

VasoDRIVE-AP®

UNRIVALED PERFORMANCE

One of the most researched tripeptide ingredients for cardiovascular health, VasoDrive-AP® (also known as AmealPeptide®) is said to improve arterial flexibility by increasing the production of endothelial nitric oxide synthase (eNOS).*

Derived from milk protein through a proprietary enzymatic process, VasoDrive-AP is a naturally occurring, safe, and highly effective blood-pressure support ingredient.*

VasoDrive-AP occurs in very small amounts in casein as tripeptides, which are three specific amino acids joined together in a precise configuration. It works to support blood pressure already within a healthy range by inhibiting an enzyme that leads to the constriction of blood vessels.*

The two tripeptides in VasoDrive-AP are known as the lactotripeptides Valyl-Prolyl-Proline (VPP) and Isoleucyl-Prolyl-Proline (IPP); they are derived from the amino acids valine, proline, and isoleucine.

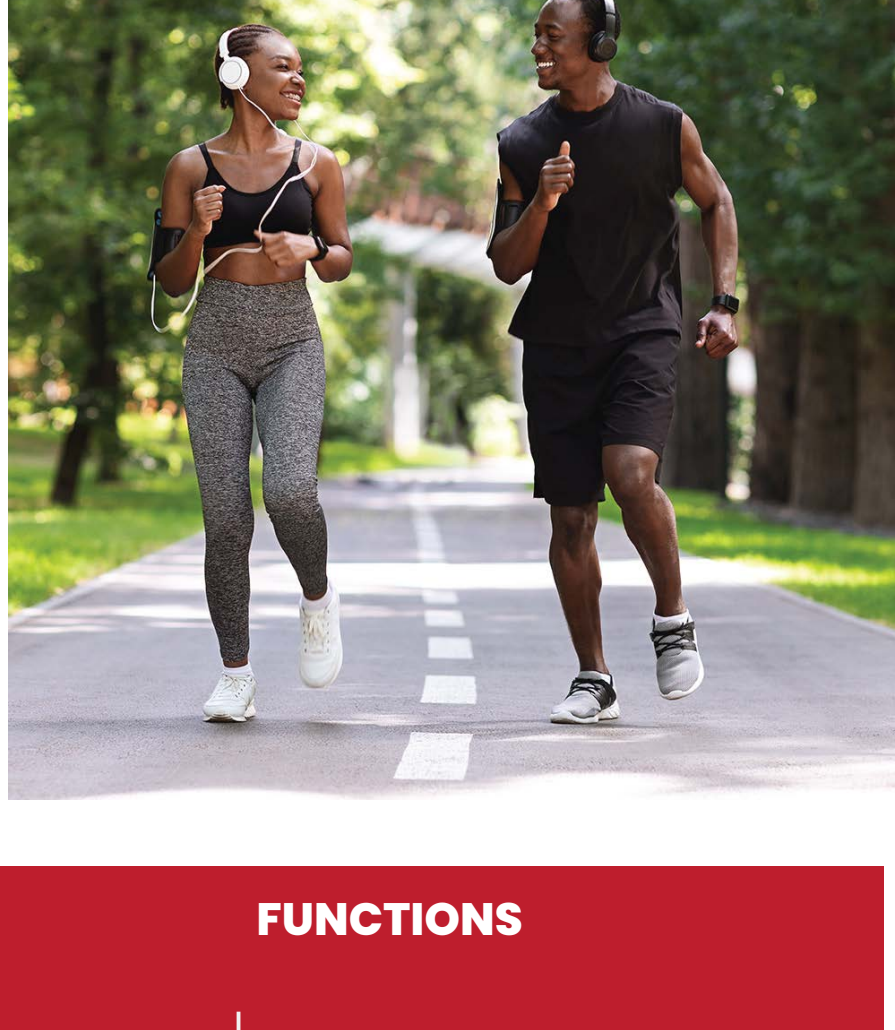
Manufactured by enzymatically hydrolyzing casein with protease derived from *Aspergillus oryzae*, the process is conducted in such a way that the peptides are not damaged or broken down into their individual amino acids. They are also not degraded in the human digestive system because of their precise configuration and can be absorbed intact.

