

A good kind of acid

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In addition to their high content of several vitamins, minerals and various phytochemical compounds, recent studies indicate that plant products also contain aspirin's active ingredient: salicylic acid. Plants really never stop surprising us.

We have known for many years that people who eat an abundance of plant products have a lower risk of developing several chronic diseases. This protective effect is not only due to the presence of phytochemical compounds that target several processes involved in the development of these diseases, but also to the powerful anti-inflammatory action associated with these foods.

Indeed, when you eat your five to 10 daily servings of fruits and vegetables, the molecules present in these foods block the production of an enzyme called COX-2 that plays a key role in the development of inflammation, and prevent the creation of an inflammatory environment in your body.

This effect is extremely important since several studies have shown beyond a doubt that many diseases currently affecting the population -- including cardiovascular diseases, type 2 diabetes, cancer and neurodegenerative diseases such as Alzheimer disease -- are directly linked to chronic inflammation.

Discovered over 100 years ago, salicylic acid (aspirin's active ingredient) remains the best-known and most-characterized anti-inflammatory molecule.

Especially abundant in willow bark, a remedy used by conventional medicines for thousands of years to relieve fever and inflammation, salicylic acid is also present in several plant products, especially in certain spices.

Studies conducted among vegetarians have indicated that this molecule's blood levels are sufficiently high to block the action of certain inflammatory enzymes. Moreover, the quantities of salicylic acid measured in the blood of vegetarians are similar to that found in the blood of people who regularly take small doses of aspirin.

RECENT STUDY

This observation is especially interesting because a recent study has shown that people who regularly take aspirin have 20% less risk of dying from cardiovascular diseases and cancer than those who only rarely take some. It is therefore possible that the presence of salicylic acid associated with the abundant consumption of fruits and vegetables could contribute to the lowest risk of chronic diseases observed among people who consume an abundance of plant products.

In addition to the natural presence of salicylic acid in plant products, certain plants also contain substances that can be used by our body to produce this molecule. For example, a recent study has shown that people who take benzoic acid, a substance especially abundant in berries, had measurable quantities of salicylic acid in their blood and urine, even though these people had not taken aspirin for two weeks and had not eaten any foods containing this molecule.

It therefore seems that we are capable of producing significant quantities of salicylic acid from our diet, which illustrates the extent to which this molecule could play an important part in our body's proper functioning. Another excellent reason to get our daily servings of fruits and vegetables!

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