DISCLAIMER

As always do your own research and consult with a medical professional as you wish. This is information I have gathered for myself and am sharing it for those who may find it helpful.

This information is not intended to diagnose, treat, cure or prevent any disease. The information provided here is not intended as a substitute for the advice of a physician or medical professional. This information is not intended as a substitute for the reader's independent judgment and personal responsibility. Health issues are far too important to delegate to anyone else. It is highly recommended you research and seek information and counsel from as wide a variety of sources as possible so you can make well informed, educated decisions about your, your child's, or your pet's health, as in the end YOU make the decisions.

Glenn's' Note:

The information in this first section was given to me by an assistant to a cardiologist. He prescribed a statin for her and she declined. I asked why. She used to work for a cardiologist studying statins and other methods of treating cholesterol and triglycerides. Many of the results showed much more severe side effects and higher overall mortality when using statins.

SUPPLEMENTS WITH PROVEN EFFICIENCY TO

1) HELP LOWER BAD CHOLESTEROL AND/OR TRIGLYCERIDES

2) RAISE HDL (GOOD CHOLESTEROL)

DIET AND EXERCISE:ALSO NEED TO BE ADDRESSED

Artichoke extract (500mg 3 times daily) will slow production of cholesterol

OMEGA III fish oil (at least 900mg of DHA & EPA) will block production of triglycerides and help raise HDL (good cholesterol)

Psyllium (fiber) one tablespoon in full glass of water 1-2 times daily

Cholest-OFF - a proprietary blend of plant sterols and stanols (also called phytosterols), and a derivative of vitamin B5 called Pantesin } 2 tablets 1 hour prior to meals 1-2 times daily)

Increasing **Oats** in diet (e.g. Cheerios or Oatmeal, but not instant) will inhibit absorption of cholesterol by blocking bile.

Ceylon Cinnamon For patients with high triglycerides.

Resveratrol For low HDL

PORTION CONTROL IS ALSO IMPORTANT FOR MAINTAINING WEIGHT AND LIMITING FAT AND CARBOHYDRATE CONSUMPTION

("BAD" CARBS TO AVOID

White Bread White Rice White Pasta White Potatoes Fruit Juices (without pulp)

Cake Candy Regular ice cream

Regular soda or pop (12 teaspoons of sugar in a 12 oz. can of sweetened soda)

Limit Bananas (significant amount of carbs without fiber and lots of calories)

HELPFUL HINTS FOR DIET

Read nutrition labels

Limit portion size (e.g. Palm of hand)

Eat most of food early in the day (avoid eating after 7pm)

Drink 8-16 oz water prior to meals

Avoid regular ketchup (loaded with simple sugars)

Eat good fats such as Omega III fish oils contained in Salmon, Tuna, Halibut, etc.

2 fish meals per week has been associated with decreased incidence of "heart attacks".

Use Olive Oil in cooking and salads

Use good fats in nuts: such as; almonds, cashews and walnuts (limit 20 nuts/serving and one serving per day).

Balance each meal with good fats, protein and carbohydrates

If white bread is used, use sourdough bread because it is acidic and will limit absorption of simple sugars.

Limit alcohol consumption to 1 or 2 drinks (4 oz each) per day.

Moderate exercise

30 minutes each day at least 3 to 5 days per week.

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below is from Mercola.com

HOW RESVERATROL GOES WELL BEYOND FREE RADICAL PROTECTION

How Do Antioxidants Work?

Antioxidants, when present, neutralize free radicals as they occur in normal cell processes. When an antioxidant is not present in sufficient quantity, oxygen molecules becomes electrically charged or "radicalized" and steal electrons from other molecules, causing damage to the DNA and other important molecules.

Recent research suggests that the most powerful protective molecules may be the polyphenols, also present in the seeds and skins of the grapes. And one of the most potent of the polyphenols is resveratrol

Resveratrol and Cancer

The National Cancer Institute states: "Considerable laboratory evidence from chemical, cell culture, and animal studies indicates that antioxidants may slow or possibly prevent the development of cancer." The number of studies has exploded in the past few years, with the depth of knowledge about this polyphenol increasing with each report. Resveratrol is a broad-spectrum agent that seems to stop cancer in many diverse ways, from blocking estrogen and androgens to modulating genes. As of the start of 2007, there are over 500 studies in the published literature demonstrating a beneficial effect of resveratrol on cancer.

