

THE UGLY TRUTH ABOUT "VEIN

varicose vein removal.

STRIPPING"... and why you should investigate this safer, quicker, less painful alternative to

VARICOSE VEINS?

Your doctor can give you legs this smooth in just ... one visit! ...

Open to discover how you can be free of pain and varicose veins forever ... in as little as 60 minutes!

World-renowned biomedical engineer and inventor reveals how

# Get Rid of Varicose Veins Po With the Same Soothing So You Hear On Your Radio.

Don't take a chance with varicose vein treatment systems that *burn* your vein Now you can use safe, precision-controlled "RF" (radio frequency) energy to from your cardiovascular system.

# Dave had varicose veins his entire adult life.

He was so embarrassed by the thick, purple veins on his lower legs and ankles, that when he went to the beach, he told his young children, "Each of you — carry a beach chair and walk beside me."

The kids were happy. They thought daddy wanted to be near his children because he loved them.

They didn't know their father was using them — and the beach chairs they carried — as a *shield*.

With people's view blocked by the two beach chairs his kids carried, people couldn't see and notice Dave's legs ... where varicose veins made him *embarrassed* to walk around in shorts or a bathing suit.

When they were young, the kids laughed about how they had to push dad up hills when they went on walks and hikes in the woods.

Later on, they realized that the reason dad had to be pushed was the pain in his legs ... caused by his varicose veins.

Varicose veins made it difficult for Dave to walk long distances — and caused

his ankles, feet, and legs to get puffy and hurt when he walked for too long.

Dave's kids also remember their father grunting as he took his "special socks" — heavy elastic stocks, or "compression hose" — on and off every night.

Imagine how relieved you'll feel to go to the beach and show your legs when your varicose veins are gone without a scar.



you can...

# ermanently... und Waves

ns with smoldering hot laser beams.

o gently eliminate varicose veins

And how he had to sleep with an uncomfortable foam rubber "wedge" under his legs to keep his feet elevated. (Dave never did get a good night's sleep this way!)

# Good news for men and women with varicose veins

But now, thanks to a breakthrough biomedical treatment from VNUS Medical Technologies, varicose veins can be a thing of the past.

You can jump, run, hike, walk, dance, golf, even play tennis or basketball — without swelling or discomfort of any kind.

And, you'll be sporting a pair of smooth legs ... legs you'll be pleased and proud to show off in shorts or swim suits.

Best of all, you'll enjoy your new pain-free life sooner and easier than you ever thought possible.

The secret is out. And in this report, you'll discover why the new radio frequency treatment for getting rid of varicose veins is safer and easier than surgery or lasers.

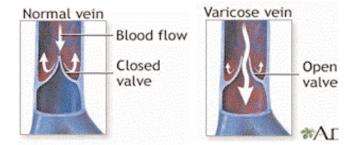
#### What causes varicose veins?

The medical term for the major underlying condition causing varicose veins is *symptomatic venous reflux disease*.

The disease is a progressive condition caused by malfunctioning valves in the veins of your legs, resulting in inadequate return of blood from the legs to the heart.

When your circulatory system is functioning properly, blood in your **arteries** flows *away* from your heart ... and blood in your **veins** flows *toward* your heart.

You've heard of heart valves. But veins, too, have tiny valves that regulate blood flow — and ensure it's moving in the proper direction.



Did you know your veins have valves to keep the blood flowing out? When the valve doesn't work, the blood flows backwards — and varicose veins can result.

The primary cause of varicose veins is a defect in the valve. You are born with this defect; it's not caused by illness, injury, poor diet, or lack of exercise. So don't blame yourself!

There is no link between varicose veins and high blood pressure. Waiters, police officers, store clerks, and others who spend a lot of time on their feet can aggravate the condition, as can pregnancy.

When the valve doesn't close properly, blood flows backwards into the leg — a condition known as *venous reflux*.

The blood pools in the veins, causing

*(continued)* 

them to enlarge. Eventually, the veins bulge and get lumpy ... they become unsightly and often painful *varicose veins*.

