

Staying Heart-Healthy While Contesting — Reducing Your Heart Attack Risk

Many of us in the Amateur Radio community enjoy contesting. Some like the challenge of operating for an extended period to test their personal endurance and/or to improve their operating skills. Others find the thrill of competition addictive, due to the adrenalin rush it creates (and they can't seem to get enough of it). Hams in this group talk about getting a mid-week mini-contest "fix" during a practice sprint or other contest-like event. Still others — like John Devoldere, ON4UN — view contesting as akin to Formula 1 racing and strive to build the best possible stations for competition and set their goals to win or to achieve a particular milestone. Those who are like me enjoy contesting for the new DX they can work, especially as the DX is eager to log as many stations as possible during a contest. Finally, many belong to contest groups and set their personal goals based upon trying to win the competition or helping their team to win.

The average age of the US ham has been steadily rising for several decades. Nearly all contest and DX-oriented ham operators are old enough to be at risk for a heart attack or the development of cardiovascular disease. I have learned that many within our hobby already suffer from heart disease. Tune around 75 meters any evening, and most likely you'll come across operators mentioning their encounters with the medical community — whether it be related to a new coronary stent, a defibrillator or pacemaker or recovery from coronary bypass surgery. Frankly, I try to avoid casual 75 meter operating, since my call sign reveals my medical background.

While I have been a ham for 32 years, my time with the hobby these days is limited. I spend most of my time practicing as a cardiologist, and this leaves a limited amount of time to operate. I like contests, as they give me a very efficient environment in which to work DX and enjoy testing my antenna farm at various times of the sunspot cycle. You may work me from another country too, as I try to combine overseas lectures on heart disease with radiosport. So far I have had the privilege of contesting from China, Chile and the Turks and Caicos.

The purpose of this article is to share some of my medical knowledge with the ham community to help you avoid having to see me or one of my cardiologist colleagues! I would rather have your QSL card than have



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to hand you my bill.

Preventive Maintenance

We all need to practice "preventive maintenance." Many of us routinely perform preventive maintenance on our ham stations. We regularly replace coax runs, repair broken antennas, replace or repair towers and keep our rigs, tuners and amplifiers in the best shape we can afford. This type of activity may not always be fun, but it's essential — especially if you're like me and hate doing repairs in the dead of winter. For those of us who live in Minnesota, a mid-winter antenna project can become a life-threatening experience!

The same advice pertains to everyone regarding our cardiovascular health. Modern science has identified 80 percent of all of the risk factors contributing to coronary artery disease and heart attack. These include issues such as smoking, obesity (eating *too* well at ham meetings), hypertension (high blood pressure), elevated blood lipids, lack of exercise, diabetes, renal disease and a family history of heart attack or coronary artery disease. The 2004 "INTERHEART" medical study¹ nicely outlines these risk factors, and I encourage you to study this paper if you have a particular interest in the topic.

Risk-Reducing Rules

One great lesson drawn from the past

three decades of medical research is that most heart attacks are preventable — provided individuals are willing to alter their lifestyles to reduce their personal risk and improve their health. I offer five suggestions for staying heart healthy during a contest or during ham operation of any nature. I hope you'll find them helpful and humorous.

Get regular exercise. No medication has been shown to be more effective than a daily exercise regimen lasting 30 minutes or longer.

Control your weight. We are seeing an epidemic of diabetes and heart disease in Western Society because of obesity. Keep your weight under the best control you can achieve. Learn your own body mass index, and aim for a BMI of less than 26.

Stop smoking (or never start). Tobacco use is a leading risk factor for developing coronary heart disease. There are lots of ways to effectively quit smoking, and doing so will — within just four weeks — reduce your risk of having a fatal heart attack and cut your long-term risk of suffering a heart attack.

Control your blood pressure and diabetes. Work with your physician to keep both of these issues under the best possible control.

Maintain favorable blood lipids. It's important to know your good (HDL) cholesterol and bad (LDL) cholesterol values. Keep them "optimized" per your personal physician's recommendations. For most of us, that means keeping the HDL below 40 mg/dl and LDL below 100 mg/dl.

At times you may need preventive maintenance testing, such as a stress test or an electrocardiogram. Your personal physician can guide you on these issues; the key point here is that an ounce of prevention may prevent a *ton* of problems.

Keeping QRV

All hams understand the importance of staying active in the off-season so our operating skills are honed when contest season starts. The same is true with our health. Stay physically active. Walk regularly. If you are able, consider biking, swimming or even running. Keep your muscles toned with regular isometric exercise (weights or other stretches).

Nothing in the medical literature has been shown to be superior to regular physical activity at promoting cardiovascular health

and reducing one's risk of dying suddenly from a heart attack. You don't need to set a speed record walking, swimming or biking. Enjoy it, but do it for your health and for your hobby.

Regular physical exercise also increases endurance, a trait that will enhance your concentration and performance as a contestant.

Healthier Contesting

The next three suggestions relate to behavior *during* contests. Many may find my advice hard to follow, especially considering our competitive nature as humans and ham operators. Yet, I think my advice is appropriate for hams to consider and to incorporate into their contest operating strategy.

QRT! I believe it's important to take sleep and rest breaks during long contest periods. Most contestants underestimate the importance of sleep to their overall performance and to their health. Studies consistently show that chronic sleep deprivation (ie, less than seven to eight hours per night) is significantly associated with an increased risk of heart disease and premature death. During a 48-hour contest, I try to take breaks for sleep and rest. I realize that these time-outs may mean I'll never win one of the big ones, but I hope to avoid the "Big One" so I can enjoy contesting and all of the fun non-ham activities life offers.

