

**Preventive Medicine**  
**By Ralph Bovard MD**

*“Death thou comest when I had thee least in mind”.*

-Anon

Wade Mulhern’s death several years ago was a shock for all of us involved with Minnesota swimming. Sometimes we forget the ephemeral nature of our all too brief days and nights on this earth. In 1900 the average life expectancy was about ~45 years; currently in the US it is about ~75 for men and ~78 for women. Most of us today are insulated from the events of childbirth and death in ways that our grandparents and predecessors were not. Though we are rarely prepared for these rites-of-passage, it is important for us to discuss/deal with them in a healthy way. Wade’s funeral/celebration brought out the best in his friends and family. He would have been proud to have been honored joyfully and grieved so deeply.

We will all die; modern medicine cannot alter that divine plan. That one might die prematurely (and thus deprive friends and loved ones of the joy of our companionship) however, is another issue, and one in which modern medicine and technology can be an ally. Listed below are some comments and suggestions which may lead you to a further discussion of health related issues. Clearly, the medical needs of masters swimmers, ages 19-100+ , vary considerably with age and gender. Prevention, however, is the key ingredient.

**Age 19-40:** This is usually a healthy group with few problems. You often go years between physicals except as required for job placement (in which case you may not be as honest as you should be regarding potential maladies or in asking questions). At some point in your twenties (and every few years thereafter if normal) you should check your cholesterol, your blood pressure, and know your resting heart rate (it should be relatively constant on awaking), and maximum heart rate (max HR-resting HR= cardiac HR reserve). Do a VO2 max test so you know your cardiac capacity. If you have any family history of medical problems they should be addressed. It is good to have a regular primary care or internal medicine doctor to call in case you have problems. If you do any

traveling see a caregiver (doc, RN, or PA) knowledgeable in vaccines for typhoid, hepatitis A & B, polio, cholera, yellow fever, rabies, meningitis, etc. Your greatest risk of injury/death while traveling abroad is by motor vehicle accident.

**Age 40-60:** You should probably have a “complete” physical exam at age 40. Even if you get a clean bill of health with a normal “resting” EKG and blood work, you still need to report and be alert for symptoms that might indicate underlying cardiovascular disease or other medical problems. Subtle symptoms of chest tightness, shortness of breath, racing pulse, dizziness, arm or jaw pain, headache, weight loss, are red flags that need to be evaluated with more elaborate tests. We have the technology now to detect problems previously missed. Exercise stress tests, cardiac ultrasound, nuclear medicine scans, MRI studies, or possibly angiographic imaging are tools that may help to uncover subtle problems. Treatment may range from dietary change to activity modification (a small price to pay), pharmaceuticals, balloon angioplasty or stent placement, surgery, or “ablation” of centers of cardiac irritability. Everyone over 40 should take an aspirin daily to help reduce cardiac clot/thrombus formation. The medical technology in the Twin Cities is cutting edge with a number of major medical product leaders in our midst including: Medtronic, 3-M, Guidant, Boston Scientific, and St. Jude. Despite some HMO issues, the quality of care delivered remains superb. Health insurance pays for colon cancer screening at age 50, but if there is any family history (of colon CA or polyps) you need to be screened with colonoscopy starting in mid 30’s. By the time you get symptoms it is usually too late. It is a painless procedure and reassuring. I know.

**Age 60+:** Everything for ages 20-40 remains true. Prostate issues for men are worth a discussion with your doctor. There are a significant number of false positive blood tests (PSA=prostate specific antigen) so it is important to weigh the risks

& benefits of additional tests/treatments. Osteoporosis and the potential for fracture risk are major issues for women, though, in truth they should be addressed throughout life. Women reach their peak bone mass in their late twenties so adolescence and the post college years are crucial in maximizing that mass. From then on all women are losing bone mass, but the rate at which that loss occurs can be significantly influenced by physical activity and diet. Bone strength will follow muscle mass and swimming builds muscle so the notion that the buoyancy effects of water limit swimmings benefit in this regard are hogwash. Be active. Swim, cross-train, lift weights, eat well. You have to stress your skeleton with exercise for the calcium to be incorporated; just taking 1000-1200 mg calcium supplements, Oscal, etc. isn't enough. DEXA scans are generally done too late, ie age 65...after the horse is out of the barn, so to speak. Hormone replacement therapy is a currently much debated topic and requires discussion with your doctor.