# The first treatment option: do nothing

If you suffer from varicose veins, you're in good company. The staff of the world-famous Mayo Clinic estimates that as many as 6 out of 10 Americans are affected by the condition. Women get varicose veins more often than men.

Varicose veins, while uncomfortable and often unsightly, are not life-threatening. Many patients view varicose veins as merely "cosmetic." So they leave it untreated ... and just decide to live with the condition.

FREE

### Varicose Vein Information Kit

For more information on the VNUS Closure Procedure, including a FREE copy of *The Closure Procedure Patient Education Video* on CD, call VNUS Medical Technologies toll-free **(888)797-VEIN(8346)** today. Or complete and mail the Request Form on page 7.

But that's not a good idea, because varicose veins get worse over time. Among the symptoms:

- Pain in the legs makes it difficult to run, jump, dance, or even walk for any significant distance without feeling heavy, or getting achy, tired, or cramped.
- Bumpy, gnarled, enlarged veins creates an unattractive appearance when wearing shorts or bathing suits.
- **Swelling** ankles, calves, and feet can become puffy, causing difficulty when trying to put on and wear shoes.
- Skin problems skin near the ankle

burns or itches, becomes discolored, or even develops sores or ulcers.

# The second option: sclerotherapy

Sclerotherapy doesn't eliminate the pain or aches of varicose veins. But it can get rid of "spider veins" — small purple and red blood vessels visible through the skin.

The doctor injects a solution into the vein. The medication acts on the inner lining of the vein walls.

The vein seals shut, stopping the flow of blood. This, in turn, causes the spider veins to blanch. So they turn white. And gradually disappear.

In many cases, sclerotherapy is an inadequate long-term solution. The first injection eliminates only about 50% to 70% of the treated vessels.

And 6 years after treatment, spider veins have returned in as many as 93% of patients. Complications include clots, staining, temporary bruising, and allergic reaction to the injected solution.

Worse, the injections don't correct the underlying problem — the malfunctioning valve in the vein. So if the spider veins are caused by a problem with the venous system, the veins will recur.

# The third option: vein stripping

*Vein stripping* ... widely recognized as the standard surgical treatment for varicose veins ... is as traumatic — and invasive — as it sounds.

In the invasive vein stripping operation, the surgeon makes an incision in the groin. A wire is passed through a vein, and brought out through a second incision in the upper calf.

If you're squeamish, skip this next part: an acorn-shaped "stripping head," attached to the wire, is pulled through the leg, tearing the vessel away. Yuch!

There are many common side effects that can result from vein stripping:

- Temporary pain or discomfort.
- Bruising.
- Blood clots.
- Numbness.
- Wound infection.

Vein stripping is not recommended for patients with any of the following conditions:

- Circulatory problems of the leg.
- Skin infections.
- Blood-clotting defects.
- Abnormal passageway between artery and vein.
- Pregnancy.
- Other medical conditions putting the patient at risk for surgery.

And of course, vein stripping requires a general anesthetic, which always involves some degree of risk to the patient.

### The fourth option: laser treatment

A relatively new, less invasive alternative to vein stripping is laser treatment.

In this procedure, a catheter is inserted through a small incision in the groin area into the varicose vein.

Energy, in the form of laser light, is transmitted through the catheter. The intense heat of the laser causes the blood literally to boil.

The boiling blood congeals into a solid mass, a phenomenon known as thrombotic occlusion.

As a result of thrombotic occlusion, the

vein is sealed show, and no more blood can flow

Blood is rerouted along other veins in your leg those not suffering from defective valves.

This rerouting happens automatically. You are born with two sets of redundant veins in your legs.

When the varicose veins are removed, blood flow shifts to the second set of

veins. There's no diminishing of blood flow when this happens, and no ill effects of any kind.

#### WILLIAM Z. through it. TOWN MANAGER, ABERDEEN, NC **AGE: 53**

satisfied patient

Treating physician:

medical miracle.