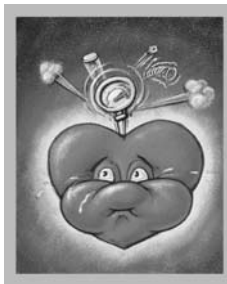
I've read articles in *NCJ* and in other ham publications regarding how to "reset" one's biological clock through short naps. The problem with these suggestions is that while they are factually correct, they are biologically impossible to replicate! Medical research consistently shows that we need at least three to four periods of "REM sleep" each night to get fully refreshed. A 45 minute "power nap" will never equal a night's sleep. It certainly may be expedient or practical to nap a couple of times during a 48-hour contest, but it's not heart-healthy.

Most critical-task industries, such as commercial airlines and commercial transportation, have strict policies about time off from active duty and work. These policies are aimed at making sure that those engaged in critical tasks are fresh and alert when they're on duty. Perhaps our logging accuracy and contest enjoyment would improve if we got a bit more rest while contesting. W0GJ (also a physician) and I jointly do the ARRL International DX Contest SSB from Turks and Caicos. We intentionally schedule each other four-plus hours of sleep time each night during the contest plus multiple rest breaks during the day. We also try to get plenty of rest upon our arrival, even though it is tempting to make lots of pre-

contest QSOs.

QSY! By this I mean backing away from the radio and doing something else. Contesting is hard work, especially for those who compete to win or to improve their previous score. I frequently find myself struggling with some minor malfunction in the shack — RF in the keying line of the computer, a slow computer, a computer lockup and the like. All of this adds stress to any contest.

I am by nature a competitive person, so I try to improve my score and performance with each contest. I like to work new countries or zones during contests. It can be challenging to get the rare DX to hear us at the end of the CQ World Wide DX Contest SSB just as we are seeing the sun set and the DX is seeing it rise. This is especially true if one lives in the northern latitudes, where propagation can suffer during these periods of low or no sunspots. Frequently during a contest I find myself frustrated or irritated over such issues, but I have to remind myself that it's *just a hobby*. If you are like me, you'll find that it's important to QSY occasionally.



It is easy at my QTH to QSY. We have family dinner hour, and our four children sit down at the table with my wife and me. I often will run the kids to an event, party or shopping during a contest weekend. Sometimes, the QSY activity comes at an inop-

portune time — when openings to Asia are at their best, for example. These distractions are good for our mental health, however.

Yes, this advice directly contradicts conventional contesting lore and the rule that "chair time predicts scores and performance." Yet, if you are finding the situation irritating or stressful, I suggest taking a short break to catch your breath and regain your composure. The "INTERHEART" medical study demonstrated that stress and mental anguish are important contributors to developing a heart attack. So, QSY for your heart, your hobby and your health!

Watch your SWR! I don't need to explain the importance of a good transmitter-to-antenna match to contestants, but what about your *health* SWR? Contesting may create an internal high-impedance mismatch. This can occur when your emotional kilowatt — coupled with high energy from flowing adrenalin, nervous tension, anxiety and anticipation — creates a few sparks. Drooping current flow (QSO rate) and crowded band conditions can raise one's "cardiac SWR." It's easy to experience cardiac symptoms during such a state and then to talk yourself into ignoring them, since you're focused on the contest.

Heart Attack Symptoms

What signals a heart attack? The warning

symptoms are well defined: Chest pain, chest pressure and chest discomfort that radiates into the left arm or one's jaw are the common ones. Less well known symptoms include a burning feeling in the chest (like indigestion), unexplained shortness of breath, gastrointestinal distress unprovoked by food intake or medication and, in the elderly, confusion and fainting.

I tell my patients that the symptoms of a heart attack are persistent and worsen over the first hour or two. Just don't ignore them. Most, if not all, people suffering a heart attack feel "sick" and realize something is wrong.

What should you do if you think you're having a heart attack? I suggest calling 911 and get to the nearest hospital for an evaluation. It is better to be checked out by an emergency department physician than to check out and be QRT permanently.

Some misperceptions persist regarding heart attack symptoms. Frequently people misinterpret a racing or pounding heart as a heart attack. I understand why a racing and pounding heart can be frightening and disconcerting, but heart attacks present differently in the vast majority of patients. I advise that if you have such a *tachypalpitation*² episode and feel faint or lightheaded, it's best to have it evaluated in the hospital. While it may not represent a heart attack, it may be another serious heart condition such as *atrial fibrillation*³ or *supraventricular tachycardia* (SVT).⁴

Just as an intermittent short or high SWR in the shack often precedes the failure of an antenna system, the symptoms of a heart attack may precede the actual event in a mild way. If any of us see an intermittently high SWR, we try to fix it before the contest. The same advice is true for our hearts. *Listen to your body*. Most patients with a heart attack have had warning symptoms for a few days to a few weeks ahead of time. If you are having unexplained indigestion or chest discomfort or suddenly become short of breath, consult your physician! Do *not* put it off until after the contest.

I hope my advice is helpful to you and to your cardiovascular health. Stay well, stay fit, and I'll see you in the pileups! Thanks to KØIR for his critical suggestions for this article.

Notes

¹ Yusuf, S., Hawken, S., Ounpuu, S., Dans, T., Avezum, A., Lanas, F., McQueen, M., Budaj, A., Pais, P., Varigos, J. and Lisheng, L., *Lancet*, Sep 2004; Vol 364, No 9438: pp 937-952, Elsevier Ltd, London.

² Abnormally rapid, violent or fluttering of the heartbeat, usually noticeable to the patient.

³ Irregular and rapid random contractions of the upper chamber of each half of the heart.

⁴ Abnormally rapid, violent or fluttering of the heartbeat focused on the area above the heart's ventricles. **NCJ**