

# Carbon 60 (C60): Health Benefits and How to Use It



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**DR. JOCKERS**

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## Carbon 60 (C60): Health Benefits and How to Use It

Carbon 60 or C60 is one of the biggest buzz lately in the health world. It is touted as a miracle molecule for anti-aging, energy, skin health, and more. C60 was an exciting find when it was discovered back in 1985. In fact, the scientists who found it were awarded the Nobel Prize in Chemistry in 1996 for the discovery.

C60 is a type of fullerene made up of 60 carbon atoms. These 60 atoms bonded together offer antioxidant benefits and can fight free radicals effectively. This can decrease oxidative stress, chronic inflammation, signs of aging, various symptoms, and the risk of chronic health issues. I bet I caught your interest. If you want to learn more about the benefits of C60, read on!

In this article, you will learn what C60 is. I will discuss the connection between C60 and mitochondrial health. You will learn about the potential health benefits of C60. I will go over potential side effects and the best dosage for C60. I will explain how to select the best C60 supplement and recommend my favorite brand for C60 supplementation.

# WHAT IS C60

**C60 is a type of fullerene that is made up of 60 carbon atoms that are bonded together and offer powerful antioxidant benefits.**



**Discovered in 1985 by 3 researchers at Rice University**



**These Scientists Won the Nobel Prize in Chemistry in 1996**



**Upregulates the 4 Key Intracellular Antioxidants - Glutathione, Superoxide Dismutase, Catalase and CoQ10**



**Supports Mitochondrial Function Better than Any Other Antioxidant Ever Studied**



**Helps Rid the Body of Damaged or Senescent Cells**



## What Is C60

Carbon 60 or also known as C60 is the most common fullerene. A fullerene is a type of carbon. It is a large spheroidal molecule made of a hollow cage of atoms. It basically looks like a hollow soccer ball. C60 is made up of 60 carbon atoms – hence the name.

These 60 atoms bond together. When bonded, they can interact with and fight free radicals in the environment thanks to their antioxidant properties. Antioxidants are substances that can

fight oxidation. You probably know that vegetables and fruits are high in antioxidants, and as a result, they can decrease oxidative stress and related inflammation in your body.

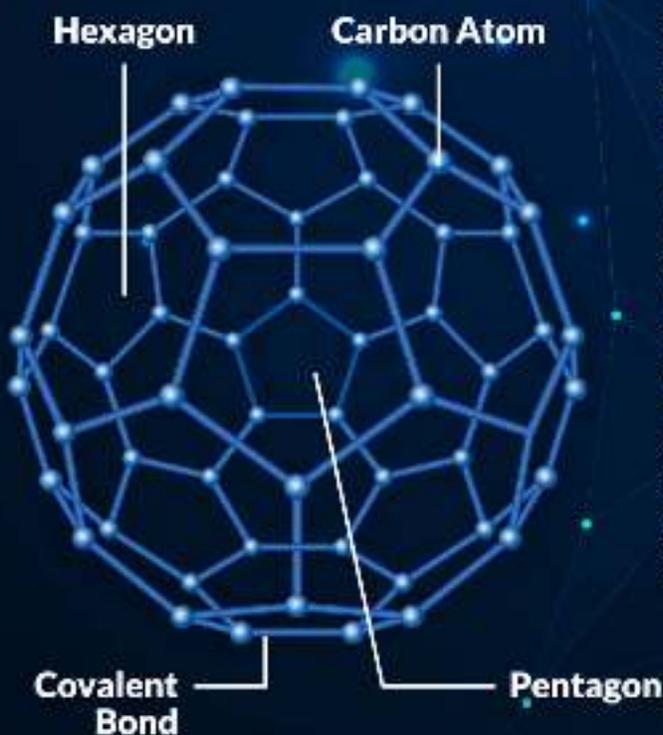
As a result, they may help to reduce signs of aging, including visible signs on your skin and the risk of age-related health issues. Oxidative stress may play a role in a variety of health issues, including cancer, heart disease, neurodegenerative diseases (e.g., Parkinson's disease, **Alzheimer's disease**), and diabetes.

Antioxidants may help to reduce the risk and slow the progress of these diseases. Due to its antioxidant properties, **C60 supplements** may help to reduce signs of aging and chronic health issues.

# WHAT IS A BUCKYBALL (C60)

Buckyballs, also called Buckminsterfullerenes or fullerenes, were one of the first nanoparticles discovered.

This discovery happened in 1985 by a trio of researchers working out of Rice University named Richard Smalley, Harry Kroto, and Robert Curl.