Allen Averbook, MD I would recommend the procedure to anyone; It is truly a

### The trouble with laser vein treatment

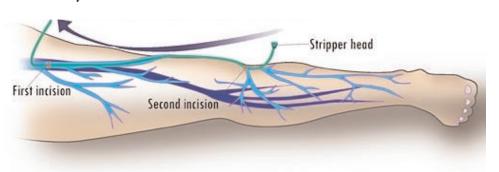
Lasers are powerful energy sources ... so powerful that they have been used to initiate nuclear fusion reactions and cut through solid steel in industrial plants.

The major drawback of lasers is the surgeon's inability to precisely control the intensity of the laser.

Laser varicose vein treatments can reach temperatures of up to 1,300 degrees Centigrade ... literally causing the blood to boil and escape the vein.

(continued)

Vein stripping even sounds frightening and painful ... and that's just what it can be!



Excessive heat from the laser catheter can cause significant bruising, pain, and repeated perforations of the vein.

Worse, lasers are a relatively new treatment technology for varicose veins. Lasers have not been as rigorously tested or proven in clinical setting as RF energy (see below) systems have.

There is simply no 5-year data available to prove that veins treated with lasers stay closed for the long term.

# The fifth option: RF energy waves

Sound, heat, and light are all forms of energy. They are transmitted in waves, each with a specific wave length and frequency.

The patented, clinically tested VNUS Closure® Procedure is a safe, proven alternative to laser treatment for varicose veins.

It uses safe, low-intensity radio frequency (RF) energy to gently heat, shrink, and eliminate varicose veins.

The RF energy waves are at the same frequency as the electromagnetic waves used in radio transmission — between 3 kilohertz and

FREE VNUS Physician Locator Service

There are 2 ways to find a qualified M.D. who can get rid of your varicose veins with the VNUS Procedure:

- I. For referral to a specialist in your area, call toll-free (888) 797-VEIN (8346) today.
- Or, search our online Physician Locator database at: <a href="http://www.vnus.com/">http://www.vnus.com/</a>
   App/Forms/PhysicianLocator/

300 gigahertz, to be precise.

Therefore, you're being treated with the same energy waves used to broadcast music to your radio!

When the RF waves come into contact with a solid object, like the interior walls of your veins, they cause the material to heat.

The RF waves themselves do not conduct

heat. It is the resistance to these waves of the surrounding tissue that causes heating. This is referred to as resistive heating.

### Gentle RF energy shrinks and seals varicose veins fast

Resistive heating with RF energy gives the surgeon much greater control of how

the vein wall is heated.

In the VNUS device, the energy radiates from the sides of the catheter, gently and evenly heating the walls of the vein.

By comparison, in laser systems, intense energy shoots out from the end of the catheter only, accidentally perforating the vein, which causes intense pain.

A thermocouple temperature sensor permits exacting control of the wattage, ensuring a constant temperature with no spikes — and no damage to surrounding tissue.

The RF energy heats the vein wall to only 185 degrees Fahrenheit — well below the 212 degrees F boiling point of water.

Therefore, the blood does not boil, as it can with much hotter laser treatment.

The 185 degree heating causes the precise reactions your surgeon desires:

- Endothelial ablation eliminates cells lining the blood vessel.
- Shortening and thickening of collagen fiber collagen contracts.

whenever I can.

- Vein lumen diameter shrinkage interior of blood vessel gets smaller.
- **Fibrotic sealing of the vessel** collagen fibers stick to one another, closing off the vessel.
- **Vein occlusion** the vein closes up completely.

# "Collagen sealing" stops undesirable reverse blood flow

The interior walls of your vein are coated with collagen. The RF energy heats the collagen.

As the collagen gets warm, the fibers stick together, sealing off the vein.

After treatment, the vein simply becomes fibrous tissue, indistinguishable from other body tissue in the leg.

# A quick, easy, and nearly painless procedure

In the VNUS Closure Procedure, a slim, disposable catheter is inserted into the varicose vein to be treated (see diagram A).

Next, RF energy is transmitted through the catheter (B), carefully heating the vein. Since you're under a local anesthetic, you won't feel any discomfort.

The heat generated by the RF treatment gently collapses the vein — sealing the vessel to eliminate all blood from it.

