MEN AND SEXUAL HEALTH
GUIDE TO FITNESS AND VASCULAR HEALTH
PERIPHERAL ARTERIAL DISEASE IN MEN
VASCULAR HEALTH AND NUTRITION
ATHLETICS AND VASCULAR HEALTH
VENOUS INSUFFICIENCY IN MEN
ANEURYSMS IN MEN
Dear Reader:

The Center for Vascular Awareness, Inc. is a 501(c)(3) not-for-profit organization dedicated to fostering mainstream consumer and clinical consciousness of vascular health standards, disease, prevention, and treatment. Maintaining and improving vascular health is a critically important issue. Patients and clinicians can benefit from learning about the impact of everyday lifestyle choices, risk factor modification, current ongoing vascular research, as well as medical, minimally invasive endovascular, and surgical treatment options for vascular disease.

The Center for Vascular Awareness depends on the generosity of our readers to help us fulfill our mission. Your gift will help us to continue to bring this journal to the public for free and enable the support of essential programs and services.

You can donate by sending a check to:

Center for Vascular Awareness, Inc.
5 Pine West Plaza, Suite 501
Albany, NY 12205

Your gift is tax-deductible. Our federal tax ID number is 20-1764046.

Thank you for your support!
LETTER FROM THE CHIEF MEDICAL EDITOR
Manish Mehta, MD, MPH, Center for Vascular Awareness, Albany, NY

A MEN’S GUIDE TO VASCULAR HEALTH
John B. Taggert, MD, The Vascular Group, Albany, NY

PERIPHERAL ARTERIAL DISEASE IN MEN
Philip S.K. Paty, MD, The Vascular Group, Albany, NY

MEN’S VASCULAR HEALTH AND NUTRITION
Andreas M. Spirig, MD, The Vascular Group, Albany, NY

MEN AND ANEURYSMS
Sean P. Roddy, MD, The Vascular Group, Albany, NY

ERECTILE DYSFUNCTION: A BAROMETER OF MALE VASCULAR HEALTH
Andrew R. McCullough, MD, Albany Medical College, Albany, NY

A PATIENT’S STORY: MIKE
Sharon Cillis, RN, Center for Vascular Awareness, Albany, NY

VENOUS INSUFFICIENCY: NOT JUST A WOMAN’S PROBLEM
W. John Byrne, MD, The Vascular Group, Albany, NY

RESEARCH: ATHLETICS AND VASCULAR HEALTH
Deborah Hill, RN, CRC & Manish Mehta, MD, MPH, The Vascular Group, Albany, NY

YOUNGER MEN ARE DIFFERENT
Benita Zahn, MS, WNYT, Albany, NY
Together, heart and vascular disease are the single largest cause of death among men in the United States.
Vascular Health Facts Men Need to Know

Peripheral arterial disease (PAD), erectile dysfunction (ED), aortic aneurysms, and venous insufficiency share many important risk factors, when they occur in men. Although some of these risks are genetic and cannot be modified, there are lifestyle changes that can help men reduce the odds of developing these disabling and often life-threatening conditions. The risk factors for developing vascular disease are very similar to those for heart disease; together, heart and vascular disease are not only the single largest cause of death among men, they also make up the fastest-growing healthcare crisis in the United States today. Recognizing the connections between exercise, nutrition, obesity, diabetes, and high cholesterol is vital to creating an action plan that allows men to have some control over their vascular health and can give them the power to limit the lifestyle-disabling effects of PAD, ED, stroke, and heart attack.

I am excited to have input from nationally renowned faculty members for this issue of V-Aware. The discussion begins with Dr. John Taggert, who outlines a men’s guide to vascular health and discusses how to best develop treatment strategies and a balanced approach to healthy vascular living. Dr. Philip Paty covers PAD in men including the implications of risk factor modification, the importance of early recognition, and available treatment strategies. Dr. Andreas Spirig outlines practical and effective approaches to nutrition and exercise and helps us understand the daily dietary impact of antioxidants, salt, sugar, and cholesterol. Dr. Sean Roddy tells us about how men face particular risk factors for developing aortic aneurysms and what can be done so that early diagnosis and treatment can prevent death from aneurysm rupture. Next, Dr. Andrew McCullough discusses how ED is really a barometer for male vascular health. In this issue, you will also read about Mike, a successful businessman who had lived through the tribulation of suffering from cardiac and vascular problems that nearly killed him, and how vascular health awareness has given him a new lease on life. Dr. John Byrne explains that chronic venous insufficiency, one of the leading causes of disability and healthcare expenditures in the United States, is not just a woman’s disease. Deborah Hill, RN, and I discuss the implications of vascular research in athletics and the cultural and social issues that surround men’s masculine identity. Lastly, Benita Zahn shares her thoughts on the impact of cardiovascular disease in young men.

I hope you enjoy this issue of V-Aware. Previous issues can be found on our Web site, vaware.org. As always, we look forward to your comments and suggestions. Feel free to write to us at info@vaware.org.

Warmest regards,

Manish Mehta, MD, MPH
President and CEO of the Center for Vascular Awareness, Inc., in Albany, NY
Great health news for Americans: Deaths from heart disease, stroke, and diabetes have all declined in the last 10 years!

Heart disease deaths are down 25%, stroke deaths are down 31%, and diabetes-related deaths are down 11%, according to Centers for Disease Control and Prevention (CDC) calculations for the decade ending in 2010.

Prevention, earlier recognition and treatment, and emergency interventions have all contributed to this decline. We now have evidence on a national level and across multiple populations of patients that today’s treatments are working and cardiovascular deaths can be prevented.

Hold your enthusiasm, though. There is still much work to do and vast opportunity remains for continued improved cardiovascular health. Here are the sobering statistics produced by the American Heart Association (in collaboration with the CDC and the National Institutes of Health): Every 25 seconds, someone suffers a coronary event, and every minute, a person dies from one; every 40 seconds, someone has a stroke, and for one-third of these victims, it is a recurrent stroke; 8% of US adults have been diagnosed with diabetes, another 2% to 3% are undiagnosed, and 36% of adults are prediabetic. Cigarette smoking continues to be a major health threat with 23% of adult men and 18% of adult women counted as active smokers. Every American smoker that dies is replaced by two new smokers.

Although cardiovascular disease is a major health concern for both sexes, it occurs more frequently and at an earlier age in men. Sex hormones likely play a role in the disease pattern observed in men, but our understanding in this field is still evolving, and data are limited. There is overwhelming evidence, however, on the positive impact that exercise and diet have on cardiovascular health.

**TESTOSTERONE**

The primary male sex hormone, testosterone, has been suspected as a causative agent in the development of atherosclerosis or hardening of the arteries. Early suspicions were that testosterone drives atherosclerosis, because men have significantly higher testosterone levels than women. Testosterone levels in men with atherosclerosis and coronary artery disease (CAD) have been evaluated in several studies, and the findings are surprising. Men with CAD often have lower testosterone levels than men who don’t have CAD. Moreover, low testosterone levels are associated with poor blood sugar control and abnormal lipid profiles. When overall survival is the study endpoint, men of middle age and older who have low testosterone levels may be at greater risk for mortality.
Testosterone supplements are now available in a variety of forms including transdermal patches, gels, and injections. The role of testosterone supplementation in men with cardiovascular disease is evolving, and some early data are promising. In selected men with type II diabetes, testosterone supplementation increases insulin sensitivity and improves blood sugar control. Supplemental testosterone also has a positive effect on lipid profiles, reducing levels of total and LDL cholesterol.

