
THE HEART OF AN OLYMPIAN

By John Morton

When a former Olympic biathlete had cardiac surgery at DHMC, he learned some facts about a part of his anatomy that he'd taken for granted—and even some lessons about determination, or “heart” in its figurative sense.

It was March 22, 2003, and spring had officially sprung two days earlier. The temperature was several degrees above freezing in Presque Isle, Maine, but 20 inches of snow still covered the ground. I had traveled over to northern Maine from my home in Thetford, Vt., for the Nordic Heritage Spring Series—several days of cross-country ski-racing designed to extend the competitive season and to provide an opportunity for promising youngsters in Aroostook County to race against some of the top skiers in the nation.

I hadn't yet fully recovered from a chest cold I'd acquired two weeks earlier during a grueling 50-kilometer race (that's 31 miles, for those not used to metric distances) from Great Glen to Bretton Woods in northern New Hampshire. Nevertheless, I didn't want to miss the chance to wrap up the season in Presque Isle. I'd registered for two events calling for classic skiing technique, a straight forward-and-back gliding motion, as well as for one freestyle event, a technique that's sort of like speed skating on skis.

But only moments into the 10-kilometer classic event, I had the distinct sensation that accompa-

nies skiing at high altitude—a constriction at the base of my throat and a tingling in my fingers. But Presque Isle's elevation is only about 500 feet above sea level. Assuming that I was simply feeling the lingering effects of the cold, I throttled back on the tough climbs and managed to finish the race.

The 15-kilometer freestyle event the next day was just as frustrating. I decided that staying in Presque Isle for the 30-kilometer classic was pointless, so I packed up early and headed home.

A few days later, I was in New Gloucester, Maine, at Pineland Farms—an agricultural, educational, and recreational center recently created on the campus of the state's former mental institution. I had been hired a couple of years earlier to lay out a trail system there, and thanks to the bountiful snows of 2003 I was back to design some extensions. As the Pineland Farms officials and I scouted out locations for the new trails, I happened to mention the name of a local surveyor and wetlands expert who had become a friend during some previous trail projects I'd done in that part of Maine. I was stunned to learn that my surveyor friend had suffered a heart attack and died while cross-country skiing just a few months earlier.

The unusual sensations I had experienced during the races at Presque Isle had attracted my attention, but the news of my friend's fatal heart attack jolted me to action.

When I returned home from Pineland, I called my doctor, Ed Merrens, who had been one of my Nordic skiers during my coaching days at Dartmouth 20 years ago. He assured me there was probably nothing to worry about, but just to be sure he

John Morton represented the U.S. in the biathlon at the Winter Olympics in 1972 and 1976. He was also a coach or team leader of the U.S. biathlon team at four subsequent Olympic Games and the head coach of men's skiing at Dartmouth College from 1978 to 1989. He now designs cross-country trails; competes on the masters running and skiing circuit; is a regular commentator for Vermont Public Radio; and writes about the outdoors from his home in Thetford, Vt. He has contributed two previous features to DARTMOUTH MEDICINE: “Drama on Denali” (Winter 1999), about a 1998 mountaineering adventure by a DMS otolaryngologist; and “Unforgiving Forests” (Winter 2000), about a 1959 plane crash that took the lives of two DMS faculty members.

scheduled a stress test. Within days, I was jogging on a treadmill at DHMC, with instructions to sound off if the sensations I had experienced in Presque Isle returned. It was some consolation that it required a reasonably steep grade and a brisk pace on the treadmill to recreate the constricted breathing and the tingling fingers.

The test results were conclusive: there was a 50-percent occlusion of the main artery supplying blood to my heart. That was the bad news. But there was some good news as well. Thanks to my high level of physical activity, the problem had been identified early—probably before the restricted blood flow had damaged my heart. Sadly, many people in our country have become so sedentary that their arteries are 80- or 90-percent restricted before any dramatic symptoms are apparent—and by then their heart is often irreparably damaged. An additional piece of good news was that my recovery should be quick and complete, since I was otherwise fit and healthy.

