

Summer 2011

Keeping in Circulation

The official magazine of the Vascular Disease Foundation®

Aortic dissection

Diabetic foot and neuropathy

Erectile dysfunction

Carotid stenosis

Living with vascular disease



Vascular Disease Foundation®



Robert B. McLafferty, MD
President
Vascular Disease Foundation

Dear Readers,

I am delighted to announce that VDF's *"This is Serious Campaign"* is the recipient of a Gold Aster Award in the patient education category. The campaign, designed by the Spirit of Women Hospital network, is part of a 5-year cooperative agreement with the Centers for Disease Control and Prevention (CDC) to promote the health of women who suffer from, or are at risk for, deep vein thrombosis (DVT). The Aster Awards are one of the largest national competitions of its kind and recognizes the most talented healthcare marketing professionals for outstanding excellence in advertising.

In this issue, we focus on living well with vascular disease—changing those habits that will help improve your health. Giving up smoking and managing other risk factors will greatly improve your vascular health and this article will offer tips for lifestyle changes. An article on caring for your feet with diabetes is also featured to help those with diabetic neuropathy manage their symptoms. Managing your blood sugar and learning how to care for your feet are paramount to good foot and overall health.

If you are like those Americans that want to understand the difference between your veins and arteries, featured is an article on the basics of vascular anatomy. Understanding your vascular system can help empower those living with vascular disease to better understand the highway that keeps the blood moving throughout the body.

Other articles include one man's story of surviving aortic dissection, vascular disease and erectile dysfunction, best treatment for carotid disease and more!

And please mark your calendars for our annual meeting coming to the Ritz Carlton-Tyson's Corner in McLean, Va., September 14-15. A great lineup of speakers is on the agenda and we are sure you won't want to miss this great opportunity. First, we are proud to announce Dr. Jeffrey Wigand, the tobacco whistleblower who helped the U.S. government in its tobacco settlement case. You may remember his feature on "60 Minutes" and as the character depicted by Russell Crowe in the movie "The Insider."

Our second speaker is Matthew Logelin, whose wife, within hours after the birth of their daughter, died very suddenly of a pulmonary embolism. Matt has since published a book, *Two Kisses for Maddy: A Memoir of Loss and Love*, and started a blog to deal with his grief, which now attracts thousands of visitors. We are very excited about these exciting speakers and hope you'll join us and enjoy this summer issue of *Keeping in Circulation*.

I want to thank you as always for your support of VDF's programs. If you haven't made a donation lately, please visit our Web site at www.vdf.org to make a tax-deductible donation to the Vascular Disease Foundation. Thank you!

Sincerely,

A handwritten signature in black ink, appearing to be 'R. McLafferty'.

Robert B. McLafferty, MD
President
Vascular Disease Foundation

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Keeping in Circulation is published quarterly by Krames StayWell
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September is National PAD Awareness month!

Visit the P.A.D. Coalition Web site www.PADCoalition.org to learn about PAD or find a free screening near you. Stay in Circulation and Take Steps to Learn about PAD at www.aboutpad.org

This is Serious: Award-Winning Program

VDF's "This is Serious Campaign" is the recipient of a Gold Aster Award in the patient education category. The campaign was designed by the Spirit of Women Hospital network as part of a five-year cooperative agreement with the Centers for Disease Control and Prevention (CDC) to promote the health of women who suffer from, or are at risk for, deep vein thrombosis (DVT). The Aster Awards are one of the largest national competitions of its kind and recognizes the most talented healthcare marketing professionals for outstanding excellence in advertising. [To learn more, visit www.ThisIsSerious.org.](http://www.ThisIsSerious.org)

Support Vascular Disease Education

The Vascular Disease Foundation is the only national nonprofit dedicated to providing the public with trustworthy and factual free education about vascular disease. While we have wonderful corporate sponsors who help us in our efforts, we also rely on the generous support of the general public. Won't you help support us today? All donations are tax-deductible, and 89.4 percent of our expenses support our programs.

You can make a donation by calling us toll-free at (888) VDF-4INFO, online at www.vdf.org/donate/donation.php. Or, make a \$10 donation by texting VDF to 50555 from your mobile phone. Your tax-deductible donation will show up on your mobile bill and will support VDF's programs.

Thank you for supporting the Vascular Disease Foundation!

P.A.D. workbook

Please visit www.padcoalition.org, an interactive, online version of this self-care workbook. Throughout the online workbook, you can interact with features that will help you the most of what you learn, such as:



- Videos and animations
- Audio versions of the page information
- Printable materials
- Instant definitions of terms
- Quiz and survey to help gauge what you have learned

Social Media



VDF now has interactive pages on Facebook, Twitter and You Tube! Visit us online at and stay in touch:

Facebook: Like "Vascular Disease Foundation"

Twitter: Follow us at <http://twitter.com/vdf>

Watch us on You Tube:

<http://www.youtube.com/VascularDiseaseFdn>

Ask the Expert Live Chat

VDF is proud to offer live online chats with a health care professional about different areas of vascular disease. Chats occur during the second Tuesday of the month at 4 p.m. EST/3 p.m. CST/2 p.m. MST. Join us on the following dates to chat live with a medical professional:

Please visit www.vdf.org and click the "Interactive Resources" tab for more information.

July 12—Marjorie King, MD, will answer your general questions about PAD and exercise.
(Dr. King is Director of Cardiac Services for Helen Hayes Hospital in NYC)

No Chat scheduled in August

September 13—Heather L. Gornik, MD, will answer your general questions about vascular disease.
(Dr. Gornik is Medical Director, Non-Invasive Vascular Laboratory, Cleveland Clinic Heart and Vascular Institute in Ohio)

October 11—Donna M Mendes MD, will answer your questions about women and PAD.
(Dr. Mendes is Senior Vascular Surgeon, St. Luke's & Roosevelt Hospitals, and Associate Clinical Professor of Surgery, Columbia University College of Physicians & Surgeons)

November 8—Marcello Gomez, MD, will answer your questions about venous insufficiency and varicose veins.
(Dr. Gomez is an associate in the department of vascular medicine for the Cleveland Clinic in Ohio)

December 13—Meghal Antani, MD, will answer your questions about venous insufficiency and varicose veins.
(Dr. Antani is the Medical Director for the Southern Maryland Vascular Institute (SMVI) in MD)

Can't sit in on a live chat? You can e-mail us your questions up to 30 minutes prior to each chat at info@vdf.org or view the transcripts online.

Silver Sneakers

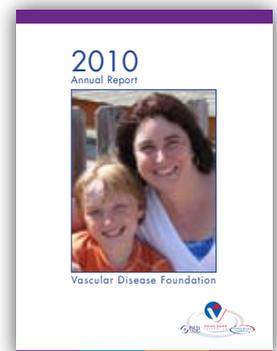
September is PAD Awareness Month, and the P.A.D. Coalition is teaming up with the Silver Sneakers® fitness program to help educate older adults about PAD, as well as how an active, healthy lifestyle can improve symptoms of PAD. Silver Sneakers programs are available through various health plans and through a wide network of health and fitness centers. Look for more information later this summer on this joint program at www.padcoalition.org.