Even with the early promising results from testosterone treatment, there is still need for more studies. The effect of testosterone supplementation on men's overall survival and heart health still remains to be defined. In general, low testosterone can be considered a marker for men at increased cardiovascular risk. Other risk factors such as high cholesterol, diabetes, and high blood pressure should be aggressively treated. The role of testosterone supplementation in men with “low T” remains to be seen.

EXERCISE AND VASCULAR HEALTH

Health club membership in the US is at an all-time high at more than 50 million, a dramatic increase from the 20 million members in 1991. Public awareness of the benefits of physical activity is also at an all-time high; even First Lady Michelle Obama has become involved with the “Let’s Move” campaign.

So with record health club memberships and such high public awareness, are the majority of us finally getting the exercise we need? The answer is no! The CDC reports that only two in 10 people get the recommended levels of exercise and that 25% of American adults do not exercise at all. When people are monitored to verify the accuracy of self-reported activity levels, the number of people achieving recommended exercise levels is likely less than 10%. Numerous studies document what we all know: Regular exercise reduces the risk of cardiovascular death, improves cholesterol profiles, improves blood sugar levels, and helps weight control.

So, how much exercise do we need? The first Surgeon General guidelines were published in 1996. The recommendation was for 30 minutes of “moderate” physical activity at least 5 to 6 days per week, but preferably every day. Recommended activities included swimming, brisk walking, cycling, and even higher-intensity house and yard work. Given the constraints of modern work schedules, recommendations were made to pick activities that are easily accessible, are safe and enjoyable, and have few negative consequences such as injury, peer pressure, or poor self-identity.

Recently, short-duration, high-intensity workouts, called interval training, have become popular. Studies have compared the results of traditional endurance exercise to interval training. An advantage of interval training is that it can be completed in less time than traditional endurance exercise. In one study, young, out-of-shape men were subjected to either an endurance or interval exercise plan over a 6-week period. The endurance plan took 4.5 total hours weekly to complete, while the interval plan took 1.5 hours. Both yielded the same results—but the interval plan took one-third the time. The same researchers have also studied interval training in middle-aged and older men with cardiovascular disease and found significant improvements in health and fitness.

(Article continues on next page)
Resistance or strength training, once a “no-no” for patients with cardiovascular disease, also has clear benefits in this population. Insulin sensitivity, endurance, and bone density all may improve when weight training is included in a weekly regimen. Resistance training, however, is not a substitute for aerobic training and should be added to a plan that already includes aerobic exercise.

Finally, any significant change in activity level or exercise should be reviewed with your physician before you begin. Care should be taken to avoid musculoskeletal or overuse injuries, especially early in a program. Any plan should include stretching and exercises to increase flexibility.

NUTRITION

For Americans, what we eat contributes to five out of 10 of the leading causes of death, including CAD, certain types of cancer, stroke, type 2 diabetes, and atherosclerosis. The food choices associated with these major causes of death are characterized as relatively high in total and saturated fat, cholesterol, sodium, and refined sugars and are relatively low in unsaturated fat, grains, legumes, fruits, and vegetables.

These same dietary habits are also linked to obesity. The epidemic of obesity in the US began around 1980. At that time, obesity prevalence was 15%; it more than doubled in the last 30 years with 36% of middle-aged men (and a similar number of women) now considered obese. Obesity currently rivals cigarette smoking as the number one cause of preventable death in the US.

Obesity is commonly defined as a body mass index (BMI) greater than 30 kg/m². BMI is calculated by dividing a person’s weight in kilograms by their height in meters squared. For example, a 5’9” person weighing 203 lbs would have a calculated BMI of 30. Per the CDC guidelines, a BMI between 18.5 and 24.9 is considered healthy, while a BMI between 25 and 29.9 is considered overweight. A BMI of 30 or higher is a sign of obesity.

Despite incredible awareness of this epidemic, few people ever successfully achieve prolonged weight loss. New weight-loss diets abound; many are extreme, some dangerous, and most are difficult to follow long term. At the 4-year follow-up after initiating a diet for weight loss, the failure rate is over 95%! Americans spend $55 billion annually on weight loss products, which, from a results standpoint, are ineffective.

Compounding the problem, physicians have minimal training in nutrition and diet upon leaving medical school. Information available to the lay public carries the biases of marketing and advertising. Finally, our dietary choices are confusing. Low-fat, low-sodium, low-cholesterol, low-sugar, low-calorie, and low-carb options are everywhere, but navigating among them is confusing.

How can a person successfully tackle this problem? One approach is to create a nutritional plan instead of adopting a fad diet. Start by defining goals such as improving cholesterol numbers, reducing sodium, increasing fiber, losing weight, or improving blood sugar control. Think about the types of foods you wish to eat and how you can make them available when you are at work or travelling. It helps to be realistic with preparation time.

Next, familiarize yourself with a few diets. Most diets involve “counting and restricting” something—either calories or carbohydrates. Both approaches are quite different, but each has strong proponents and both can work. Many great books are available reviewing carbohydrate- and calorie-based nutrition plans. Make a plan that suits your tastes, habits, lifestyle, and schedule, because the plan that works best is the one you can stick to.
Peripheral arterial disease (PAD) refers to the process that can cause blockage of almost any artery in the body, not including the heart or brain.

PAD occurs in 3% to 10% of the total US population; after age 70, however, 15% to 20% of patients will have this problem. The disease is more prevalent in men than women, but in older age groups, the difference becomes less. In fact, the results of some studies show that older females have a greater incidence of PAD than males.

The majority of individuals with PAD do not have symptoms. The diagnosis in asymptomatic men is often missed and can be made by comparing the ankle blood pressure to the arm blood pressure (a measurement called the ankle-brachial index), which is abnormal if less than 0.9. It is important for the primary physician to make a diagnosis of PAD. The patient can then be referred to a vascular specialist where risk factor modification and possible treatment of PAD may be started. This article focuses on PAD affecting the lower extremities.

**RISK FACTORS**

The risk factors for PAD are similar to those responsible for coronary artery disease (CAD) in the heart and cerebrovascular disease (CVD) in the brain. This fact highlights PAD as part of a systemic disease that affects many areas in the body including the lower and upper extremities, carotid arteries, mesenteric arteries (the vessels supplying the intestines and other digestive organs), and the renal arteries.

Ethnicity may play a part in risk. Non-Hispanic black men may have twice the incidence of PAD than white men. As mentioned previously, in general, the risk is greater in men than in women. Age also plays a role in that the chance of having PAD increases with age, indicating that PAD is a degenerative disease process.

Most importantly, smoking cigarettes is a major risk factor, and tobacco use may be more associated with PAD than CAD. The diagnosis of PAD is made on average 10 years earlier in smokers than nonsmokers, with smokers having a fourfold increased risk for the disease. Other risk factors such as diabetes mellitus, hypertension, and lipid or cholesterol disorders also contribute. Of these last three, diabetes is more serious in that PAD is often more aggressive in patients with diabetes than in those without. For each 1% increase in the plasma hemoglobin A1C level, there is a 26% increase in PAD. The risk of leg amputation in a man who smokes is four times that of the general population. This risk increases 11-fold if the patient also has diabetes.

