Is It Protected?: A Study on the Decrease of Deoxyribonucleic Acid Extracted from Microwaved Strawberry Samples

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Our project is a continuation of seven years of previous research. In prior years we have both tested with Radio Frequency on cell phones, wifi modems, and much more. Starting three years ago both of us decided to experiment with microwaves and how we can block them, as we both found out that the non-ionizing radiation from microwaves could be blocked with many metals such as aluminum or lead. This year we decided to look into seeing how much DNA is destroyed when you microwave your food. We did this by seeing what materials best protect a strawberry sample when it is being microwaved. We tested a variety of different materials that are commonly used to microwave different. We microwaved all of the samples for one minute, then extracted the DNA through a home method. As we worked we took notes on our observations and recorded our data. We came to the conclusion that all of these materials did protect the strawberry samples in their own ways. The most protective material was the vented glass jar due to its thickness and its ability to prevent the microwaves from penetrating through the surface of the strawberry. Next was the vented plastic container, followed by the crisping sleeve, then the paper plate, and lastly the plastic bag. In conclusion our project shows just how much of an impact your containers have on your health. Aside from the harmful effects of microwaving plastic, there are many other health effects as we discovered that the DNA within the samples was destroyed and/or damaged.

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