Buckyballs are composed of carbon atoms linked to three other carbon atoms by covalent bonds. However, the carbon atoms are connected in the same pattern of hexagons and pentagons you find on a soccer ball, giving a buckyball the spherical structure as shown in the following figure.

The most common buckyball contains 60 carbon atoms and is sometimes called C60. Other sizes of buckyballs range from those containing 20 carbon atoms to those containing more than 100 carbon atoms.

The covalent bonds between carbon atoms make buckyballs very strong, and the carbon atoms readily form covalent bonds with a variety of other atoms. Buckyballs are used in the composites to strengthen material. Buckyballs have the interesting electrical property of being very good electron acceptors, which means they accept loose electrons from other materials. This feature is useful, for example, in increasing the efficiency of solar cells in transforming sunlight into electricity.



## C60 and Mitochondrial Health

The mitochondria are the powerhouse of your cells. We've all heard this a million times since high school biology class. But what does that even mean?

Mitochondria are specialized structures found in every cell of the human body with the exception of red blood cells. Mitochondria contain their own DNA. They basically serve as batteries to power a variety of functions in your body. They are responsible for generating 90%

of cellular energy in the form of adenosine triphosphate (ATP) and for assisting metabolic functions.

Mitochondria are located in differing concentrations in various tissues throughout the body. They are designed to serve the purpose of those specific tissues.

For example, the mitochondria in your liver help to convert ammonia into a less toxic waste substance. The **mitochondria** support cellular respiration and energy production. It plays a critical role in calcium homeostasis, cell growth, and cell death.

# The Spinning Wheel of Mitochondrial Damage and Dysfunction

## FACTORS LEADING TO DAMAGE

- Poor Diet
- Chronic Stress
- Infections
- Toxins
- Poor Sleep
- Aging



## METABOLIC INSTABILITY

- Lowered Energy Production
- Increased Metabolic Waste
- Increased Oxidative Stress
- Lowered Anti-Oxidant Production



## CHRONIC DISEASE DEVELOPMENT



## DAMAGE AND DYSFUNCTION

- Dyfunctional Energy Production
- Poor Fatty Acid Metabolism
- Metabolic Inflexibility
- Protein Damage
- Increased Oxidative Stress

## MITOCHONDRIAL DYSFUNCTION HAS BEEN ASSOCIATED WITH:



Without healthy mitochondria, your cells and, thus, your body cannot function well. Mitochondrial dysfunction may lead to fatigue, muscle aches and pains, cardiovascular issues, nervous system dysfunction, respiratory problems, **migraines** and headaches, hormonal issues, liver and kidney problems, and many other health issues. This is where C60 comes in, to reduce your risk of mitochondrial issues.

Thanks to its antioxidant properties, C60 may help to fight oxidative stress, toxin exposure, and inflammation which all may compromise mitochondrial function. A 2014 research published in the *International Journal of Biology and Biomedical Engineering* has found that C60 may have potential as a mitochondrial-targeted antioxidant **(1)**.

According to a 2021 animal study published in the *International Journal of Molecular Sciences*, C60 may be beneficial in decreasing mitochondrial dysfunction and oxidative stress **(2)**. As you will learn in the next section, C60 can collect in the mitochondria and aid energy production.

It serves the role of a buffer against reactive oxygen species (ROS). ROS can slow energy production, but C60 may shield you from this effect, supporting energy production.

# HEALTH BENEFITS OF C60



Anti-Inflammatory  
Benefits



Improves Blood Sugar  
and Insulin Sensitivity



Anti-Aging Benefits  
on Skin and Joints



Supports Brain Health,  
Vision and Cognition



Improves Mitochondrial  
Energy Production



Supports  
Healthy Libido



Improves Muscle  
Recovery and  
Performance



Protects Body from  
Radiation and EMF

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## Health Benefits of C60

C60 may offer many health benefits, including anti-inflammatory benefits, anti-aging effects, improved blood sugar, reducing the risk of diabetes, supporting brain health, supporting cancer recovery, improved energy, supporting a healthy **libido**, aiding recovery and performance, reducing the effects of EMF and radiation, improving skin health, and supporting vision health. Let's discuss these benefits.

### Anti-Inflammatory

C60 may help to reduce inflammation which may benefit various inflammatory conditions from skin problems to joint issues. A 2016 study published in the *Journal of Nanotechnology*, has found that C60 may help to reduce skin inflammation related to atopic dermatitis in mice (5).