Forty percent to 60% of those with a diagnosis of PAD may also have significant CAD. The chance of CVD is also increased (26%-50%). The rate of major cardiovascular events (heart attacks, strokes, and other causes of vascular death) is 5% to 7% per year. In fact, the majority of individuals (70%-80%) with PAD will die from cardiac events.

(Article continues on next page)
CLINICAL EFFECTS
As mentioned earlier, most people with PAD do not have symptoms. Of those who do, the initial complaint is intermittent claudication, which is exercise-induced limitation to walking. This pain occurs in major muscle groups such as the calves, thighs, or buttocks. In most patients, this problem rarely leads to leg ischemia requiring an amputation (less than 2%-3% at 5 years after diagnosis). If the amount of artery blockage is more extensive, however, the patient may develop critical limb ischemia (CLI). Signs of CLI include rest pain (pain in the foot or toes that awakens the patient at night and is relieved by raising the foot or walking), nonhealing wounds, or gangrene of the toes or feet. If CLI is not treated or if treatment fails, the need for amputation may be as great as 40% within 6 months, and patients have up to a 20% chance of dying within 2 years. In patients with acute lower extremity ischemia, the risk of amputation is even greater.

TREATMENT
The treatment of men with PAD involves a two-pronged attack. The first stage focuses on modification of risk factors. Smoking cessation leads to a reduction in the risk of all cardiovascular events, leg amputations, and the threat of failed arterial bypass. A patient’s efforts to lose weight should focus on developing an overall healthier lifestyle.

Next, the vascular specialist can help the patient further by using medication to keep the plasma non-HDL cholesterol < 130. In patients with diabetes, Hgb A1C should be kept under 7%. High blood pressure in patients with PAD should be controlled with medications to remain under 130 to 140 mm Hg systolic and less than 80 to 90 mm Hg diastolic. All patients should be placed on an antiplatelet agent such as aspirin or clopidogrel (Plavix).

In patients with intermittent claudication, risk factor modification is the main approach. As stated previously, the risk of limb loss is low for these patients. Smoking cessation alone may improve walking distance by as much as 70%. This change coupled with walking therapy to improve tolerance to the muscle pain may be all that is needed. Medications such as Pletal (cilostazol) may also be used to improve walking distance.

In patients for whom the nonmedical approach does not work, the next step is an angiogram to identify the level of disease. If possible, at the time the angiogram is performed, the blockage in the artery is dilated with a balloon (angioplasty) and/or stented open.

If the blockage is extensive and if angioplasty/stent placement is not possible, then a surgical bypass can be performed to improve the circulation.

In patients with CLI, especially those with ulcers or gangrene, the stakes are higher for eventual limb loss; therefore, angiography and surgical treatments are performed earlier. In patients with ulcer, infection, or gangrene, antibiotics and wound care are important accompanying treatments. Appropriate care often means involving physicians with expertise in infectious disease, cardiology, and renal care, as well as podiatry. The goal is to salvage the foot so that the patient is able to walk eventually, and if this is not possible, efforts are focused on controlling infection and major amputation as a lifesaving procedure.

QUALITY OF LIFE
There are several risk factors involved in the development of PAD. Once identified, individuals with PAD should be referred to a vascular specialist. Treatment is focused initially on risk factor modification. The most important measures are to completely stop smoking and, if necessary, to get diabetes under control. More invasive forms of treatment involve interventional/angiographic or surgical arterial reconstruction. The goal of any of these approaches is to improve the patient’s quality of life.
MEN'S VASCULAR HEALTH AND NUTRITION

Atherosclerosis, also known as "hardening of the arteries," affects over 10 million Americans and the risk doubles with each decade of age.

Major risk factors leading to atherosclerosis are hypertension, diabetes, obesity, and high cholesterol, all of which are profoundly affected by our diet. It has been traditional knowledge for generations that a healthy diet is associated with better health. More recently, dietary research has shown that improved nutrition is associated with a reduced prevalence of atherosclerosis, leading to the prevention of strokes, heart attacks, and peripheral arterial disease. In particular, peripheral arterial disease may cause significant walking disability (claudication) or even leg amputation.

FATS AND CHOLESTEROL
High cholesterol is one of the major controllable risk factors for coronary heart disease, heart attacks, and stroke. When too much bad cholesterol (low-density lipoprotein) circulates in the blood, it builds up as plaque in the arteries. This buildup causes narrowing or stenosis, stiffness, and endothelial dysfunction leading to vascular disease and its complications. Saturated fats and cholesterol are primarily derived from animal fats contained in red meats, dairy products, and processed foods enriched with partially hydrogenated fats. Limiting how much saturated and trans fats you eat is an important step to reduce your blood cholesterol and reduce your risk of vascular disease. Saturated fats should constitute less than 7% of your total daily calories (140 out of an average 2,000-calorie-a-day diet), and trans fats are best avoided completely. Dietary cholesterol should be kept to less than 300 mg per day for healthy adults and less than 200 mg per day for adults with elevated cholesterol.

(ARTICLE CONTINUES ON NEXT PAGE)
It’s important to note that not all fats are detrimental, and many are actually beneficial to your vascular health. Monounsaturated fats, which are found in plant products such as olive oil or avocados, and polyunsaturated fats found in nuts and seeds, are beneficial to your vascular health and help lower your total blood cholesterol. Also remember that all fats are high in calories and thus should be consumed in moderation. Lastly, fish is an excellent alternative to high-fat meats. Many types of fish are rich in omega-3 fatty acids, which can reduce levels of another “bad” blood fat called triglycerides. The highest concentrations of omega-3 fatty acids are found in cold water fish such as salmon, mackerel, and herring. Other sources are flaxseed, walnuts, soybeans, and canola oil.

SALT
One of the main causes of hypertension is excessive salt intake. High blood pressure is a significant risk factor for atherosclerosis. It is also known as the “silent killer,” as its effects frequently go unnoticed until it is too late. The Department of Agriculture recommends that all people over the age of 50, all African Americans, and anyone who already has high blood pressure, diabetes, or kidney disease keep daily sodium intake to no more than 1,500 mg. Everyone else should strive for no more than 2,300 mg a day. Salt is often hidden in processed foods to add flavor and longevity to the products. Restaurant food and fast foods are also culprits for high salt contents, often hidden from the customer. It is important to learn how to read nutritional food labels to allow monitoring of one’s salt intake. Better yet is to avoid processed foods altogether and instead consume fresh products and add flavoring as desired.

