Keeping in circulation

the official newsletter of the Vascular Disease Foundation

VASCULAR DISEASE FOUNDATION

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our mission

The Vascular Disease Foundation's mission is "To reduce the widespread prevalence and affects of vascular diseases by increasing public awareness of the benefits of prevention, prompt diagnosis and comprehensive management and rehabilitation."

inside this issue

Get Excited About EXERCISE

Even or Especially If You Have PAD!

You've heard it before…. Exercise is good for you. And it is. But not all exercise is created equal. Exercise has become a common term that means something different to each of us. For some, it means increasing one's heart rate over a period of time. Others insist you must sweat, and some believe it is just being active. Actually, one of the best exercises is one of the simplest. It may well be the perfect one too because it doesn't require special talent or any special equipment. And, it can be done at any age. It's walking!

That's good news for people with peripheral arterial disease (PAD), whose exercise plan should include walking. PAD is a narrowing of the leg arteries due to a buildup of plaque. When walking, our leg muscles require additional oxygenated blood. For someone with PAD, narrowed arteries may prevent this additional demand for blood to be delivered to the working muscle. The result may be cramping in the legs, a common symptom known as claudication, although not everyone gets this symptom. Walking increases the development of collateral arteries so over time more blood can reach the leg muscles. Paradoxically, even though it hurts somewhat, if you walk regularly, you will eventually be able to walk farther.

To be effective, you need to walk at least three times a week. Walk until you experience moderate pain. Rest a few minutes and when the pain is gone, walk again. Keep repeating this process. Don't expect immediate results. It will take time, but you should find that you are able to increase your distance before you must stop and rest. Or, you'll find that you are able to complete your walk faster. Although walking is wonderful exercise for virtually all, there are some exceptions. You need to check with your health care provider if you have concerns, foot sores, recent surgeries or neuropathy (see the last issue of Keeping In Circulation, Vol. 2 issue 3).

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Making Strides

Walking in spite of heart and leg artery blockages

"When I started my supervised exercise program for claudication, I could only walk for 4 minutes," lamented Tom Brungardt. "And then I would have to stop for 4 minutes until the pain went away." Now, after 9 weeks, and half-way through his walking exercise program, Tom has seen great progress. He now is able to walk continuously 13 minutes and rest for only 1 or 2.

Like many people, Tom began his walking rehab program following a heart attack. His doctors told him his arteries were blocked and he needed to reduce the risk factors that contributed to the blockages. This included medications for keeping his blood pressure and cholesterol in normal ranges, and to make his blood platelets less sticky. Then his doctor said he should walk. Walking would help his heart and improve his health by being more active. Yet, it was not easy. It's not that he did not want to. He didn't want another heart attack, but his calves hurt when he walked, even a short time. He learned that this was because he had peripheral arterial disease (PAD) as well as coronary artery disease (CAD). The blocked arteries cause pain with exertion in both the heart and leg muscles, because oxygenated blood can't get to the muscles fast enough.

Some people with peripheral arterial disease, or PAD, learn ways to compensate for and ease this symptom of pain over time. One common practice is to shuffle when walking. This requires less action of the calf muscle, and thus less demand for blood. This can also allow someone to walk farther before experiencing pain. Another common technique is to take routes with lots of places to sit and rest, or to avoid stairs. Sadly, these give only minor relief and many end up just foregoing activities they used to enjoy because it takes too much effort or too much walking. However there is a way to obtain much greater relief through a progressive exercise program, in which one repeatedly walks to the point of pain and then stops. This helps improve both the heart pain (angina) and the leg pain (claudication). This is what Tom did.

Now that he's able to walk farther, it's getting easier. In fact, he tries to walk in-between sessions now. Tom now philosophically says, "Exercise after a heart attack is good." He also knows that the exercise program helped him get started. And although he could do the same thing on his own, it's often hard to really do it. Plus, at the rehab center, they monitored him throughout each session. They would take a blood pressure before beginning, a couple of times during the exercise and then when he finished. Plus, he said, "they could show me how much I've improved." Tom discovered another advantage to walking. He lost 26 pounds in the 9 weeks since he started. At a young 69, Tom is active and wants to stay active.

Obviously, discussing these problems with your health care provider is important. If walking is difficult, or you have made some of the adaptations mentioned above, you should find out why. Your doctor may run some tests. He or she may prescribe some medications to reduce your risk factors, or some dietary changes, or exercise. Prevention of a heart attack or stroke would be the best result. Walking farther improves your quality of life and independence. The earlier you find out you are at risk for a heart attack or stroke, the earlier you can begin to take the necessary measures to prevent one.