Free Vascular Screenings in September!

The annual Legs for Life® screenings will be conducted across the country during the month of September. Most locations provide free screenings for peripheral arterial disease, abdominal aortic aneurysms, and carotid and venous disease. Screening locations will be posted in August at www.vdf.org or at www.legsforlife.org

VDF's Annual Report is here!

To read about our 2010 highlights for VDF and its two Coalitions, visit us online at www.vdf.org or contact us at info@vdf.org or by calling (888) VDF-4INFO (888-833-4463).



Professional Webinars

VDF's Venous Disease Coalition is pleased to announce a series of Webinars that aim to give primary care providers a course on the prevention and treatment of venous and arterial thromboembolic disease for CME credit. Learn more at www.venousdiseasecoalition.org/professionals/webinars.php

"In Memory of" and "In Honor of" Envelopes Available

VDF has created a preprinted envelope in response to request from supporters who have contributed "In Memory of" and "In Honor of" a loved one. This can simplify and expedite your desire to memorialize or honor a special person through a donation to VDF. If you would like to receive these special envelopes, call us at (888) VDF-4INFO or by e-mail at info@vdf.org.

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A global leader in cardiac and vascular care with market-leading products, Abbott is committed to advancing patient care by transforming the treatment of vascular disease through medical device innovations, investments in research and development, and physician training and education.

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Your story is his story

By Jennifer Sellers

Brian Tinsley turned a traumatic episode of aortic dissection into an opportunity to help others.

Meet Brian Tinsley. The 48-year-old lives in Seattle with his wife and two children. He's an avid tennis player and hard worker. And eight years ago, he had an acute type A aortic dissection that almost took his life.

"It happened during a tennis match."

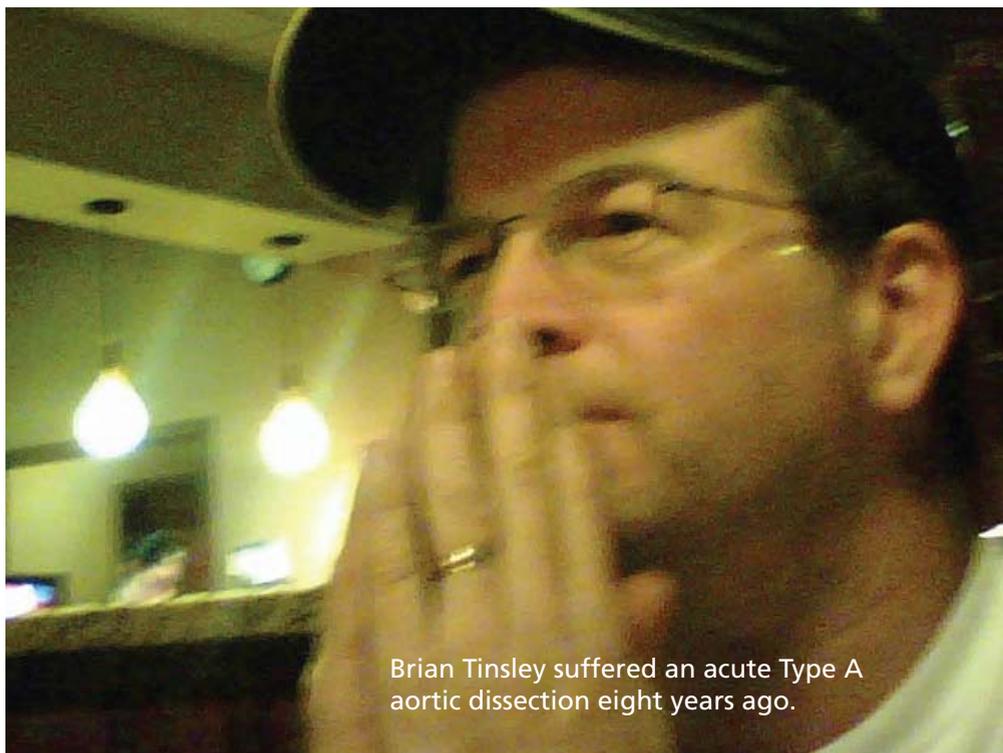
August 22, 2003, was a stressful day for Tinsley. After dealing with several tricky work-related projects, he dashed to a tennis match—which he was late for. These inconveniences were nothing, however, compared to what he would face that evening.

"It was the second game into the match; I went for the ball and suddenly felt this very weird sensation," Tinsley recounts. "I had never felt anything like it before. It wasn't really painful; it was more like an out-of-body experience."

Tinsley first went to rest on the sidelines, and then inside a lobby. His tennis partner had planned to drive him to an emergency room, but as Tinsley's right leg started going numb, he thought it would be best to avoid after-work traffic and call 9-1-1 instead.

"Looking back, that was an important decision," he says. "The fact that I got the paramedics to drive me there—instead of having to check myself in—saved me time. When you have a type A dissection, time is not on your side."

A type A aortic dissection begins in the first, or ascending, section of the aorta, and requires immediate surgery. A type B dissection occurs in the descending part of the aorta and can often be treated with medication.



Brian Tinsley suffered an acute Type A aortic dissection eight years ago.

Photo courtesy of Brian Tinsley

When Tinsley got to the hospital, he immediately underwent tests. "After that, the next thing I remembered was a doctor at the end of my bed telling me I had a dissection and that I had a 50/50 chance of living," he says. "That was around 5 p.m.; a few hours later I was in surgery."

Fortunately, Tinsley's surgery was successful. He stayed in the hospital another week, then went home where he spent two months in recovery. It was during that time he conceived a way for himself and others to learn more about aortic dissection.

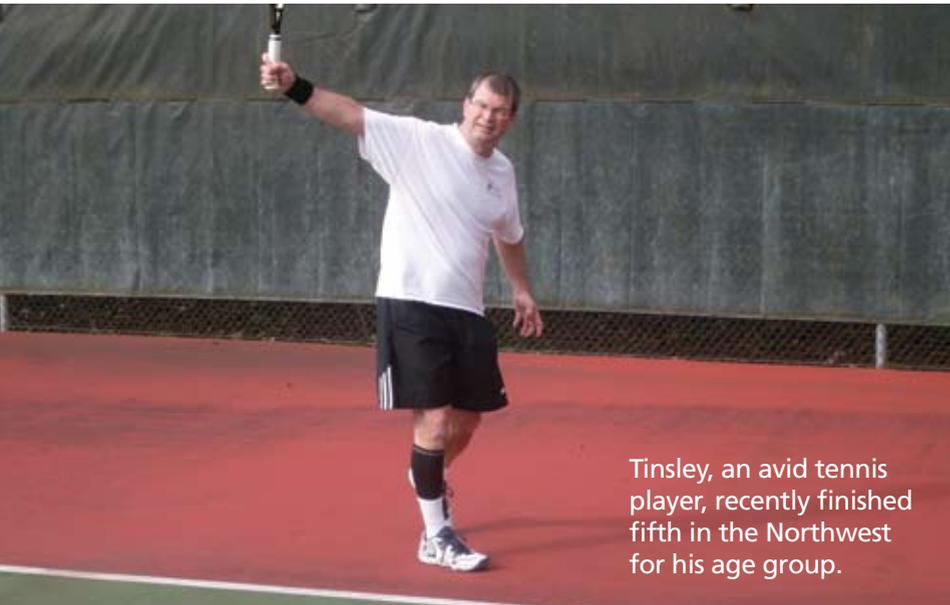
"I started looking for information on what I had, but it was all bad news."

