



FACTS ABOUT BOATING AND ALCOHOL A DEADLY MIX



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THE RESOURCES AGENCY**
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BOATING AND ALCOHOL can be a deadly mix. Physical and mental impairment caused by alcohol can begin almost immediately after consumption. Significant impairment in boat operation can result from even moderate drinking. Unfortunately, in California and other states, intoxicated boat operators have caused serious boating accidents resulting in many fatalities, injuries, and damage to property. Some studies have estimated that alcohol is involved in approximately 25 percent of all motorboat-related fatalities. The purpose of this pamphlet is to provide a basic understanding of alcohol's effect on boaters — in the hope that even one death can be prevented.

KNOW YOUR LIMIT

FACT

***Total number of drinks consumed =
Total number of hours it takes to become sober.***

Alcohol does not follow normal digestive patterns. Instead, it is absorbed directly into the blood stream with the result that the effects of alcohol are usually apparent within minutes.

The following chart was developed to show how drinking affects your blood alcohol concentration (BAC). BAC is a reliable gauge in predicting a person's ability to perform mental and physical tasks. A key factor to remember is that drinking alcohol faster than the body can burn it off will increase blood alcohol levels. Alcohol is burned off at a fairly constant rate — about one drink per hour.

ALCOHOL CONSUMPTION CHART

FACT

***At .035%, a boater's ability
to operate a boat is impaired.***

The chart is only intended to be a guide. Actual values may vary by body build, sex, and current health status. Also, fatigue and other "stress factors" found in the boating environment can lower a person's tolerance level to alcohol.

NUMBER OF DRINKS IN A ONE-HOUR PERIOD

BODY WEIGHT IN POUNDS	1	2	3	4	5	6	7	8
90 - 109								
110 - 129								
130 - 149								
150 - 169								
170 - 189								
190 - 209								
210 - 229								
230 & UP								

12 oz. Beer = 4 oz. Wine = 1 1/4 oz. 80 Proof Liquor

BAC .01% to .05% Loss of judgment, decreased coordination, thinking dulled, changes in mood and behavior.

BAC .05% to .08% Operating ability impaired. Walking, speech, and hand movements clumsy. Blurred, split, or tunnel vision may occur. Judgment and boat operating ability impaired. Chance of accident is greatly increased.

BAC .08% and over Inhibitions and judgment seriously affected. Responses slowed and dull. Behavior greatly affected. High risk of accident. At .08%, you are legally under the influence of alcohol.

Developed from the California Department of Motor Vehicles *Driving Under the Influence* Chart.

ALCOHOL'S EFFECT ON BOATING

FACT

Alcohol impairs judgment and coordination — two qualities essential for safe boating.

Many boaters are not aware that the effects of alcohol can be more pronounced in the operation of a vessel than in the operation of a vehicle. This is due to various stress factors — boat and engine noise, sun, glare, vibration, wave action, temperature, and wind. Studies have shown that even when alcohol is not a contributing element, an operator's boat-handling skills can be greatly impaired from stress factors and fatigue. When these stress factors are combined with alcohol, the hazards associated with boat operation are intensified.

Alcohol, a depressant, slows your sensory abilities. Boating skills decline as alcohol begins to reduce:

- Depth perception
- Peripheral, color, and night vision
- Reaction time
- Balance and coordination
- Comprehension and concentration

After only a few drinks, boaters also begin to lose their ability to judge their degree of impairment and become overconfident, taking more risks. This factor combined with other effects of alcohol — loss of judgment and coordination and decrease in reaction time — lead to the inability to react appropriately to a dangerous boating situation.

ALCOHOL AND ACCIDENTS

Collisions

When boat operators are drinking, collisions with other vessels are more likely. Alcohol reduces your ability to detect the relative motion of other boats. (In California, collisions with other vessels account for more than 50 percent of the boating accidents.)

Falls Overboard

More than 80 percent of the people who die in boating accidents are drowning victims. Because alcohol reduces coordination and balance, your chances of falling overboard as well as drowning are increased. Alcohol also increases your susceptibility to hypothermia, reducing survival time in cold water. (Alcohol opens up the blood vessels close to the skin thereby increasing your body heat loss.) Because of the risk of accident, always wear your life jacket.

ACCIDENT REPORT

Boat operators and owners are reminded of the legal requirement to file a written boating accident report with the Department of Boating and Waterways when: (1) a person dies, disappears, or is injured and requires medical treatment beyond first aid, or (2) total damage to all vessels involved and other property is more than \$500, or there is complete loss of a vessel. Boating accident report forms are available through the Department of Boating and Waterways and most sheriff, police, and harbormaster offices.