There are several excellent books on health & wellness/fitness in general. You will learn things you didn't know....guaranteed:

- Stong Women Stay Young - Mirium Nelson PhD (~\$12)
- The Fitness Factor - Lisa Callahan MD (~\$24)
- The Heart Rate Monitor Book- Sally Edwards
- Waterlogged- Tim Noakes MD
- Rethinking Aging- Nortin Hadler MD
- Next Medicine- Walter Bortz MD
- The Tiger's Wife- Tea Obreht (a fascinating meditation on life & death through the Balkan civil war and myth; the topic is "suddenness" vs foreknowledge)

Specific Women's Health Concerns: Should get annual exams for PAP screening once sexually active (nuns don't get cervical cancer) and understand the risks of sexually transmitted diseases (STD's). It is estimated that >40% of college women have human papilloma virus (HPV) which increases the risk of cervical cancer; some 80% of STDs (especially chlamydia and gonorrhea) which

can cause pelvic inflammatory disease and infertility (increased risk of ectopic pregnancy morbidity) are asymptomatic in women. Men typically have symptoms but are not always communicators as is known. Birth control pills don't protect against STD's/HIV. Protect yourself. Routine breast exams and mammograms depending on your age and family history.

Specific Men's Health Concerns: Males need to check themselves regularly for testicular masses. The most common age is 15-35 but can occur before and after. Don't be shy if you find any mass or lump (painless or not); see your MD and get an ultrasound. I had a friend die of this in college; and have known personally 4 fellows with it. Nearly 100% treatable if caught early; otherwise may be fatal. Read Lance Armstrong's book It's not about the bike.

Recommendations:

- Don't smoke.
- Get at least 50 hours of sleep per week.
- Always wear your seatbelt.
- Exercise regularly-every day if possible- and ideally 5-6 hours/wk. Need to burn 2000 kcal/wk to maintain weight. Ideally, weights 2-3 times/wk, cardiovascular 4-6 times/wk, and yoga/stretching program if able.
- Balanced diet/meals; it's all about kcal in vs kcal out(or Cal whichever term used): 30% carbohydrate/30% fat /30% protein /10% alcohol (ie one 12 oz lite-beer = 120 kcal. Remember 3500 kcal = 1 pound adipose tissue (fat) whether you are consuming it or burning it. If you drink one 20 oz soft drink (250 kcal) daily above your BMR (basal metabolic rate) you will gain ~ #2/month or potentially ~#24/year. A 12 oz soft drink or half a piece of pie =~150 kcal; it will take walking 30 minutes at a 4 mph pace (fast) to burn that off.

- No refined sugars: No soft drinks, no white sugar on your cereal. In 1900 the average American ate #5 of sugar; today it is #142.
- Alcohol in moderation (2 glasses/day)
- Keep your weight in normal range, ie a BMI (body mass index) below 30. Calculations on the web.
- Take an aspirin daily if over 40.
- Get routine physical exam and screening test. If something changes, see your doctor for evaluation.
- Dental hygiene- poor dental hygiene can affect cardiac health via bloodstream.

**Actual causes of mortality in America (per year):**

- Total deaths/year = 2.5 million
- Cardiac disease – 600,000
- Cancers-575,000 [Lung, Colon, Breast, Prostate, Brain, Blood system, etc]
- Nicotine- 400,000
- Obesity/lack of exercise –300,000
- COPD-140,000
- Strokes-130,000
- Accidents-120,000
- Alzheimers-83,000
- Diabetes- 70,000
- Kidney disease-50,000
- Influenza & Pneumonia-50,000
- Motor Vehicle Accidents-38,000
- Suicides-38,000
- Firearms-31,000
- Alcohol related-25,000
- Non-narcotic pharmaceuticals-22,000
- Misuse of prescription narcotics ~ 16,000
- Anti-inflammatory use-15,000
- MRSA-15,000
- HIV- 8,000
- Acute asthma attacks--~5,000
- People killed when car/motorcycle hits a deer on highway ~200
- Anaphylaxis- peanuts- 150-200
- Anaphylaxis-bee/wasp stings ~54
- Lightening--~53
- Bear attacks-1
- Shark attacks-1

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