may spread to shoulders, neck, chin or arms.
3. Severe pain, dizziness, fainting, sweating, nausea and shortness of breath may also occur.

These signals are not always present. Sometimes they subside and then return.

When these signals occur, delay can be fatal. If you or someone you know has these signals, get help immediately. Call the emergency rescue service. If you can get to a hospital faster by car, have someone drive you. Prompt action can reduce the risk of fatal heart attack.

The early warnings of heart attack are a special "body language." They tell the person that the blood supply to the heart is seriously reduced. A coronary artery, which supplies the heart with blood, becomes narrowed or closed, and part of the heart muscle begins to die because it gets no blood or oxygen. Doctors call this a myocardial infarction.

*Reprinted from Merck Safety Bulletin, June 1978

Accidents Involving Young Americans

Dr. Julius B. Richmond, Assistant Secretary of Health, (U. S. Department of Health, Education, and Welfare) authored an interesting article which included the following facts about accidents and young Americans.

1. More than 1,000 infants (less than 1 year of age) died in accidents in 1977. The principal causes were suffocation from inhalation or ingestion of food or other objects, motor vehicle accidents, and fires.
2. Almost 10,000 children, ages one to 14, were killed in accidents in 1977--more than three times as many as died from the next leading cause of death, cancer. Motor vehicle accidents are responsible for more than 20 percent of childhood deaths, drownings for eight percent, and fires for six percent.
3. Among the leading causes of the 498,000 recorded emergency room visits made by children aged six to 11 in 1976, were bicycle, swing and skateboard accidents.
4. Toxic substances in the home--drugs, cleaning agents, and other items--pose a special hazard to children. Although changes in formulation and packaging of poisonous agents have helped, poisoning still accounts for five percent of non-motor vehicle accident deaths among children under five. Lead poisoning involving children, for example, results in 6,000 cases of central nervous system damage or mental retardation as well as 300 to 400 deaths each year.
5. In 1977 motor vehicle accidents were the leading cause of mortality in the 15 to 24 year age group, accounting for 37 percent of all deaths. Drivers in this age group are twice as likely to die as drivers 25 years old or older. Alcohol, drugs, and excess speed are factors in this death rate.
6. Motorcycle accidents killed more than 4,000 Americans in 1977--30 percent of them under 20 years of age.

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