According to a 2019 study published in the *International Journal of Nanomedicine*, C60 derivatives have helped to reduce **joint inflammation** and joint damage in rats by inhibiting macrophage activation (4). According to a 2007 study published in the *Journal of Immunology*, it may also help to reduce allergic response and related inflammation (5).

# How Inflammation Affects the Body?

"Inflammation is at the root of practically all known chronic health conditions"

**BRAIN**  
Pro-inflammatory cytokines cause autoimmune reactions in the brain, which can lead to depression, autism, poor memory, Alzheimer's disease and MS.

**THYROID**  
Autoimmunity as a result of inflammation can reduce total thyroid receptor count and disrupts thyroid hormone function.

**CARDIOVASCULAR**  
Inflammation in the heart, arterial and venous walls contributes to heart disease, stroke, high blood sugar (diabetes), and anemia.

**LUNGS**  
Inflammation induces autoimmune reactions against the linings of airways. Can result in allergies or asthma.

**MUSCLE**  
Inflammatory cytokines can cause muscle pain and weakness. Can manifest as carpal tunnel syndrome, or polymyalgia rheumatica, to name a few.

**GI TRACT**  
Chronic inflammation damages our intestinal lining and can result in issues like GERD, Crohn's disease and Celiac disease.

**BONES**  
Inflammation interferes with the body's natural ability to repair bone mass, increasing the number of fractures & leading to conditions like osteoporosis.

**KIDNEYS**  
Inflammatory cytokines restrict blood flow to the kidneys. Complications like edema, hypertension, nephritis & kidney failure can result.

**SKIN**  
Chronic inflammation compromises the liver and kidneys, resulting in rashes, dermatitis, eczema, acne, psoriasis, wrinkles and fine lines.

**LIVER**  
Build-up of inflammation leads to an enlarged liver or fatty liver disease. Increased toxic load build-up in the body.

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## Anti-Aging

C60 may also have some anti-aging effects by reducing the signs of aging and improving lifespan. A 2012 study published in *Biomaterials* has found that C60 may help to improve the lifespan of rats (6).

A 2008 study on mice published in the *Neurobiology of Aging* has found that C60 may help to extend lifespan and improve cognition (7). A 2008 study published in the *Journal of the American Academy of Dermatology* has found that fullerene, like C60, may help to reduce wrinkles as a sign of skin aging (8).



**10 SIGNS OF AGING POORLY**

- ▶ Fatigue & Lethargy
- ▶ Joint Pain
- ▶ Brain Fog & Forgetfulness
- ▶ Weight Gain
- ▶ Bone & Muscle Loss
- ▶ Postural Changes
- ▶ Varicose Veins
- ▶ Tinnitus & Hearing Loss
- ▶ Skin & Complexion Changes
- ▶ Poor Sleep Quality

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## Blood Sugar and Diabetes

C60 may help to support your blood sugar levels and reduce the risk of **diabetes**. According to a 2020 study published in *Neurochemical Research*, C60 may help to reduce hypoglycemia-related health issues (9).

According to a 2020 research published in *Food and Chemical Toxicology*, C60 supplementation may help to support glucose and lipid homeostasis and support gut health (10).

## Signs of Insulin Resistance

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LIVER HEALTHY. BLOOD HEALTHY.

- Tend to Be Overweight
- Trouble Losing Weight
- Large Appetite
- Craving Sweets After Meals
- Eating Sweets Doesn't Relieve Cravings
- Feeling More Tired After Meals
- Frequent Thirst and Urge to Urinate
- Hormone Problems - PCOS
- Females - Estrogen or Testosterone Dominance
- Males - Low Testosterone
- Acne, Skin Tags and Skin Pigmentation Changes
- High Blood Pressure and High Triglycerides



## Brain Health

C60 may also help to improve your brain health and reduce the risk of cognitive issues. According to a 2008 study on mice published in the *Neurobiology of Aging*, C60 may help to extend lifespan and improve cognition (7).

