VEINOPPLUS®

The new treatment for Venous Insufficiency

* Clinically proven efficacy
VEINOPLUS® acts at different levels of the cascade of the Venous Disease

More and more patients and physicians are welcoming VEINOPLUS® innovative approach and integrating it into their strategy against venous disease, whatever the severity of the symptoms.

VEINOPLUS® has clinically proven results at different levels of the Venous Disease cascade. VEINOPLUS® is efficient in prevention and care of most of the symptoms from "aching legs" to the most severe stages of the disease.

The efficiency of VEINOPLUS® has been shown in several clinical studies

**Activation of the calf muscle pump by electro-stimulation with VEINOPLUS® device.**

F. ZUCCARELLI, J. LAUNAT, J. LE MAGREX, R. MOLLARD, P. FARGIER, M. PUJO
In Angéiologie, 2005, volume 57, N°2, p48-54

**Effects of electrostimulation by VEINOPLUS® on lower limbs venous insufficiency-related symptoms during pregnancy.**

A. LE TOHIC, H. BASTIAN, M. PLUO, J. BESLOT, R. MOLLARD, P. MADELENAT
In Gynécologie Obstétrique & Fertilité 37, 2009, p18-24

**The Efficacy of a New Stimulation Technology to Increase Venous Flow and Prevent Venous Stasis.**

M. GRIFFIN, A.N. NICOLAIDES, D. BOND, G. GEROULAKOS, E. KALODIKI
In Eur J Vasc Endovasc Surg. 2010 Dec; 40(6):766-71

**Electromuscular stimulation with VEINOPLUS® for the treatment of chronic venous edema**

BOGACHEV V. Y., GOLOVANOVA O.V., KUZNIETZOV A.H., STCHEKOIAN A.O.
International Angiology. 2011 Dec; 30(6):567-70

"The VEINOPLUS® technology has a lot to offer to severe Venous Insufficiency sufferers"

John J. Bergan, Professor of Surgery, University of California (2009)
VEINPLUS® is a pocket size, easy to use, electrostimulation device. Its specific signal triggers deep calf muscles contractions. This results in an unmatched hemodynamic action leading to clinical improvement of Venous Disease symptoms.
HEMODYNAMIC ACTION

VEINOPLUS® PUMPING EFFECT RESULTS IN A RAPID DECREASE OF VENOUS BLOOD VOLUME IN THE LOWER LIMBS THUS REMOVING BLOOD STASIS

VEINOPLUS® INHIBITS REFLUX IN SUPERFICIAL AND DEEP VEINS

VEINOPLUS® SIGNIFICANTLY INCREASES VENOUS OUTFLOW (IN TERMS OF VOLUME AND VELOCITY) FROM THE LOWER LIMBS

AUGMENTATION OF VENOUS BLOOD VOLUME EXPELLED

Baseline Without Stimulation (passive) One V+ stimulation / sec

0 50 100 150 200 250 mL/min

Baseline Without Stimulation (passive) One V+ stimulation / sec

0 10 20 30 40 50 60 sec.

VENOUS VOLUME IN LOWER LIMB MEASURED WITH APG

VENOUS VOLUME IN LOWER LIMB MEASURED WITH APG

VENOUS VOLUME IN LOWER LIMB MEASURED WITH APG

FLOW INDUCED IN POPLITEAL VEIN IN PATIENT WITH VI.1

FLOW INDUCED IN GASTROCNEMIAL & S.SAPHENAE VEIN IN PATIENT WITH VI.2

FLOW INDUCED IN POPLITEAL VEIN IN PATIENT WITH VI.

VENOUS OUTFLOW

VEINOPLUS® SIGNIFICANTLY INCREASES VENOUS OUTFLOW (IN TERMS OF VOLUME AND VELOCITY) FROM THE LOWER LIMBS

Blood volume expelled and velocity measured in popliteal vein in semi-erected position, on 12 subjects3 (average)

VENOUS OUTFLOW

VEINOPLUS® SIGNIFICANTLY INCREASES VENOUS OUTFLOW (IN TERMS OF VOLUME AND VELOCITY) FROM THE LOWER LIMBS

V.1: Venous Insufficiency - *Measured with APG: Air Plethysmography
1- APG: measurements of VEINOPLUS® effect on lower limb volume of healthy volunteer
**CLINICAL RESULTS**

**PAIN**

VEINOPPLUS® allows immediate and long-lasting pain relief.

Reduction of pain in legs of venous insufficient patients 1-2 (CIVIQ test results)

**EDEMA**

VEINOPPLUS® reduces lower limb edema in patients with venous insufficiency.

Reduction of Ankle Edema in 30 patients (CEAP classification C3) after a 30 day treatment with VEINOPPLUS®

**REMAINING EFFECT**

VEINOPPLUS® treatment improves patients overall quality of life.

Reduction of negative impact of venous insufficiency

Improvement of patients' quality of life with VEINOPPLUS®

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CEAP: international classification for chronic venous disorders
WHO IS CONCERNED?

Chronic Venous Insufficiency
Venous Disease
Ulcer

**Medical Indications**

**1-2 PER DAY**
- Pain in legs, swelling of legs... (CEAP 0a)
- Prophylaxis of VI during pregnancy
- Professions at risk (flight crew, waiters, surgeons...)
- Prolonged standing or sitting
- Evening edema
- Night cramps (in case of, or presumably of venous origin)
- Restless legs

**2-3 PER DAY**
- Small varicose veins (CEAP C1) ¹,²
- Small vein post-sclerotherapy ¹,²
- Long haul flights
- Leg immobilization (plaster...) ¹
- Recurrent edema

**≥3 PER DAY**
- Large vein sclerotherapy or stripping ¹,²
- Varicose veins (CEAP C2) ¹,²,³
- Significant venous edema (CEAP C3) ¹,²
- Severe symptoms of CVI (CEAP C4, C5) ¹,²
- Post-thrombotic syndrome especially in case of high DVT risk (long sitting position in car, train, etc ¹,²,³)
- Non-healed venous ulceration (CEAP C6) ¹,²,³

**During pregnancy:**
Recent clinical data* have shown that VEINOPPLUS® is:
- Harmless for both mother and fetus
- Efficient for venous insufficiency related symptoms
- Very well tolerated by patients


1. with doctor’s prescription
2. in combination with compression garments
3. according to individual conditions, please consult us

CEAP: international classification for chronic venous disorders
VEINOPLUS® was developed by Dr. Jozef Cywinski whose research in neurostimulation is the foundation for the NS-4 safety standard for stimulators. Dr Cywinski has 30 years experience in neuromuscular stimulator development. This has led to the design of several medical devices for stimulation including cardiac stimulators that are today used by numerous healthcare professionals such as cardiologists, sport doctors and physiotherapists. Dr. Cywinski is a fellow of the American College of Cardiology and former faculty member of Harvard & MIT universities.

VEINOPLUS® has specific and optimized stimuli characteristics which are uniquely capable of therapeutic effects on venous disease. In addition to being effective, the VEINOPLUS® Technology stimulation is very safe: unlike other stimulators, VEINOPLUS® shows no interference with uterine contractions and fetus cardiac rate during pregnancy. VEINOPLUS® meets the most stringent safety standards established in the US by Association for the Advancement of Medical Intrumentation and American National Standard Institute (AAMI/ANSI NS-4 1986/2002).