Even so, it was quite a shock to be diagnosed with heart disease. I'm 57 years old and have never smoked. My most recent blood test had shown a quite acceptable cholesterol level of 177. And I have been a dedicated (some would even say fanatic!) endurance athlete for 40 years. I began competing in cross-country skiing in high school and continued in college. My senior year at Middlebury, I missed being the NCAA champion by four seconds in a 45-minute race.

I was even able to finagle serving three of the four years of my Army obligation on skis, assigned to the Winter Biathlon Training Center at Fort Richardson, Alaska. Biathlon—an athletic event with military roots—consists of cross-country skiing combined with target-shooting. At Fort Richardson, we were training on snow by October 1 and had usually logged 1,200 kilometers (almost 750 miles) on skis before our first race.

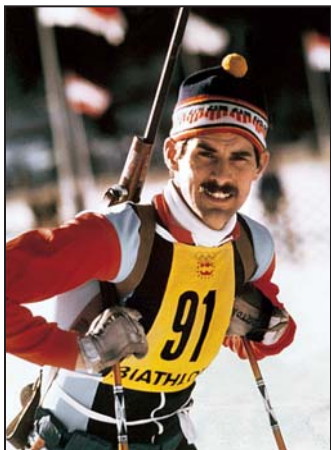
That experience led to my participation in two Winter Olympics—Sapporo in 1972 and Innsbruck in 1976—plus seven Biathlon World Championships and a couple of military ski championships. After retiring from international competition in 1976, I continued to ski, mostly for the satisfaction of being fit. Through the years, as job and family responsibilities have permitted it, I've enjoyed competing in masters cross-country competitions throughout the region. In March of 2000, I joined several friends for a week of classic skiing—for 444 kilometers—across Finland.

My off-season training for Nordic skiing consists of hiking, cycling, and a lot of running. As a result, I've finished more than 50 marathons, from Maine

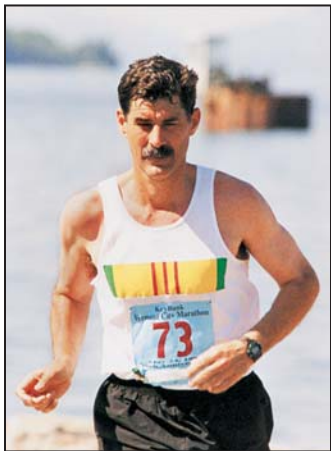


Author John Morton, who competed in the '72 and '76 Winter Olympics, is pictured here in the mid-1990s on an Upper Valley ski trail. He's sporting the U.S. biathlon team uniform from the '92 Games in Albertville, France, where he was the biathlon team leader.

So although I might have worried that I'd someday be a candidate for knee or hip replacement surgery, I never for a moment questioned the durability of my heart. If exercise was the key to a healthy heart, I figured mine would still be beating long after the rest of me had collapsed in a heap.



Morton competed internationally during the 1970s—above at the '76 Olympics in Innsbruck. He now runs regularly—below in the '98 Vermont City Marathon—and also bikes and skis.



to Alaska, as well as hundreds of shorter road races and trail runs. In July of 2002, my wife, Kay, and I pedaled 100 miles in the Audrey Prouty Century Ride, an annual event that raises money for research at Dartmouth's Norris Cotton Cancer Center. And last October, I ran the Marine Corps Marathon in Washington, D.C., and was pleased to finish third in my age group with a time of 3:09:40.

So although I might have worried that I'd someday be a candidate for knee or hip replacement surgery, I never for a moment questioned the durability of my heart. If exercise was the key to a healthy heart, I figured mine would still be beating long after the rest of me had collapsed in a heap of worn-out parts.

Anyway, back to last spring, after further consultation with Ed Merrens and a Dartmouth cardiologist, Dr. Andy Torkelson (who, like both Ed and me, is also a Nordic skiing enthusiast), I was scheduled for a catheterization. On April 22, Kay accompanied me to DHMC for what is now a routine procedure—threading a tiny cable, or catheter, from a large blood vessel in the groin up into the heart to quite literally take a look at the obstruction in the artery.