SUGAR
A diet high in sugar and refined carbohydrates (eg, white bread) has in recent studies shown to negatively affect lipid profiles—it lowers good cholesterol, increases bad cholesterol, and elevates triglyceride levels. The popularity of sugar and refined carbohydrates has contributed to the obesity epidemic in the United States and the rise of the metabolic syndrome, both of which are major risk factors for atherosclerosis and vascular disease. Carbohydrates raise blood sugar levels and trigger the release of insulin. A diet high in refined carbohydrates has the effect of causing an exaggerated insulin release, which is associated with insulin resistance and the development of type II diabetes. A low-glycemic diet consisting of whole grains (complex carbohydrates), fruits and vegetables, and legumes (beans, peas, and lentils) can counteract the development of insulin resistance. Excellent sources of complex carbohydrates are whole-grain breads, oatmeal, and brown rice. The American Heart Association recommends that people consume only 5% of their daily calories as added sugar.
Antioxidants

Antioxidants are natural substances that exist as vitamins, minerals, and polyphenols, among others. Many antioxidants are identified in foods by their distinctive colors: the deep red of cherries and tomatoes; the orange of carrots; the yellow of corn and saffron; and the blue-purple of blueberries, blackberries, and grapes. The most well-known compounds with antioxidant activities are vitamins A, C, and E; beta-carotene; the mineral selenium; and the compound lycopene. Antioxidants help prevent disease by blocking free radicals, a byproduct of oxygenation that causes cellular damage that leads to the development of atherosclerosis. An increasing body of evidence points to beneficial effects from the antioxidants present in grapes, dark chocolate, blueberries, and tea on cardiovascular health. A new area of research, led by the study of the human genome, suggests that the interplay of human genetics and diet plays a role in the development of chronic vascular disease. Presently, there is convincing evidence to suggest the protective effect of antioxidants in cardiovascular disease. There has been some conflicting evidence regarding the benefits of the pharmacological dosing of vitamin E and beta-carotene, both naturally occurring antioxidants. However, there is continued overwhelming evidence of the benefits of naturally ingested antioxidants (derived from whole foods) in the prevention of vascular disease.

Practical and Palatable

Many scientific studies have shown a significant decrease in atherosclerosis with each serving-per-day increment in fruit and vegetable intake. There is convincing scientific evidence that argues for a change in dietary recommendations toward the prevention of cardiovascular disease. Renowned institutions like the Joslin Diabetes Center (www.joslin.org) have revised nutrition guidelines. Any dietary strategy should be evidence-based, practical, and palatable, and one of the most successful in that direction is the Low Glycemic and Insulinemic (LOGI) concept, created by David Ludwig at Harvard University (www.logi-method.de/). LOGI is a Mediterranean-style diet that combines practicality with palatable food. It is based on an abundance of plant food (fruits, vegetables, and salads), combined with “good fats” (monounsaturated and omega-3 polyunsaturated, olive oil, nuts, fish, and seeds), more protein (low-fat dairy products, legumes, fish, poultry), and smaller amounts of carbohydrate-rich foods such as pasta, whole grain breads, rice, and potatoes.

Remember that vascular health and the prevention of its complications such as stroke, heart attack, amputation, and kidney failure is intimately related to a healthy diet. A minimum of 30 minutes of daily moderate activity should be considered as an adjunct to a healthy diet. Many insurance companies include benefits such as a nutritional consultation, a resource that is well worth exploring. Lastly, do not forget to ask your vascular specialist for information and guidance.
Arteries are the body’s plumbing and carry blood away from the heart under high pressure. Over time, the normally strong lining of a blood vessel can weaken and begin to expand. If the weakened blood vessel grows to a diameter measuring at least 50% larger than the adjacent normal artery, it is called an aneurysm.

The main artery within the abdominal cavity is named the aorta. The aorta splits (like an upside down “Y”) in the lower abdomen, supplying blood to both legs. These two blood vessels are called iliac arteries. A normal adult male’s aorta measures around 2 centimeters in diameter. If that artery grows to 3 centimeters or more, it is considered to be an aneurysm. Aneurysms may develop in any artery, but they are seen most often in several locations. The most common are abdominal aortic aneurysms (AAAs), which often extend into the iliac arteries. Fifty out of every 100,000 hospitalized patients in the US has an AAA.

RUPTURE RISK
Tension in the wall of an aneurysm can cause the artery to rupture. The risk of such an event is based on the diameter of the aneurysm: The larger the aneurysm, the higher the likelihood it will burst. The threat of rupture is the major concern in the aorto-iliac location. Once an aneurysm ruptures, internal bleeding is significant and often fatal. In fact, ruptured AAAs are the 15th leading cause of death in the US and the 10th leading cause of death in men over the age of 55.

Treatment is based on weighing the risk of rupture versus the risk of surgery to repair the affected blood vessels. Unlike the aorto-iliac vessels, the blood vessels behind the knee may develop aneurysms that more often clot than rupture. These popliteal artery aneurysms account for approximately 70% of all aneurysms not located in the head, chest, or abdomen. A clot blocking the main artery of the leg is like shutting down a major highway during rush hour. Blood flow to the foot is markedly reduced, cutting off all of its associated oxygen and nutrients. When this emergency occurs, nearly one-third of patients can lose their leg from lack of blood flow despite urgent surgery.

AN OLDER MAN’S PROBLEM
When ultrasound has been used to look at large groups of people in multiple countries, an AAA was found in 4% to 9% of men and in about 1% of women. Clearly, there is a higher rate of aneurysm development in men compared to women, with some researchers estimating a sixfold increase.

There is also a racial predisposition to AAAs. White men develop this problem three times more often than black men. In addition, as people age, their chance of developing an aneurysm increases.

Studies have indicated that 2% to 5% of
men over age 60 will have an AAA. The incidence of AAAs rises from the age of 50 to a peak at the age of 80. Women, in contrast, typically develop AAAs later, at the age of 60 or older. Popliteal artery aneurysms are almost exclusively seen in men, with most cases being over 95% male. However, these aneurysms are exceedingly rare with a frequency less than 5% of the incidence for development of an AAA.

Smoking has been shown as an independent risk factor for developing an AAA regardless of gender. In fact, this is the strongest risk factor in some studies. In one study, the relative risk of developing an AAA was fivefold higher for smokers than nonsmokers. This risk also rises with the number of years that an individual used tobacco. Lastly, this process can run in families. Siblings of an individual with an AAA are eight times more likely to develop an AAA than those with unaffected brethren. First-degree relatives have the highest risk, with between 15% and 28% of cases having the disease compared to 2% to 3% in age-matched populations without an AAA. Aneurysms that run in families tend to present, on average, 7 years earlier than in the standard population. When ultrasound was used to screen siblings of an individual with an AAA in one study, 25% of the men but only 7% of the women over the age of 55 were found to have an AAA. Therefore, the brother of a patient with an AAA has the highest likelihood of all.

SCREENING HELPS MEN

In 2005, the United States Preventative Services Task Force published guidelines on screening for AAAs. They found that offering a one-time AAA ultrasound screening for men between 65 and 75 who had smoked at least 100 cigarettes in their lifetime saved lives. The evidence was less compelling for the same age group of men who had never smoked or for women, whether they smoked or not. Thereafter, many private and governmental insurers approved the use of ultrasound to screen 65- to 75-year-old men who have smoked or who have a positive family history for the disease process.

GOOD FOR HIM AND HER

The risk of aneurysm repair is always weighed against the danger of aneurysm rupture. Traditional open surgery requires exposure of the aneurysm through an incision in the abdomen and then replacement of the diseased blood vessel(s) by a graft made of synthetic material. This invasive treatment was the only option for several decades and carries with it significant medical risk.