However, it is important to understand that this is preliminary research and nearly all of these studies were done in the test tube or in animals. Some of the latest information about resveratrol shows it to cause a unique type of cell death. It kills cancer cells whether or not they have the tumor suppressor gene. It also works whether cancer cells are estrogen receptor-positive or negative.

Resveratrol works against a wide range of cancers, both at the preventive and treatment stages . Its ability to stop cancer is connected to its capability, first, to distinguish a cancer cell from a normal cell. Unlike

chemotherapeutic drugs that attack normal as well as cancer cells, resveratrol does not damage healthy cells. Not only is it not harmful to normal cells, it protects them. Second, resveratrol is sophisticated in its actions. It doesn't just scavenge free radicals; it activates and deactivates critical enzymes, genes, hormones and chemicals.

Possible Concern With Resveratrol For Anyone Who Has Breast Cancer

Estrogens are steroid hormones synthesized by humans and other mammals that bind to estrogen receptors within cells. The estrogen-receptor complex interacts with unique sequences in DNA to modulate the expression of estrogen-responsive genes. Any compound that binds to estrogen receptors and has an effect similar to natural estrogen is considered an estrogen agonist, capable of activating estrogen. On the other hand, any compound that binds estrogen receptors but prevents or inhibits the effect of endogenous estrogens is considered an estrogen antagonist capable of activating estrogen. The chemical structure of resveratrol is very similar to that of the synthetic estrogen agonist, diethylstilbestrol, suggesting that resveratrol might also function as an estrogen agonist, capable of activating estrogen. However, in cell culture experiments, resveratrol acts as an estrogen agonist under some conditions, and as an estrogen antagonist under other conditions. At present, it appears that resveratrol has the potential to act as an estrogen agonist or antagonist depending on such factors as cell type, estrogen receptor and the presence of endogenous estrogens. SO—UNTIL THIS IS SORTED OUT WITH ADDITIONAL STUDIES, IT WOULD MOST LIKELY BE WISE FOR ANYONE WITH BREAST CANCER TO AVOID TAKING RESVERATROL.

Resveratrol and Heart Disease

One of the serious complications of free radical damage is hardening and thickening of arteries. There is a "vicious cycle" of free radicals, artery damage, and narrowing due to scar tissue which, in turn, promotes more free radical activity and more damage. Resveratrol's antioxidant action helps stop free radical damage and also opens the arteries by enhancing nitric oxide. In addition to its antioxidant effect, resveratrol also stops the proliferation of cells in blood vessels that narrow the arteries and keeps blood cells from sticking together. Both are very important for preventing heart attacks. Resveratrol has also been shown to inhibit platelet aggregation

Resveratrol and Alzheimer's

Since your brain is composed mostly of fatty acids, it needs to be protected against oxidized fat, as much or more than your heart does. Resveratrol may be particularly important for those at risk for Alzheimer's, or those who have it. It is theorized that free radicals might initiate the process that leads to the disease. While the role of resveratrol in Alzheimer's disease is still unclear, some recent studies on red wine bioactive compounds suggest that resveratrol modulates multiple mechanisms of Alzheimer's disease.

Alzheimer's patients produce an abnormal peptide (a piece of a protein) known as "betaamyloid" in their brains. Beta-amyloid provokes oxidative stress, and eventually cells are killed because of the abnormally high levels of free radicals. The killing of brain cells causes the gradual decline in Alzheimer's patients. It has been proven that resveratrol can protect the brain against oxidative stress, and keep cells alive. Resveratrol also modulates mechanisms of other debilitating neurological disorders, such as strokes, ischemia, and Huntington's disease.

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below is from https://www.healthline.com/nutrition/resveratrol#TOC_TITLE_HDR_11

HEALTH BENEFITS OF RESVERATROL SUPPLEMENTS

If you've heard that red wine can help lower cholesterol, chances are you've heard of resveratrol — the much-hyped plant compound found in red wine.

But beyond being a healthful part of red wine and other foods, resveratrol has health-boosting potential in its own right.

In fact, resveratrol supplements have been linked to many exciting health benefits, including protecting brain function and lowering blood pressure (1Trusted Source, 2Trusted Source, 3Trusted Source, 4Trusted Source).

This article explains what you need to know about resveratrol, including seven of its main potential health benefits.

What Is Resveratrol?

Resveratrol is a plant compound that acts like an antioxidant. The top food sources include red wine, grapes, some berries and peanuts (5Trusted Source, 6Trusted Source).

