



## Can I Get Cancer From My Microwave Oven?



### Overview

Microwave ovens are a standard convenience in virtually every home. We use them regularly for meals and snacks. We use them to heat up lunches at work. We even use them to heat frozen foods at convenience stores. Are they safe? Yes, and here's some information on how they work.

### How they work

Microwaves heat your food with radiofrequency radiation. We call it "RF radiation." When it strikes water molecules, it causes them to vibrate, creating heat. Microwave ovens take advantage of this property. They bombard food with RF radiation. This vibrates the water molecules inside the food, heating up your dinner.

### Isn't radiation bad for me?

But wait, isn't radiation a bad thing? Well, although it sounds scary, RF radiation isn't like gamma rays, x-rays or UV radiation. Those have high energy waves. They can damage the DNA in your cells, which is what causes cancer. RF radiation has low energy waves. If you were exposed to the RF radiation inside a microwave oven, it would heat up your tissues. It could even cause a burn. But we haven't found a link between RF radiation and DNA damage. And it doesn't make your food radioactive.

### Conclusion

Your microwave oven is built to contain the RF energy inside it. As long as your microwave isn't damaged, it's safe for you to use. It won't pose a health risk, and it won't make your food unsafe to eat. So feel free to microwave without fear.