VasoDrive-AP's vasodilating action is believed to be at least partly responsible for its clinically documented effect on blood pressure.*

Supported by more than 30 published studies – including over a dozen double-blind, placebo-controlled human clinical trials – VasoDrive-AP helps maintain both systolic and diastolic blood pressure already within healthy limits and promotes arterial elasticity.*

Research shows that VasoDrive-AP supplementation can help:*

- Improve arterial flexibility by potentiating the production of eNOS
- Support healthy glucose utilization
- Supports a healthy inflammatory system
- Support cerebral blood flow and cognitive function
- Improve recovery and sustain endothelial function throughout training cycles
- Reduce muscle soreness after high-intensity exercise
- Reduce mild exercise-related fatigue
- Provide a long-term solution for optimal intra-workout pump as well as post-workout recovery



STATUS



FUNCTIONS



MECHANISM OF ACTION

VasoDrive-AP works by inhibiting an enzyme that leads to the constriction of blood vessels.*

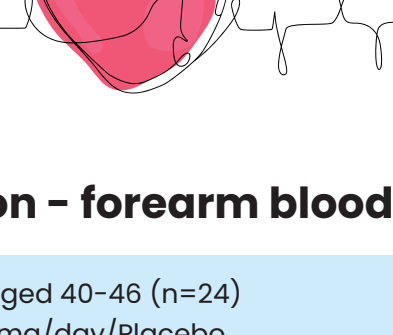
This vasodilating action is believed to be at least partly responsible for VasoDrive-AP's clinically documented effect on blood pressure.*

SOURCES

Nakamura Y *et al.* J Dairy Sci 1995; 78:777-778

Hirota T *et al.* Heart Vessels 2011; 26:549-556

Nonaka A *et al.* Hyperstren Res 2014; 37:703-707

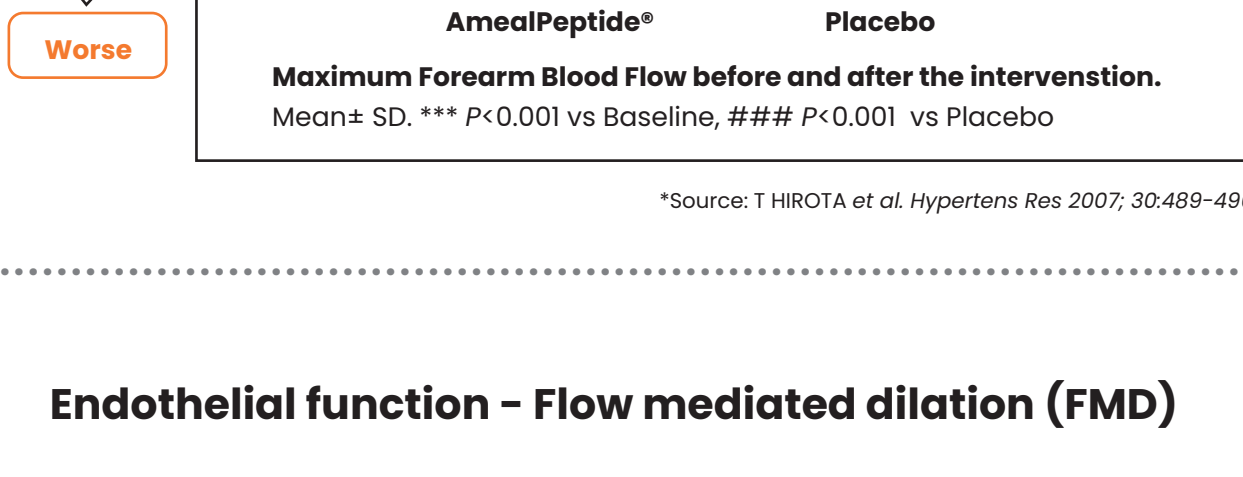


AmealPeptide® improves endothelial function – forearm blood flow

Subjects: Stage 1 hypertension (SBP:140-159/DBP:90-99), aged 40-46 (n=24)

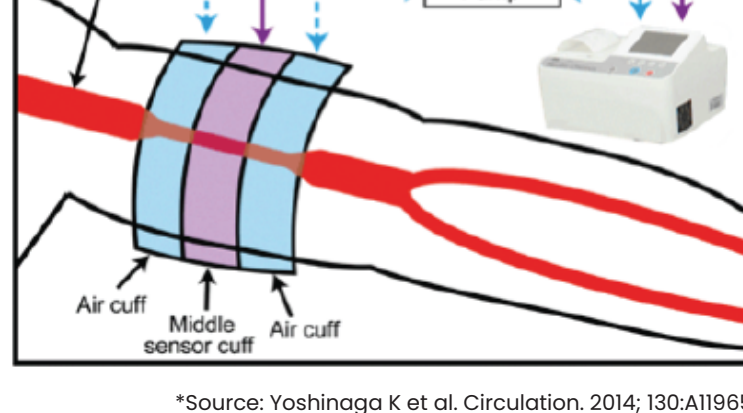
Sample: Capsule with AmealPeptide® (VPP 3.4mg, IPP 3.9mg/day)/Placebo

Treatment: 1 week



*Source: T HIROTA *et al.* Hypertens Res 2007; 30:489-496.