In many cases the catheter can then be used to perform an angioplasty—a procedure involving the insertion of a tiny, inflatable device at the end of the catheter; this “balloon” expands, forcing the plaque responsible for the obstruction out of the way. Then a tiny mesh stent, or reinforcement, is installed to keep the artery open. The procedure is done under local anesthesia, so you can actually watch on an overhead TV screen as this tiny wire pokes around in your heart.

Soon after the doctor manipulating the catheter pointed out my obstruction, he withdrew the instrument rather than beginning the angioplasty, so I suspected that my situation was more complicated than some. I learned later that the occlusion was too close to a junction of two arteries to be suitable for a stent. But I was assured that a bypass operation would almost certainly enable me to return to my accustomed level of physical activity.

On May 13, Kay and I met with Dr. Anthony

DiScipio, the cardiothoracic surgeon scheduled to perform my bypass. Coincidentally, Dr. DiScipio was a Dartmouth Medical School classmate of another of my former Dartmouth skiers, Dr. Chris Bean, now an orthopaedic surgeon in Montpelier, Vt. In addition, I quickly learned that Dr. DiScipio was training for an annual bicycle race up New Hampshire's highest peak, 6,288-foot Mt. Washington. Needless to say, we hit it off immediately. I have to admit, however, that he got my attention when he warned me that for half an hour, while he performed the bypass, my heart would be stopped and my blood oxygenated and circulated by a machine. Come to think of it, slicing up and stitching a beating heart would probably be pretty tricky.

Dr. DiScipio was even understanding enough to let me participate in the 15th annual Vermont City Marathon on May 25. Since Kay was the captain of a women's relay team, and I was one of only 19 men and women who had run in the race every year since its establishment (out of more than 5,000 annual registrants), I hated to miss the event. I agreed to the doctor's reasonable “no running” order and walked the 3.3 miles of the first relay leg before cheering Kay and her teammates on to a fourth-place finish in the women's 40-to-50 age category.

Three days later, on Wednesday, May 28, several family members accompanied me through the prep preparations. I felt reasonably relaxed, thanks to the optimism and reassurance provided by several running and skiing buddies who are doctors and other medical professionals. After the inevitable delays, the anesthesiologist arrived. He cheerfully coached me through what was about to happen, prepared an injection, then said to Kay, “If you want to give him a kiss he'll remember, now's the time.”

He wasn't exaggerating. Several hours later, I came to in the Cardiothoracic Intensive Care Unit and began discussing the joys of pond hockey with a nurse from Newfoundland. I had absolutely no recollection of the fact that Kay; my daughter, Julie; my stepson, Blair; and my running buddy John Donovan had visited me as soon as they were permitted in following the operation. Apparently I had been coherent enough to reassure them about how I felt and had even managed an appropriate military response, “Carry on,” when Donovan saluted on his way out.

By the time Kay returned on Thursday morning, I had been relocated to the Intermediate Cardiac Care Unit and was admiring the view of the New Hampshire hills from the window of my fourth-floor room—eager to begin my first shuffling excursions around the central nursing pod. Later that day, and again on Friday, Kay joined me for “exercise classes,” and our walks grew longer.

Having coached skiers for many years, I knew the value of positive thinking and visualization. I kept reminding myself of the optimism the doctors had expressed and of their assurance that I'd have a quick recovery. Two minor incidents challenged that confidence. The day after the operation I was given an incentive spirometer—a plastic contraption that measures the strength of your breathing. I was told to inhale through the device as deeply as possible 10 times every hour. The spirometer had a scale from zero to 4,000, but that first day I could barely get the indicator to move; even 500 seemed out of reach.

"Do patients really get this thing up to 4,000?" I asked a nurse.

"Oh, sure," she answered. It was discouraging to see how far I had to go before I would be breathing normally again.