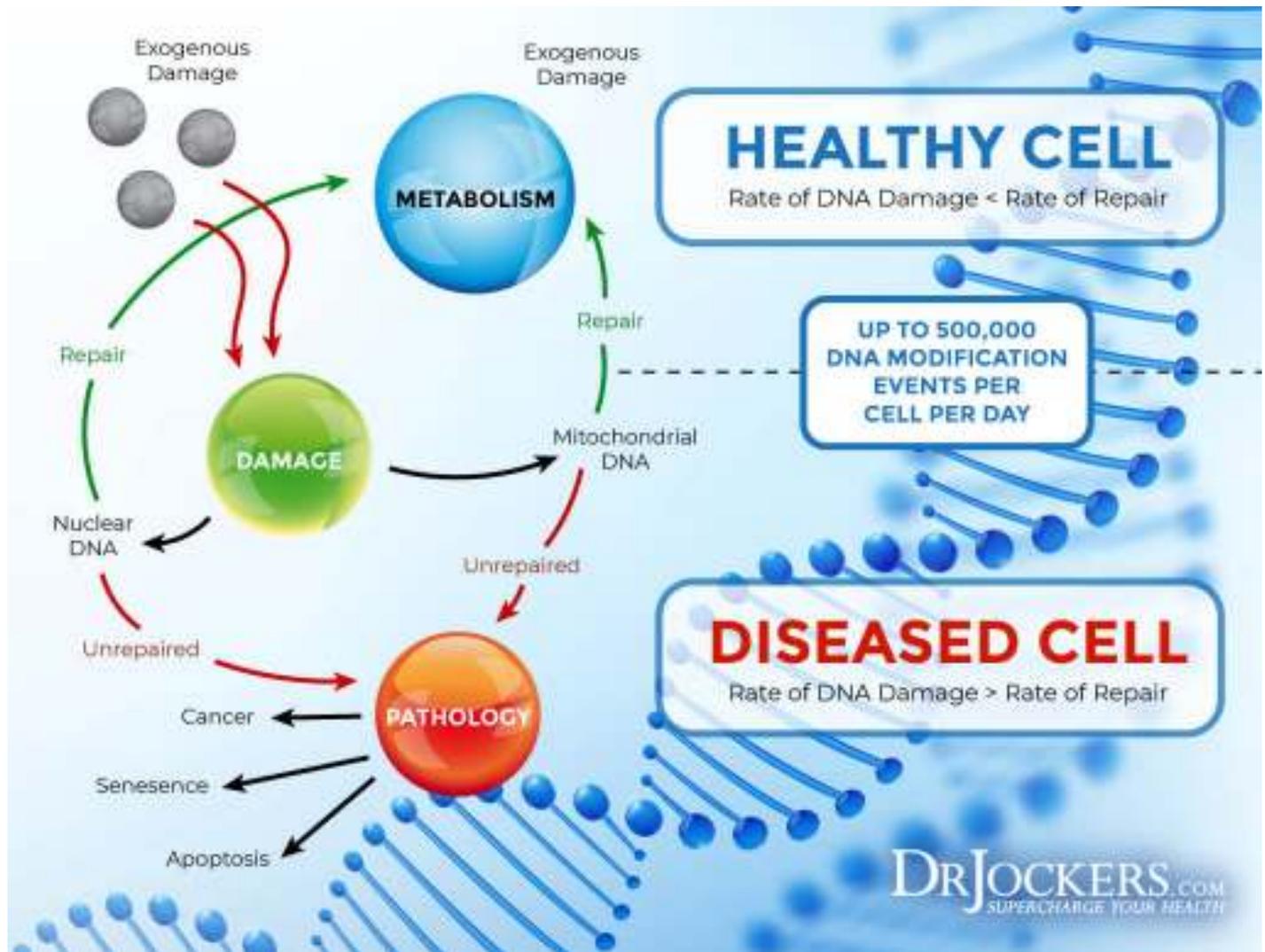
A 2007 study published in the *Journal of Nanoscience and Nanotechnology* has found that C60 may help to support cognitive performance (11). According to a 2017 rat study published in the *Journal of Alzheimer's Disease*, C60 may help to improve learning and **memory** pathways (12).

## Cancer Support

C60 supplementation may also be a complimentary part of cancer support. A 2021 study on mice published in the *Journal of Colloid and Interface Sciences*, C60, in photodynamic cancer

therapy experiments, “was internalized by cancer cells and induced cell apoptosis without noticeable toxicity”, supporting cancer therapy (13).

A 2020 research published in *Pharmaceutics*, C60 may support the treatment of hepatocellular carcinoma in rats and reduce liver alterations related to the condition (14). A 2020 study published in the *International Journal of Nanomedicine* has found that water-soluble C60 may be protective against lung damage related to bleomycin, an anti-cancer drug (15).



## Improved Energy

As you learned already, C60 may help to improve mitochondrial health and energy production. Thus, it’s not surprising that it may help with energy (1, 2). C60 can collect inside mitochondria which may also help the process of energy protection by acting as a buffer against reactive oxygen species (ROS), which can slow energy production.

