[Does Alcohol Prevent Heart Disease?](#)

I've had a lot to say on this site about alcohol, both pro and con. For example:

- [Alcohol might be an anti-aging drug](#)
- [Alcohol can cause anxiety](#)
- [Lots of alcohol is definitely bad news](#)
- [Does alcohol cause weight gain?](#)

As a man who both likes a drink and wants to stay healthy, I'm always interested in learning more about this topic, and since the literature on it is truly vast, one can always refine the knowledge. In this article we'll see whether it's true that alcohol prevents heart disease.

If you read my other articles on alcohol, you'll see that one of the complications of studies on alcohol and health is confounding factors, mainly that the group of people who abstain from drinking is not comprised of the same type of people who drink, and that's the real reason for alcohol's association with less heart disease. As we'll see, that's probably false.

Wine drinking correlates with reduced risk of cardiovascular complications

[A study done in France](#) looked at a group of people who had recently suffered a heart attack and then tallied the number of complications over an average 4 years of follow-up. Complications included unstable angina (chest pain that required hospital admission), stroke, heart failure, or another heart attack, or death.

Risk of complications was reduced by 59% in those patients who drank about 2 drinks a day, and by 52% in those who drank about 4 drinks a day.

Importantly in this study, over 90% of the alcohol that patients in this study drank was wine. It was France, after all.

We don't know whether wine had anything to do with a first heart attack; maybe the proportion of wine-drinkers who suffered one was the same as among abstainers. But the lower risk of complications indicates that wine may be important in secondary prevention. No causation is shown, of course.

How can causality be proven?

Virtually all studies on the relation of alcohol to health and disease are epidemiological, and therefore show an association, and cannot prove causation.

The gold standard for proving causation would be a randomized controlled trial, in which people were randomly assigned to either drink alcohol or abstain, and then followed for a number of years. This type of study on alcohol has never been done and is unlikely ever to be so. Someone assigned to drink alcohol in a study like this can become addicted to it or have an alcohol-related accident, so ethical considerations pretty much rule it out. There have been some short-term human studies in the laboratory.

To get as close as possible to showing causation, researchers need to minimize confounding factors, which mostly means ensuring that the groups of abstainers vs drinkers are as alike as possible. Abstainers may differ from drinkers in genetics and socioeconomic status, and also include people who abstain due to health problems or alcoholism. When abstainers include these people, it biases results in favor of drinking, since abstainers may have worse health to begin with.

One way to minimize differences is to look at a select group of people, and divide them into abstainers and drinkers, and this has been done.

[A study of over 50,000 male health professionals](#) — dentists, veterinarians, osteopaths, pharmacists, etc. — found that men who drank 2 or more drinks daily had approximately a 50% lower risk of coronary artery disease, fatal heart attack, or needing a coronary bypass operation. Of interest, the correlation was strongest for drinking spirits, not beer or wine.

The association between drinking and less heart disease remained when abstainers who were former drinkers were excluded, thus excluding those who abstained for health reasons.