Endothelial function – Flow mediated dilation (FMD)



*Source: Yoshinaga K *et al.* Circulation. 2014; 130:A11965

FMD

- an index of vasomotor function
- developed by Celermajer in 1992
- measures arterial diameter to dilate in response to a shear stress stimulus that produces a NO dependent response (induced by the cuff inflation and then deflation)

$$FMD (\%) = \frac{\text{Max. diameter (mm)} - \text{Resting diameter (mm)}}{\text{Resting diameter (mm)}} \times 100$$

*Source: UNEX Corporation Web Site <http://unex.co.jp/ENG/fmd.html>

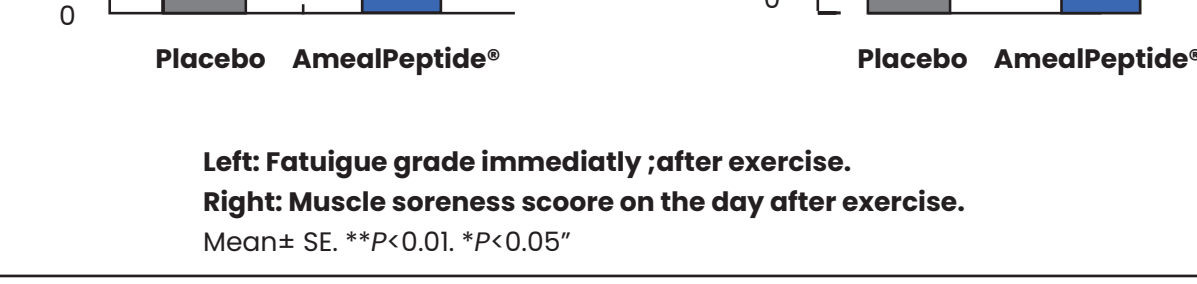
AmealPeptide® relieves muscle soreness & fatigue after mild exercise

Subjects: Healthy male, aged 40-74 (n=14)

Sample: Tablet with AmealPeptide® (VPP 1.4mg, IPP 2.3mg/intake)/Placebo

Treatment: Two oral intakes at 2hrs before and 30min after the exercise – crossover design

Exercise: Walking at 5k/h for 30min on a downhill treadmill and at 5% decline



*Source: Iwasa M *et al.* Ann Sports Med 2015; 2(8):0145.

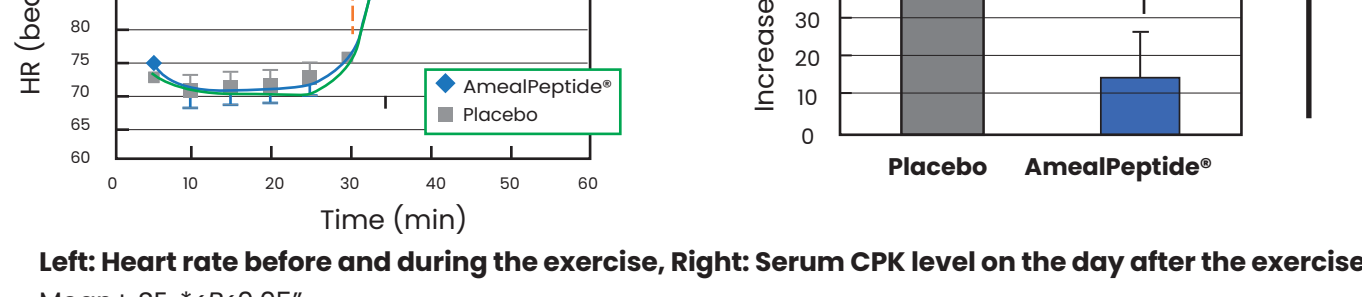
AmealPeptide® relieves HR increase & muscle damage by mild exercise

Subjects: Healthy male, aged 40-74 (n=14)

Sample: Tablet with AmealPeptide® (VPP 1.4mg, IPP 2.3mg/intake)/Placebo

Treatment: Two oral intakes at 30min before and 30min after the exercise – crossover design

Exercise: Walking at 5km/h for 30min on a downhill treadmill at 5% decline grade



Modified from the source: Presentation by Ad W *et al.* at 12th Asian Congress of Nutrition, May 2015.

