



PRODUCT PROFILE

The pomegranate (*Punica granatum*) is one of the oldest fruits known to man. The pomegranate tree is a rounded shrub that typically grows 12 to 14 feet high and is native to India and Iran. The rich, red fruit is surrounded by a hard leathery skin that protects delicate sweetly flavored pomegranate seeds inside.

Punicalagins are water-soluble, highly bioavailable, and supported by safety data. They are shown to possess a high absorption rate of up to 95%. Not only do punicalagins offer a powerful kick of antioxidant properties on their own; they can break-up into smaller polyphenols, known as urolithins, that are also absorbed into the body, and extensively metabolized.

LATEST STUDIES ON POMELLA®

Pomella® inhibits formation of markers responsible for oxidative stress.

Researchers at the University of Rhode Island, Kingston (2014) demonstrated that Pomella® phenolics inhibit the formation of a biologically relevant oxidative stress marker called Advanced Glycation End products, or AGE¹. AGEs are formed when a sugar molecule attaches to DNA or other proteins, and prevents their proper function. Accumulation of AGE plays a key role in aging and some age-related chronic human diseases like type-II diabetes and Alzheimer's. Authors stated, "Our study suggests that pomegranate may offer an attractive dietary

strategy for the prevention and treatment of AGE-related diseases such as type-II diabetes and Alzheimer's disease."¹

Pomella® found most potent antioxidant among dietary supplements.

A 2014 study published in the Journal of Agricultural and Food Chemistry showed Pomella® ranked highest in antioxidant activity across a number of assays including ORAC, TEAC, FRAP and DPPH, compared to 26 other antioxidant products².
"...this is the first study to comprehensively evaluate and compare the antioxidant potency of commercially available polyphenol-rich antioxidant DS, including extracts from pomegranate, green tea, grape seed, resveratrol, milk thistle, acai and goji berry, utilizing different antioxidant assays before and after in vitro digestion"².

Pomella® extract is a patented, clinically researched pomegranate extract developed in collaboration with a major research university located in California. It is standardised to punicalagins (which are highly bioavailable) along with the natural spectrum of pomegranate fruit polyphenols.

PRODUCT ADVANTAGES

- ✓ Natural. Contains no additives and preservatives
- ✓ Made in a GMP-certified facility
- ✓ Sustainable manufacturing practices
- ✓ Standardised to punicalagins
- ✓ Supported by safety data
- ✓ Naturally sugar-free and gluten-free
- ✓ Cultivated using natural farming methods
- ✓ Harvested under fair trade practices
- ✓ Backed by science

1. Liu W et al. Pomegranate phenolics inhibit formation of advanced glycation endproducts by scavenging reactive carbonyl species. *Food and Function*. 2014. 5: 2996-3004.

2. Henning SM et al. Variability in the antioxidant activity of dietary supplements from pomegranate [Pomella], milk thistle, green tea, grape seed, goji, and acai: Effects of in vitro digestion. *J Agric Food Chem*. 2014 Apr 18. 62: 4313-4321. DOI: 10.1021/jf500106r



pomella
NATURAL POMEGRANATE EXTRACT®

PRODUCT PROFILE

Pomegranate supplements (Pomella®) with the highest content of punicalagins showed high antioxidant activity, whereas those high in ellagic acid showed the lowest³.

Cardio-metabolic health

Two clinical studies (2016) showed significant improvements in cardiovascular and metabolic health, respectively, with administration of 300 mg / Pomella twice daily for 30-days as an adjunct therapy. In the first study, significant improvements were seen in biomedical parameters such as HDL, OX-LDL, serum homocysteine, hs-CRP, and others¹. The same researchers showed especially significant decreases in blood glucose and HbA1c compared to baseline in the second study⁴.

Skin health

Pomella was shown to be effective at protecting human skin fibroblasts from cell death following UVA and UVB exposure, while increasing the intracellular antioxidant capacity, and reducing generation of intracellular reactive oxygen species (ROS) after UV exposure⁵.

SAFETY

Pomella® has undergone extensive safety testing, featured in 2008 in the journal Food and Chemical Toxicology⁶.

At doses exponentially greater than the recommended dosage range, no significant treatment-related changes in any clinical, physical, biochemical or hematological parameters were observed⁶. Pomegranate juices and extracts have been used in foods and supplements for the greater part of the 20th century. Pomella® does not need refrigeration to be stable, is highly concentrated, and lacks the sugar and calories in the pomegranate juice.

SUGGESTED DAILY DOSAGE

The suggested daily dosage of Pomella®, according to clinical research, is 300mg per day, equivalent in punicalagins content to 8 ounces of 100% pomegranate juice.

about



With headquarters in Noblesville (IN) USA, Verdure Sciences is a manufacturer of innovative nutritional botanical ingredients with university-based, cutting-edge research. Pomella® is a registered trademark of Verdure Sciences Inc. covered under USA patents 7638640, 7897791, 7919636 and patent EP 1734949.

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For information on patents and version from Vegetables brands, please visit: www.vs-corp.com/ip.html

3. Goyal R et al. An antioxidative effect of Punica granatum (pomegranate) on biomedical parameters in patients with myocardial infarction: A double blind placebo controlled trial. Eur J Biomed Pharma Sci. 2016 Apr 30. Vol 3 (Issue 5): 662-667.

4. Goyal R et al. Antioxidative effect of Punica granatum (pomegranate) on biomedical parameters in patients diabetes mellitus (type 2) and myocardial infarction: A double blind placebo controlled trial. Int J Adv Res. 2016 May. Vol 4 (Issue 5): 857-864. DOI: 10.21474/IJAR01

5. Pacheco-Palencia LA et al. Protective effects of standardized pomegranate (Punica granatum L) polyphenolic extract in ultraviolet-irradiated human skin fibroblasts. J Agric Food Chem. 2008 Jul 18. EPub 2008 Aug 22. DOI: 10.1021/jf18005307

6. Patel C et al. Safety assessment of pomegranate fruit extract: Acute and subchronic toxicity studies. Food Chem Toxicol. 2008 Apr 24. 46: 2728-2735. DOI: 10.1016/j.fct.2008.04.035