IN THE NEWS

NHLBI Meeting

After much planning and discussion, the Vascular Disease Foundation, our sponsoring societies and several other organizations will meet in Bethesda, Maryland in January. We will discuss developing a campaign to improve public awareness of PAD. The NHLBI is sponsoring a one-day workshop that will provide a good foundation for our future efforts.

Annual Fundraising Drive

The Annual Fundraising Drive is underway for the Vascular Disease Foundation. Please help us by giving generously to enable us to continue to provide this newsletter for their support.

Partner Spotlight

The Society for Vascular Ultrasound, formerly the Society of Vascular Technology, represents vascular technologists, vascular surgeons, and other allied health care ultrasound professionals. Since its founding in 1977, SVU has been dedicated to the advancement of noninvasive vascular technology used in the diagnosis of vascular disease through education programs, publications, and certification. SVU represents the best interests of SVU members and promotes quality vascular ultrasound services by providing educational, scientific and literary activities to our members, patients and the public. For information on the organization please visit their web site at **www.svtnet.org.**

Free Subscription

Keeping in circulation™

For a FREE subscription to 'Keeping in Circulation," call 866-PAD-INFO toll free or write to the Vascular Disease Foundation, 3333 South Wadsworth, Suite B-104-37, Lakewood, CO 80227.

Frequently Asked Questions

Q. My sister has restless leg syndrome (RLS). Is this related to peripheral arterial disease?

A. No, this is thought to be a neurological problem and not caused by atherosclerosis. The symptoms occur in the legs but are not the same as symptoms for PAD. RLS sensations are deep in the legs and produce an irresistible urge to move and cause an involuntary jerk of the leg. It usually isn't painful but can be described as an itching, pulling or tugging. RLS symptoms are worse in the evening and at night, especially when the individual lies down. For more information contact the Restless Leg Syndrome Foundation at www.rls.org.

Q. My mother has had a reoccurrence of Deep Vein Thrombosis (DVT) after a period of four years. Both times the symptoms have been a little different and she was surprised by them. What symptoms should she have been watching for?

A. DVT happens because there is a formation of an obstructing blood clot in the deep veins. Usually it occurs in the lower leg but can also occur in the lower abdomen or groin. The greatest risk of having a DVT is the possibility of having a pulmonary embolism. This is when a whole blood clot or a piece of the blood clot breaks off and travels through the bloodstream. If this clot lodges in one of the arteries of the lungs, then a potentially fatal pulmonary embolism could take place. To answer your specific question, many individuals with DVT feel swelling, pain or tenderness in the affected area or see an inflamed vein. However, many are unaware of the problem until they develop an embolism. Symptoms of an embolism include rapid heart rate, shortness of breath, sharp chest pain or blood-tinged coughing. Anyone who feels these symptoms should call a health care professional immediately or seek assistance from an emergency center of your closest hospital.

(Editor's Note: VDF plans on having more information on DVT on our web site in the very near future. Check it out at www.vdf.org)

Q. I've been told that my "homocysteine levels" are high. What does that mean?

A. Homocysteine is an amino acid. It is normally found in the body and is used to make protein. It is thought that too much homocysteine thickens and scars the walls of the arteries, allowing cholesterol and plaque to build up and clots to form. High levels of homocysteine have been linked to increased risk for PAD and for damage to blood vessels in the heart and brain. Taking folic acid may help, however, it is important to discuss all options with your health care provider.

If you have a question you would like our panel of experts to address in our next newsletter, please send it to info@vdf.org or The Vascular Disease Foundation, 3333 S. Wadsworth, Suite B-104-37, Lakewood, CO, 80227.

THE ABI
What you should know

Were you recently screened for peripheral arterial disease (PAD) or peripheral vascular disease (PVD)? Thousands of Americans participated recently in Legs For Life™, a nationwide, screening program. Perhaps you participated and received a free screening but are curious to learn more about the test and what the results mean.

What test was it? You probably received the ankle-brachial index (ABI) exam, a simple and reliable method for diagnosing peripheral arterial disease (PAD). Blood pressure measurements are taken at the arms and ankles using a pencil shaped ultrasound device called a Doppler. A Doppler instrument produces sound waves (not x-rays) and is considered noninvasive because it does not require the use of needles or catheters. The ABI is one of the tests most widely used as a first step in diagnosing PAD.

What happened during the exam? While lying on your back, cuffs were placed on your ankles and arms. These cuffs were inflated briefly above your normal systolic blood pressure. Once the cuffs were deflated, blood pressure measurements were recorded. Then the ankle systolic pressures were divided by the highest arm pressure to establish an ABI measurement for each leg.

What do the measurements mean? The number that the doctor or technician came up with will probably be between .4 and 1.2 and these numbers are typically interpreted as:

.95 – 1.2 *	Normal
.94 or lower	Results are not normal

(*A measurement greater than 1.2 is not considered reliable, and other tests would need to be performed depending on symptoms and risk factors.)