Recovery was challenging for Tinsley, who was a Type A personality and athlete.

"I couldn't go up the stairs or do anything because I had this big scar on my chest," he remembers. "I started looking on Web sites to find more information about what in the heck an aortic dissection was, and everything I

Submit your story to
AorticDissection.com

If you'd like to share your story with Brian Tinsley and his readers at aorticdissection.com, visit the "Submit a Story" tab at the top of the homepage, then fill out a short form where you can detail your experience.



Tinsley, an avid tennis player, recently finished fifth in the Northwest for his age group.

Photo courtesy of Brian Tinsley

Symptoms of aortic dissection

The primary symptom of aortic dissection is a sharp, stabbing, tearing or ripping sensation that is felt below the chest bone:

- Moving under the shoulder blades or to the back; or
- Moving to the shoulder, neck, arm, jaw, abdomen or hips.
- When you change positions, the pain can move to the arms or legs and worsen.

Other symptoms include:

- Confusion and disorientation
- Numbness, decreased movement or decreased sensation in any part of the body
- Dizziness or fainting
- Dry mouth and/or dry skin
- Nausea and vomiting
- Pallor and profuse sweating
- Weak pulse
- Shortness of breath

read was about the mortality rates.”

A few months later, when Tinsley sought treatment for possible claudication in his leg, his doctors suggested he was also suffering from depression.

“That’s when I decided to start my Web site,” he says. “I wanted to put something positive out there and try to find out who else has had this happen.”

As it turns out, a lot of people were in the same boat as Tinsley. And they, too, longed for more information and support. Shortly after the site was up and running, stories started flooding in—and not just from the United States and Canada, but from all over the world.

“It’s just my way to give something back.”

The need for better education on aortic dissection isn’t lost on Tinsley. In fact, he believes that someone else’s efforts to raise awareness of the condition may have helped save his life.

“Several years after my dissection, I found out about a man who had gone to the same emergency room 40 days before me,” Tinsley recounts. “He had the same condition as mine and saw the same doctor. But that man was misdiagnosed with an anxiety attack and died. His wife pushed the hospital to increase its awareness of aortic dissection.”

Tinsley says another missed opportunity occurred in his own life. “I had high blood pressure, which is a risk factor for aortic

dissection, but I was never put on medication for it,” he says. “I still get angry at my former general physician when I think about it. Every time I’d go in for a physical, they’d tell me I had white coat syndrome (a phenomenon where a patient exhibits high blood pressure in clinical settings due to nervousness) and not to worry about it. In reality, I probably should’ve been on blood pressure medication.”

To promote understanding of aortic dissection, including its symptoms and risk factors, Tinsley often consults with specialists when he responds to readers on his site.

“One of my first responses was to a guy I sent to Stanford,” Tinsley recounts. “He had gone to a couple of other places without luck, and almost died. But he went there and got the surgery he needed ... I’m glad to be helping people.”

“I work with many of the top universities such as Stanford, Columbia and the University of Washington. I’ve been able to team up with many of the top surgeons who will answer questions for my readers and give me second opinions and review. It’s a truly amazing ability to be able to get answers very quickly for someone who’s looking. I think that’s a big relief for many family members.”

Tinsley takes several hours a week out of his busy schedule to work on aorticdissection.com. On the site, you can find more about Tinsley, as well as news on aortic dissection, a community forum and stories (organized by age and type of aortic dissection) from readers.

As for Tinsley’s story, he’s recovered well. He’s still playing tennis and just finished fifth in the Northwest for his age group. “I still play three to five days a week,” he says. “The only thing I can’t do anymore is run long distances. I used to run marathons, but now I can barely run once around a track. Still, it’s a small price to pay to still be with my family.” ■

An aortic dissection occurs when an injury to the aorta (the main artery responsible for carrying blood out of the heart) causes bleeding in and along its walls. If you experience any of these symptoms, you should get medical attention immediately.



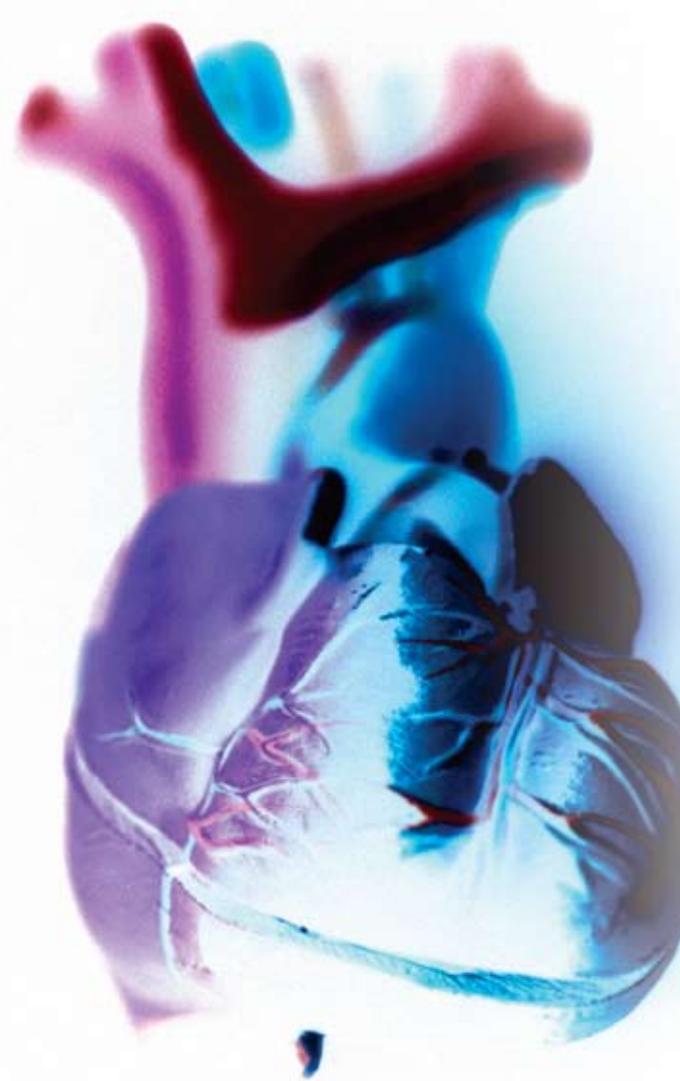
Unmasking the secrets...