According to a 2014 study published in *Connective Tissue Research*, C60 may help to improve muscle endurance (16). It may help to improve stamina and energy.

## Supports Healthy Libido

C60 may also help to support a healthy libido by balancing hormones and activating pregnenolone. Pregnenolone is a precursor to all hormones.

According to a 2021 Forbes article interviewing Kenneth Swartz, an expert in the field of C60 supplements, C60 may help to improve **testosterone** levels in men, estrogen levels in women, and balance hormone levels by stimulating pregnenolone production (17). This may help to improve libido, energy, and mental clarity.

**WHAT IS LOW LIBIDO?**

Your libido is your sexual drive and desire. This can be impacted by a range of physical, mental, emotional, biological and environmental factors.

**SYMPTOMS OF LOW LIBIDO**

- ▶ Loss of Sexual Desire For a Partner
- ▶ Very Low or No Interest in Sexual Activities
- ▶ Having Few or No Sexual Thoughts or Fantasies

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## Muscle Recovery and Performance

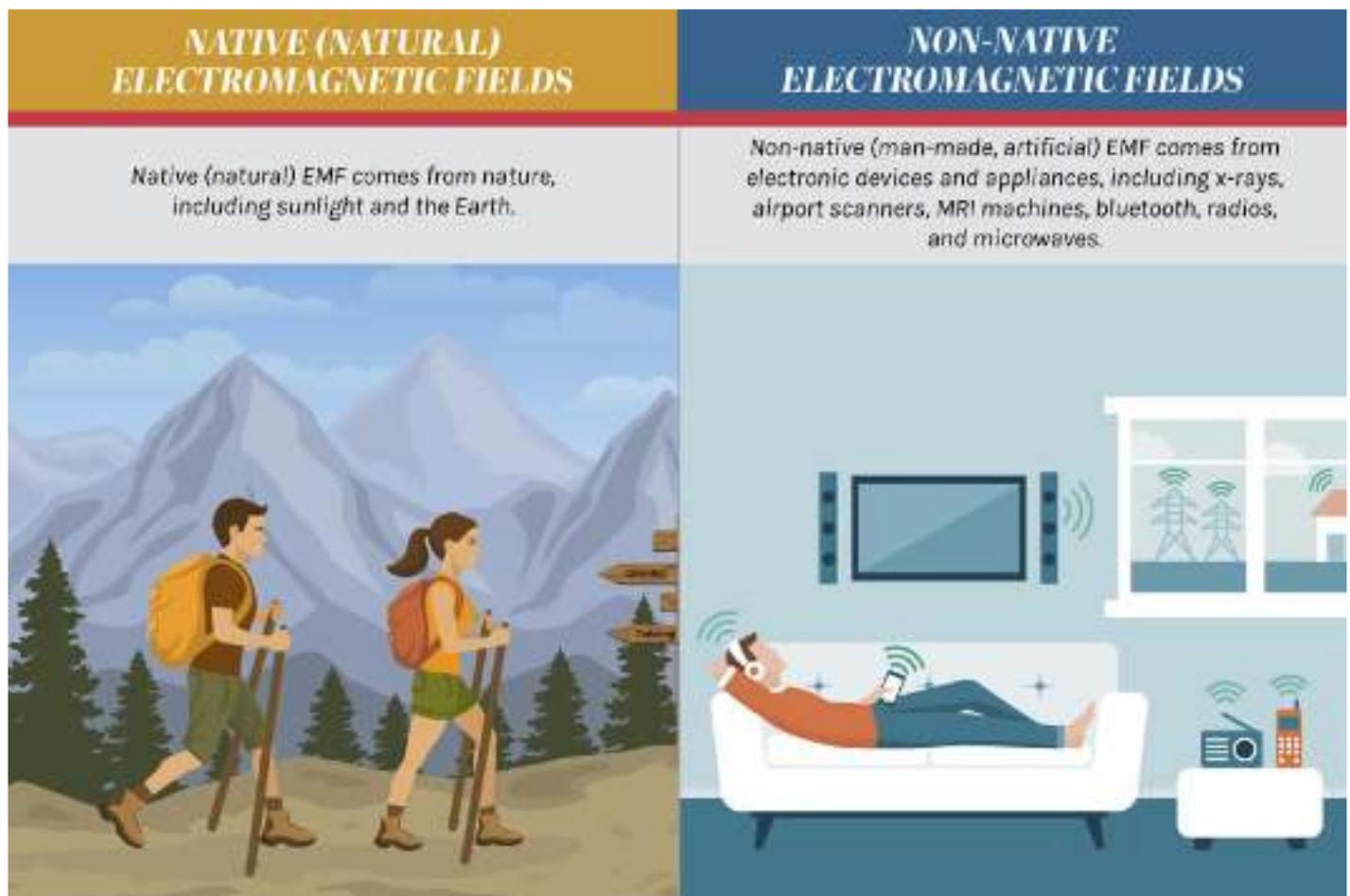
Whether you are an athlete, a weekend warrior, or completely new to exercise, C60 may help you with muscle recovery and performance. According to a 2014 study published in *Connective Tissue Research*, C60 may help to improve muscle endurance (16).