The second incident involved pain medication. When I awoke in Cardiothoracic Intensive Care following the operation, I remember feeling as if I were floating blissfully above the bed. Such is the power of morphine. The next day, in the Intermediate Cardiac Care Unit, I was switched to Percocet, administered every four hours.

Late that afternoon, enjoying a visit from my daughter, Julie, I failed to notice that my 4:00 p.m. fix of Percocet had not been delivered. By 5:00, I had moved up the scale from mildly uncomfortable to definitely hurting. It was 5:30 before an apologetic nurse brought my medication, but by then I was well behind the pain curve. It was a miserable night until another sympathetic nurse finally sought permission from the doctor to administer a dose of morphine to get me back ahead of the pain. The educational part of the incident was experiencing the intensity of the pain when the drugs wore off, as well as recognizing how effectively modern drugs can mask such pain.

By Saturday morning, after visits from Drs. Di-Scipio, Torkelson, and Merrens, I was cleared to go home, pending a couple of out-processing requirements. I had to donate more blood for additional lab work—a procedure that would have brought on a cold sweat and perhaps a fainting spell only a short time before but that was no longer any big deal. I also had to have a chest x-ray to verify that my recovery was progressing normally. Again, no problem. And, finally, I had to defecate.

I found it a bit ironic that you can bounce back from having your chest cracked open like a Thanksgiving turkey and your heart stopped for half an hour, but the ultimate requirement for leaving the hospital is to perform one of the most elemental bodily functions. But after two days of round-the-clock pain killers and a liquid diet, moving your

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bowels isn't that easy. Fortunately (or unfortunately, depending upon your perspective), the nurses have their time-tested methods, so I was on the way home by noon.

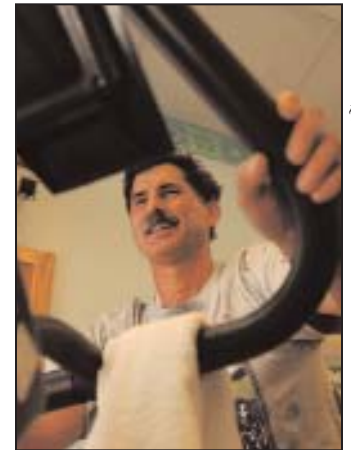
Thus began phase two of my recovery program. I advanced to very slow walks out the driveway to fetch the mail, experimented with the dosage of my pain medication for maximum effectiveness but minimum digestive-tract disruption, and gained weight thanks to wonderful home-cooked meals prepared by Kay and several thoughtful families in our church.

Another aspect of my recovery was participation in cardiac rehab classes. I resisted these classes initially, for a couple of reasons. For starters, the classes were three times a week at DHMC, and since I wasn't allowed to drive for a month following the operation, I'd be inconveniencing Kay or someone else to provide me with transportation.

Secondly, with my coaching and racing background, I figured I knew how to get back in shape as well as anyone. But Marianne Lillard, Wendy Hubbard, and Becky Barwood—the fitness experts in DHMC's Cardiac Rehab Center—dispelled that misconception pretty quickly. At my first session, I met the seven other members of my class: men and women of various ages, physical states, and occupations who were linked together by heart disease. We learned to abrade specific locations on our chests and apply the electrodes that would send signals to a computer that monitored our vital signs during our exercise regimen. After a four-minute warm-up, we did three 10-minute sessions on each of the machines in the lab: treadmills, stationary bicycles, and rowing ergometers. Since all the class members were recovering from some sort of cardiac incident, the instructors carefully monitored our workloads and heart rates. In spite of the diversity of the class, there was a cheerful, cooperative atmosphere in the sessions—perhaps due to the awareness that we had all been given an early warning or, in some cases, a second chance.

Many of the exercise sessions were followed by lectures on topics related to heart disease. This was another aspect of the program that I initially dread-

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After several months of cardiac rehab classes at DHMC—above—plus some lifestyle modifications, Morton was cleared by his doctors to resume running—below, at a fun run in Thetford, Vt.



BOBIE HYUNG SQUIRREL GRAPHICS