IRAD consortium is learning more about diagnosing and treating aortic dissection

By Erica Stacy

Songs have written about it. Poems have reflected on it. The heart holds many mysteries and secrets. Perhaps never more so than when it is broken, either literally or figuratively.

Each beat of the heart sends blood coursing through arteries, providing nutrients and oxygen to organs and limbs. But sometimes, the system breaks down, and the results can be devastating.



Aortic dissection is a serious, life-threatening disorder that requires immediate medical attention.

For more information on the IRAD trial, visit www.iradonline.org.

In 2003, when actor John Ritter collapsed on the set of his hit sitcom, few people in the United States knew much about the rare and often deadly condition called aortic dissection. Ritter's untimely death brought worldwide attention to the issue and created an opportunity to raise awareness and improve outcomes for future patients.

Approximately 2,000 new cases of aortic dissection are reported each year in the United States.

What is an aortic dissection?

An aortic dissection is a tear in the wall of the aorta, the main blood vessel in the body. The wall of the aorta is made up of three layers. A dissection allows blood to leak from the inner layer into the middle layer. The aorta becomes enlarged, and the path the blood normally follows is disrupted. Because the nutrient and oxygen rich blood cannot flow properly, the organs begin to suffer. The brain, kidneys, heart and even the arms and legs may be affected by an aortic dissection.

Aortic dissection is a serious, life-threatening disorder that requires immediate medical attention. In fact, if the aorta ruptures, fewer than half of all patients survive.

Until recently, not much was known about the condition. Thanks to the work of IRAD, The International Registry of Acute Aortic Dissections, physicians are learning more about effectively diagnosing and treating dissection and perhaps most importantly, developing information that can be shared with patients so that they understand the signs, symptoms and risk factors.

IRAD

"Information is our greatest weapon against any health issue," explains Kim Eagle, MD, FACC, IRAD investigator. "It is illuminating to review data from our registry. As we learn more about dissection, we are able to recognize similarities

in patients and identify different facets of study."

IRAD is a consortium of research centers that are evaluating the management and outcomes of acute aortic dissection. IRAD has been collecting data since 1996. Currently, the consortium recruits patients from 33 referral hospitals in 10 different countries including Austria, Italy, France, Canada, Switzerland and Japan.

Around 3,000 patients have participated in the clinical trials.

IRAD is headquartered at the University of Michigan Health System Cardiovascular Center and receives support from the University's medical school, the Varbedian Fund for Aortic Research, the Hewlett Foundation, and the Mardigian Foundation.

"IRAD investigators share a common passion to understand more about this rare and serious health condition," says Eagle. "In a relatively short period of time, with only modest funding, we have taken significant strides. Our investigators have published more than 50 articles regarding our findings, and we have been able to reach out to emergency rooms and physicians with valuable information designed to save lives."

IRAD offers meetings three times each year. They serve as an opportunity for medical professionals from across the world to share information face-to-face. In addition, investigators tap into technology to communicate their ideas and share data. There are also numerous interactions between sites and an annual call for papers encouraging investigators to share their findings.

"Alone, we can take a few steps toward understanding. Working together, we are equipped to run the marathon necessary to find out more about aortic dissection. Our efforts offer patients hope and real life strategies for preventing, treating, and living with aortic dissection," said Eagle. ■

IRAD, in cooperation with the Thoracic Aortic Disease Coalition and Amy Yasbeck, widow of actor John Ritter, are working to promote "Ritter Rules."

Ritter Rules are life-saving reminders to recognize, treat and prevent thoracic aortic dissection, a deadly tear in the large artery that carries blood away from the heart. Named for actor John Ritter, who died of a thoracic aortic dissection, Ritter Rules combine knowledge with action. Know the urgency, symptoms, who is most at risk and which imaging tests are required to diagnose this medical emergency.

URGENCY

Thoracic aortic dissection is a medical emergency. The death rate increases one percent every hour the diagnosis and surgical repair are delayed.

PAIN

Severe pain is the number one symptom. Seek immediate emergency medical care for a sudden onset of severe pain in the chest, stomach, back or neck. The pain is likely to be sharp, tearing, ripping, moving or so unlike any pain you have ever had that you feel something is very wrong.

MISDIAGNOSIS

Aortic dissection can mimic heart attack. Heart attacks are far more common than aortic dissection. But if a heart attack or other important diagnosis is not clearly and quickly established, then aortic dissection should be quickly considered and ruled out, particularly if a patient has a family history or features of a genetic syndrome that predisposes the patient to an aortic aneurysm or dissection.

IMAGING

Get the right scan to rule out aortic dissection. Only three types of imaging studies can identify thoracic aortic aneurysms and dissections: CT, MRI and transesophageal echocardiogram. A chest X-ray or EKG cannot rule out aortic dissection.

RISK FACTOR

Aortic dissections are often preceded by an enlargement of the first part of the aorta where it comes out of the heart, called an aortic aneurysm. If you have an aneurysm, you are at increased risk for an aortic dissection.

- A personal or family history of thoracic disease puts you at risk. If you or a family member is living with an aneurysm or if you have a family member who has had an aortic dissection, you are at an increased risk for thoracic aortic dissection. You and your other family members should be evaluated to determine if a predisposition for aortic aneurysm and dissection runs in the family.
- Certain genetic syndromes put you at risk. These genetic syndromes greatly increase your risk for thoracic aortic disease and a potentially fatal aortic dissection: Marfan syndrome, Loeys-Dietz syndrome, Turner syndrome and vascular Ehlers-Danlos syndrome.
- Bicuspid aortic valve disease puts you at risk. If you have a bicuspid aortic valve (two leaflets instead of the typical three), or have had a bicuspid aortic valve replaced, you need to be monitored for thoracic aortic disease.

TRIGGERS

Lifestyle and trauma can trigger aortic dissection. It is possible to trigger an aortic dissection through injury to the chest, extreme straining associated with bodybuilding, illicit drug abuse, poorly controlled high blood pressure or by discontinuing necessary blood pressure medications. Rarely, pregnancy can trigger an aortic dissection. Women with aortic aneurysms and connective tissue disorders who are pregnant are at higher risk of aortic dissection during late pregnancy and delivery and should be carefully monitored by a cardiovascular specialist.

PREVENTION

Medical management is essential to preventing aortic dissection. If you have thoracic aortic disease, medical management that includes optimal blood pressure control, aortic imaging and genetic counseling is strongly recommended. Talk with your health care provider.

For more information, visit <http://johnritterfoundation.org>.

Carotid controversy

Which treatment is best?

Research shows that better options are emerging for the treatment of carotid stenosis, but physicians are still divided

By Jennifer Sellers



When it comes to carotid disease, there is an important fact that everyone agrees on: It's a major cause of stroke.

One in four ischemic strokes is caused by a blockage in the carotid artery, says John H. Rundback, MD, medical director at the Interventional Institute at Holy Name Hospital in Teaneck, N.J., and managing partner of Advanced Interventional Radiology Services, also in Teaneck. "It's the main artery supplying blood to the brain," he explains. "Roughly 90 percent of narrowing in the carotid artery first presents as a stroke—without any warning signs."

