



## MGCPQQ supports cognitive health by:

### Creating New Mitochondria

As the body grows older, mitochondria levels decline, which impacts energy and can lead to many age-related dysfunctions such as impaired memory function and muscle mass loss. A variety of studies have shown that MGCPQQ can help to increase mitochondrial biogenesis.

### Stimulating Nerve Growth Factor (NGF)

MGCPQQ has shown to have a strong effect on helping to promote nerve regeneration and to protect against brain damage caused by various oxidative stresses.



- **REGISTERED** on the European Union's Approved List of Novel Foods Ingredients in 2018
- **APPROVED** BioPQQ (MGCPQQ) is the only supplement of its kind with NDI notification from the U.S. Food and Drug Administration
- **CERTIFIED** safe as an ingredient for food application by Japan's Ministry of Health, Labour and Welfare
- **CERTIFIED** by Informed-Choice and Informed-Sport quality assurance programs



MGCPQQ is a naturally derived, pure source of pyrroloquinoline quinone disodium salt (PQQ), which is found naturally in trace amounts in plants and several foods.


MGCPQQ is manufactured in Japan by Mitsubishi Gas Chemical Co. Inc. and is the only PQQ available for purchase by nutraceutical companies and supplement manufacturers in Europe.



## Most Tested. Most Trusted.

The most tested supplement ingredient of its kind, all-natural MGCPQQ has been proven to promote mitochondrial biogenesis and enhance mitochondrial function. It has also been shown to help improve cognitive function and memory.

The same safe, trusted ingredient known as BioPQQ in the United States, Canada and Japan



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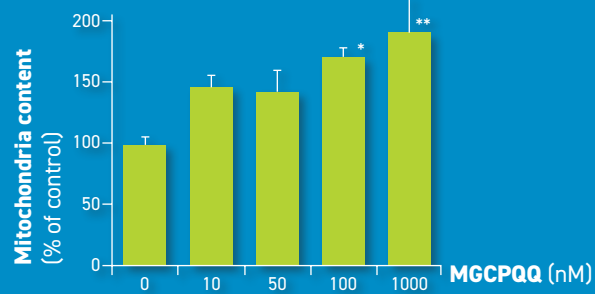
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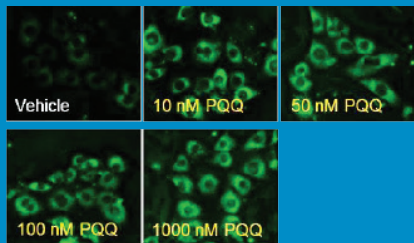
## Most Researched.

Increased amounts of MGCPQQ have been shown to boost mitochondria levels in mice.

### Mouse NIH/3T3 fibroblasts



### MitoTracker Green FM Fluorescence detection (Ex/Em=485/520 nm)



Biochemistry, 2017, 56, 6615-6625

### In-Vitro Studies\* Show:

- Enhancement of energy-building organ growth<sup>11</sup>
- May help nerves in the brain and other organs grow or recover after being damaged<sup>3,4</sup>
- Boosted Nerve Growth Factor<sup>1,2</sup>
- No toxicity<sup>5</sup>
- Extended life span of *C. elegans*

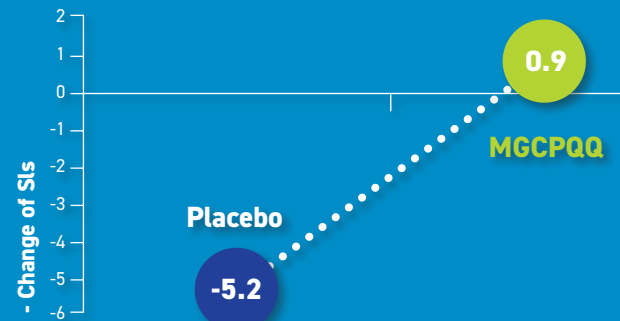
\*References:  
<https://www.mgcpqq.eu/wp-content/uploads/2019/11/References.pdf>

## Most Tested.

### Human Studies Show:

- Increased memory recall<sup>10</sup>
- Short-term memory improvement<sup>10</sup>
- Better sleep, more energy, lower stress<sup>11</sup>
- Healthier skin<sup>12</sup>
- Help prevent high cholesterol levels<sup>13</sup>
- No adverse affects<sup>8</sup>

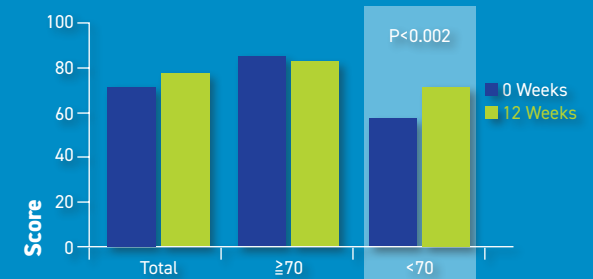
Attention and working memory scores on Stroop cognitive tests were significantly better after intake of 20 mg of MGCPQQ over 12 weeks.



Adv. Exp. Med. Biol. 2015, 876, 319-325.

## Most Trusted.

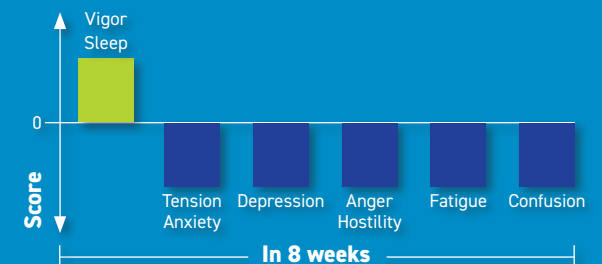
Results of a touch-M cognitive function test show that senior citizens taking 20mg/day of MGCPQQ experienced significant improvement in cognitive function.



### Animal Studies Show:

- Higher learning ability and improved memory<sup>6</sup>
- Rebuilding of cells, immune system and brain function<sup>7</sup>
- No adverse affects<sup>8</sup>

Results for the Mood States cognitive function test show adults taking 20 mg/day of MGCPQQ experienced significant improvements in vigor, fatigue, tension-anxiety, depression, anger-hostility, confusion and sleep.



Funct. Foods Health Dis. 2012, 2, 307-324

For references and to learn more, visit  
[mgcpqq.eu/clinical-studies](https://www.mgcpqq.eu/clinical-studies).