A 2017 study on rats published in the *Journal of Nanobiotechnology* has found that C60 may help to improve and reduce the risk of skeletal muscle fatigue (17). As a result, it may also help to increase muscle endurance.

## Radiation and EMF Mitigation

C60 may also act as a buffer against radiation and **EMFs**. This is great news since with wifi, cell phones, computers, and 5G, we are all exposed to lots of **radiation**, more than ever before. According to a 2009 study published in *Free Radical Biology and Medicine*, C60 may offer radioprotective and antioxidant benefits (19).

According to a 2009 study published in *Toxicology*, it may be protective against UV radiation, too (20). According to a 2010 study published in *Toxicology and Applied Pharmacology*, C60 may help to reduce mitochondrial dysfunction and immune health issues related to ionizing radiation in mice (21).



## Vision Support

As a substance with antioxidant benefits, C60 may be beneficial for your **vision**. According to a 2022 research published in *Biomedical Research International*, antioxidants may help to reduce eye aging (22).

It may help to reduce oxidative stress, promote retinal health and improve eye muscle flexibility. However, we still need more research evidence on the benefits of C60 on vision.

## Skin Health

C60 may also help to improve your skin health and reduce signs of aging of your skin. According to a 2016 study on mice published in the *Journal of Nanotechnology*, C60 may help to reduce **skin inflammation** related to atopic dermatitis (5).

According to a 2008 study published in the *Journal of the American Academy of Dermatology*, C60 may help to decrease wrinkles (8). A 2009 mouse study published in *Toxicology* has found that C60 may be protective against UV radiation and related skin damage (20).



**SYMPTOMS OF SKIN INFLAMMATION**

- ▶ Acne or Pimples
- ▶ Blisters
- ▶ Eczema
- ▶ Wrinkles
- ▶ Age Spots
- ▶ Rashes
- ▶ Cracked or Raw Skin
- ▶ Itching or Burning Skin
- ▶ Redness or Skin Warmth
- ▶ Skin Thickening or Scaliness

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The infographic features a magnifying glass over a diagram of skin cells, some of which are red and inflamed. Below the list is a cross-section diagram of the skin showing the epidermis, dermis, and subcutaneous tissue, with a blue arrow pointing to the epidermal layer.

## Potential Side Effects

Based on current research evidence, C60 isn't toxic and is generally safe for humans. According to a 2016 review published in *Experimental Dermatology*, skin reactions related to C60 are very uncommon in humans and animals (23).

According to a 2012 study published in the *Journal of Toxicological Sciences* and another 2012 study published in *Biomaterials*, C60 is not toxic to rats (24, 25). However, we still need more research evidence to have a full understanding. It's always important to talk to your doctor first.



