

Does This Popular Pill Lower Risk of Death in Men?

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✓ Fact Checked

February 11, 2023

STORY AT-A-GLANCE

- › A study funded by drug company Sanofi found treatment with phosphodiesterase type 5 inhibitors (PDE-5is), such as Viagra, lowers the risk of death in men
- › The study was observational, so it can't confirm that the reduced death risk was caused by the pills
- › Sanofi markets the PDE-5is avanafil (Stendra), so it's far from an unbiased study
- › Viagra produces therapeutic levels of nitric oxide, which is responsible for much of its benefit
- › You can boost nitric oxide levels naturally via diet, exercise and other lifestyle factors

A study funded by drug company Sanofi found treatment with phosphodiesterase type 5 inhibitors (PDE-5is), such as Viagra, lowers the risk of death in men.¹ But the study was observational, so it can't confirm that the reduced death risk was caused by the pills. Further, Sanofi markets the PDE-5is avanafil (Stendra), so it's far from an unbiased study.

"Put simply, if a pharmaceutical company funds a trial, the chances of results and conclusions in that company's favor are increased," Sergio Sismondo of Queen's University, Canada, explained in *Frontiers in Research Metrics and Analytics*.² He was referring to a 2017 Cochrane Review, which found that when drug manufacturer funds a drug study, it "leads to more favorable efficacy results and conclusions than sponsorship by other sources."³

So, it's not surprising that this industry-sponsored study led to favorable results for the drug. However, even putting likely bias aside, there's reason to believe that the pills' perceived longevity benefits may be due to other factors.

Industry-Funded Study Shows Viagra Reduces Death Risk

The study, published in *The Journal of Sexual Medicine*, evaluated the effect of PDE-5is on major adverse cardiovascular events (MACE), including hospitalization for heart attack, stroke, heart failure and coronary revascularization, and overall mortality.⁴

It involved data from men with erectile dysfunction without a major adverse cardiovascular event within one year. Among the subjects, exposure to PDE-5is was associated with lower incidence of MACE, cardiovascular death and overall mortality compared to no exposure. Further, the risk reduction was linked with PDE-5i exposure level, meaning the noted benefits increased in those taking higher doses.

Specifically, men who took a PDE-5i were 39% less likely to die from heart disease compared to those who did not take the drugs. Men who took PDE-5is also had a 25% lower risk of dying from any cause and a 13% lower risk of having a cardiac event, like a heart attack or stroke.⁵ But are the purported benefits too good to be true? Dr. Deepak Bhatt, cardiologist and director of Mount Sinai Heart in New York, told *ScienceAlert*:⁶

"While it is possible that Viagra may have some cardiovascular benefits, that would require further investigation, and this current study does not prove it. Rather, it is more likely that the patients in this study who were placed on Viagra by their doctors were less likely to have heart disease, because if patients have severe heart disease, they are often not placed on Viagra in the first place."

The study authors also noted that men taking PDE-5is and capable of engaging in sexual activity may be healthier than other men to begin with, and it's possible that the increased sexual activity may have also favorably affected their health:⁷

"It may be postulated that men who have ED and are capable of taking PDE-5is and engaging in sexual activity may be healthier to begin with, and that

unmeasured baseline differences may contribute to the effects observed.

A second study limitation is the absence of an independent measure of sexual activity in these men, so it is not clear whether increased sexual activity may have contributed to the benefits seen that were independent of pharmacological effects of PDE-5i exposure.”

Does Viagra Also Lower Alzheimer’s Risk?

Viagra was originally approved and marketed for high blood pressure and angina⁸ and was prescribed off-label for erectile dysfunction before it was approved for that use. However, drug companies haven’t stopped looking for new ways to market this drug. In 2005, the U.S. Food and Drug Administration (FDA) approved sildenafil – the same active ingredient in Viagra – to treat pulmonary arterial high blood pressure, using the brand name Revatio.⁹

Further, in 2022, researchers with the Cleveland Clinic analyzed 1,600 approved drugs in the hopes that one of them could be repurposed as an Alzheimer’s treatment.¹⁰ Viagra turned out to be surprisingly effective. Usage reduced the risk of Alzheimer’s disease by 69%, while increasing neurite growth and reducing levels of toxic tau proteins.¹¹

It’s important, however, to look into the underlying reasons why Viagra appears to be so beneficial. As a PDE 5 inhibitor, Viagra enhances vasodilation mediated by nitric oxide (NO). Viagra produces therapeutic levels of NO,¹² which is responsible for much of its benefit. In fact, in 2003, researchers at Virginia Commonwealth University¹³ showed, for the first time, that Viagra stimulates the release of NO in heart cells, which reduces damage to the heart muscle during heart attacks.¹⁴

However, Viagra comes with a risk of serious side effects, including sudden vision loss and hearing loss, heart attack, stroke, irregular heartbeat and death.¹⁵ Viagra use is also associated with an increased risk of developing melanoma,¹⁶ the deadliest form of skin cancer. As such, I don’t recommend using Viagra.