This compound tends to be concentrated mostly in the skins and seeds of grapes and berries. These parts of the grape are included in the fermentation of red wine, hence its particularly high concentration of resveratrol (5Trusted Source, 7Trusted Source).

However, much of the research on resveratrol has been done in animals and test tubes using high amounts of the compound (5Trusted Source, 8Trusted Source).

Of the limited research in humans, most has focused on supplemental forms of the compound, in concentrations higher than those you could get through food (5Trusted Source).

Summary:

Resveratrol is an antioxidant-like compound found in red wine, berries and peanuts. Much of the human research has used supplements that contain high levels of resveratrol.

1. Resveratrol Supplements May Help Lower Blood Pressure

Because of its antioxidant properties, resveratrol could be a promising supplement for lowering blood pressure (9Trusted Source).

A 2015 review concluded that high doses may help reduce the pressure exerted on artery walls when the heart beats (3Trusted Source).

That type of pressure is called systolic blood pressure, and appears as the upper number in blood pressure readings.

Systolic blood pressure typically goes up with age, as arteries stiffen. When high, it's a risk factor for heart disease.

Resveratrol may accomplish this blood-pressure-lowering effect by helping to produce more nitric oxide, which causes blood vessels to relax (10Trusted Source, 11Trusted Source).

However, the authors of that study say more research is needed before specific recommendations can be made about the best dose of resveratrol to maximize blood pressure benefits.

Summary:

Resveratrol supplements may help lower blood pressure by increasing the production of nitric oxide.

2. It Has a Positive Effect on Blood Fats

Several studies in animals have suggested that resveratrol supplements may change blood fats in a healthy way (12Trusted Source, 13Trusted Source).

A 2016 study fed mice a high-protein, high-polyunsaturated fat diet and also gave them resveratrol supplements.

Researchers found the average total cholesterol levels and body weight of the mice decreased, and their levels of "good" HDL cholesterol increased (13Trusted Source).

Resveratrol seems to influence cholesterol levels by reducing the effect of an enzyme that controls cholesterol production (13Trusted Source).

As an antioxidant, it also may decrease the oxidation of "bad" LDL cholesterol. LDL oxidation contributes to plaque buildup in artery walls (9Trusted Source, 14Trusted Source).

In one study, participants were given grape extract that had been boosted with extra resveratrol.

After six months of treatment, their LDL had gone down by 4.5% and their oxidized LDL had gone down by 20% compared to participants who took an unenriched grape extract or a placebo (15Trusted Source).

Summary:

Resveratrol supplements may benefit blood fats in animals. As an antioxidant, they may also decrease LDL cholesterol odixation.

3. It Lengthens Lifespan in Certain Animals

The compound's ability to extend lifespan in different organisms has become a major area of research (16Trusted Source).

There's evidence that resveratrol activates certain genes that ward off the diseases of aging (17Trusted Source).

It works to achieve this in the same way as calorie restriction, which has shown promise in lengthening lifespans by changing how genes express themselves (18Trusted Source, 19Trusted Source).

However, it's not clear if the compound would have a similar effect in humans.

A review of studies exploring this connection found that resveratrol increased lifespan in 60% of the organisms studied, but the effect was strongest in organisms that were less related to humans, such as worms and fish (20Trusted Source).

Summary:

Resveratrol supplements have lengthened lifespan in animal studies. However, it's not clear if they would have a similar effect in humans.

4. It Protects the Brain

Several studies have suggested that drinking red wine can help slow down age-related cognitive decline (21Trusted Source, 22Trusted Source, 23Trusted Source, 24Trusted Source).

This may partly be due to the antioxidant and anti-inflammatory activity of resveratrol.

It seems to interfere with protein fragments called beta-amyloids, which are crucial to forming the plaques that are a hallmark of Alzheimer's disease (21Trusted Source, 25Trusted Source).

Additionally, the compound may set off a chain of events that protects brain cells from damage (21Trusted Source).

While this research is intriguing, scientists still have questions about how well the human body is able to make use of supplemental resveratrol, which limits its immediate use as a supplement to protect the brain (1Trusted Source, 2Trusted Source).

Summary:

A potent antioxidant and anti-inflammatory compound, resveratrol shows promise in protecting brain cells from damage.

5. It May Increase Insulin Sensitivity

Resveratrol has been shown to have several benefits for diabetes, at least in animal studies.

These benefits include increasing insulin sensitivity and preventing complications from diabetes (26Trusted Source, 27Trusted Source, 28Trusted Source, 29Trusted Source).

