

NEW

# RENUAL



Offer your patients who need support with **energy production, muscle function, and healthy aging**, access to this exclusive, first-to-market formula<sup>†\*</sup>

#1 MOST  
TRUSTED  
Practitioner  
Brand<sup>◇</sup>

<sup>†</sup>Nutrition Business Journal® 2016

<sup>\*</sup>As of 11/2/2020 in the healthcare practitioner channel

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

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NEW

# RENUAL

MITOCHONDRIAL RENEWAL FEATURING MITOPURE™ UROLITHIN A

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## Exclusive, first-to-market in the healthcare practitioner channel\*

RENUAL offers a unique, novel combination of Mitopure™ Urolithin A, resveratrol and coenzyme Q<sub>10</sub> to promote mitochondrial biogenesis and renewal for:



MUSCLE  
FUNCTION<sup>†</sup>



CELLULAR  
ENERGY<sup>†</sup>



HEALTHY  
AGING<sup>†</sup>

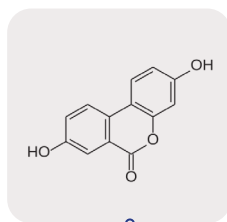
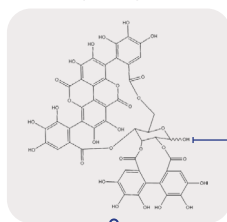
A next-generation mitochondrial support product, RENUAL is recommended for patients who need support with **energy production, muscle function and healthy aging.**<sup>‡</sup>

## What is Urolithin A?

Urolithin A is a major metabolite of ellagitannin-rich foods, such as pomegranates, black raspberries, raspberries, strawberries, walnuts and almonds. These ellagitannins are not absorbed intact into the bloodstream, but are hydrolyzed to ellagic acid in the gut, which is then metabolized by the gut microflora to form urolithins. Research indicates that the ability to synthesize urolithins declines with age and depends on the gut microflora, and there is a small percentage of the population that is unable to perform this conversion at all.<sup>1,2</sup>

Example: Punicalagin  
from pomegranate

Urolithins



## Functions of Urolithin A:

Energy not only drives our daily activities—it ensures the health of our trillions of cells. Conversion of food molecules into usable energy occurs in organelles called mitochondria. But these energy “powerhouses” do more than simply recharge our bodies—they control cellular decisions that affect health and aging.

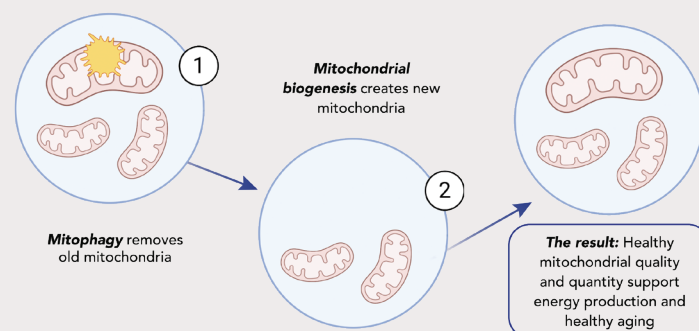
Recent research has deepened our definition of a mitochondrial “picture of health” and how to achieve it. The life span of these organelles is limited, in part, by frequent exposure to oxidative stress that occurs during normal energy metabolism. As they age, mitochondria produce less energy, and may 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.<sup>3,4</sup> Optimal mitochondrial function, according to emerging scientific thought, is clinically achievable by supporting a well-established renewal process.

## Mitochondrial Renewal

In the renewal process, old, dysfunctional mitochondria are destroyed through a process known as mitophagy, and new mitochondria are made through a process called mitochondrial biogenesis (Figure 1). Caloric restriction and exercise support healthy aging, in part by augmenting both processes.<sup>5,6</sup> This two-step system thrives in our youth, but grows sluggish with time, driving metabolic, bioenergetic and musculoskeletal hallmarks of advancing age. For example, diminished mitophagy is strongly implicated in the age-related decrease in muscle strength.<sup>7</sup>

Figure 1: How Mitochondrial Renewal Works



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## Urolithin A

Urolithin A is unique as a dietary agent that has been specifically developed to target mitophagy. In a 2016 study published in Nature Medicine, Urolithin A (UA) stimulated mitophagy in preclinical models and improved muscle function and exercise capacity in two different rodent models. UA also improved muscle strength and longevity in *C. elegans*, a gold standard preclinical paradigm of human aging.<sup>8</sup>

This first-in-class phenolic “postbiotic” (a natural metabolite of intestinal bacteria) is produced by commensal microbiota after consuming foods rich in ellagitannins and ellagic acid—major health-promoting constituents of pomegranates, nuts and berries. These unique polyphenols undergo metabolism by intestinal bacteria to small, highly absorbable metabolites called urolithins, which mediate the widely acclaimed health benefits of pomegranates and other ellagitannin-rich foods.<sup>9,10</sup>

Owing to variations in gut microbiota, not everyone can generate UA after consuming these foods. Even with the right conversion “metabotype,” intestinal extraction of UA from ellagitannins is incomplete, unpredictable and impeded by aging, making oral UA—a universally absorbed molecule—appropriate for precise dosing and evidence-based use. Not surprisingly, pure oral UA (as Mitopure™) outperforms pomegranate in its pharmacokinetic profile, as shown in a trial of healthy adults whose plasma UA levels were six times higher following a single dose of Mitopure™ compared to an 8 oz. serving of pomegranate juice, one of the richest sources of ellagitannins.<sup>11</sup>

### Powers Healthy Muscle Function<sup>†</sup>

In animal research, UA improved endurance and exercise capacity in both young and models of age-related muscle decline. Compared to control mice, those supplemented with UA exhibited:<sup>8†</sup>

- **9%** stronger grip strength
- **57%** more voluntary exercise
- **42%** greater running endurance in elderly rats
- **65%** greater running capacity in young rats

**What is Autophagy?** The natural process of cellular renewal in which the body degrades, clears, and recycles cellular components.

**What is Mitophagy?** Mitochondrial clearance and recycling to prevent dysfunction and cellular degeneration.

## Other Metabolic Benefits

When mice were fed a high-fat diet for 12 weeks, supplementation with urolithin A promoted healthy insulin function and lipid metabolism, and decreased adipocyte size.<sup>12</sup> These results are believed to be the result of increased SIRT1 activity, a protein that mediates the healthy aging benefits of resveratrol, caloric restriction and exercise.<sup>13†</sup>

## 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	<b>250 mg</b>
Trans-Resveratrol	<b>150 mg</b>
(from Japanese knotweed ( <i>Polygonum cuspidatum</i> ) extract (root))	
Coenzyme Q <sub>10</sub>	<b>60 mg</b>
Other ingredients: vegetable glycerin, vegetarian capsule (cellulose, water)	

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Patent [www.amazentis.com/patents](http://www.amazentis.com/patents)

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RENUAL	Quantity	Order Code	SRP.	Phys. Price
	60	RNL6	\$62.20	\$31.10

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<sup>†</sup>Visit [PureEncapsulations.com](http://PureEncapsulations.com) for more information on our GMO Policy.

\*\*Valid on orders placed by healthcare professionals in the US only. Offer is cumulative with volume discounts and expires 1/26/21 at 11:59 p.m. ET. Cannot be combined with other promotions or used on previous orders, exclusions may apply. One-time use and valid only on RENUAL. Free standard shipping will become available at checkout.

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Help your patients access this exclusive,  
first-to-market healthy aging formula<sup>†\*</sup>

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