What should happen after the exam? If your ABI indicated results that are outside of the normal index, you should make an appointment to discuss the results with your physician. Be sure to take the results with you. For more information on the ABI, visit our web site **(www.vdf.org)** and click our button for Peripheral Arterial Disease. You'll find the information listed under "Diagnosis."

Taking Ankle Pressure

Second Annual "Keeping in Circulation" Event is a Success!

For the second year, the Vascular Disease Foundation sponsored its "Keeping In Circulation" walk and program at the Denver Botanic Gardens on August 27th. This year's event included comprehensive talks by speakers on peripheral arterial disease. Approximately 50 people gathered to learn about the risk factors, symptoms, treatment and ways to prevent PAD. Our speakers included Dr. Michael Podolak, Susan Scherer, PT and Rob Daigle, RVT. After hearing the speakers, individuals stayed for a free screening and consultation. This was a fabulous morning to enjoy the Botanic gardens and stretch those recently screened legs! Thanks to our sponsors: Denver Botanic Gardens, Rose Community Foundation, Turning Point Massage Therapy, Porter Adventist Hospital, Nicolet Vascular, KEZW, Vascular Institute of the Rockies and AstraZeneca. Thank you to our volunteers for the presentations and to the volunteers that conducted the screenings: Hank Arrellano, RVT and Dan Gautier, RVT.

From our Glossary–Words beginning with "U" through "V"

You can view these terms and others used in the diagnosis and treatment of vascular disease on our web site. We've made them easy-to-understand to help you in talking with health care professionals. Each newsletter will cover a section from our glossary.

Ultrasonic Duplex Scanning: The diagnostic test for PAD that produces images of arteries or veins on a screen via the use of ultrasound equipment. This test is used to locate blocked arteries or measure their size.

Vascular Medicine: A branch of medicine that deals primarily in medical treatment of vascular diseases. A rapidly expanding area of modern medicine.

Vascular Surgeon: A physician with a specialty in performing surgery to either remove the plaque from an artery or to bypass the area of obstruction with a graft. Also is involved in the medical treatment of vascular disease.

Vessels: The tube-like structures in the circulatory system that are responsible for circulating blood within the body. The three kinds of vessels are arteries, veins and lymphatics. Capillaries are the microscopic structures that connect arteries and veins at the tissues.

Veins: Blood vessels that carry the blood from the body back to the heart.

Venous: The circulatory system of veins.

A DAILY DOSE OF WALKING: IT'S GOOD MEDICINE

Some tips to help you improve your vascular health through exercise.

1. March to a different drummer. Invest in a small portable tape or CD player and headphones and listen to your favorite music as you walk. It's easier to forget the aches and pains if you have a pleasant distraction.

2. Speaking of marching, when your calf muscle starts to hurt when you are walking, start marching instead of walking. It rests the calf muscle a bit more than walking yet keeps you exercising. When the calf muscle has recovered, start walking again.

3. Book 'em, Dano! Once you have the tape player, how about listening to books on tape? Nothing like looking forward to the next chapter of a suspenseful mystery to get you out walking. No fair cheating! Only allow yourself to listen when you are out walking

Author, Mitzi Ekers, MS, ARNP, is a nurse practitioner who has been working with vascular patients for more than 30 years. She is Director of Vascular Services at the Heart and Vascular Institute of Florida in St. Petersburg. She helped start both the Society for Vascular Nursing and the Society of Vascular Ultrasound.

WHAT IS PAD? . . . WHAT ARE THE RISK FACTORS?

Peripheral Arterial Disease (PAD) is a common disorder that occurs in the circulatory system and is often referred to as Atherosclerosis. Arteries carry oxygen rich blood from the heart to all areas of the body. For those with PAD, the arteries to the legs slowly become narrowed and then blocked by the build up of cholesterol containing plaque. As a result, blood flow to the muscles and skin of the legs decreases. Less blood to the muscles causes them to hurt and cramp during exercise.

You may be at risk for PAD if you:

- Smoke
- Have diabetes
- Have high cholesterol
- Have high blood pressure
- Are over 50 years old
- Have a family history of hear or vascular disease
- Have pain in your legs when you walk that goes away quickly when you rest

EXERCISE continued from page 1

Although exercise walking is beneficial, recent studies have strongly indicated that results are better in formal exercise rehabilitation programs, such as are found in a cardiovascular rehabilitation center. Usually these programs last 3-6 months and include three or more walking sessions on a treadmill per week, supervised by medical specialists. Results from these programs are tracked and documented to lead to improved walking ability in almost all patients. In addition, individuals can receive instruction as to an effective pace and proper technique, especially if other health concerns are present. According to one expert, Dr. Judith Regensteiner, "Almost every patient who participates in supervised exercise training for claudication gets good benefit. Also patients usually find the exercise programs to be a pleasant experience. Exercise can be fun!!"