One explanation for how resveratrol works is that it may stop a certain enzyme from turning glucose into sorbitol, a sugar alcohol.

When too much sorbitol builds up in people with diabetes, it can create cell-damaging oxidative stress (30Trusted Source, 31).

Here are a few more benefits resveratrol may have for people with diabetes (28Trusted Source):

- **May protect against oxidative stress:** Its antioxidant action may help protect against oxidative stress, which causes some of the complications of diabetes.
- **Helps decrease inflammation:** Resveratrol is thought to lessen inflammation, a key contributor to chronic diseases, including diabetes.
- **Activates AMPK:** This is a protein that helps the body metabolize glucose. Activated AMPK helps keep blood sugar levels low.

Resveratrol may even provide more benefits for people with diabetes than those who don't have it. In one animal study, red wine and resveratrol were actually more effective antioxidants in rats with diabetes than in rats who didn't have it (32Trusted Source).

Researchers say the compound could be used to treat diabetes and its complications in the future, but more research is needed.

Summary:

Resveratrol has helped mice develop better insulin sensitivity and fight complications of diabetes. In the future, humans with diabetes might also benefit from resveratrol therapy.

6. It May Ease Joint Pain

Arthritis is a common affliction that leads to joint pain and loss of mobility (33Trusted Source).

Plant-based supplements are being studied as a way to treat and prevent joint pain. When taken as a supplement, resveratrol may help protect cartilage from deteriorating (33Trusted Source, 34Trusted Source).

Cartilage breakdown can cause joint pain and is one of the main symptoms of arthritis (33Trusted Source).

One study injected resveratrol into the knee joints of rabbits with arthritis and found that these rabbits suffered less damage to their cartilage (34Trusted Source).

Other research in test tubes and animals has suggested that the compound has potential to reduce inflammation and prevent damage to joints (33Trusted Source, 35Trusted Source, 36Trusted Source, 37Trusted Source).

Summary: Resveratrol may help relieve joint pain by preventing cartilage from breaking down.

7. Resveratrol May Suppress Cancer Cells

Resveratrol has been studied, especially in test tubes, for its ability to prevent and treat cancer. However, results have been mixed (30Trusted Source, 38Trusted Source, 39Trusted Source).

In animal and test-tube studies, it has been shown to fight several kinds of cancer cells, including gastric, colon, skin, breast and prostate (40Trusted Source, 41Trusted Source, 42Trusted Source, 43Trusted Source, 44Trusted Source).

Here's how resveratrol may combat cancer cells:

- **It may inhibit cancer cell growth:** It may prevent cancer cells from replicating and spreading (40Trusted Source).
- **Resveratrol may change gene expression:** It can change the gene expression in cancer cells to inhibit their growth (45Trusted Source).
- **It can have hormonal effects:** Resveratrol may interfere with the way certain hormones are expressed, which may keep hormone-dependent cancers from spreading (46Trusted Source).

However, since the studies so far have been carried out in test tubes and animals, much more research is needed to see if and how this compound might be used for human cancer therapy.

Summary:

Resveratrol has shown exciting cancer-blocking activity in test tubes and animal studies.

Risks and Concerns Regarding Resveratrol Supplements

No major risks have been revealed in studies that have used resveratrol supplements. Healthy people seem to tolerate them well (47Trusted Source).

However, it should be noted that there aren't enough conclusive recommendations about how much resveratrol a person should take in order to get health benefits.

And there are some cautions, especially regarding how resveratrol could interact with other medications.

Since high doses have been shown to stop blood from clotting in test tubes, it's possible it could increase bleeding or bruising when taken with anti-clotting drugs, such as heparin or warfarin, or some pain relievers (48Trusted Source, 49Trusted Source).

Resveratrol also blocks some enzymes that help clear certain compounds from the body. That means some medications could build up to unsafe levels. These include certain blood pressure medications, anxiety meds and immunosuppressants (50Trusted Source).

If you currently use medications, then you may want to check with a doctor before trying resveratrol.

Lastly, it's widely debated how much resveratrol the body can actually use from supplements and other sources (51Trusted Source).

However, researchers are studying ways of making resveratrol easier for the body to use (6Trusted Source, 52Trusted Source).

Summary:

While resveratrol supplements are likely safe for most people, they could interact with certain medications and there's not yet clear guidance on how to use them effectively.

The Bottom Line

Resveratrol is a powerful antioxidant with great potential.

It's shown promise regarding a variety of health conditions, including heart disease and arthritis. However, clear dosage guidance is still lacking.