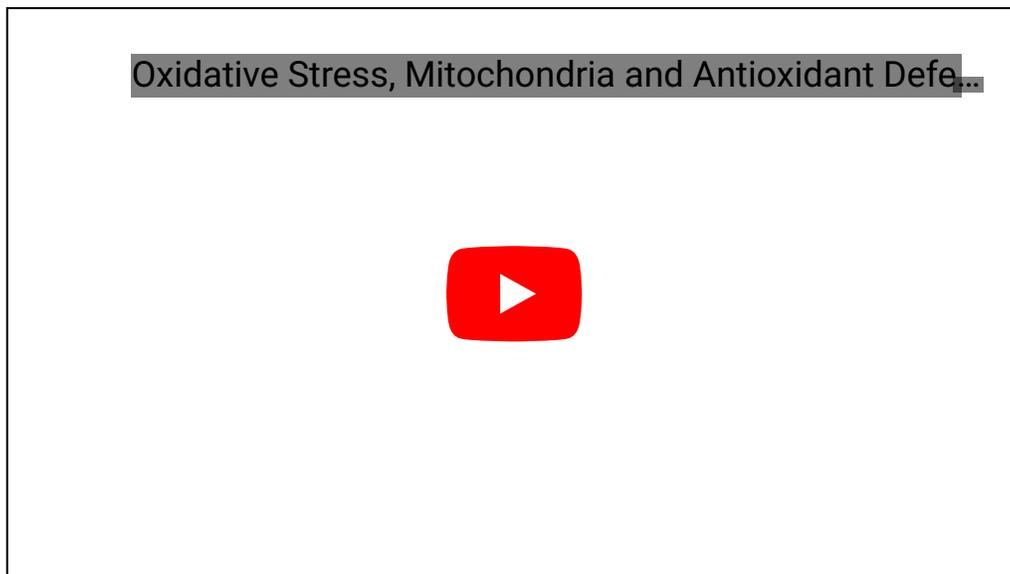
## Best Dosage

We don't have a complete understanding of the most effective dosage for C60. We need more research on the benefits and dosage for humans. Based on animal studies, the best range is range from 0.4 to 5 milligrams per kilogram (mg/kg) of body weight, typically when dissolved in olive oil.

When looking at the effects of C60, specifically on the skin, both human and animal studies show a range between less than 0.0005 percent to 0.05 percent.

If you are using C60, I recommend that you follow the directions on your supplement and talk to your doctor for guidance. The general dosage recommendation is 1 teaspoon a day for an average 150-lb person.

As with every supplement, starting at a lower dose is better to see how you are doing on it. If you are not experiencing any reactions, you can increase the dose until you find your sweet spot within the recommendation range.



## How to Purchase It

If you are looking to use C60 as a supplement, I recommend that you buy from a trusted brand. There are different ways to take C60. Some supplements use olive oil, while others use **MCT coconut oil**, avocado oil, or black seed (*Nigella sativa*) oil).

You may even find them in capsule form with one of these carrier oils. If you are choosing a liquid form, I recommend that you pick a dark bottle and store it in a cool, dark place. This is important because, according to animal studies, C60 with olive oil, when exposed to light, can be toxic to mice.

While this may not be an issue for humans, **olive oil** is best to be stored in darker bottles anyways. If you look in your cabinet, you probably find that your olive oil is in dark green, brown, or black bottles.

When looking for a high-quality C60 product, I recommend looking for the following things:

- 99.9% Pure Sublimated
- Dark Amber Bottle
- Certified Organic Oils
- Solvent-Free
- 3rd party Tested
- Highly Concentrated, Between 99.95% to 99.99% Pure C60

# HOW TO PURCHASE C60

C60 is best preserved and used in the body when it is dissolved or sublimated in a carrier oil. This oil should either be olive oil, avocado oil or coconut based MCT oil.

Here is what to look for to get the highest quality.



99.9% Pure Sublimated



Dark Amber Bottle (To Protect from UV Light)



Certified Organic Oils



Solvent-Free (No Toxins)



3rd Party Tested for Purity and Efficacy



Highly Concentrated, Between 99.95% to 99.99% Pure C60

## Introducing C60 Purple Power

If you've been following me for a while, you know that I only use and recommend high-quality supplements from trusted brands. After searching for the right C60 supplement, I found that **C60 Purple Power** is the best one out there. This is what I use myself and recommend to my patients, family, and friends.

They offer different products with olive oil, coconut oil, and avocado oil, depending on your preferences. They are using the highest quality C60 made with 100% Certified Organic, healthy,

farm-direct carrier oils. These products are third-party tested for purity, concentration, and bioavailability.

They are manufactured in an FDA-compliant facility to meet governmental standards. Their products are purified through sublimation, and most importantly, they are never exposed to solvents. I recommend that you try **C60 Purple Power**. You won't regret it. Use the Discount Code **JOCKERS** for 15% OFF.



# C60 Benefits

OPTIMIZES  
MITOCHONDRIAL  
FUNCTION

BOOSTS ENERGY,  
MENTAL CLARITY &  
STAMINA

PROMOTES A BALANCED  
IMMUNE RESPONSE

SUPPORTS ATHLETIC  
PERFORMANCE &  
RECOVERY

ASSISTS WITH MILD  
MEMORY LOSS  
ASSOCIATED WITH AGING

PROMOTES SKIN VITALITY  
& HAIR GROWTH



MAY LESSEN THE  
APPEARANCE OF FINE LINES  
& WRINKLES

## Final Thoughts

C60 is a type of fullerene made up of 60 carbon atoms. These 60 atoms bonded together offer antioxidant benefits and can fight free radicals effectively. This can decrease oxidative stress, chronic inflammation, signs of aging, various symptoms, and the risk of chronic health issues.