That being said, you may be able to harness its potential benefits by naturally boosting NO in your body. NO is a soluble gas produced from the amino acid L-arginine inside your cells, where it supports endothelial function and protects your mitochondria.

You Can Boost Your Nitric Oxide Naturally

Taking Viagra in the hopes of lowering your risk of death exposes you to potential side effects. Fortunately, there are ways to boost your NO naturally, without the use of drugs. Eating nitrate-rich foods like beets is one of them. Fermented beets contain even higher nitrate levels. Other vegetables high in nitrates include arugula, butter leaf lettuce and spring greens. NO production can be further magnified by combining these foods with probiotics.¹⁷

What's great about boosting NO is that it offers a wide range of benefits. For instance, NO has a direct antiviral effect on SARS-CoV-2, effectively blocking viral replication in vitro.¹⁸

High-intensity exercise will also trigger NO production in your body.¹⁹ Ideally, you'd both eat nitrate-rich veggies and engage in exercise regularly. While it's important to give your body the raw materials to create NO, after it's made it's stored inside vesicles lining your blood vessels, and it won't work until you release it. High-intensity exercises are great at releasing it, and I recommend blood flow restriction training (BFR) for this purpose.

The local muscle hypoxia brought on by BFR exercise significantly increases **vascular endothelial growth factor (VEGF)**, which acts like "fertilizer" for your blood vessels. The medical term for this development of new blood vessels is angiogenesis. Angiogenesis, in turn, enhances NO bioavailability. BFR, by way of increasing NO, has also been found to stimulate muscle satellite stem cells and proliferation.²⁰

Exercise, meanwhile, is one of the best ways to extend your longevity and reduce your risk of premature death. While lack of activity is the cause of more than 5 million deaths each year,²¹ a study published in the European Journal of Preventive Cardiology revealed

that estimated age based on subjects' exercise stress test was a better predictor of mortality than chronological age.²² The results held true for both men and women.

Getting sensible sun exposure on large portions of your body is also important, as NO is released into your bloodstream when sunlight hits your skin.^{23,24} Ultraviolet A and the near-infrared light spectrum both increase NO, so you're getting that benefit from both ends of the light spectrum.

As explained in a 2009 paper in the journal *Circulation Research*,²⁵ when you expose your body to sunlight, photolabile NO derivatives such as nitrite and S-nitroso thiols decompose and form vasoactive NO. (Photolabile means the compounds are altered or undergo chemical changes in response to light).

Take Action if You Have Erectile Dysfunction

It's also important to understand that erectile dysfunction (ED) can act as a "canary in the coalmine," signaling underlying health problems. One study of 95,000 men found that those with ED had an increased risk of heart-related problems, including:²⁶

- Heart failure
- Stroke
- Peripheral vascular disease
- Ischemic heart disease
- "Other" cardiovascular disease

This doesn't necessarily mean that erectile dysfunction causes heart problems, but, more likely, that both share a common pathology of the blood vessels known as endothelial dysfunction. The researchers explained:²⁷

"Erectile dysfunction per se is unlikely to be a major independent cause of CVD, and is best considered as a risk marker rather than a risk factor for CVD. That is,

it is likely to serve as an indicator, or 'biomarker,' of the severity of underlying pathological processes such as atherosclerosis and endothelial dysfunction."

Natural Strategies for ED

If you have ED, be sure to get your heart health checked out by a holistic health care practitioner and be proactive in making **lifestyle changes to support heart health**. Taking Viagra, even if it solves the symptoms of ED, will not solve the underlying pathological processes contributing to it. Remember, too, that not every case of ED is physical in nature; there can also be emotional and psychological contributors.

There are, however, natural strategies to target ED as well. Research from Harvard University demonstrated that men younger than 70 who regularly consume foods rich in flavonoids have an 11% to 16% reduced risk of experiencing ED, for instance.²⁸

Pomegranate juice might also be useful for men struggling with mild to moderate erectile dysfunction,²⁹ thanks to its ability to preserve nitric oxide and enhance its biological actions.³⁰ Nitric oxide relaxes and widens blood vessels, thereby increasing penile blood flow.

Toward that end, L-arginine may also improve microcirculation in your genitals that can result in stronger erections and better sexual responsiveness, but without the side effects of Viagra and similar drugs.

L-arginine is more effective when combined with pycnogenol, resulting in significant improvement of sexual functioning.³¹ Another study found using a combination of 6 grams of L-arginine and 6 milligrams of the compound yohimbine improved the sexual functioning of men diagnosed with mild to moderate ED.³²

So whether you're looking to reduce your risk of premature death or improve ED — or both — taking Viagra is rarely the answer. Instead, you'll want to ensure your overall lifestyle is a healthy one, as this will not only enhance your longevity but also your sexual health.

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