Fortunately, a less-invasive technique has been introduced, called endovascular aneurysm repair or EVAR. EVAR typically involves an incision in both sides of the groin to access the leg arteries. The EVAR graft is actually a self-expanding stent covered by a fabric tube (it looks similar to a Chinese finger trap). In a collapsed form, it is introduced through the groin blood vessels and expanded across the aneurysm. The ends of the stent seal against normal artery above and below the AAA. The resulting configuration allows for blood to flow normally from the heart to the legs but excludes and depressurizes the aneurysm, thereby averting AAA rupture. The majority of (but not all) AAAs can be treated with EVAR; appropriateness is determined by a computed tomography scan. Both men and women can be treated with either of these techniques and have similar outcomes in the long term. Routine follow-up after EVAR is required to ensure the graft remains appropriately positioned.
Erectile dysfunction (ED) is commonly perceived by physicians, patients, and third-party payers (insurance companies) as a quality-of-life issue.

In this era of managed care companies putting pressure on health providers to see more patients in less time, exploring ED with a patient is rarely done. Physicians expect their patients to bring up the topic, and patients wait for their physicians to ask them about it. Although the public is vastly more educated about ED than ever before, many men still feel embarrassed about the subject. Physician and patient resistance have resulted in less than 25% of men with ED seeking medical care for this problem.

The crucial question is, what does the presence of ED mean? Is it “just” a quality-of-life issue, or is ED a possible diagnostic clue—perhaps an early sign of generalized vascular disease?

THE VASCULAR CONNECTION
The penis is a sensitive hydraulic organ responsive to the nervous system, arterial blood inflow, and blockage of venous outflow. It is made up of an extensive network of blood vessels. These blood vessels, like all others in the body, have an inner lining called the endothelium, which can be considered the largest and arguably the most important “organ” in the body.

In order to achieve an erection, a man has to have intact input from the nerves, an increase in arterial blood flow, a filling of the endothelial spaces, and a passive pinching off of the venules’ exiting dense covering called the tunica albuginea. The entire process is exquisitely sensitive to the production of a neurotransmitter called nitric oxide, which is made from an enzyme called nitric oxide synthase (NOS).

NOS is produced in the endothelium. The enzyme NOS is very important in the production of nitric oxide, and anything that decreases the level of NOS will result in erectile problems. The conditions that reduce the production of NOS are those associated with cardiovascular and endothelial disease. The experimental evidence in laboratory animals links NOS deficiency to increasing age, diabetes, and obesity.

In humans, there are accumulating epidemiologic data linking a nitric oxide or NOS deficiency to coronary artery disease, diabetes, peripheral vascular disease, hypertension, increased lipids, obesity, and age. Damage to the endothelium often precedes the development of clinically manifest vascular disease.
ED AS INDICATOR
The arteries to the penis are one-fifth the size of the coronary arteries that supply the heart. Because of their small size, they will manifest blockage and disease before a man has symptoms of heart disease. In comparison, during a period of drought, the creek beds always dry up before the large rivers do. Several studies have demonstrated that many men presenting with coronary artery disease symptoms and heart attacks will have experienced ED up to 3 years before the cardiac event. In men at risk, not even a stress test is more sensitive in detecting subclinical heart disease than the presence of ED.

To be fair, not all men with ED will have vascular disease. ED is also associated with age, medications, low testosterone levels, neurologic disease, and anxiety. The challenge is what a physician should do with the information about ED once elicited. It is not enough to just prescribe a pill. The clinician should think about the patient in front of him and piece the puzzle together: Is my patient manifesting progression of his diabetes or hypertension? Should I be more aggressive in treating his high cholesterol? Could there be something serious going on here? Do I refer him to a urologist?

A LIFESAVER
A simple “poor man’s stress test” is a good trial of one of the ED medications available today (Viagra, Cialis, or Levitra). Prescribing the medication is not enough. Follow-up is mandatory! Studies have shown that it may take six attempts before a man achieves maximum success. If, after an adequate trial, the pills have failed, a red flag should go up. Men who do not react to these drugs have a 50% chance of having demonstrable microvascular disease on a special vascular test called a penile Doppler. This microvascular disease will precede overt coronary artery symptoms. I have many patients whose deadly “widowmaker” high-grade coronary artery stenosis was detected after a positive penile Doppler test. In a sense, their penis saved their lives.

ED should not be casually treated as a mere quality-of-life issue. Because of the strong relationship between ED and vascular disease, when performing a cardiovascular review of symptoms in a male patient, every health care provider should ask about the symptoms of ED. The penis is truly the barometer of the health of the male vascular system.

Ask Your Doctor
1. Could my erectile dysfunction be a sign that my diabetes, hypertension, or high cholesterol is getting worse?
2. How do I know that my erectile problem isn’t a sign of something more serious?
3. Should I see a specialist in the area of erectile dysfunction?
A PATIENT'S STORY: Mike

“Before I go any further, let me say that I am confident, blessed, astounded, amazed, and angry. Now, I'll tell you why I feel this way.”

I am the oldest of seven children, four boys and three girls. My mother is Irish and Italian, and my dad was Polish. Both of my parents smoked. We ate our vegetables in sauce the Italian way. We had pasta, bread, potatoes, and meat in our diet regularly. I was a wrestler and baseball player in high school and weighed 121 pounds. Yes, I was a 30-year smoker (until a few weeks ago). My mother is alive, but she has carotid artery disease and chronic obstructive pulmonary disease from smoking. My dad passed away 2 years ago. He had heart disease and other complications.

CONFIDENT
I admit that I have a “Type A” personality, with a drive toward leadership. I was my high school class president, then dropped out of college and became the union leader at my factory at age 19. I became a correctional officer and then worked my way up from the bottom to become the owner of Jackson-Hewett franchises in 20 locations, employing more than 200 people on a temporary basis. Yes, I am often under tremendous stress. I am the proud father of two boys and a girl. My marriage ended in divorce in 2006, which added more stress to my already tense life.

In 2006, I took a vacation to Alaska with my two sons. While there I had an “episode,” just an eerie feeling that I can't really describe. I regret to say that I walked around my hotel room until it passed and then went outside to have a cigarette! A few days later, after still not feeling well and thinking I had a chest cold, I went to a local hospital. They did an EKG, drew my blood, and then rushed me to another area while slipping nitroglycerin under my tongue. They told me that I had had a heart attack. I was admitted and had three stents placed in the arteries leading to my heart. A couple days, later three more stents were placed in another area of my heart, and I was sent home a few days after that.

BLESSED
The shock of being told I had a heart attack was a wakeup call for me. I was only 46 years old. My confidence was shattered, and I now was thinking about my mortality. I was blessed that I didn't die, especially because I was having symptoms for a few days before seeking help. I wanted to live and get better. I started to take care of myself.
by trying to take walks. As I walked, though, I would get cramps in my calves. The cramps would slow me down and prohibit me from getting my much-needed exercise (this is known as *intermittent claudication*).

As time went on, I noticed that the hair wasn’t growing on the outside of my calves. I progressively noticed more symptoms, like tightness in my buttocks and thighs. When I went to a doctor, I was told that the symptoms I was experiencing were musculoskeletal in nature.