AmealPeptide® relieves the progression of muscle soreness and fatigue by a long-term training in long-distance track athletes

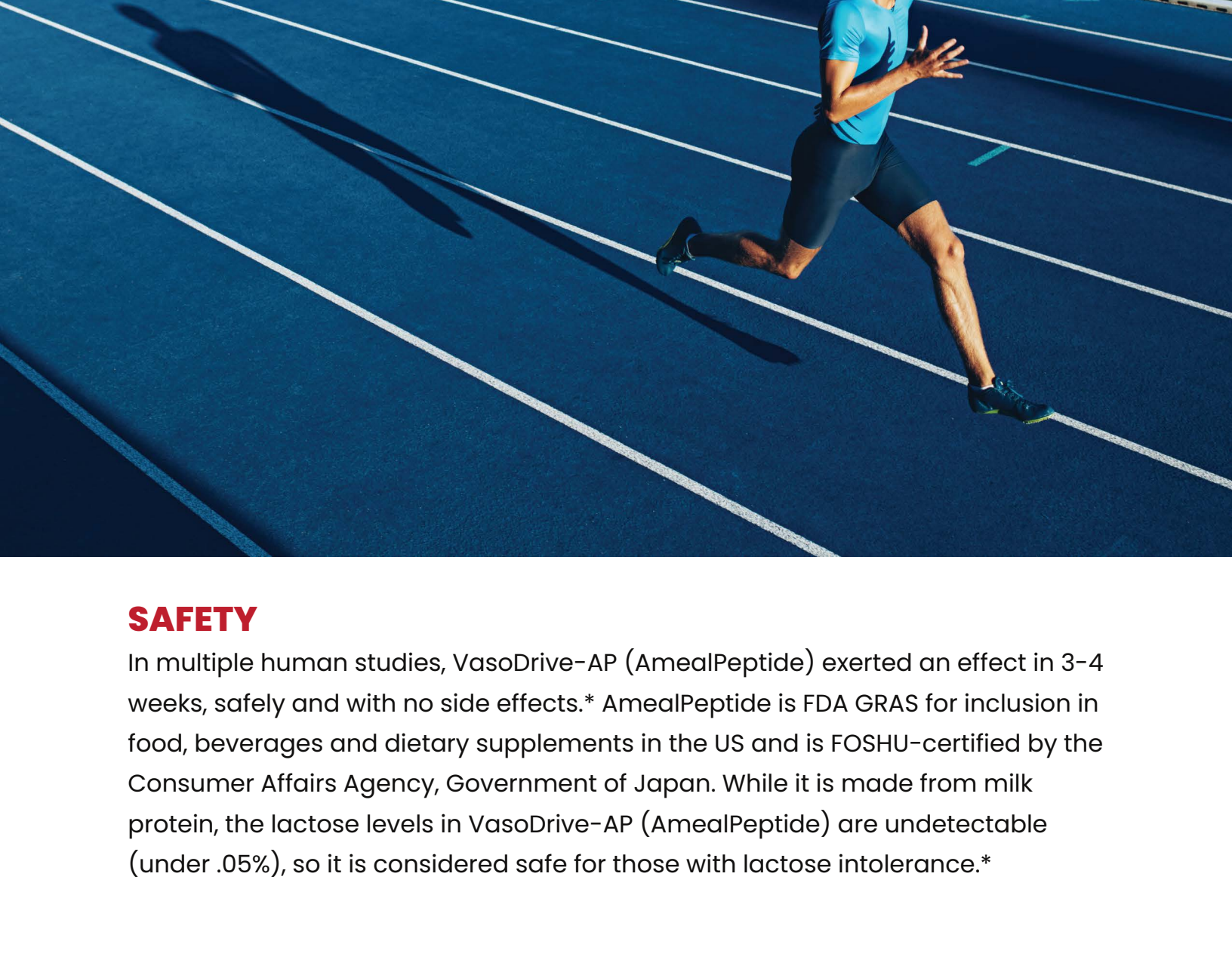
Subjects: Male long-distance track athlete, aged 18-21 (n=48)

Sample: Tablet with AmealPeptide® (VPP 1.4mg, IPP day)/Placebo

Treatment: 4 weeks during a training camp



Modified from the Source: Presentation by AoW *et al.* at 70th Japan Society of Nutrition and Food Sciences Annual Congress, May 2016



SAFETY

In multiple human studies, VasoDrive-AP (AmealPeptide) exerted an effect in 3-4 weeks, safely and with no side effects.* AmealPeptide is FDA GRAS for inclusion in food, beverages and dietary supplements in the US and is FOSHU-certified by the Consumer Affairs Agency, Government of Japan. While it is made from milk protein, the lactose levels in VasoDrive-AP (AmealPeptide) are undetectable (under .05%), so it is considered safe for those with lactose intolerance.*

For more information, please visit maypro.com



www.maypro.com

* These statements have not been evaluated by the Food & Drug Administration. These ingredients are not intended to diagnose, treat, or cure any disease.