When only the drinkers were studied, thus all but completely eliminating the confounding factors associated with abstention, there was a dose-response relationship with alcohol consumption. Men who drank 2 to 3 drinks daily had about a 40% lower risk than men who drank up to about 1/2 a drink daily. See the chart below.
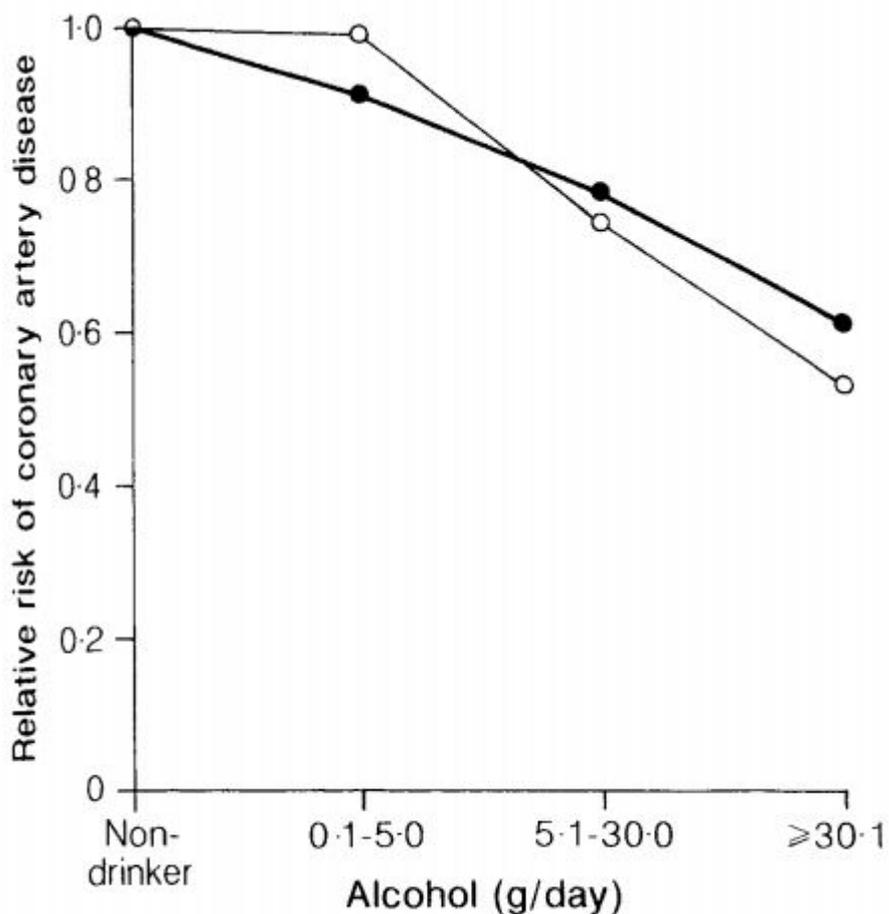
Relative risks of alcohol consumption and coronary artery disease among men from the Health Professionals Follow-up Study.

The study concludes that alcohol causes less heart disease.

> The magnitude of the association, consistency with results from other studies, and plausible biological mechanisms strongly suggest that the inverse association between moderate alcohol intake and risk of coronary disease is causal.

To further eliminate confounding factors, another study looked at a subgroup of men in this same cohort of male health professionals, the subgroup consisting on men with "healthy lifestyles", thus minimizing other health factors and focusing on alcohol. All men in the study had 4 healthy lifestyle factors: they were not overweight, they exercised moderately to vigorously for 30 minutes or more daily, they did not smoke, and their diets "reflected a high intake of vegetables, fruits, cereal fiber, fish, chicken, nuts, soy, and polyunsaturated fat; low consumption of *trans*-fat, and red and processed meats; and multivitamin use." While we may not agree now that consuming this diet is healthy, it was thought to be so in to 1980s, when the study started, and shows that the men were concerned about being healthy.

Even in these men, 1 to 2 drinks a day was associated with about 60% less risk of heart attack; among men drinking more than 2 drinks daily, the risk

reduction was only 14%.

> **Conclusion** Even in men already at low risk on the basis of body
> mass index, physical activity, smoking, and diet, moderate alcohol
> intake is associated with lower risk for MI.

How could alcohol protect against heart disease?

If we could see whether alcohol affects known risk factors for coronary heart
disease, that could give us more confidence in the causative effect of
alcohol. If it worsened risk factors, for instance, that would give us pause,
but if it improved them, that provides confirmatory evidence.

It turns out that drinking alcohol does indeed improve risk factors for heart
disease.

In a group of healthy older women, 2 drinks daily for 8 weeks reduced fasting
insulin by about 20%, and improved insulin sensitivity. That alone might
greatly decrease cardiovascular risk.

Alcohol at 2 drinks daily raises HDL cholesterol, decreases fibrinogen, and
decreases platelet aggregation, all of which reduce risk. However, it raises
triglycerides slightly, which would increase risk.

Based on these factors and their known relation to risk, the researchers
calculated that 30 grams of alcohol, or about 2 drinks, would reduce risk by
almost 25%, but that this "probably underestimates the true risk reduction
associated with consuming 30 g of alcohol a day because it ignores the
changes in concentrations of plasminogen, Lp(a) lipoprotein, insulin,
platelet aggregation, factor VII, and von Willebrand factor."