Finally, the catheter is removed. Without the catheter to hold it up, the vein fully collapses. No more blood flows through it, and your varicose vein is gone.

The whole procedure, including preparation, takes less than an hour. The RF heating of the vein is finished in about 15 minutes.

The doctor will give you a local anesthesia, making the procedure painless. No general anesthesia required.

### Proven, safe ... and effective

The VNUS radio frequency catheter

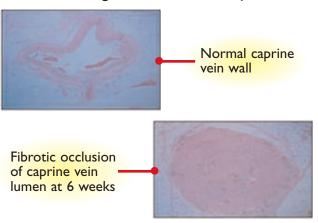
treatment for varicose veins was invented in 1995. Clinical usage started in 1998.

That means we've had a full decade to test and refine the treatment. So we know for a fact that the VNUS Closure Procedure works beautifully.

Many patients can resume normal activities immediately — and report a noticeable improvement in their symptoms within a week or two after having the procedure.

#### Method of Action — Fibrotic Occlusion

Normal varicose vein (top) is an open vessel through which blood can flow. After VNUS Closure Procedure, fibrotic occlusion (bottom) seals the passageway, turning it into a solid mass through which blood cannot flow.



And in a review of 5-year clinical outcomes for more than 100,000 patients treated with the VNUS Closure Procedure, patients achieved a success rate of more than 95%.

Even better, 98% of patients treated with the VNUS RF device said they would recommend our procedure to friends and family!

In a recent randomized trial of the VNUS Closure Procedure vs. vein stripping, patients had the same or slightly better result with significantly lower recurrence rates and faster recovery.

That means veins removed by stripping tend to grow back. But varicose veins closed with gentle RF energy *stay* closed.

(continued on page 9)

### CLINICAL RESEARCH SAYS,

## "The VNUS Closure Procedure works!"

# Studies on RF treatment of varicose veins (a partial list)...

- Four Years Follow-up on Endovascular Radiofrequency Obliteration of Saphenous Reflux.
   R. Merchant, M.D., O. Pichot, M.D., KA Mayers, M.D. Derm Surg 2005;31:129-134
- Prospective Randomised Study of Endovenous Radiofrequency Obliteration (Closure) Versus Ligation and Vein Stripping (EVOLVeS): Two-year Follow-up. Lurie F, Creton D, Eklof B, Kabnick LS, Kistner RL, Pichot O, Sessa C, Schuller-Petrovic S. Eur J Vasc Endovasc Surg 2005;29:67-73.
- Endovenous therapy for varicose veins of the lower extremities (in French).
   Perrin M.Ann Chir 2004;129:248-57.
- Evaluation of setpoint temperature and pullback speed on vein adventitial temperature during endovenous radiofrequency energy delivery in an in-vitro model.
   Zikorus A., Mirizzi M. Endovascular Surg 2004;38:167-74.
- Varices des membres inférieurs traitées par radiofréquence.
   Contrôle annuel des résultats: un suivi sur 3 ans (Longitudinal assessment at yearly intervals for lower limbs followed up three years after Endovenous radiofrequency obliteration (CLOSURE))
   Perrin M. Phlébologie 2004;57:69-73.
- Early experience with radiofrequency ablation of the greater saphenous vein.
   Wagner WH, Levin PM, Cossman DV, Lauterbach SR, Cohen JL, Farber A. Ann Vasc Surg 2004;18:42-7.
- Duplex ultrasound scan findings two years after great saphenous vein radiofrequency endovenous obliteration.
   Pichot O, Kabnick LS, Creton D, Merchant RF, Schuller-Petroviae S, Chandler JG. J Vasc Surg. 2004; 39:189-95.
- Prospective randomized study of endovenous radiofrequency obliteration (Closure) versus ligation and stripping in a selected patient population (EVOLVES study).
   Lurie F, Creton D, Eklof B, Kabnick LS, Kistner RL, Pichot O, et al. J Vasc Surg 2003;38:207-14.
- Intérêt de l'angiographie de la jonction saphéno-fémorale au cours de la destruction de la grande veine saphène par le système Closure (Sapheno-femoral junction angiography during great saphenous vein obliteration with VNUS Closure).
   Lebard C, Zuccarelli F. Phlébologie 2002;55:263-8.