**ASTOUNDED**

When my symptoms didn’t improve, I saw my family doctor who suggested that I undergo physical therapy, which I did for about 1 year without success. I then talked to my cardiologist, but he had no suggestions. I went back to my family doctor, and he finally said, “let’s try a vascular surgeon.” This process of trying to find the right help took about 2 years.

After seeing a vascular surgeon, it was discovered that I had a blockage of my aorta; they call it *iliofemoral occlusive disease*. This is what was causing my claudication! My difficulty walking distances, the cramping in my calf, the lack of hair growth on my lower legs, and a cut that wouldn’t heal were all caused by my vascular issue. I later found out that all of my symptoms are classic indicators of claudication. Here is why I am astounded: If these signs pretty clearly point to claudication, why didn’t my doctors know about it? Why did it take so long to send me to a vascular surgeon?

(ARTICLE CONTINUES ON NEXT PAGE)
AMAZED

I was treated by having a right common iliac angioplasty and stent, a right internal iliac and superior inferior gluteal artery angioplasty, and a left internal iliac artery angioplasty. These were separate procedures. During the first procedure, I felt the warmth of the dye travel through the right side of my groin to my penis. I was informed that there was a possibility that this procedure would increase blood flow to my penis, and I might experience improvement with another issue I had been experiencing for about 10 years, erectile dysfunction (ED). I was pleasantly amazed at the immediate improvement, yet it felt a little weird because it only helped the right side because I had blockages on the left side as well. On the day of the angiogram for the left-sided blockage, I couldn't wait until I woke up from the procedure to see if I felt improvement on that side. I am pleased to say that the improvement was tremendous! Let me tell you that most men don't want to be alive without sex. We will risk our lives if there is any chance to improve ED. Don't get me wrong, I was truly looking forward to being able to walk better. I needed to be able to walk so I could lose weight, get fit, and improve my cardiac health. For my self-esteem as a man, however, the improvement of my ED has given me new confidence and energy, and I am less depressed.

ANGRY

I am angry that I had to see so many doctors and that most of them weren't aware of the common signs and symptoms of vascular disease. They kept telling me that I was too young to have a vascular issue, because I was only in my forties. When you have a health problem and you turn to your doctor for help, it is infuriating to find out they don't have all of the knowledge or answers. I am told that doctors don't always consider vascular disease first, yet some of the common early signs are precursors to other life-threatening health issues. If caught early, the problem can be addressed and treated, and lives, and quality of life, can be saved. For example, my issue with ED affected my self-esteem and contributed to my depression. I was placed on ED medication, which didn't help. I thought my problem with ED was psychological, not physical. As a normally confident man, to have lost control of my health and my body was something I had a hard time dealing with. My ED was a symptom of vascular disease that should have been spotted.

AWARE

I have heart disease and tried to walk, yet I physically couldn't because I wasn't getting adequate blood flow to my legs. I suffered 8 years of anxiety of not knowing why I couldn't walk, why my legs burned and cramped up, when all I needed was to be referred to a vascular surgeon. I don't want this to happen to anyone else.

I am telling my story so that other men's lives can be saved. I hope that medical professionals will become more aware and think about vascular disease when evaluating their patients. If I had to sum up in one word how I feel now, I would say confident. I know that I'm lucky to have the opportunity to try to get close to 100% better. I also have the chance to be remembered as someone who helped people out. I already helped to save a friend's life because he knew not to wait when having a health crisis. Making people aware of their potential vascular risk is a legacy I can be proud of.

-by Sharon Cillis, RN
Venous Insufficiency: NOT JUST A WOMAN'S PROBLEM

The history of science is littered with scores of preposterous ideas that were once firmly held principles.

Some myths are more persistent than others. For example, the idea that the sun rotates around the earth was eventually disproved in the 15th century. Yet, the belief that the Apollo 11 moon landing was actually filmed in a large TV studio in California is still current in some circles, and the Flat Earth Society has had “a thriving online community since 2004.”

In medicine, we are not immune to such misguided beliefs. In 2007, the British Medical Journal ran a semiserious article on myths that many physicians believe. Among the myths debunked were: People should drink eight glasses of water a day, eating turkey makes you drowsy, and reading in dim light ruins your eyesight. The last myth busted was that we only use 10% of our brains, which means this is as good as it gets for most of us. A myth the authors failed to include was that only women suffer from varicose veins or venous disease.

Many people think varicose veins only affect women. This idea is reinforced by advertising for vein procedures that invariably show shapely female legs before and after treatment. To be fair to advertising agencies, they probably are correct that this is a more aesthetically pleasing option than showing hirsute male legs. They also know their market. Women are more likely than men to seek help for varicose veins. However, the notion of venous disease as a predominantly female one is incorrect. Varicose veins, in particular, are almost as common in men.

Let’s look at the facts (as opposed to the myths) about varicose veins and the condition called venous insufficiency, find out who really is affected by this problem, and expose whether men actually have more severe venous disease than women (another notion physicians believe).

INSUFFICIENCY EXPLAINED

I’d like to begin with a quick primer on things that can go wrong with your leg veins. In the leg, 80% to 90% of blood is returned to the heart through the deep veins of the leg, which run alongside arteries deep within the muscles. The remaining 10% to 20% of blood travels back via the superficial veins that lie just under the skin and are visible at the ankles or on the surfaces of the feet. Both these sets of veins have pairs of one-way valves, which help blood return to the heart in an orderly fashion (we usually have 10 valves between the groin and ankle in the superficial veins and 18 valves in the deep veins).

(ARTICLE CONTINUES ON NEXT PAGE)
When a patient develops a clot in the large deep veins after surgery or after prolonged illness, it’s called deep vein thrombosis (DVT). After several months of treatment, the clot will either dissolve or solidify. Either way, many of the 18 valves are damaged, and these veins can no longer function as they once did. The valves can also be damaged by pregnancy, obesity, or plain old bad luck (“POBL,” to coin an abbreviation). This means blood does not empty from the legs as it should, resulting in raised pressure in the deep veins with long-term leg swelling and leg ulcers. This is what we call chronic deep venous insufficiency.

The superficial veins can also be affected by clot formation but are more prone to valve failure. When some or all of the 10 valves fail in the superficial veins, it’s usually due to morbid obesity, pregnancy, or “POBL.” Whatever the cause, the result is the same—varicose veins. Varicose veins are unsightly but also cause aching, itching, and even ulcers (in less than 5%). Sometimes, varicose veins are referred to as superficial venous incompetence or insufficiency. Taken together, these two conditions comprise venous insufficiency.

WHO IS AT RISK?
Testosterone does not confer immunity to deep or superficial venous disease. The risk to men is evident from large epidemiological studies involving thousands of patients in several Western countries over the last decade.

The Framingham Heart Study is a long-term ongoing cardiovascular study on residents of Framingham, Massachusetts that started in 1948. The study has also gathered data on varicose veins. It found that varicose veins affect 2% of men and 2.6% of women per year, which is a fairly small difference.

A large epidemiological study from Amsterdam in the Netherlands showed what we all suspect, namely that varicose veins worsen with age. It also showed what few of us would predict—that, in terms of varicosity, men catch up with women as they age. The investigators found 1% of men aged 20 to 29 had varicose veins compared with 8% of 20- to 29-year-old women. By age 40, 25% of men had varicose veins compared to 40% of women. By age 80, however, 60% of men and 70% of women had varicose veins.

