

# Get cracking: Eggs may help prevent heart disease and cancer

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(Medical Xpress) -- One of nature's most perfect foods may be even better for us than previously thought.

While eggs are well known to be an excellent source of proteins, lipids, vitamins and minerals, researchers at the University of Alberta recently discovered they also contain [antioxidant properties](#), which help in the prevention of cardiovascular disease and cancer.

Jianping Wu, Andreas Schieber and graduate students Chamila Nimalaratne and Daise Lopes-Lutz examined egg yolks produced by hens fed typical diets of either primarily wheat or corn. They found the yolks contained two amino acids, tryptophan and tyrosine, which have high antioxidant properties.

After analyzing the properties, the researchers determined that two egg yolks in their raw state have almost twice as many antioxidant properties as an apple and about the same as half a serving (25 grams) of cranberries.

However, when the eggs were fried or boiled, antioxidant properties were reduced by about half, and a little more than half if the eggs were cooked in a microwave.

“It’s a big reduction but it still leaves eggs equal to apples in their antioxidant value,” said Wu.

The discovery of these two amino acids, while important, may only signify the beginning of finding antioxidant properties in egg yolks, says Wu.

“Ultimately, we’re trying to map antioxidants in egg yolks so we have to look at all of the properties in the yolks that could contain antioxidants, as well as how the eggs are ingested,” said Wu, adding that he and his team will examine the other type of antioxidant already known to be in eggs, carotenoids, the yellow pigment in egg yolk, as well as peptides.

In previous research, Wu found that egg proteins were converted by enzymes in the stomach and small intestines and produced peptides that act the same way as ACE inhibitors, prescription drugs that are used to lower high blood pressure.

That finding defied common wisdom and contradicted the public perception that eggs increased high blood pressure because of their high cholesterol content. Additional research by Wu suggests the peptides can be formulated to help prevent and treat hypertension.

Wu is convinced the peptides also have some antioxidant properties, which leads him to suggest that when he completes the next step in his research, the result will likely be that [eggs](#) have more antioxidant properties than we currently know.

The findings were published in the peer-reviewed journal *Food Chemistry*.

Provided by University of Alberta

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