

## Discussion

Chronic inflammation is linked to numerous long term impairments such as heart disease and arthritis. This is a relatively new discovery and the amount of research done so far has not produced any absolute claims regarding the dietary relationship to chronic inflammation. Almost every study that has shown there to be a relationship between diet and chronic inflammation has been countered by other research claiming no connection(1,5).

Recently two anti-inflammatory drugs were taken off the market because of side-effects. Research has also recently proven that COX-1 and COX-2 are necessary for protecting stomach lining and regulating vascular and renal blood flow(6).

We can at least be cautious of foods containing large amounts of omega-6 fatty acids, since omega-3s have been proven to have many health benefits beyond possibly decreasing inflammation(1). The current ratio of omega-6 to omega-3 in the U.S. is about 10:1, which is far from the recommended 2.3:1 (3).

It has recently been discovered that diet is far more related to disease than we thought. These diseases are a result of long term dietary neglect among other things. Chronic inflammation is likely a disorder that builds up over time(2). Paying attention to what you eat could save your life!

## References

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# Chronic Inflammation and the Diet

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## Abstract

Chronic inflammation is the result of the body's innate immune system gone awry. When persistent it can mediate arthritis, heart attacks and other late-onset diseases(2,6). I hypothesized that diet has the potential either to protect against or to promote chronic inflammation. Peer-reviewed scientific and medical journals and the internet were my methods of research. I found there to be inconclusive evidence as to whether or not diet contributes to chronic inflammation(1,5,6). More research must be done to examine the role that diet and anti-inflammatory drugs play in reducing chronic inflammation. My over all suggestion is to be conscious of what you eat because it is likely to play a role in your future health.



## Introduction

Inflammation is the body's natural response to injury or infection. White blood cells flow to the part of the body that has been damaged or is in danger of infection and causes normal symptoms such as swelling, redness, heat and or pain(2,6). Chronic inflammation is the result of the body's innate defense mechanism not finishing when the job is done. If chronic inflammation persists, it can aid diseases such as heart attacks, arthritis and numerous other long-term ailments(2). Currently, aspirin is the leading brand of anti-inflammatory drugs. These drugs slow down two inflammatory processes called COX-1 and COX-2, which promote inflammation by converting arachidonic acid into prostaglandins(6). Research has and is being done to see whether diet contributes to chronic inflammation. Three dietary items I researched are polyphenols, vitamin C, and omega-3 fatty acids. All three of these have been shown in some studies to reduce inflammation while others have shown that they have no effect.

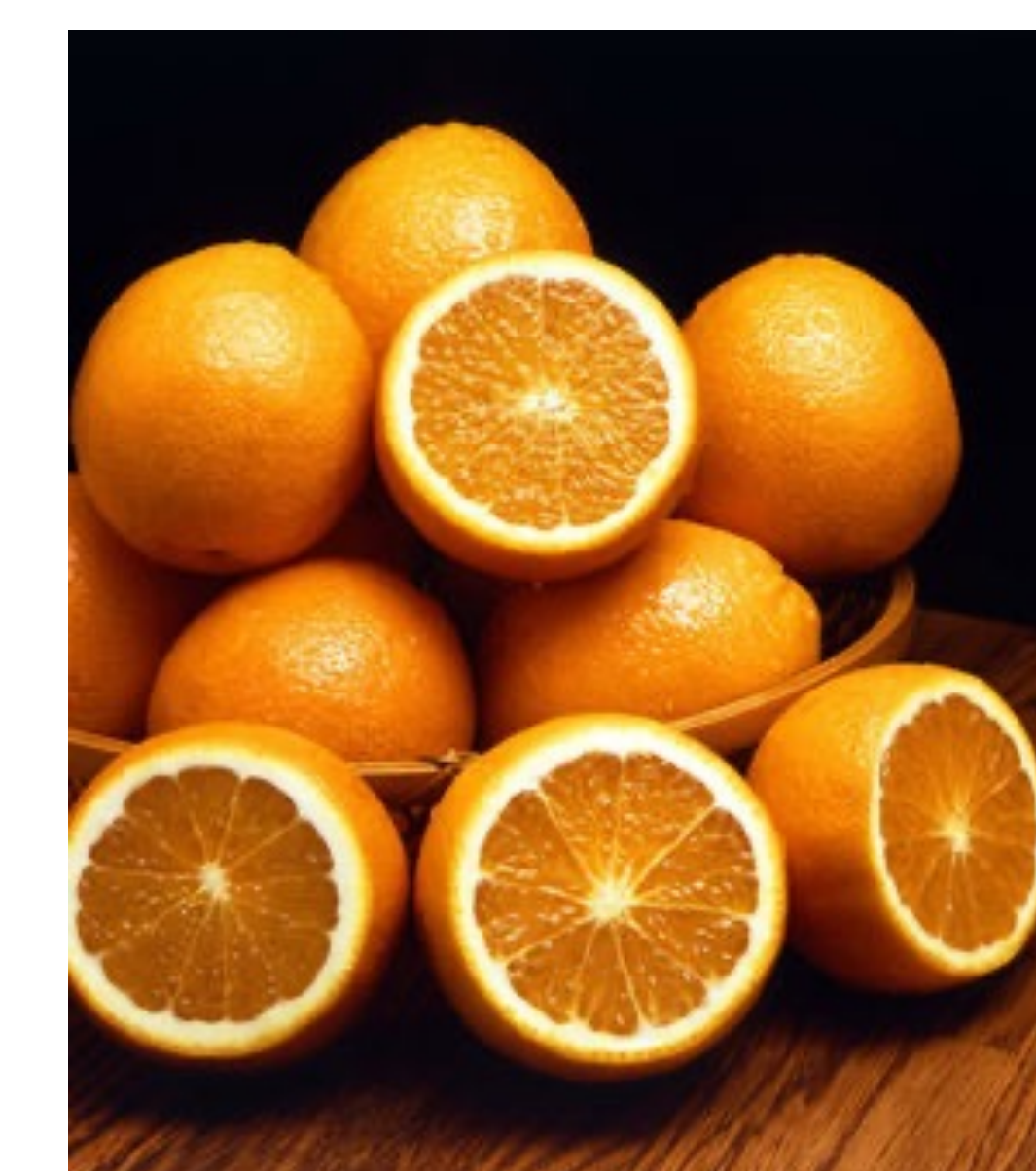


## Results

Research suggests that increased polyphenol, vitamin C, and omega-3 fatty acid intake may defend against chronic inflammation. Polyphenols have been found to inhibit COX-1 and COX-2, the same inflammatory processes fought by aspirin. One study of older men with no history of heart disease, a stroke, or diabetes showed that vitamin C has anti-inflammatory effects. Lastly, studies have shown that increased consumption of omega-3 fatty acids can lower the risk of chronic inflammation(1,5,6).

## Method

I read peer-reviewed articles from scientific and medical journals sent to me by Dr. Anthony Sebastian of the University of California, San Francisco as well as others I found on my own. I used the internet to do further research on my topic and to look up words from the articles.



Foods That May Prevent Chronic Inflammation

Polyphenols	Omega-3 Fatty Acids	Vitamin C
-Almost all the vegetables and fruits in our diet with an emphasis on broccoli and blueberries	-Soybean, canola, and flaxseed oil	-Guavas
-Tea	-Fatty fish, especially halibut, mackerel, herring, and salmon	-Red and Green Bell Peppers
-Chocolate	-Nuts	-Strawberries
-Olive oil	-Leafy vegetables	-Broccoli (boiled)
	-Legumes	-Cantaloupe
	-Fruits	-Oranges
		-Orange Juice
		-Kohlrabi

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