Some studies even report that more men develop venous problems than women. The Edinburgh Vein Study from Scotland found varicose veins are more common in men than women, as did a 2007 study from Milan in Italy. The Milan study also reported that varicose veins tended to be more extensive in men compared to women.

For deep or chronic venous insufficiency (where the deep venous valves are nonfunctioning), women truly do seem more affected than men. In general, swelling and ulceration are two to three times more likely to affect women than men across all populations, although a Mayo Clinic study in 2001 reported the ratio to be only 1.5:1.
WHO SEeks TREATMENT?

So far, we know that varicose veins affect men almost as often as women. But how often do men seek treatment? The results of surveys of treatment outcomes for varicose veins illustrate the point nicely, especially when we look at the percentages of men and women. A study in 2010 from the Jobst Clinic in Ohio included 83% women. In a 2012 study from Berlin in Germany, 71% of patients were women. In the United Kingdom in 2009, women comprised 63% of patients enrolled in a large trial. None of these studies reflect the true proportions of men and women in their populations with varicose veins and confirm that women are, in fact, far more likely to undergo treatment than men.

Chronic or deep venous disease is harder to ignore than varicose veins. Patients frequently will have swollen legs and develop open sores or ulcers on their legs, which can be particularly malodorous. Women develop this condition more frequently than men. This fact is also confirmed by reports that invariably include more women than men.

WHy NOT SEEK HELP?

So, why don’t men seek help for varicose veins? The first reason is that men are notoriously poor at seeking healthcare for any condition. Visiting a doctor for any reason hints at a lack of machismo. A study from Rutgers University in 2005 showed that men who regarded themselves as having masculine attitudes and traits were significantly less likely to undergo potential life-saving tests such as a prostate examination, have a flu shot, or undergo a routine physical. As varicose veins also have the stigma of being regarded as a “female” condition, there may be an element of embarrassment at play also. A more mundane reason may be that men’s legs are exposed less than women’s.

However, maybe the reason is even more complicated. Hippocrates, an influential figure in ancient Greece, is regarded as the father of modern medicine. However, much has changed in the last 2,400 years. Some of his teachings were correct: For example, he first described many important clinical signs of disease, and he correctly pointed out, among many other things, that compression bandages are helpful in treating venous disease. Many of his teachings, however, were not accurate and now seem almost comedic. Hippocrates’ mistaken belief that the human body was composed of black bile, yellow bile, phlegm, and blood was not discredited until the 18th century. Another myth he perpetuated was that varicose veins protected against baldness (“bald men with varicose veins grow hair again”). The implication was “lose your varicose veins, lose your hair.” Given that premature hair loss is routinely touted in men’s health magazines as one of the gender’s 10 top fears, maybe what men with varicose veins are truly afraid of is hair loss. Perhaps this is the myth we really haven’t tackled.

“GENDER-NEUTRAL” THERAPY

Regardless of the reasons men have for not seeking help, the treatments available (laser, radiofrequency, foam therapy, and surgery) are all equally effective in both genders. With these treatments, varicose veins can be eliminated completely. There are also a myriad of other treatments that will help with chronic or deep venous insufficiency. Again, these therapies are as effective in men as women. The task we have as vascular specialists is conveying this message to our male patients and abolishing myths.
The formation of men’s masculine identity is a profoundly social and cultural phenomenon. 

The concept of “masculinity” is learned from current social values and norms and reinforced by popular culture and media telling us all what it means to be a man. Research studies using quality-of-life questionnaires have helped identify the specific characteristics men point to as being the most influential in determining what makes them masculine. 

The Men’s Attitudes to Life Events and Sexuality (MALES) study conducted with data from 27,000 men ages 20 to 75 showed some interesting results. This substantial study looked at men with and without erectile dysfunction. Across all populations for this study, being a man of honor, self-reliance, being respected by friends, and having good relationships with spouse and family were qualities men stated affected their perception of their masculinity. Surprisingly, sexual activity and health were listed last in this trial.

ATHLETIC VASCULAR INJURIES

If sexual activity is not defining the male perception of masculinity, maybe good health status should. With today’s emphasis on healthy living and the need for more strenuous exercise, men and women are at risk for vascular problems. Research shows us, however, that men generally do not seek out medical help as frequently as women. When men do go to a physician, they generally have a more passive doctor/patient relationship and ask fewer questions. Men are more commonly coached to “walk it off” and “push through the pain” during endurance training and are less likely to seek medical help when symptoms occur, which can be a dangerous combination.

Recently, attention has been given to the research into vascular injury due to strenuous training for endurance sports. Diagnosis is a problem because physicians do not commonly link a healthy athlete to vascular disease. There are now substantial data published, however, documenting the incidence of iliac artery compression occurring in athletes that participate in competitive cycling. Cyclists are accustomed to experiencing a certain degree of muscle pain and fatigue during high-intensity exercise. Recently, however, cyclists have reported symptoms of leg pain and weakness from an unexpected cause—damage to the arteries in the pelvis, groin, or lower leg. This arterial damage may cause the arteries to stretch, narrow, or kink; during high-intensity exercise, the athlete experiences decreased blood flow due to the constriction of the artery in the affected leg. This lack of blood flow, or ischemia, causes pain, burning, weakness, and powerlessness during exercise. In cyclists, this damage most often occurs in the iliac arteries, particularly the external iliac artery. The cycling posture needed for aerodynamics involves hip hyperflexion, compressing this area. It is estimated that a competitive cyclist repeats this movement 8 million times a year.
Magnetic resonance imaging, angiography, and color duplex ultrasound are used for diagnosis. Research shows that conservative treatment such as changing the patient’s bike seat, modifying his posture, and decreasing the amount of cycling can be successful; however, surgical or endovascular options will be needed if endofibrosis occurs. Endofibrosis is the blockage of the artery from mechanical stress instead of atherosclerotic blockages from plaque in other disease processes.

Another vascular injury that athletes may experience is aortic root dilation. This condition may occur in athletes as a consequence of hemodynamic overload associated with exercise training. The aortic root is the portion of the ascending aorta that comes off the left ventricle as it leaves the heart. Normally, aortic dimension is affected in healthy individuals by height, body size, age, sex, and blood pressure. Data on athletic activities requiring intense endurance such as cycling and swimming show an increase in aortic dimension for participants. Symptoms may not be present. Any athlete that develops aortic enlargement may be at risk to develop clinically relevant aortic dilation later in life. If this condition becomes severe, treatment is necessary. For this reason, it is important for patients to be followed for progression of their aortic dilation at regular intervals for the rest of their lives to ensure early detection of any more serious problems.

A third vascular complication caused from strenuous activity is thoracic outlet syndrome. This condition has been identified in swimmers, baseball pitchers due to the motion of throwing repeatedly, and body builders that bulk up the muscle mass around the neck and chest for their sport. The thoracic outlet is a triangular space on either side of the base of the neck bounded by the uppermost rib and the scalene muscles. The subclavian artery is the main vessel that supplies blood flow to the upper extremity and passes through this triangular space. The subclavian vein returns blood flow from the upper extremities and passes just in front of the area.