The Vascular Disease Foundation encourages the use of supervised walking programs for people with PAD to reduce symptoms of claudication and reduce the risk for heart attack. Contact your vascular specialist for information about supervised exercise rehabilitation programs in your area.

Whether you exercise through a supervised program, a health club or your own walking program, it's important to walk on a regular basis. You'll soon be walking farther, with less pain. Now, that's something to get excited about!

CALL 1-866-PAD-INFO FOR MORE INFORMATION

TIPS FOR OPTIMIZING YOUR WALKING PROGRAM

- Always check with your primary care physician before starting an exercise program.
- Before you start walking, do leg stretches to flex the muscles of the thigh and the calf. Begin walking at a comfortable pace. Walk until you feel the pain to be at "near maximum." It may feel like a bad "charlie horse" at this time.
- Once you reach cramping pain, stop and rest until it is completely gone. This recovery time may take 1-5 minutes.
- After your legs have recovered, repeat the walk/stop sequence at least 5 times.
- When 5 training intervals have been completed, repeat the leg stretches of the thigh and calf muscles.
- One exercise session should be: STRETCH...WALK/STOP 5 times...STRETCH
- Do not begin walking until your pain has been completely relieved.
- When you are able to walk more than 5 minutes before experiencing pain, you may increase your pace.

For best results, complete the interval training a minimum of three days a week. The intervals must be consecutive to be sure you have allowed enough time. Remember it may take as long as 45 minutes to walk what would normally take 30 because of the rest periods.

Adapted from "Home Walking Program to Stabilize and Improve Symptoms of Claudication," by Tina Braun, RN, Exercise Specialist, Providence Surgical Care Group, Inc. Providence, RI.

Visit the Vascular Disease Foundation Web Site at www.vdf.org

Announcing the Excellence in Care Award

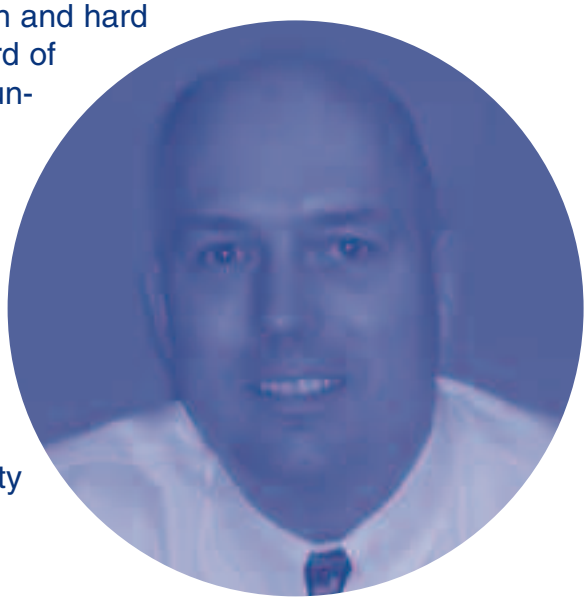
The Vascular Disease Foundation is excited to announce a new program to recognize excellence in vascular care. Many of you have told us that your doctor, nurse, technologist, hospital or vascular care team gave you the best possible care. Now you have a perfect way to thank them. Honor them with the Vascular Disease Foundation's "Excellence In Care Award." We will provide your honoree with a certificate designating the honor, plus recognize them in our "Keeping In Circulation" newsletter.

And, it's easy. Simply send us a note or email with your tax-deductible donation telling us who you are honoring and why they deserve the recognition. Checks or credit card charges of any amount are accepted. Be sure to identify the honoree's name, address and phone number so we can send them their award. Also send us your name and address so we can thank you as well!

FIND OUT MORE BY CONTACTING THE VASCULAR DISEASE FOUNDATION AT 1-866-PAD-INFO TOLL FREE

THANK YOU TO MARK NEHLER

We would like to thank Dr. Mark Nehler for his years of devotion and hard work as Vice President and long standing member on our Board of Directors. Dr. Nehler joined the Board of Directors when the foundation was formed in 1998, and helped establish our original mission and goals. He was instrumental in initiating our web site and guiding us through the redesign and launching of our current site. He lent us his keen sense of "what patients are looking for" along with his medical expertise in vascular medicine. As he steps down from board membership to devote more time to his patients and profession, we will miss his superior leadership and his sharp sense of humor. The entire staff and board of directors thank him and wish him the best in his professional endeavors as vascular surgeon at the University of Colorado Health Sciences Center.



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Contact the Vascular Disease Foundation
CALL 1-866-PAD-INFO OR VISIT www.vdf.org

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