While this statistic is undeniably accepted in the medical community, there's some debate among physicians over the safest, most effective treatment for carotid stenosis.

Asymptomatic carotid stenosis: medication vs. procedure

For people who have already experienced a stroke or stroke-like symptoms, and who also have 50 percent to 60 percent narrowing of the carotid artery, surgery or stenting is recommended. In addition, people who haven't had a stroke or stroke-like symptoms, but who do have at least 80 percent narrowing of the carotid artery, are also candidates for surgical or stent treatment.

“If you take into account the risks of both, and the fact that stenting is minimally invasive, it tends to be equivalent to surgery.”

But when it comes to the treatment of those who have asymptomatic carotid stenosis (narrowing of the carotid artery without symptoms), there are differing opinions regarding whether medication or a surgical or stenting procedure is needed to prevent a stroke.

“Asymptomatic carotid stenosis is one of the most undertreated and overtreated conditions,” says Dr. Rundback. “It’s undertreated in the sense that many physicians who have a patient with asymptomatic blockage of the carotid artery do not feel that it needs to be fixed, and the patients are never referred for evaluation for stenting or surgery. On the other hand, over 80 percent of carotid surgery is done for asymptomatic patients, because it’s just much more prevalent than symptomatic blockage of the carotid artery.”

Dr. Rundback says that many physicians believe that aggressive medical treatment—such as medications that control cholesterol, blood pressure and diabetes—can have the same overall effect as surgery or stenting, but with less risk. “There was a poll published in the *New England Journal of Medicine* that surveyed primary care doctors and neurologists on this subject, and it was pretty much divided on the belief that surgery (which is repairing the artery) is or is not needed,” he says.

Symptomatic carotid stenosis: stenting vs. surgery

Furthering the debate is the question of whether stenting is a safe and effective substitute for surgery—when it’s determined a procedure is needed.

Up until recently, surgery has been the preferred treatment. This method, called endarterectomy, involves removing plaque from the carotid artery. Endarterectomy is not without its risks, which can include possible stroke, damage to the cranial nerves or heart attack during surgery.

Stenting, which involves the insertion of a device that keeps the carotid artery open, also carries a possible danger—namely, an increased risk of stroke during the procedure. However, the benefits—minimally invasive, less risk of wound infection, less risk of injury to the cranial nerves—are numerous.

In addition, some people are unable to undergo surgery due to prior carotid artery or neck surgery, nerve injury to the vocal cords, heart failure, chest pain due to blocked arteries or emphysema. Therefore, the U.S. Food and Drug Administration (FDA) has approved stenting as an alternative treatment to surgery in these cases.

These days, however, stenting has the potential to move beyond just a back-up procedure. Several studies, including the ACT I Trial and the National Institutes of Health-sponsored CREST Trial, have shown that the stroke risk associated with stenting has decreased due to more modern techniques.

“Stenting has come a long way,” says Dr. Rundback. “Early data from the ACT I Trial showed that the stroke risk during stenting is now 1 percent to 2 percent, which is well below the threshold the American Heart Association established for allowable risk of stroke during a carotid procedure. In the past, the risk was around 5 percent to 7 percent.”

Dr. Rundback points out that the landmark CREST Trial, which compared stenting to surgery, found that stroke risk during the stenting procedure (although remarkably low) was slightly higher than in surgery. However, the heart attack risk was slightly higher in surgery than it was in stenting.

“If you take into account the risks of both, and the fact that stenting is minimally invasive, it tends to be equivalent to surgery,” says Dr. Rundback. “In addition, across the board, stenting may be preferred and may have better outcomes for patients under age 70.”

So, which option is best for patients?

Currently, stenting is only approved as an alternative for patients who aren’t able or advised to undergo surgery. However, Dr. Rundback says it’s inevitable that it will eventually become the standard. “Stenting has

emerged in these trials as having the same outcomes as surgery with shorter recovery,” he says.

Next up, says Dr. Rundback, is the need for trials that will evaluate whether stenting will also provide better long-term results for asymptomatic carotid stenosis than aggressive control of cardiovascular risk factors. ■

Risk factors for carotid stenosis

- advanced age
- smoking
- high blood pressure
- high cholesterol
- diabetes
- obesity
- diet high in saturated fats
- sedentary lifestyle
- family history of artery disease

Feet first!

Safeguarding your lower extremities against diabetic foot problems and neuropathy

By Susan L. Comer

“A thousand miles starts from beneath one’s feet.”

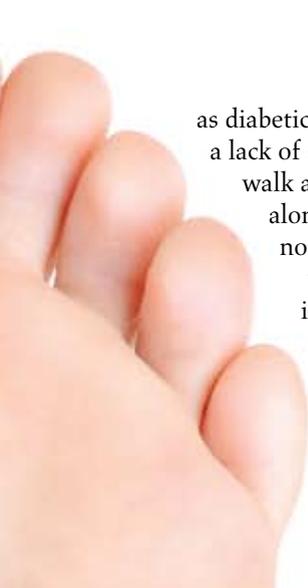
So said ancient Chinese philosopher Lao Tzu. It’s only natural, then, that our feet demand attention and protection. That’s particularly true for diabetics since high blood glucose from diabetes increases risk for foot problems. The American Diabetes Association estimates that one in five diabetics who seek hospitalization do so for foot complications. However, with proper care, most serious foot problems can be prevented.

“An unprotected environment”

Diabetic foot disorders primarily stem from two issues—nerve damage and poor blood circulation. When either or both are present, even commonplace foot injuries such as cuts or blisters can have severe consequences.

Diabetics, particularly long-term diabetics, are prone to nerve damage, also known





as diabetic neuropathy. As neuropathy results in a lack of sensation in the foot, one could literally walk around with a tack inside one's shoe, let alone suffer a simple cut or blister, and not notice until complications ensue.

"What I like to say is 'people are walking in an unprotected environment,'" says Joseph M. Caporusso, DPM, chairman of the P.A.D. (peripheral arterial disease) Coalition and president-elect of the American Podiatric Medical Association. "That just means walking without the correct shoe on or without any shoes on [or otherwise] not having their feet

While diabetic neuropathy is irreversible, symptoms can be addressed.

protected because they don't feel their feet." That repetitive trauma can lead to ulcers and infection.

To compound the problem, poor blood flow—the other major diabetic foot concern—can lessen the foot's ability to fight infection and to heal.

"A small abrasion or cut on the foot may go on to a major amputation because they cannot heal the cut or the abrasion," says Dr. Caporusso, also a VDF Board member. "And I liken that to a plant without water. Without circulation, the cut will not heal. Same as a plant without water, it will not survive."

Feet take the heat

Another potential effect of diabetic neuropathy is foot and/or toe deformity such as a bunion or hammertoe. A bunion is an abnormal enlargement of the joint at the base of the big toe, characterized by inflammation. A hammertoe is a toe that curls underneath the feet due to a weakened foot muscle. Sores may develop on both the bottoms of the feet and the tops of the toes as the result of a hammertoe.