Athletes such as baseball pitchers, weightlifters, and swimmers can develop thoracic outlet syndrome from years of repetitive movements. Repetitive activity can cause the anterior scalene muscles and subclavius muscle along the clavicle to hypertrophy and press on the nerves in that area or restrict blood flow. Symptoms include pain, numbness, skin discoloration, or ulcers due to damage to the blood vessels. The repetitive positional compression of the axillary artery can also cause focal intimal hyperplasia, aneurysm formation, segmental dissection, and branch vessel aneurysms. If these problems occur, surgical intervention is required.

SAFER TRAINING
Men may be at risk for vascular injury from strenuous training for endurance sports if they do not respond to symptoms they are experiencing. There are much data to help guide athletes for safer training and participation in endurance sports. The complexity of our perception of masculinity is being studied and evaluated as it evolves over time. Men need to pay attention to their bodies, prevent injury when possible, and seek medical attention if problems arise.
More than half a million people will undergo coronary artery bypass graft surgery this year. The vast majority of them will be considered senior citizens.

But what happens when this invasive surgery is the “prescription” for a younger person, someone under age 45? In comparison to the supply of literature about people aged 60 plus, there is scant research about coronary artery bypass graft surgery in this younger group. That lack of information is what has John sharing his story as often as possible.

John is a news reporter in Albany, NY. That means he’s spent countless hours working in pressure-filled situations, and he has consumed more than his share of fast food. “We’d finish a live report at 11:30 PM, and since we never had time to grab dinner beforehand, I’d hit the drive-thru window and get a burger and fries,” John told me. And that was routine. Even though he is a tall guy (he measures 6’3”), that kind of eating, along with donuts grabbed in the newsroom, sodas gulped as he pounded out scripts, and frequent ice cream as a fast, summertime snack, he knew he was heading for trouble. Approaching his 40th birthday, he found he was too often out of breath, so he called a doctor and scheduled a physical. “Surprise, surprise,” John said, referring to the way that examination led to a stress test, which he failed with flying colors. To celebrate his landmark birthday, he made the acquaintance of cardiothoracic surgeon, Dr. Thomas Canavan. A quick trip to the catheterization lab yielded some bad news. “Two arteries were 100% blocked,” John said. Moreover, “The doctor told my wife I was a ticking time bomb.”

Everything moved quickly after that. For a guy who spends his days asking questions, there were too few answers to be gotten. The videotape about the procedure he was about to undergo depicted an older couple. But what about exercise—was it safe? And how about sex—could it be dangerous? Those were the big questions for a young guy, and that tape did not adequately answer them. When it came time to start cardiac rehabilitation, John was the youngest guy there by about 20 years. “Everyone was nice, but there was no one I could really talk with,” John told me. Eventually, another young man, 38 years old, joined the fraternity. Finally, there was someone with whom John could connect. In fact, the two have remained good friends.

The situation has gotten a little bit better for young guys since Gary had his quadruple bypass surgery 21 years ago. He’d undergone angioplasty when he was 44. At 46, however, it was time for more extensive treatment. “I didn’t know anything about bypass surgery,” Gary says. “It would have helped tremendously if I’d had an idea about what I was facing.” He wound up facing much of it alone, as he was not sent to cardiac rehab and had to recover on his own.
As a physical education teacher, Gary at least had some good knowledge of what to do to rebuild his strength. But he had no idea how to lift his spirits. “Yeah, I’m sure I suffered a little depression,” he told me. He, too, had trouble getting answers about rebuilding his life. “My doctor chuckled when I asked about resuming a sex life,” Gary said, but that was not a laughing matter for a young, otherwise healthy man.

It may be true that misery likes company, but what these guys really want is better recognition of the special challenges facing young men who undergo coronary artery bypass graft surgery. They’re going to live longer after their procedures, which means many more years on medication. That worries John. He wants someone to really spell out for him what all the years on all the drugs may mean to his overall health. Many of these medications have side effects that can interfere with day-to-day living.

As Gary tells me, one of the early drugs he was prescribed, Cardizem (diltiazem), knocked him out. “I could fall asleep just about anywhere,” he said. Eventually, the doctor listened to Gary’s concerns and changed his medication.

Both men urge doctors to be more attentive to the heart health of younger men. They encourage men in general to do the same for themselves. John’s the oldest of four brothers. They know about his saga, but he doesn’t know if they’ve done any follow-up with their own doctors or changed their own eating habits.

Gary emphasizes the need to know your family history. Both of his parents succumbed to heart attacks, his mom at 62 and his dad at 79. Again, it comes back to knowledge and the partnership between patient and doctor. A young guy is a different patient than an older fellow. Younger men need to be spoken to in a different manner, since their view of the world—that it’s still to be conquered—needs appreciation.

These days, Gary is preparing for another bypass. Despite exercising and being attentive to diet, his genetics are unrelenting. As for John, while he was diligent about exercising after his surgery, time constraints and family life have gotten in the way. He and his wife recently welcomed a baby daughter. “Yes, my boys can swim,” he jokingly—but with relief—told me. Add to that the fact that his job requires him to wake up at 2:15 AM, and it’s difficult finding time to exercise, let alone play a round of golf or go bowling, his favorite pastimes. John has also regained some of the 40 pounds he lost postsurgery. But he’s trying to keep it together. Again, he says, he wishes there was more educational material available for a young guy to help with pointers in these busy days. Even when it comes to meal preparation, he’d like more targeted guidance. So he and his wife have been collecting recipes from a cross-section of sources. They think, one day, when they have a little breathing time, they’ll compile a book to help others.

John and Gary have never met, but both shared the same parting words for other men to take to heart: “Be aware, and take care.”

BE AWARE, TAKE CARE

Both men urge doctors to be more attentive to the heart health of younger men. They encourage men in general to do the same for themselves. John’s the oldest of four brothers. They know about his saga, but he doesn’t know if they’ve done any follow-up with their own doctors or changed their own eating habits.

Gary emphasizes the need to know your family history. Both of his parents succumbed to heart attacks, his mom at 62 and his dad at 79. Again, it comes back to knowledge and the partnership between patient and doctor. A young guy is a different patient than an older fellow. Younger men need to be spoken to in a different manner, since their view of the world—that it’s still to be conquered—needs appreciation.

CARDIAC ATHLETES ON FACEBOOK

A note from the author: This article contains only two profiles of the many I compiled. In asking around about this topic, a number of men came forward, all voicing similar stories and concerns. And since the world hates a vacuum, the dearth of information for this group of young, active men with cardiovascular disease has prompted a Facebook page called Cardiac Athletes.
The Vascular Group was founded to establish a comprehensive vascular care center consisting of board-certified vascular specialists trained in endovascular, angiographic, and surgical techniques. Our physicians distinctively combine expertise in both traditional open surgery and cutting-edge, minimally invasive catheterization techniques to manage peripheral vascular disease. We are committed to promoting vascular health and delivering the highest-quality care to our patients and our community.

The Vascular Group, PLLC
43 New Scotland Ave
Mail Code 157
Albany, New York 12208

Tel 518-262-5640
Toll Free 1.877.VASCULAR (1-877-827-2852)

Distinctive | Experienced | Committed