



## Clinical Applications

- Supports Blood Vessel Health and Strength\*
- Supports Healthy Blood Flow\*
- Supports Cardiovascular Health
- Promotes Healthy Inflammatory Responses\*

*VeinPro is a synergistic combination of botanical extracts to support the cardiovascular system and blood vessel health.\* The formulated combination of diosmin, gotu kola extract, horse chestnut extract, grape seed extract, quercetin, and vitamin C are beneficial in supporting optimal blood and lymph circulation and blood vessel strength.\* VeinPro also provides antioxidant benefits and helps support a healthy inflammatory response.\**

All Absolute Health Formulas Meet or Exceed cGMP Quality Standards

## Discussion

The endothelial cells on the inner surface of blood vessels make up the vascular endothelium and serve as a crucial barrier between blood and tissue environments.<sup>2</sup> The vascular endothelium regulates vascular permeability, tone and blood pressure, platelet aggregation, and thrombosis.<sup>2</sup> Damage to the endothelial cells can be caused by various factors (e.g., inflammatory cytokines or reactive oxygen species [ROS]) associated with stress, obesity, hyperlipidemia, or aging.<sup>2</sup> Damaged blood vessels can develop gradually through time.<sup>2</sup> They may be involved directly or indirectly in various conditions and diseases, such as atherosclerosis, arteriosclerosis, peripheral vascular disease, deep vein thrombosis, chronic venous insufficiency (CVI), varicose veins, and more.<sup>1-5\*</sup>

**Diosmin** is a naturally occurring flavonoid glycoside found in citrus fruits.<sup>8</sup> VeinPro contains DiosVein®, which is isolated from sweet orange and standardized to contain 90% diosmin. The diosmin promotes vascular health in numerous ways.\* In human studies with CVI patients, diosmin has been shown to hold anti-inflammatory and antioxidant properties and may provide phlebotonic actions on the venous wall.<sup>5</sup> In rodent models, diosmin was shown to act directly on venous tone by enhancing sympathetic-mediated venous contractility and increasing calcium sensitivity and contractility.<sup>8</sup> In vitro, diosmin was shown to inhibit leukocyte adhesion to the vascular endothelium and mitigate pro-inflammatory factors, such as tumor necrosis factor-alpha and interleukin-6.<sup>8</sup> In vitro studies also suggest that diosmin promotes lymphatic drainage, supports microcirculation, increases venous tone and elasticity, and reduces capillary filtration and hyperpermeability.<sup>9</sup>

A literature review analyzed the effects of diosmin on patients with chronic venous disorders in blinded, randomized clinical trials.<sup>8</sup> The patients who received 600 mg of diosmin per day displayed significantly decreased symptom intensity (approximately up to 50%) after 1 to 6 months of treatment.<sup>8</sup> Diosmin was also considered generally well tolerated.<sup>8</sup> A randomized, double-blind, placebo-controlled trial (n = 72) administered 450 mg of diosmin per day or a placebo for 8 weeks to patients with chronic venous disease (CVD).<sup>5</sup> After 4 weeks, the patients receiving diosmin supplementation had significantly decreased leg edema and significantly improved global index scores and venous clinical severity scores compared to the placebo.<sup>5</sup> A similar study was done by observing 35 CVD patients.<sup>9</sup> The subjects receiving 600 mg of diosmin twice daily for 3 months had significantly reduced edema (assessed through leg circumference) and significantly diminished plasma levels of pro-inflammatory and pro-angiogenic factors.<sup>9</sup>

**Gotu kola extract (Centella asiatica)** Gotu kola extract (Centella asiatica) has received substantial attention for promoting blood vessel health, particularly in subjects with CVI.<sup>4</sup> Animal studies reveal that triterpenes (the active ingredient in gotu kola) have anti-inflammatory properties, promote angiogenesis, and stimulate wound healing through collagen and glycosaminoglycan synthesis.<sup>4</sup> A systematic review concluded that CVI patients receiving gotu kola supplements (between 60 mg to 120 mg per day) had significantly improved microcirculatory parameters (e.g., rate of ankle swelling and venoarteriolar response) and significant improvements in CVI signs (e.g., leg heaviness, pain, and edema).<sup>4</sup>

**Horse chestnut extract (Aesculus hippocastanum)** is well known for supporting blood vessel health.\* Aescin (or escin, the active ingredient of horse chestnut) has been shown to have anti-inflammatory and anti-edematous effects in vitro and in vivo and has been documented in various randomized controlled trials.<sup>18</sup> Human studies suggest that aescin beneficially affects venous tone and may support endothelium health in the setting of hypoxic damage.<sup>19</sup> Herbal horse chestnut has been shown to support individuals with CVI, hemorrhoids, varicose veins, hematomas, venous congestion, and edema, and it is generally well tolerated.<sup>18,19</sup> A systematic review concluded that subjects receiving horse chestnut extract (standardized to 100 mg to 150 mg of aescin per day) had statistically significant improvements in CVI-related signs and symptoms compared to a placebo, including leg pain and leg volume.<sup>20</sup>

**Grape seed extract (Vitis vinifera)** contains proanthocyanidins as one of its main bioactive compounds that has long been studied to support cardiovascular health.<sup>6</sup> Vitis vinifera holds anti-inflammatory and antioxidant properties, and in vitro study results suggest that it has vasorelaxant activities.<sup>6</sup> Grape seed extract has been shown to support individuals with varicose veins in clinical trials.<sup>6</sup> A systematic review and meta-analysis of controlled trials concluded that individuals receiving grape seed extract exhibited significantly decreased diastolic blood pressure.<sup>17</sup> This may be explained by the fact that it supports overall vascular endothelial function.<sup>17</sup>

\*These statements have not been evaluated by the Food and Drug Administration.  
This product is not intended to diagnose, treat, cure, or prevent any disease.



## Supplement Facts

Serving Size 4 capsules  
Servings Per Container 30

Amount Per Serving	% Daily Value	Amount Per Serving	% Daily Value	
Vitamin C (as Ascorbic Acid)	1000 mg	1111%*	Horse Chestnut Extract	200 mg *
Diosmin	900 mg	*	( <i>Aesculus hippocastanum</i> )(seed)	
(DiosVein® - from sweet orange)			[standardized to contain 20% aescin]	
( <i>Citrus sinensis</i> )(fruit)			Grape Seed Extract	200 mg *
[standardized to contain 90% diosmin]			( <i>Vitis vinifera</i> )(seed)	
Quercetin	300 mg	*	[standardized to contain	
Gotu Kola Extract	200 mg	*	95% proanthocyanidins]	
( <i>Centella asiatica</i> )(leaf, stem)				
[standardized to contain 10% triterpenes]				

**Other Ingredients:** Cellulose (capsule), microcrystalline cellulose, vegetable stearate.



## Directions

Take four capsules daily, or as directed by your healthcare provider.

Consult your healthcare provider before use. Individuals taking blood thinners or other medication should discuss potential interactions with their healthcare practitioner. Do not use if the tamper seal is damaged.

## Does Not Contain

Gluten, dairy, soy, or genetically modified organism products (GMOs), artificial colors, artificial sweeteners, or artificial preservatives.

## References

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