Deformity can also present as Charcot arthropathy, progressive destruction of the bones and joints of the feet with no precipitating trauma besides walking. With Charcot arthropathy comes swelling, redness, increased skin temperature, and pain in the foot and ankle as well as increased risk for ulceration and amputation.

Other diabetic foot problems include corns and calluses, ingrown toenails, plantar warts, athlete's foot, and dry and cracked skin, common maladies anyone can experience, but

which can have far more deleterious effects when coupled with poorly controlled blood sugar.

Treat your feet

The first order of treatment—and prevention—for all diabetic foot problems is control of the blood sugar through diet and medication. Says Dr. Caporusso, "Keeping your blood sugar under control is paramount."

While diabetic neuropathy is irreversible, symptoms can be addressed. For instance, various medications—analgesics, low-dose antidepressants, and certain anticonvulsant medications, to name a few—are prescribed to relieve pain, burning and tingling. In some cases, physical therapy such as exercises, stretching and massage, is appropriate. And recommended for patients even with mild neuropathy are diabetic shoes with specially fitted insoles to help offload foot pressure and lessen or prevent foot injury. Medicare Part B covers the majority of the cost of diabetic shoes for patients who meet the necessary requirements.

Treatment for Charcot arthropathy usually involves reduction of stress on affected joints. The patient might wear a cast, avoid weight-bearing activities, and elevate the foot for a time. Ultimately, diabetic shoes are prescribed.

Firm footing

Besides controlling blood sugar, what can you do to help keep your feet healthy? Dr. Caporusso offers the following tips:

- **Be vigilant.** Inspect your feet daily for color changes, deformities, bleeding, cuts or abrasions. If poor vision or obesity prevents you from seeing your feet, have someone else inspect them for you.
- **Reject home remedies.** Don't use over-the-counter medications for corns or calluses. Chemical agents can burn your skin and, with neuropathy, you may not feel pain. Have your podiatrist treat all foot problems.
- **Get fit.** Wear specially made diabetic shoes or other shoes that fit well. Neuropathy may prevent you from detecting the pressure of ill-fitting shoes. Also, before you put on your shoes, examine them for jagged edges or foreign objects.
- **Don't wait.** If you have any type of foot problem, see your podiatrist immediately.
- **Make a standing appointment.** Get a comprehensive foot exam at least once a year.

Your feet have carried you this far. Make sure they're on firm footing for the rest of life's journey. ■

5 steps to living well with vascular disease

Regardless of your diagnosis,
this advice will help you improve
your health

By Jennifer Sellers



Unless you've been living under a rock, you know that you're supposed to adopt good habits like exercise and let go of bad ones like smoking. And while these common-sense recommendations are valid, they're also somewhat general. Here, we provide you with the specific steps that you, as a person with vascular disease, should follow for better well-being.

Step 1: Make up your mind

What if your doctor gave you a prescription that was practically guaranteed to improve your condition and make you feel better? And what if it was also free of charge and didn't require health insurance? Actually, you already have access to such a life-changing therapy; it's called change. If you change certain habits, it's almost a given that your health will improve. If change were bottled, it would be flying off of pharmacy shelves. But in its current form, it's often left untaken.

"People will usually take their medications, but behavioral changes are really tough," says Marge Lovell, RN, clinical trials nurse, vascular surgery, at London Health Sciences Centre in London, Ontario. "The change has to come from the patient; it can't just come from the healthcare provider. We can give them ongoing support. We can give them aids like nicotine patches; we can provide them with education; but we can't actually make them change.

“A person has to make up their mind that they’re ready,” Lovell continues. “They know their current behavior may not be what’s best, but they’re dealing with powerful habits and addictions. I always tell them, ‘until you make the conscious decision to do this for yourself, it’s not going to happen.’”

Step 2: Take a walk

The numerous advantages of exercise are well documented, but you don’t have to join a gym or train for a marathon to reap its benefits. Lovell says that not only is walking an efficient way to get moving, it’s ideal for people with vascular disease.

“Walking is the best thing someone with vascular disease can do,” says Lovell. “It’s especially beneficial for people with peripheral arterial disease (PAD).”

Lovell, who is a past chair of the P.A.D. Coalition, offers additional walking advice for those who have PAD.

“Walk until the point you feel pain in your hips, calves or buttocks,” she says. “Stop and wait a few minutes for the pain to go away, then start walking again. Try to do it twice a day, but at least four or five times a week. Studies have shown that if you do that you will improve your walking distance more and more each time.”

Because pausing for breaks during your walk can create challenges, Lovell suggests that people with PAD walk at parks or in malls, where seating is available, when they’re first getting accustomed to a walking routine.

Whether you have PAD or another vascular disease, walking can help improve your condition. In addition, it will add to your overall health and well-being, improve your mood, decrease stress, increase strength and flexibility, give you more energy and help with weight loss, says Lovell.

Step 3: DASH to good nutrition

If you follow the basic principles of a healthy diet—low-fat, lean proteins; high-fiber fruits, vegetables and whole grains; and sensible portions—you’re going to improve your health. But if you have vascular disease, you’ll want to add another component to that: low-sodium.

The DASH diet, which stands for Dietary Approaches to Stop Hypertension, was developed to help people lower their high blood pressure by following a low-sodium diet. To find specific details on the eating plan, you can visit dashdiet.org. However, some common-sense tips you can apply to your diet right away include cutting back on salting your meal and avoiding high-sodium canned foods like soups, meats and vegetables, says Lovell. “Look at the labels of foods before you eat them,” she says.

Step 4: No butts about it

If you’re a smoker, you know you should quit. If you’re a smoker who has vascular disease, you really know you should quit. To say it’s an important move for your health is an understatement. However, of all our steps, smoking cessation is probably the most difficult to achieve. And, unfortunately, there is no fail-safe way to quit.

“You have to choose what works for you and is approved by your physician,” says Lovell. “Fortunately, there are a lot of options out there. There are medications that may help you. There are lots of aids designed to help you quit. You might even choose support from loved ones or a group. Just know that quitting smoking is a huge part of improving your health.”



Step 5: Stay on schedule

The rest of our steps have been more about your lifestyle, so this one might seem a little out of place. However, this is the most important step: Take your medications as prescribed.

Even if you’re improving your health through diet, nutrition and smoking cessation, you can’t do those things in lieu of the medications your health care provider prescribed for your vascular condition.

“When you’re on these medications, you’re usually on them for life,” says Lovell. “You have to take them as prescribed by your health care provider. A healthy lifestyle is important, but properly managing your condition with medication is necessary.” ■

To get a free walking brochure, contact us at (888) VDF-4INFO (888-833-4463) or e-mail info@vdf.org.



Intimate wisdom

The relationship between vascular disease and erectile dysfunction—and what you can do about it

By Susan L. Comer

Through the ages, men have suffered the anxiety and anguish of erectile dysfunction (ED). But unlike men of past generations, many of whom suffered in silence, today's men reap the benefits of medical breakthroughs that have resulted not only in an array of successful treatment options for ED, but also a greater recognition of this common problem.