I recommend that you try C60 to improve your health and well-being. Follow my tips in this article for selecting the best brand, or better yet, try my recommendation, **C60 Purple Power**. Use the Discount Code **JOCKERS** for 15% OFF.

## How to use C60 Purple Power

Take 1 or more teaspoons in the AM with water. Eat food within the hour for better absorption. It is recommended to increase your intake of water while taking this product.

*Warning: Do not use this product if you are allergic to avocado, coconut, or olives, or using blood thinners, or are pregnant or nursing.*



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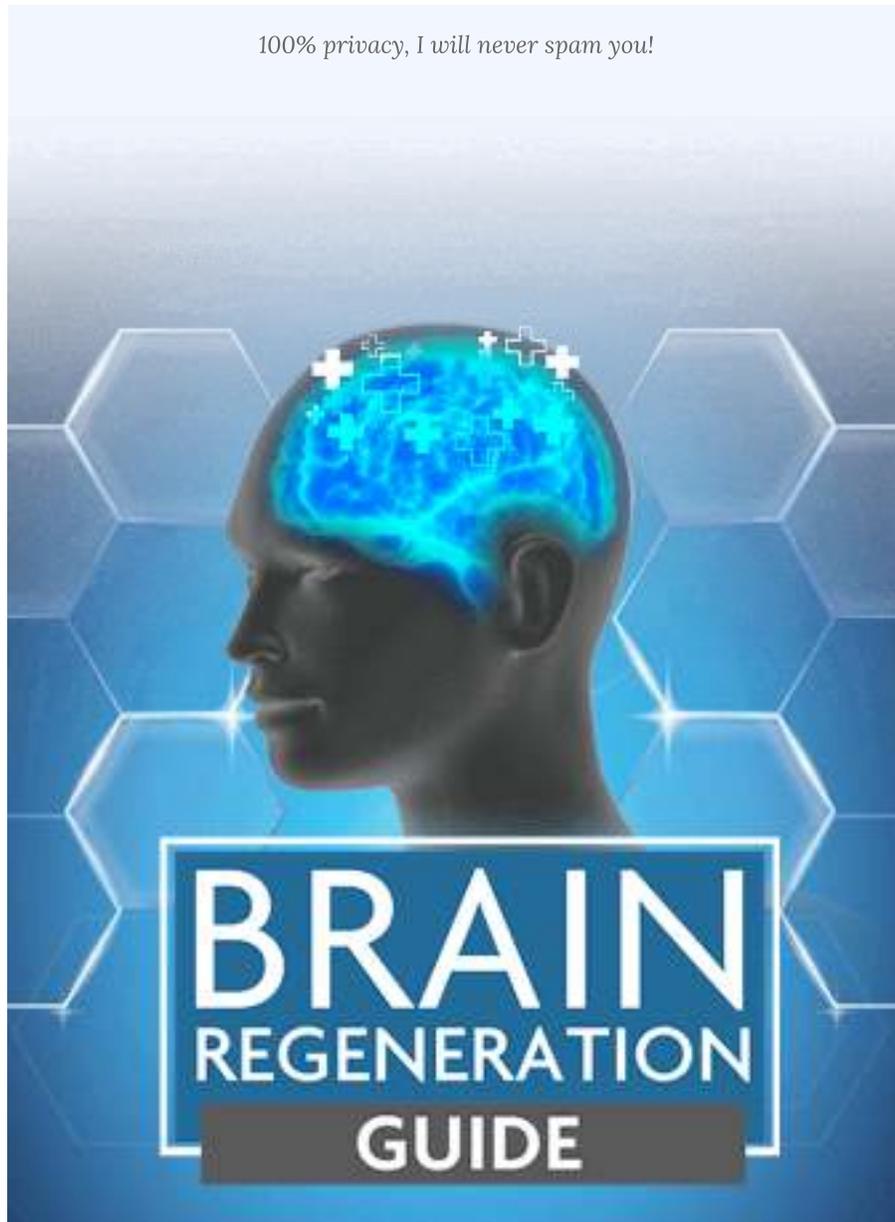
This image-rich 42 page, research based guide will show you the best strategies and protocols to:

- ✓ Heal a toxic brain.
- ✓ Stimulate brain cell autophagy.
- ✓ Regain control of your mood, memory and brain health.

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