Seasickness

"Perhaps no malady to which mankind is subject is productive of so much real suffering, with so low a percentage of mortality, as the peculiar affliction known as seasickness." (Scientific American, 1912).

In reviewing the 2012 Newport to Bermuda Race medical reports, there were 54 cases of self-reported seasickness on board vessels. I suspect, however, that the number of reported cases of seasickness significantly underestimates the actual incidence of this illness that may present in a full range of stages ranging from slight queasiness to severe nausea and vomiting. Anecdotally, I suspect that mild cases were not formally logged and some of the cases occurred without any thought toward preventative measures.

As a sailing community, we pride ourselves in taking safety seriously. Vessels and crew must comply with strict requirements in order to be certified to participate in the Newport to Bermuda Race. Race participants and organizers spend considerable time preparing for events that are unlikely to happen, but should they occur, could be catastrophic. Potential problems include such scenarios as dismasting, blown sails, failed thru-hulls, sinking, losing one's rudder, and retrieving of crew in man overboard situations. Preparation for the Newport to Bermuda Race is labor intensive with considerable attention to a long list of details for safety's sake. Unfortunately, one situation, which participants do not seem to take as seriously and is much more likely to occur, is seasickness. Make no mistake about it, seasickness can also be life threatening. The 2012 Race underscores the seriousness of this illness with one vessel requiring an evacuation, which was precipitated by seasickness. Another vessel on the return trip was also abandoned with seasickness playing a major role in the event.

This illness is a malady, which not only endangers the victim but also may place the rest of the crew in harm's way. Given the proper circumstance, no person is completely immune. Seasickness is not unique to sailors, as "motion sickness," the same illness, may occur in aircraft, automobiles, buses, your favorite carnival ride, and even trains. It is caused by the brain's inability to properly process sensory information, particularly from the inner ear, or the labyrinth apparatus, which is responsible for our sense of balance and position in relation to the rest of the environment around us. Seasickness occurs when our visual cues are mismatched with what our brain perceives. It is precipitated when we are unable to anticipate or line up visual cues with a particular, or perceived, motion. An excellent example is when sailors have to spend time in the bilge, while repairing an engine offshore. In this example, our brain senses a motion, vessel's movement, but the associated visual cues are absent. Add the smell of diesel fuel and the rest is readily predictable. Interestingly seasickness can also affect an individual in the absence of motion as may occur while viewing an action packed video game.

Additional factors that contribute to seasickness include: lack of sleep, anxiety, poor hydration, foods difficult to digest, certain smells, and finally, learned behavior.

Unfortunately, attempting to curtail seasickness after onset can be difficult. Furthermore, when one crewmember develops seasickness the likelihood of others on board developing this illness increases. Continued seasickness may lead to severe dehydration, an inability to function, and, if untreated, shock and possible death. For this reason, prevention is clearly easier than cure. Although thresholds vary from person to person, given the right circumstances everyone is susceptible. It is also very difficult to predict who will and will not become ill. The illness may be recurrent during a voyage although, if mild, most people will adapt after approximately 36 to 72 hours at sea. The symptoms include apathy, inability to focus, cold sweats, anorexia, excess salivation, yawning, belching, headache, pale complexion, and finally, nausea and severe vomiting. Victims might also feel a sense of impending doom.

How does one prevent seasickness? Knowing one's limitations and propensity for seasickness is a critical factor. Simple precautions for prevention include being well rested prior to embarking off shore, and getting adequate sleep while under sail. Alcohol should generally be avoided prior to a voyage, as this substance has an impact on the central nervous system, the stomach, and may lead to dehydration. Although the influence of diet is controversial, experience suggests one should probably avoid greasy or heavy meals prior to going off shore. Staying well hydrated is critical, and cannot be stressed enough. Being comfortable with bunking arrangements and attending to the personal storage of gear prior to setting off is important to minimize time below deck early on in a voyage. Getting caught up in the initial excitement of leaving port is tempting; however, immediate adherence to a proper watch schedule will help considerably in making sure crew members have enough sleep, which is an important factor for prevention.

A key element in prevention, however, is understanding your own personal threshold for medications that are known to prevent seasickness. These agents include scopolamine patches as well as medications like Dramamine, Bonine, and Stugeron (cinnarizine). One must keep in mind the fact that all of these medications have side effects, which will vary from individual to individual. These drugs have their pros and cons, based on their side effect profiles. Scopolamine patches may cause dry mouth, headaches, blurred vision, urinary retention as well as hallucinations. Dramamine and Bonine are extremely sedating. Stugeron, a very effective agent and better tolerated by some, unfortunately is only available in Bermuda and the UK. It too has potential side effects such as drowsiness and tremors. It is very importance to try out these medications while on land prior to any trip in an effort to see how they affect you as an individual. In addition, it is advisable to check with your physician to see if there are any contraindications to any of drugs depending upon your personal medical history.

Once severe motion sickness occurs, it may be too late to use oral medications and thus consideration needs to be given to rectal suppositories such as Prochlorperazine or Phenergan, as well as possible intramuscular injections. In the early stages of

seasickness, before severe nausea and vomiting occurs, one might get a jump on things by using any one of the agents mentioned above. All measures should be initiated at the first signs of trouble to prevent seasickness from progressing. This should include an attempt to maintain adequate hydration, preferably by taking small sips of an electrolyte solution such as Gatorade. Coca Cola and ginger ale also work and contain some electrolytes as well. Going topside, fixating on the horizon, and getting fresh air is often helpful, and if not too ill, engaging in a task such as taking the helm may be of benefit in reversing symptoms. Sleep, in a secure bunk is also an excellent remedy, as sleeping shuts down the "vomiting center" of the brain.

There are other alternative remedies, in addition to the above, that have been advocated, including the use of ginger, wristbands, acupuncture and magnets. I believe these interventions are of limited efficacy, but if used should not be relied upon as the sole source of treatment. Taking the most effective preventative medication prior to embarking on a voyage, either coastal or offshore, has been demonstrated to be effective, and is considered to be the best treatment available.

Given the above, the issue of seasickness, which is exponentially more prevalent than the more dramatic disasters we prepare for, should definitely receive far more attention when preparing ourselves for an offshore passage. Prior to any departure into blue water, watch captains and medical officers should have a well thought out management plan for seasickness. Crewmembers owe it to themselves and to their crewmates to try their preventative medications prior to going offshore in order to choose the medicine with the most tolerable side effects. Individuals prone to seasickness should have a very low threshold to begin a regimen of medications. It is often best to begin dosages prior to embarking on a voyage, and continue for at least the first few days, and to always be on the lookout for signs and symptoms of early seasickness even if a form of medication is already being used. Pride should never prevent one from using preventative medications or acknowledging the onset of seasickness. I know many well-respected sailors who routinely take preventative medications for the first 24-48 hours of a voyage, so as to avoid any down time.

For those captains and crewmates who consciously choose to ignore the possibility of seasickness until their time comes, they might take to heart my favorite quote as they look for the silver lining in the storm cloud of this humbling experience: "This is one of the compensations of the sea-sick. The extraordinary humiliation which accompanies their sufferings is very good for their moral characters." (James Owen Hannay, 1926)

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A list of *Key Issues You Need to Address with regard to Seasickness*, by the same author should be read by each crewmember. It is posted to the CCA Safety-at-Sea web page next to this article.