 Duplex imaging analysis of the long saphenous vein reflux: basis for strategy of endovenous obliteration treatment.
 Pichot O, Sessa C, Bosson JL. Int Angiol. 2002;21:333-6.



- Ultrasound changes at the saphenofemoral junction and in the long saphenous vein during the first year after VNUS closure.
  - Fassiadis N, Kianifard B, Holdstock JM, Whiteley MS. Int Angiol 2002;21:272-4.
- Endovascular obliteration of the greater saphenous vein: The Closure procedure.
   Kistner RL. Jpn J Phlebol 2002;13:325-33.
- Aspects echographiques de la jonction saphéno-fémorale après oblitération de la grande veine saphèno par radiofréquence (Closure®).
   Pichot O, Perrin M. Phlébologie 2002;55:329-34.
- Initial experiences in endovenous treatment of saphenous vein reflux.
   Sybrandy JEM, Wittens CHA. J Vasc Surg 2002;36:1207-12.
- A novel endoluminal technique for varicose vein management: The VNUS Closure.
   Fassiadis N, Kianifard B, Holdstock JM, Whiteley MS.
   Phlebology 2002;16:145-8.
- Endovascular obliteration of saphenous reflux:
   A multicenter study.
   Merchant RF, DePalma RG, Kabnick LS. J Vasc Surg 2002;35:1190-6.
- Endovenous obliteration versus conventional stripping operation in the treatment of primary varicose veins: A randomized controlled trial with comparison of costs.
   Rautio T, Ohinmaa A, Perälä J, Ohtonen P, Heikkinen T, Wiik H, et al. J Vasc Surg 2002;35:958-65.
- Comparison of endovenous radiofrequency versus 810nm diode laser occlusion of large veins in an animal model.
   Weiss RA. Dermatol Surg 2002;28:56-61.

A survey of 50 patients who had one leg treated with VNUS Closure and the other leg with lasers, patients preferred the VNUS system to the laser 10 to 1.

An article in the Journal of Vascular Surgery concludes: "Five-year follow-up patients treated with endovenous radio-frequency obliteration has demonstrated that vein occlusion and clinical improvement are durable."

### Covered by most insurance

The VNUS Closure Procedure is currently accepted by approximately 100 health insurers whose policies cover more than 220 million patients in the United States.

More than 98% of the VNUS Closure Procedures performed in the U.S. have been reimbursed by insurance companies.

As with most therapeutic procedures,

(continued)



# The VNUS Closure Procedure—are these your questions?

### Q: How long does the Closure Procedure take?

A:The Closure procedure takes approximately 45-60 minutes, but with the normal pre- and post-operative procedures, patients normally spend 2 to 3 hours at the medical facility.

### Q: Do I need general anesthetic?

A: No overnight hospital stay or general anesthetic required. VNUS Closure is an outpatient procedure performed in the doctor's office, for which you receive a local anesthetic.

### Q: Is the Closure procedure painful?

A: No. Patients report feeling little, if any, pain during and after the procedure.

### Q: How quickly can I resume normal activity?

A: You can walk immediately following the procedure. Patients typically resume normal activities within one day.

### Q: How soon will my symptoms improve?

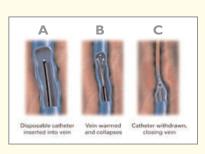
A: Many patients notice an immediate relief of symptoms such as pain, leg heaviness and fatigue. The full benefits of the procedure may take I-2 weeks.

# Q: Is there any scarring, bruising, or swelling after the procedure?

A: Patients report minimal to no scarring, bruising, or swelling following the Closure procedure.

#### Q:Won't there be lack of blood flow in my legs if I have my varicose veins removed with the Closure Procedure?

A: You'll have all the blood flow you need in your legs for good health and perfect walking, running, and jumping. Reason: your legs have a second set of veins, and blood flow is simply rerouted to these veins when the varicose veins are gone.



