



# Clinical results for leg vein health

## CVD PREVALENCE

**80%**  
>70 YEARS OLD

**10%**  
<30 YEARS OLD

AFFECTED BY CVD OVER **50** YEARS OLD

WOMAN **40%**  
MAN **20%**

Veins are an important part of our body's circulatory system as they carry blood back to the heart after arteries carry it out. Unfortunately, vein health is an area often overlooked. **Untreated, vein symptoms can lead to Chronic Venous Disease (CVD)**, a common progressive disorder that affects the venous system of the lower extremities causing pain, edema, skin changes and ulcerations.

## μsmin<sup>®</sup> Plus: the ultimate solution for vein health

Among all phlebotonic ingredients used for the management of vascular disorders especially chronic venous insufficiency, hemorrhoids, and lymphedema, diosmin has been shown to be the most safe and effective. **μsmin<sup>®</sup> Plus (Microsmin Plus) is an innovative diosmin formulation derived from bitter orange with dramatically enhanced absorption and bioavailability compared to standard micronized diosmin.**



ARTICLE



**Efficacy of a Low-Dose Diosmin Therapy on Improving Symptoms and Quality of Life in Patients with Chronic Venous Disease: Randomized, Double-Blind, Placebo-Controlled Trial**

Serra et al., *Nutrients* 2021, 13, 999

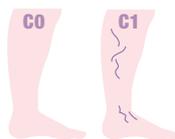
## AIM OF THE CLINICAL STUDY

Based on the proved 9-fold increased bioavailability compared to standard micronized diosmin (Russo et al. 2018), this clinical study was designed to investigate the effectiveness of μsmin<sup>®</sup> Plus (Microsmin Plus) given once per day for alleviating typical symptoms associated with vein disorders.

**A total of 72 subjects were randomly assigned to receive either 450 mg of diosmin (μsmin<sup>®</sup> Plus) once per day or placebo for 8 consecutive weeks.**



**INCLUSION CRITERIA**  
Subjects were assigned C2 to C4 according to the clinical CEAP classification



VARICOSE VENS



OEDEMA



PIGMENTATION AND/OR ECZEMA



LIPODERMA TOSCLEROSIS AND/OR ATROPHY



## LEG SWELLING REDUCTION

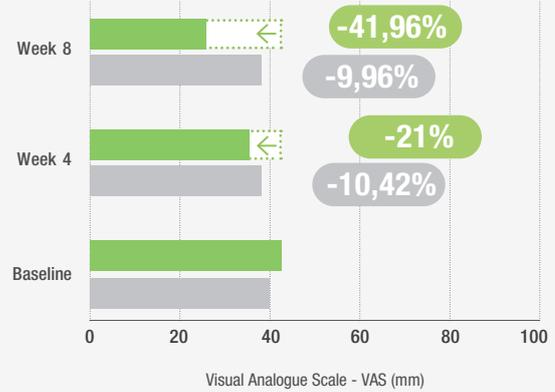
The group taking μsmin<sup>®</sup> Plus showed a **statistically significant reduction in leg circumference**, either after 4 (-1,46 cm) and 8 weeks (-1,88 cm).



## LEG PAIN IMPROVEMENT

**VAS score** decreased progressively from baseline to the end of the study. Subjects taking **µsmin® Plus** reported less leg soreness than those taking placebo at 8 weeks ( $p = 0.014$ ). **These data indicate that µsmin® Plus has a beneficial effect in reducing the severity of leg pain.**

 µsmin® Plus  
 Placebo



## RELIEF OF SYMPTOMS

Typical symptoms such as **pain, varicose veins, venous edema, induration and inflammation improved significantly** in the active group (-48%) compared to placebo (-13%) at the end of treatment ( $p < 0.001$ ) as assessed by **Venous Clinical Severity Score (VCSS score).**

 µsmin® Plus  
 Placebo



REDUCTION OF SYMPTOMS IN

68% of subject

2 in just  
WEEKS



## QUALITY OF LIFE ENHANCEMENT

Subjects supplemented with **µsmin® Plus** experienced a significant increase in the **Global Index Score (GIS)** ( $p < 0.001$ ), confirming the **efficacy of µsmin® Plus in improving the quality of life.**

 µsmin® Plus  
 Placebo



## CONCLUSIONS

For the treatment of sign and symptoms of lower extremity CVD, the usual diosmin dosage is 1,000 mg orally daily given in 2 divided doses.

**Results from this clinical trial indicate that µsmin® Plus (Microsmin Plus), a diosmin preparation with enhanced bioavailability, offers a comprehensive solution to leg vein disorders at 450 mg of diosmin once per day with dramatic improvements in leg circumference, QoL, leg pain and common symptoms associated to CVD.**

**µsmin® Plus is the only diosmin in the market providing up to 9X better absorption than standard micronized diosmin and proven efficacy at low-dose regimen.**

All information and contents of this brochure are for B2B purposes only. This product is not intended to diagnose, treat, cure, or prevent any disease.

Giellepi S.p.A

Via B. Cellini, 37 - 20851 Lissone (MB) - ITALY

info@giellepi.it - www.giellepi.com

