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Microwave ovens decrease nutritional content of food? ^[1]

Dear Alice,

My family uses microwave ovens a lot, and I was wondering if cooking foods such as broccoli in a microwave can really diminish the antioxidants in the food. I came across a web site that said there was a study published in a science journal that showed that broccoli lost 97 percent of its antioxidants after being cooked in a microwave. I'm not sure whether to believe this or not. Could you help me out?

Sincerely,
Needing Antioxidants

Answer

Dear Needing Antioxidants,

Microwave ovens may be a common and convenient fixture in many kitchens, but they have long been accused of causing cancer, radiation poisoning, and, as you mentioned, being weapons of mass destruction (of nutrients in foods, that is). No matter how you slice it, the act of cooking fruits and vegetables will destroy some of their nutrients because certain minerals, vitamins, and antioxidants cannot withstand the heat. The good news is that there are many ways to reduce the amount of nutrients lost. Additionally, microwave cooking generally does not cause any more damage to food than other cooking methods ^[2] such as baking, boiling, or sautéing.

The study you mentioned noted that the broccoli was immersed in a large amount of water when it was cooked, which may have been responsible for such a high proportion of the antioxidants being destroyed; the nutrients likely leaked out into the water during cooking. Other studies have shown that when broccoli was cooked in the microwave with no water, the degree of antioxidant loss was much lower. The key ingredients to preserving antioxidants and other nutrients seem to be a shorter exposure time to heat while using as little water as possible. In that case, microwave cooking can actually be better than other methods of cooking, because it cooks food quickly and therefore reduces the time the food is heated. Other tips to keep the nutrients intact during cooking include:

- Leave vegetables in big pieces so less surface area, and therefore less nutrients, are

exposed.

- Cover your container to hold in heat and steam, which will reduce the cooking time.
- Avoid peeling the vegetable if possible; many nutrients are actually in the peel itself or just below its surface.
- Make sure you don't overcook your vegetables; take them out when they are crisp and tender.

If you are really concerned about getting enough antioxidants, you can also stick to choosing fruits and vegetables that you can eat raw, such as carrots, tomatoes, or cucumbers, or simply eating more of them. If an apple a day keeps the doctor away, think of what doubling or tripling that can do! Just keep in mind that not only is variety the spice of life, but it's also the best way to make sure you get all the antioxidants you need.

Alice!

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