LEGAL CONSEQUENCES

FACT

It is illegal to operate a boat under the influence of alcohol.

While there is no "open container" law for boats, as there is for vehicles, it is just as illegal to operate a boat under the influence as it is to drive a car while under the influence. California boating law specifies:

- Operating a vessel while under the influence of alcohol and/or drugs is a misdemeanor and could carry a penalty of one year in the county jail, or a fine not to exceed \$1,000, or both.
- Operating a vessel under the influence of alcohol and/or drugs and causing injury to another person may be ruled a felony by the courts and could carry a penalty of one year in prison and a fine of up to \$5,000.
- Operating a vessel under the influence of alcohol and/or drugs and causing death to another person is a felony and could carry a penalty of up to 10 years in prison.
- A person arrested for operating a motorboat under the influence may be requested to take a blood or breath test to determine blood alcohol concentration (BAC). Refusal to take the test may result in increased penalties (fine, or jail, or both) if convicted. A BAC of .08% presumes intoxication, a BAC of .05% but less than .08% may be used with other evidence to determine intoxication.
- A person under 21 with a BAC of .01% or more may not operate any motorized vessel, or manipulate water skis, an aquaplane, or similar device.
- Previous alcohol- or drug-related convictions of vehicle and vessel operators can be used to enhance penalties for persons convicted of subsequent vehicle or vessel violations.
- A person convicted of operating a vessel under the influence of alcohol and/or drugs must be ordered by the court to take and pass a boating safety course.
- If you are convicted of operating a vessel while intoxicated, the Department of Motor Vehicles may suspend or revoke your vehicle driver's license. The duration of suspension or revocation could range from 6 months to 5 years, depending upon the number and type of vehicle and/or vessel violations accumulated.

More than 150 state and local agencies are responsible for enforcing boating laws in California. Because of the serious problem of intoxicated boat operators, boating enforcement officers are increasing their efforts to reduce the number of alcohol-related accidents. The Department of Boating and Waterways is assisting in these efforts by training and equipping officers throughout the state.

DO NOT DRINK AND OPERATE A BOAT

FACT

***Coffee does not rid your body of alcohol.
The effects of alcohol remain.***

The Department recommends that boaters do not drink alcohol while boating. However, if you do drink while boating, an important tip to remember is that time is the only way to sober up. Remedies such as black coffee, splashing cold water on your

face, or fresh air have no effect on blood alcohol levels. Some ways to minimize the effects of alcohol include:

- Eat before and while drinking.
- Do not drink alcohol if you are on medication.
- Use moderation. The more you drink, the longer it takes to sober up.
- Remember that stress factors and fatigue lower your tolerance to alcohol.

Even passengers increase their risk of accident if they drink alcohol. The Department of Boating and Waterways' 1993 Accident Report found that in 66% of all alcohol-related fatalities, the victims fell overboard and drowned. In 41% of all alcohol-related fatalities, intoxicated **passengers** were the victims of, or contributed to, the accidents. These findings contradict the "designated driver" concept, which is now popular in some boating safety literature. The idea of designating a sober operator has its roots in automobile safety, where the possibility of drowning is not a factor, and may impart a false sense of safety if applied to boating.

Persons drinking alcohol on a vessel and falling overboard face the further danger of hypothermia, a condition in which the body loses heat faster than it can produce it, causing a dangerous lowering of body temperature. Death can result if the body temperature drops too low. Alcohol greatly increases the effects of hypothermia, including disorientation, hyperventilation and involuntary taking of water into the lungs, heart attack, and numbness and the resulting loss of the ability to self-rescue.

Boating and Waterways recommends that neither boat operators nor passengers drink alcoholic beverages while boating.

BOATING SAFETY CLASSES explaining required and recommended equipment for small boats and offering training in good seamanship are conducted throughout California by the U.S. Coast Guard Auxiliary, the U.S. Power Squadrons, aquatic centers at colleges and universities, and certain chapters of the American Red Cross. For information on Coast Guard Auxiliary and Power Squadron classes, call (800) SEA-SKIL (732-7545) or (800) 368-5647. The Department of Boating and Waterways offers a free home study course entitled *California Boating Safety Course*. For more information, e-mail us at pubinfo@dbw.ca.gov, or phone (916) 263-1331 or tollfree (888) 326-2822, or write: Department of Boating and Waterways, 2000 Evergreen Street, Suite 100, Sacramento, California 95815-3888. Visit our Website at www.dbw.ca.gov.