NEW RENUAL

Ask your practitioner about RENUAL, our exclusive, first-to-market formula to support energy production, muscle function and healthy aging^{‡*}

*As of 11/2/2020 in the healthcare practitioner channel.

[‡]These statements have not been evaluated by the Food & Drug Administration. This product is not intended to diagnose, treat, cure or prevent any disease.



RENUAL

Dietary Supplement

IN CAPLIQUE CAPALITS

WHAT IS AGE-ASSOCIATED CELLULAR DECLINE?

Age-Associated Cellular Decline (AACD) is the common, gradual deterioration in the way our cells function as we age, which often begins in our 40s and accelerates in our 60s.^{1,2} While aging is a complex process involving many physical changes, recent scientific advances have brought a wealth of understanding about why we age and what changes occur at the cellular level.



Noticeable Loss of Energy, Strength, and Resilience Research continues to enhance our understanding of the cellular decline that is responsible for loss of energy, strength and resilience as we grow older. What has become increasingly evident is the importance of mitochondrial health, which determines how much energy our cells can make.³



As the "powerhouse" of the cell, mitochondria are primarily responsible for producing cellular

energy (ATP).⁴ However, a variety of cellular mechanisms decline and mitochondria become less efficient, which gradually impairs cellular function as we age. Current evidence points to mitochondrial dysfunction as a factor commonly driving accelerated cellular aging and Age-Associated Cellular Decline.⁵

Given the pivotal role mitochondria play in our cellular health and all organs throughout the body, the ability to maintain mitochondrial health after middle age may help to support healthy cellular aging. Research and new interventions that target the health of mitochondria may show significant promise for supporting cellular processes that decline with age.⁶



MITOCHONDRIAL HEALTH AND RENEWAL WITH UROLITHIN A

The life span of mitochondria is limited, in part, by frequent exposure to oxidative stress that occurs during normal energy metabolism. As they age, mitochondria produce less energy, and may even disturb normal cellular functions as they accumulate. Therefore, a cell's energy output and overall health depends on mitochondrial removal and replacement. Supporting this recycling process is a newly recognized strategy for maintaining cellular health, particularly in muscles and other metabolically active tissues.⁷⁻⁹

Old mitochondria are routinely destroyed through a process known as mitophagy. The recycled parts are salvaged to create new mitochondria (a process called mitochondrial biogenesis). This sustainable system hums when we're young, but grows sluggish with time, weakening muscles and driving other hallmarks of aging.^{10,11}

In a 2016 study published in Nature Medicine, a first-in-class natural antioxidant compound called urolithin A (UA) effectively supported mitophagy in preclinical models.¹³ More recent research indicates benefits in muscle function and mitochondrial efficiency in elderly subjects after taking UA for 4 weeks.¹⁴ UA taken orally, as Miropure[™], outperforms pomegranate as shown in a trial of healthy adults whose plasma UA levels were six times higher following a single dose of Mitopure[™] than the results of an 8 oz serving of pomegranate juice, one of the richest sources of these particular antioxidants.¹⁵⁺

Urolithin A (UA) is derived from complex molecules called ellagitannins in pomegranates, nuts and berries. After eating these foods, bacteria in the intestine generate urolithins, which are responsible for the health benefits of pomegranates and pomegranate juice. But because of differences in bacterial populations in the intestinal tract, not everyone can generate UA after consuming these foods.¹²



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

SIGNS OF AGE-ASSOCIATED CELLULAR DECLINE CAN INCLUDE:

- Lower levels of daily energy
- Decline in strength and stamina
- Decreased immune function
- Reduced resilience

Evolving research has shown these changes are often associated with a gradual deterioration in specific natural processes deep inside our cells as we grow older. They become noticeable once they affect the performance of enough cells involved in a specific function.

