

# *Studies Show Microwaves Dramatically Reduce Nutrients in Food*

*by Edward Bauman, M. Ed, Ph.D.*

I can remember the days growing up in the 1950's and 1960's, when we prepared foods without a microwave oven. Water was boiled on the stove. Chicken was baked in an oven. Vegetables were steamed, baked, or sautéed. Food was whole and fresh. Even a TV dinner was baked in the oven, which took about 15 minutes to warm. And then, modern science and technology brought us the microwave oven that could heat food rapidly, from 30 seconds to a couple of minutes.

The industry has claimed that microwave cooking protects the nutrient content of foods. Somehow, in tasting foods that came out of a microwave oven, the texture was changed as was the flavor. Foods cooked or reheated in microwave ovens became rubbery and lacked the savory smells and layered flavors that come from cooking foods slower and longer. Nevertheless, people bought the convenience aspect, the speed, the simplicity of heating and eating prepared foods. The science, which has been supported by the food industry, has continued to claim the health benefits of microwave cooking. Recently, published data from reliable sources questions the health benefits of microwaved food.

Does this mean an occasional microwaved meal will be harmful? Not likely. But what about a steady diet of eating foods cooked at such a high heat? Do the sensitive compounds in food, such as amino acids, fatty acids, vitamins and phytonutrients change? It appears so. Read on to follow the scientific literature surrounding the depletion of our soil, foods, and health as a result of modern farming, food processing,



microwave cooking, and not eating enough fresh, natural, uncooked, organic whole foods.

- Three recent studies of historical food composition have shown 5-40% declines in some of the minerals in fresh produce, and another study found a similar decline in our protein sources (1)
- A 1999 Scandinavian study of the cooking of asparagus spears found that microwaving caused a reduction in vitamins (3)
- In a study of garlic, as little as 60 seconds of microwave heating was enough to inactivate its allinase, garlic's principle active ingredient against cancer (5)
- A study published in the November 2003 issue of *The Journal of the Science of Food and Agriculture* found that broccoli "zapped" in the microwave with a little water lost up to 97% of its beneficial antioxidants. By comparison, steamed broccoli lost 11% or fewer of its anti-

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oxidants. There were also reductions in phenolic compounds and glucosinolates, but mineral levels remained intact (6).

- A recent Australian study showed that microwaves cause a higher degree of "protein unfolding" than conventional heating (2)
- Microwaving can destroy the essential disease-fighting agents in breast milk that offer protection for your baby. In 1992, Quan found that microwaved breast milk lost lysozyme activity, antibodies, and fostered the growth of more potentially pathogenic bacteria (4).

Quan stated that more damage was done to the milk by microwaving than by other methods of heating, concluding: "Microwaving appears to be contraindicated at high-temperatures, and questions regarding its safety exist even at low temperatures."

Note: Needless to say, we do not recommend cooking food in microwave ovens, though mildly heating leftovers may not pose the same problems as discussed above. Also, microwaving fatty foods in plastic containers leads to the release of dioxins (known carcinogens) and other toxins into your food. Common microwavable foods include pizzas, chips, and popcorn. Chemicals released include polyethylene terphthalate (PET), benzene, toluene, and xylene.

Additionally, microwaving creates new compounds that are not found in humans or in nature, called radiolytic

compounds. We don't yet know what these compounds are doing to your body, but they are not health-promoting.

Eating fresh, uncooked, or minimally heated fruits and vegetables, nuts and seeds, herbs and spices are the basis of an Eating for Health™ meal plan. With whole grains and legumes, cooking them on a stove top by boiling and simmering them until tender is advised. For flesh foods, steaming, sautéing, baking, or blending into slow cooked crock pot soups and stews is advised. Dairy products, such as raw milk cheese, from goats, cows, or sheep, are most nutrient-rich when unheated. Raw, organic cheese is best added to salads or warm grains, legumes, or vegetables without heating the dish in a high heat oven, broiler, or microwave oven.

### References:

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