Indeed, according to the National Institutes of Health, as many as 30 million men in the United States suffer from ED. Credible estimates suggest that one in 10 men will experience the disorder at some point over the course of his lifetime.

Physical basis

Simply defined, ED is the continued inability to get or to maintain an erection sufficient to complete sexual intercourse. Contrary to what some may believe, ED is not a natural part of aging.

"It's true that the percentage of erectile dysfunction [cases] increases with each decade of life," says Drogo K. Montague, MD, professor of Surgery and director of the Center for Genitourinary Reconstruction, Glickman Urological and Kidney Institute at The Cleveland Clinic, "but that's primarily due to age-related disorders."

Most instances of ED have a physical cause. Any condition or circumstance that damages blood flow to the penis or injures the nerves can result in ED. The many potential triggers include diabetes, kidney disease and neurological diseases, as well as surgeries for prostate and bladder cancers.

However, vascular diseases, including atherosclerosis and hypertension, account for a majority of cases of ED from physical causes. Diabetics can have accelerated and earlier vascular disease, and studies suggest that at least half of men with diabetes will encounter erection problems. Among the contributing factors to vascular disease and, consequently, to ED, are high cholesterol, smoking and obesity.

ED is historically diagnosed and treated by a urologist who will take a sexual history and may order a lipid profile and other blood tests as well as a urine test. Many times, says Dr. Montague, men who visit the urologist's office for ED are seeing a doctor for the first time in years if not decades. As many cases of ED may indicate underlying vascular problems, he says, "[erectile dysfunction] may be the earliest sign of vascular disease rather than chest pain or claudication in the legs."

When vascular disease does in fact turn out to be the cause of ED, such measures as starting an exercise program, losing weight or quitting smoking can help. "If erectile dysfunction is not longstanding," says Dr. Montague, "it is potentially reversible with lifestyle changes."

Embracing your options

"Oral medications are the first line of treatment, because it's the simplest treatment," says Dr. Montague, "and almost all men will get a trial of sildenafil citrate (Viagra), vardenafil (Levitra) or tadalafil (Cialis) unless they're taking nitrates." Among a class of drugs known as phosphodiesterase, or PDE,

inhibitors, these medications are contraindicated for men who take nitrates; the combination can cause a sudden drop in blood pressure. PDE inhibitors work to enhance an erection through increased blood flow to the penis. In addition to the medical benefit of these oral therapies, their popularity has resulted in lessening the stigma of ED and dispelling the myth that the disorder is primarily psychological.

The second line of treatment includes penile injections and vacuum erection devices. Injectable therapies send drugs directly into the penis to enlarge vessels, relax the tissue and increase blood flow. Vacuum devices use a hand-operated pump to create a partial vacuum, allowing normal blood pressure to expand the organ.

Finally, the most invasive treatment for ED is the surgically-implanted penile prosthesis. "Penile prostheses, which are the oldest form of treatment for erectile dysfunction, undergo continuous design improvements," says Dr. Montague. Today's prostheses, he says, produce more lifelike erections and provide greater longevity than did earlier generations of the devices.



A healthy commitment

Erectile dysfunction has been around since the dawn of time, but more options for treatment and more insight into prevention exist today than ever before. ED is treatable—and, in most cases, preventable—at any age.

"The good news," says Dr. Montague, "is that the very same things that you would do to preserve vascular health—no smoking, a proper diet, maintaining proper weight and exercising, keeping your blood pressure, diabetes, and cholesterol under control—are the things that will preserve sexual health." ■

Vascular anatomy 101

The basics of how your heart,
arteries and veins work

By Ginny Gaylor

Much as our national highways keep traffic moving from city to city, your vascular system keeps blood moving throughout your body. It all starts with the heart, then it moves to the arteries, finally returning to the heart through the veins.

The heart

Your heart weighs between seven and 15 ounces and is only slightly larger than your fist. But this seemingly small muscle provides a powerhouse of activity. Every day it beats an average of 100,000 times and moves 2,000 gallons of blood.

Located slightly to the left of your breastbone and between your lungs, the heart is covered by the pericardium. This is a two-layered membrane. The outer layer attaches the heart to the spinal column and diaphragm with ligaments. The inner layer is connected to the heart itself. Between the two layers is a thin coating of fluid.

To follow the highway idea, your heart is basically the on- and off-ramp for blood. Blood begins its journey on the right side of the heart. Blood then travels to the lungs to be re-oxygenated before returning to the left side of the heart. From there, the newly oxygen-rich blood is sent out to the rest of the body to provide oxygen and nutrients to the organs and tissues.

Eileen Walsh, PhD, APN, RN-BC, FAHA, a Vascular Clinical Nurse Specialist at the Jobst Vascular Institute and an Associate Professor for the University of Toledo's College of Nursing, explains that while the heart is the main pump in the vascular system, it has some help. The diaphragm and the calf muscles also help force blood to move throughout the body.