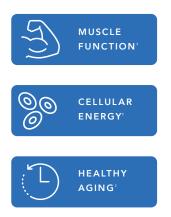
For more information on AACD please visit **myaacd.org**

RENUAL

MITOCHONDRIAL RENEWAL FEATURING MITOPURE™ UROLITHIN A

Exclusive, first-to-market in healthcare practitioner channel*

REN**UA**L contains a combination of ingredients, including Mitopure[™] Urolithin A, resveratrol and CoQ₁₀ to support:





REN**UA**L can offer patients these important benefits:

- Unique polyphenol metabolite
- Enhances mitochondrial renewal to support energy output/energy production^t
- Powers healthy muscle function[‡]
- Promotes healthy aging[‡]

Supplement Facts

Take 2 capsules, 1-2 times daily, with or between meals.

Serving Size: 2 Caplique[®] Capsules • Servings Per Container: 30 2 Caplique[®] Capsules Contain:

Mitopure [™] Urolithin A	250 mg
Trans-Resveratrol	150 mg
(from Japanese knotweed (Polygonum cuspidatum) extra	ct (root))
Coenzyme Q ₁₀	60 mg
Other ingredients: vegetable glycerin, vegetarian capsule	
(cellulose, water)	

Mitopure[™] (proprietary Urolithin A) and the Mitopure[™] logo are trademarks of Amazentis SA. Patent www.amazentis.com/patents

Kaneka Q₁₀[®] is a U.S. registered trademark of Kaneka Corporation. Caplique[®] is a registered trademark used with permission.



RENUAL	Quantity	Order Code
	60	RNL6

A next-generation mitochondrial support product, RENUAL is good for patients who need support with energy production, muscle function and healthy aging.[†]



Our unique liquid blend of Mitopure[™] Urolithin A, CoQ₁₀, resveratrol and vegetable glycerin can have some visual separation. Be assured, this separation is normal, and each capsule is safe and contains the right amount of healthy, active ingredients.

FOR MORE INFORMATION, PLEASE VISIT PureEncapsulationsPro.com/renual

Certified Gluten-Free by the Gluten-Free Certification Organization, www.gluten.org

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

REFERENCES

- 1. Massudi H, Grant R, Braidy N, et al. PLoS One. 2012;7(7):e42357.
- Jones DP, Mody VC Jr, Carlson JL, et al. Free Radic Biol Med. 2002 Nov 1;33(9):1290-300.
- 3. López-Otín C, Blasco MA, Partridge L, et al. Cell. 2013 Jun 6;153(6):1194-217.
- Anderson AJ, Jackson TD, Stroud DA, Stojanovski D. Open Biol. 2019 Aug 30;9(8):190126.
- 5. Chistiakov DA, Sobenin IA, Revin VV, et al. Biomed Res Int. 2014;2014:238463.
- 6. Sun N, Youle RJ, Finkel T. Mol Cell. 2016 Mar 3;61(5):654-666.
- 7. Duchen MR. Diabetes 2004 Feb; 53(suppl 1): S96-S102.
- 8. Roberts RG. PLoS Biol. 2017 Mar; 15(3): e2002338.
- 9. Ashrafi G, Schwarz TL. Cell Death Differ. 2013 Jan;20(1):31-42.
- 10. Marzetti E, Calvani R, Cesari M, et al. Int J Biochem Cell Biol. 2013;45(10):2288-2301.
- 11. Chen G, Kroemer G, Kepp O. Front Cell Dev Biol. 2020;8:200.
- 12. Heim KC. In: Antioxidant Polymers: Synthesis, Properties, and Applications. Cirillo G, Iemma F, eds. Taylor and Francis, c. 2012
- 13. Ryu D, Mouchiroud L, Andreux PA, et al. Nature Medicine 22:8, 2016;879-88.
- 14. Andreux PA, Blanco-Bose W, Ryu D, et al. Nature Metabolism 1:2019;595-603.
- Mitopure[™] (Proprietary Urolithin A) Bioavailability in Healthy Adults (NOURISH). 2020. https://clinicaltrials.gov/ct2/show/NCT04160312

#1 MOST RECOMMENDED BRAND by healthcare professionals⁶

Among professional supplement brands surveyed, Nutrition Business Journal® 2016, 2020

Visit PureEncapsulationsPro.com/renual for more information.