The VNUS Closure procedure at a glance: (A) insert catheter, (B) warm and collapse vein, (C) remove catheter.

### Q: Are there any potential risks or complications?

A: Potential complications can include vessel perforation, thrombosis, pulmonary embolism, phlebitis, hematoma, infection, numbness, tingling, or skin burn. But these are very rare.

Most patients experience minimal if any side effects or problems. You should consult your doctor to determine if your condition presents any special risk.

#### VARICOSE VEIN TREATMENT OPTIONS at a glance... Vein stripping Performance/procedure Closure RF procedure **Enovenous laser** Advantages over vein Less pain, bruising, and NA No randomized stripping in randomized discomfort during early comparative trial comparative trial recovery reported 90% Patients who remain 85% Outcome not free of varicose veins reported at 12 months Patients who return to 89.1% 46.9% 69.8% normal activities within 24 hours

7.7 days

4%

98%

reimbursement by your health insurance is based on established medical necessity.

Patients should consult their physician or contact their insurance carrier to find out whether the VNUS Closure Procedure is covered under their health plan.

# About the inventor of the VNUS Closure Procedure

Days returned to work

Patients who experience

sooner than surgical

bruising after the procedure

Patients who would

to a friend

recommend procedure

**patients** 

BRIAN E. FARLEY, the developer of the VNUS Closure Procedure, is president and CEO of VNUS Medical Technologies, Inc. Prior to joining VNUS, Mr. Farley was an executive with Guidant Corporation and Eli Lilly. He holds a B.S. in Biomedical Engineering and an M.S. in Electrical Engineering from Purdue University.

### Take the next step

Not reported

38%

Not reported

NA

NA

Not reported

You cannot buy the VNUS Closure Procedure equipment unless you are a medical doctor ... or take the treatment at home.

The Closure Procedure must be performed in a doctor's office by a qualified physician.

For referral to a specialist in your area, call VNUS Medical Technologies toll-free (888) 797-VEIN (8346) today.

Or, search our online Physician Locator database at: <a href="http://www.vnus.com/App/">http://www.vnus.com/App/</a>
<a href="Forms/PhysicianLocator/">Forms/PhysicianLocator/</a>

The physician will give you a quick and painless ultrasound screening to determine the cause of your varicose veins.

Based on the results of your exam, the doctor may recommend the VNUS Closure Procedure or other appropriate treatment.

# VNUS Closure Procedure® Physician Locator and FREE CD Request Form

### FREE Varicose Vein Information Kit

For more information on the VNUS Closure Procedure, including a FREE copy of *The Closure Procedure Patient Education Video* on CD, call VNUS Medical Technologies toll-free (888) 797-8346 today. Or complete and mail the Request Form below.



### FREE Physician Locator Service

There are 3 ways to find a qualified M.D. who can get rid of your varicose veins with the VNUS Procedure:

- 1. Search our online Physician Locator database at: http://www.vnus.com/App/Forms/PhysicianLocator/
- 2. For a referral to a specialist in your area, call toll-free (888) 797-8346 today.
- **3.** Complete and mail the form below.

YES,	I'm	intere	sted in	getting	rid	of my	varicose	veins	with
				sure Pro					

#### Send me:

<ul> <li>□ FREE Varicose Vein Information Kit including the CD The Closure Procedure Patient Education Video.</li> <li>□ FREE referral to an M.D. in my area who can perform the VNUS Closure Procedure.</li> </ul>
Mr./Mrs./Ms
Address
City
StateZip
E-mail
Phone # (In case we have a question)

# 4 Easy Ways to Respond

- postage-paid envelope enclosed or by sending to:
  VNUS Medical Technologies, Inc.
  2200 Zanker Road, Suite F
  San Jose, CA 95131
- **2. FAX** this form to: (408)944-0292.
- 3. CALL toll-free I-888-797-8346.
- 4. E-MAIL: info@vnus.com



# Get Rid of Unsightly Varicose Veins— Without Painful Surgery.

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Offers!