Studies on alcohol and coronary risk factors strengthen the hypothesis that
alcohol protects against heart disease.

Is ethanol or something else the protective factor?

Drinking alcohol entails consuming beer, wine, or spirits, and these
beverages contain other things besides alcohol, and these could be partly or
wholly responsible for decreasing risk.

In the Copenhagen city heart study, only wine was associated with less risk
of mortality from cardiovascular disease and all causes. The reduction in
mortality was about 50% for 3 to 5 glasses of wine daily. Beer showed no
effect, and spirits were associated with increased risk.

However, a meta-analysis found differently.

> Results from observational studies, where alcohol consumption can
> be linked directly to an individual's risk of coronary heart

disease, provide strong evidence that all alcoholic drinks are
linked with lower risk. Thus, a substantial portion of the benefit
is from alcohol rather than other components of each type of drink.

That of course doesn't show that alcohol is the only or even most important
component of protection. The same study concludes:

> Although most ecological studies support the hypothesis that wine
> consumption is most beneficial, the methodological problems of
> these studies limit their usefulness in drawing conclusions. Most
> of the differences in findings regarding specific drink types are
> probably due to differences in patterns of drinking specific types
> of alcoholic drink and to differing associations with other risk
> factors. Results from observational studies, where individual
> consumption can be assessed in detail and linked directly to
> coronary heart disease, provide strong evidence that a substantial
> proportion of the benefits of wine, beer, or spirits are
> attributable primarily to the alcohol content rather than to other
> components of each drink.

In other words, associations of spirits with risk could be influenced by the
fact that a lot of people pound them down, binge-drinking style.

Red wine, with or without alcohol, can [inhibit platelet aggregation](),
suggesting that polyphenols in the wine could be important.

Consumption of [red, but not white, wine inhibits oxidation of LDL]().

Red wine probably contains additional elements, notably polyphenols, that
protect against heart disease. So, while all alcoholic drinks may be
protective, red wine may be the most protective, but there's still a degree
of uncertainty here.

[Another meta-analysis]() found a stronger risk reduction with wine and a lesser
risk reduction with beer.

Conclusion

It looks all but certain that drinking alcohol protects against coronary and
other cardiovascular diseases.

[Drinking alcohol may raise the risk of other diseases](), such as liver disease
and cancer.

Even so, alcohol may still decrease death rates, mainly because
cardiovascular disease is the number one killer in the developed world, so
even if it raises risks for some other diseases, it still decreases overall
mortality. (That being said, [red wine may reduce the risk of cancer]().)

For the same ethical reasons that scientists can't do randomized controlled

trials of alcohol consumption, it's impossible to recommend that someone take up drinking for health reasons or to recommend that someone who might have or get an alcohol problem to continue to drink. So I'm not going to recommend it either.

What conclusions *can* we draw?

One, if you enjoy light to moderate drinking and have no other health problems nor a tendency to addiction, you can likely rest easy in knowing that your drinking may benefit your health.

Two, red wine may be the best choice for health, so if you already drink, switching to red wine could provide benefits.

Since you're more likely to die from heart disease than anything else, the large risk reductions in heart disease risk seen with moderate drinking are nothing to dismiss lightly.

PS: My most recent book, [Best Supplements for Men](#), includes a section on alcohol.
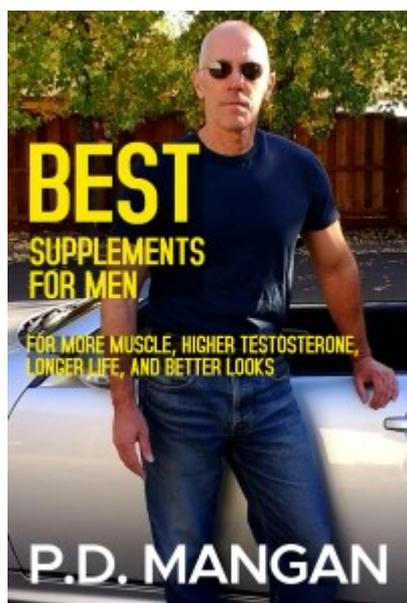
PPS: [Check out my Supplements Buying Guide for Men.](#)