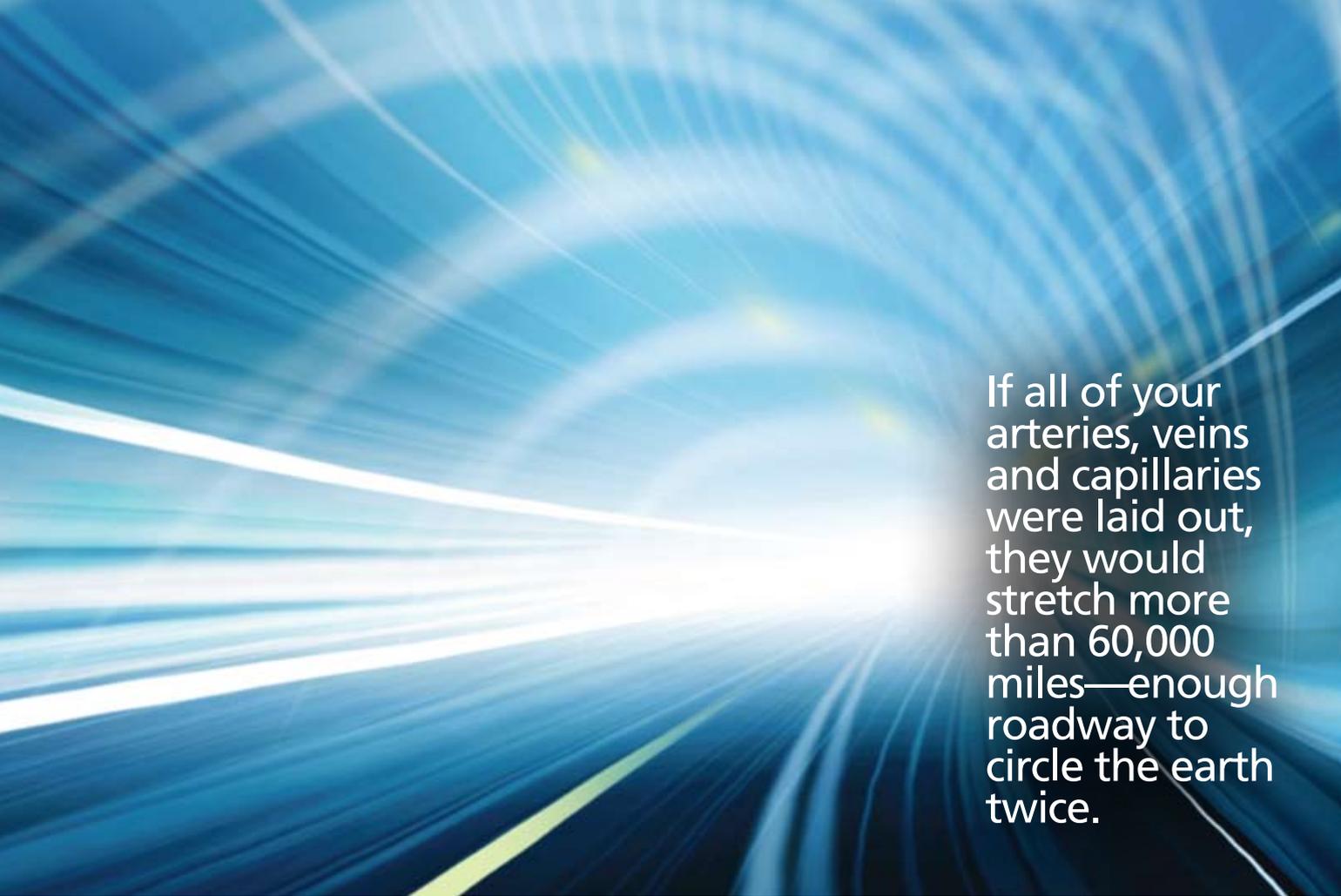
"The calf muscle contracts and gets blood back up to the heart from the leg veins," Walsh says. "When we take a breath, it also helps move the diaphragm, which in turns helps get the blood flowing through the veins back to the heart."

Arteries and veins

There are two types of blood vessels. Arteries are the blood vessels that carry oxygenated blood away from the heart throughout the body. They carry oxygenated blood to the organs, muscles and tissues of the body. The main artery that takes blood away from the heart is the aorta. Veins return blood that is low in oxygen to the heart where the trip starts all over again.

One exception is the pulmonary artery, which carries blood from the heart through the pulmonary artery into the lungs. Once the blood reaches the lungs, carbon dioxide is removed from the blood. Then oxygen is added back.





If all of your arteries, veins and capillaries were laid out, they would stretch more than 60,000 miles—enough roadway to circle the earth twice.

There are more veins, however. The structure of arteries is a bit different than veins; artery walls usually have three layers, while veins have only two. Blood within the arteries tends to be at a higher pressure than blood within the veins.

Arterioles and capillaries

Once blood travels from the off-ramp of the heart out to the body through the highway of the arteries, it journeys deeper into your tissues. The side roads that carry the blood there are called arterioles, and the smallest of all are capillaries.

Capillaries drop off nutrients, such as oxygen, and collect waste, like carbon dioxide. Next, they carry the blood into larger blood vessels. These are called venules, which combine to create veins.

“What is unique about veins is they have valves, because we are upright creatures,” Walsh says. “Along with the calf muscles, these help propel blood back to the heart.” Valves also prevent backward flow in the veins, particularly in the veins of the legs.

If all of your arteries, veins and capillaries were laid out, they would stretch more than 60,000 miles—enough roadway to circle the earth twice.

Vascular health

If one of the routes of the vascular system gets blocked, that’s when health problems can happen. Much as a car accident stops traffic, a blockage in an artery can lead to a heart attack or stroke or peripheral artery disease (PAD).

“If you have cramping or aching in your legs it could be because you not getting enough blood supply to the foot,” Walsh says. “You know when you have chest pain that can lead to a heart attack—it is a pre-warning. In the leg, you can have a symptom called claudication. It is the same as chest pain—a sign of PAD.”

“It’s also important to make sure you have adequate circulation in the venous side so you don’t have leg swelling and don’t develop ulcers.”

Deep vein thrombosis or DVT occurs when a blood clot forms in a vein and can completely block blood flow.

On the road to good health it certainly helps to have a map. Fortunately our bodies provide us with a great network of roads and byways in our vascular system. Understanding how it all works can keep the highways of your heart, arteries and veins flowing freely. ■



frequently asked questions

Excerpted from recent VDF's Live "Ask the Expert" Chats.
Transcripts of all chats may be found online at www.vdf.org.

Q. I suffer from post-thrombotic syndrome (PTS) in my arm and hand. Is there any hope for me? It's been four years since the clot; the arms are getting worse, not swollen, but numb when I use it. Will I ever have full use of the arm and hand again?

A. The main therapy, as you know, is elevation and arm compression, but this can be limiting. However, you may benefit from a stent in the subclavian or innominate veins if those are blocked. This approach has been used with some success for people with PTS in the legs when the pelvic veins are blocked, and many with chronic arm swelling have been treated by placing "central" stents with considerable improvement. You should see a vascular specialist to discuss all of your treatment options.

Q. I've heard people talk about PVD and PAD. Are they the same thing?

A. They are NOT the same thing, although the terms are often used interchangeably. PVD, or peripheral VASCULAR disease, covers ALL vascular diseases outside of the heart and includes disease of the veins and lymphatics. PAD, or peripheral artery disease, is a term generally used to describe blockages of the arteries of the legs and sometimes the arms.

Q. What is your recommendation for Fibromuscular Dysplasia (FMD) patients taking stimulant medicine for adult ADD? If blood pressure is controlled and the ADD medication is necessary, should this be OK?

A. This is a really important question, as FMD may be far more common than many believe. In the situation you describe, if there are absolutely no side effects, then I would allow the patient to take the ADD medication, since it is often critical to their functional abilities. It is important for patients with FMD to see health care providers who are familiar with this condition.

VDF Annual Meeting

Join The Vascular Disease Foundation along with its P.A.D. and Venous Disease Coalition for our annual meeting September 14-15 at the Ritz Carlton-Tyson's Corner, McLean, Va.



The meeting will be an exciting opportunity to discuss important vascular health issues for our P.A.D. Coalition and Venous Disease Coalition. We will also discuss Coalition and Foundation plans for the year ahead, and network with our sponsors and volunteers. Two great speakers will be presented. First we are proud to announce **Dr. Jeffrey Wigand**, the tobacco whistleblower who helped the U.S. government in its tobacco settlement case. You may remember his feature on "60 Minutes" and as the character depicted by Russell Crowe in the movie "The Insider." Our second speaker is **Matt Logelin**, a *New York Times* best-selling author who, in the same day, became a new dad and a widower when his wife died suddenly from a PE. He reached out online and found an outpouring of support through his blog.

Plan to attend!

For more information and to register, visit
www.vdf.org/professionals/annualmeeting.php



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