Alcohol and Safety Risks on board

Incidence

There are about 700 fatalities a year in the United States from recreational boating accidents. There are more from commercial accidents. Alcohol consumption has been linked closely to these deaths. More than half of the recreational boating deaths can be attributed to alcohol. I guess spread over all of the waterways of the U.S. this translates to just one or two people in each area so on a local level it does not seem like a big issue. But 700 deaths a year is a lot and must be taken seriously.

Against widely held public opinion, remarkably few of the alcohol related deaths involve collisions. Instead most alcohol related boating deaths are due to drowning. This risk is present for PASSENGERS as well as skippers. In fact 4 passengers die to each skipper! Even moderate amounts of consumption substantially increase the risk of drowning. Consuming larger amounts of alcohol increases the risk of drowning by 30 to 50 times higher than someone who has not been drinking.

According to the 2015 National Survey on Drug Use and Health (NSDUH), 86.4 percent of people ages 18 or older reported that they drank alcohol at some point in their lifetime; 70.1 percent reported that they drank in the past year; 56.0 percent reported that they drank in the past month. In 2015, 26.9 percent of people ages 18 or older reported that they engaged in binge drinking in the past month; something that is common on the water for a fun weekend of boating.

The Data to support this:

A collaboration between John’s Hopkins University in Maryland and the University of North Carolina at Chapel Hill, was published (Dec.19, 2001) in the Journal of the American Medical Association. These researchers reviewed 221 boating deaths recorded in their two states, in the years between 1990 threw 1998. About 80% of these cases involved passengers who had fallen overboard and drowned (not the skippers). Dr. Robert Foss, researcher at the UNC Highway safety Research Center and lead author, said that they were surprised that many of the victims were wearing personal flotation devises. PFD use however, was not a major focus of the study. They found that a little over half the deaths were alcohol related. The researchers also interviewed more than 3,000 boaters over three months during the summer. Inquiries were made about their drinking habits, and portable breathalyzers were used to determine the blood alcohol content of the participants.

According to this study even a blood alcohol level of just 0.01 (the result of just one or two drinks) and well within legal limits for most states, the risk to operators and passengers was increased 30 percent over people with no alcohol in their blood. Because of the many factors that contribute to the way alcohol affects various individuals (body
size, fat content, underlying disorders, etc.) just how many drinks it took to cause a problem was not specified.

It was no surprise to researchers that intoxicated boaters (passengers as well as skippers) are at greater risk. The chance of dying was more than 52 times greater when victims had a blood alcohol content of 0.25, according to the study.

Foss stated that they were trying to develop statistics similar to the extensive studies done about drinking and driving. The researchers did not set out to discover the adverse effects of alcohol on passengers. Further studies will look at this more extensively and will include more information about PFD use and drowning while intoxicated. “Frequently, people who have been drinking fall in the water, become disoriented, and drown,” explains Dr. Robert Foss.

Last USCG reporting in 2017 again shows that Alcohol is the third leading cause in all boating accidents.

**Effects of alcohol**

The effects of Alcohol are so vast, and different for each age group, that no comprehensive review be undertaken here. Below are just the salient points related to boating:

*Good balance* is essential on board. The risk of slip and falls, going overboard, and injury operating equipment on board are all greatly increased with alcohol use.

*Impaired judgement* caused by the lack of inhibitions while using; leading to high risk taking, and not being considerate of the wellbeing of the crew and passengers, puts everyone in harms way.

*Slows Reaction Time:* Alcohol severely diminishes your ability to react to several different signals at once. It takes longer to receive information from your eyes, ears and other senses, and still more time to react. Reduced night vision and the inability to distinguish red from green makes the intoxicated night boater an even greater hazard.

*Brain Fog:* Research shows that hours of exposure to boating stressors produces a kind of a fatigue, or "boater's hypnosis" which slows reaction time almost as much as if you were legally drunk. Adding alcohol or drugs to boating stress-factors intensifies their affects - each drink multiplies your accident risk.

**What you can do (PREVENTION):**

I think we all enjoy sitting at anchor and having a beer with our friends. It is part of Americana. I think however, that we need to remind ourselves of the dangers involved,
and educate our friends that are unaware. Then we can take measures to ensure safety aboard, like we do for all the other possibly dangerous situations on board.

In the case of being at anchor, we need to remember that people can and do fall overboard, and guard against it. People who have been drinking should not be the ones reaching over the side to get something in the water, nor should they be urinating over the side, or dancing on the foredeck. They should be safely in the cockpit. They should also be “cut off” when appropriate. Remember, they still have to get off the boat, a time in my experience when most injuries occur. I think common sense goes a long way here.

As for being underway: I personally enforce a policy of no alcoholic consumption. Now that this important paper has been reviewed, with it clearly showing that the danger of falling overboard is greater for passengers than for the skipper, I would recommend that passengers, as well as the active crew, be restricted in their alcoholic consumption. I think this is especially true on a powerboat as speed and rapid turns may become factors. In the above study the interviews were conducted with owners of small powerboats, sailboats were excluded. I believe sailboats were excluded as the risk for sailors is much less.

In the upcoming months I will be completing my series on medical kits, and include some of the lesions leaned from US Sailing’s Safety at Sea Seminars. Safe Boating.

Gino Bottino MD