

## L-Arginine

Complex

Secure Release



Heart + Blood  
Vessel Health\*

### What Is It?\*

L-Arginine is a sustained-release dietary supplement providing the amino acid L-arginine. The SmartMatrix<sup>TM</sup> secure-release tablet is formulated for a slow, steady release of L-arginine over 4 to 6 hours. This gradual release promotes optimal absorption and tissue retention of L-arginine without the need to consume excessive amounts typically required with immediate release forms.

### How Does It Work?\*

L-Arginine is one of the body's most metabolically versatile amino acids, supporting immune health, detoxification, protein synthesis, hormone regulation, fertility, nitric oxide (NO) production, and more.

L-Arginine supports blood vessel health and healthy endothelial function primarily by serving as a precursor for NO, which helps blood vessels relax and supports blood pressure health. In addition, L-arginine has antioxidant properties that may help protect blood vessels. Finally, it is reported to help modulate the renin angiotensin-aldosterone system (RAAS), further supporting vascular health.<sup>1</sup>

### Product Availability

Bottle Size(s):

- 60 tablets
- 180 tablets

**Directions:** For adults, take three (3) tablets twice daily, preferably with meals, or as directed by your healthcare practitioner.

#### Supplement Facts

Serving Size 3 Tablets  
Servings Per Container 20

Amount Per 3 Tablets	% DV
L-Arginine (as arginine alpha-ketoglutarate)	1050 mg *

\* Daily Value (DV) not established.

#### Supplement Facts

Serving Size 3 Tablets  
Servings Per Container 60

Amount Per 3 Tablets	% DV
L-Arginine (as arginine alpha-ketoglutarate)	1050 mg *

\* Daily Value (DV) not established.

**Other Ingredients:** Calcium phosphate, vegetable wax (rice bran and/or carnauba wax, stearic acid (vegetable), magnesium stearate (vegetable), and silica.

This information is for healthcare professionals only to inform patient treatment and is not intended for consumer use.

\*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.

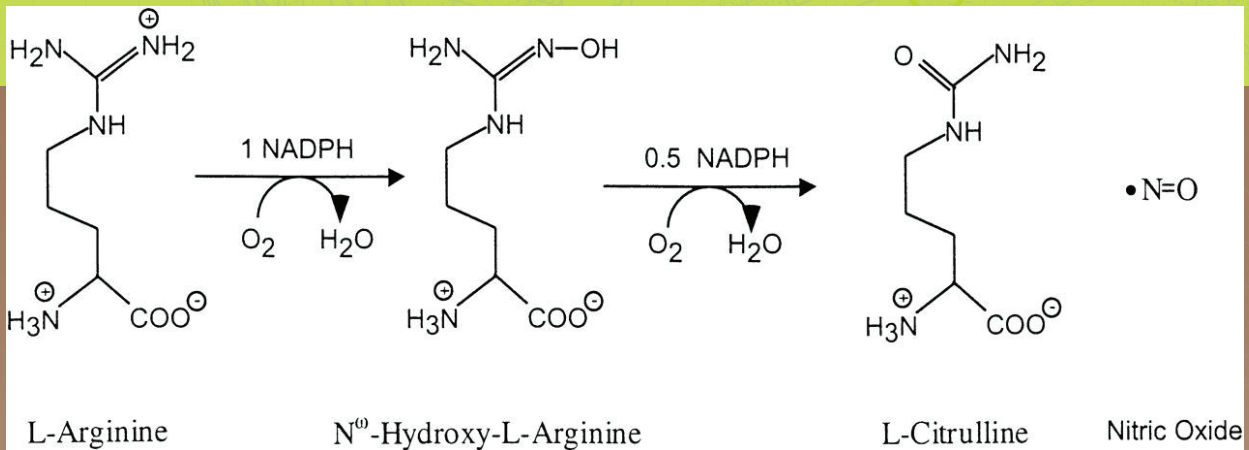
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## Research Highlights\*

### Conversion of Arginine to Nitric Oxide (NO)



Arginine is converted into nitric oxide (NO) and citrulline in a two-step reaction. Both steps are catalyzed by the same enzyme, nitric oxide synthase (NOS), which uses oxygen and NADPH as cofactors. First, NOS converts arginine into an intermediate (N-hydroxy-L-arginine). Then, NOS converts this intermediate into NO and citrulline.<sup>2</sup>

Adapted from: J Nutr. 2004;134(10 Suppl):2748S-2767S.

### L-Arginine and Endothelial Function

L-arginine supports endothelial function mainly by increasing NO production. One meta-analysis of 11 randomized controlled trials (387 participants), found L-arginine supported optimal blood flow as measured by flow-mediated dilation (FMD).<sup>3</sup> Another meta-analysis of 13 randomized controlled trials (723 participants) reported similar findings based on sensitivity analysis that excluded outlier studies.<sup>4</sup>

### L-Arginine and Erectile Function

One systematic review and meta-analysis of 10 randomized control trials (540 participants) found L-arginine supports erectile function in men, an action attributed to its effect on NO production. NO activates guanylate cyclase, raising cGMP levels and relaxing smooth muscle, which allows more blood flow for erection.<sup>5</sup>

SmartMatrix™ is a trademark of Innovite, Inc.

### References

1. Gambardella J, et al. Biomedicines. 2020;8(8):277.
2. Stuehr DJ. J Nutr. 2004;134(10 Suppl):2748S-2767S.
3. Bai Y, et al. Am J Clin Nutr. 2009;89(1):77-84.
4. Rodrigues-Krause J, et al. Nutrients. 2018;11(1):15.
5. Rhim HC, et al. J Sex Med. 2019;16(2):223-234.

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