



Exploring the Benefits of Food Processing on Antioxidant Bioavailability

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DESCRIPTION

Food processing is an essential part of modern food production and has many benefits, especially when it comes to increasing the bioavailability of antioxidants. Antioxidants are compounds that help to protect us from the harmful effects of oxidative stress, which is caused by molecules called free radicals. Free radicals can damage the body's cells and increase the risk of many diseases, such as cancer and heart disease. By increasing the bioavailability of antioxidants, food processing can help to reduce these risks. Food processing involves a variety of techniques that can be used to improve the safety, quality, and nutritional value of food. These techniques include canning, freezing, drying, pasteurization, and irradiation. Through these processes, food can be preserved for longer periods of time, and its nutrient content can be increased. One of the major benefits of food processing is that it increases the bioavailability of antioxidants. This means that more of the antioxidants in the food are available for absorption and use by the body. For example, food that is processed to remove the outer layer of the skin, such as apples, can increase the antioxidant content of the food by up to 50%. Another benefit of food processing is that it can increase the shelf life of food. By using techniques such as freezing and canning, food can be preserved for much longer periods of time. This prevents food from spoiling quickly and reduces the risk of foodborne illnesses. In conclusion, food processing can be a great way to increase the bioavailability of antioxidants and improve the safety, quality, and nutritional value of food. By preserving food for longer periods of time, it can help to reduce the risk of foodborne illnesses and provide us with a more nutritious and healthy diet.

Effects of various food processing methods on antioxidant bioavailability

The food processing industry has seen tremendous advances in the past few decades. With the introduction of new technologies and techniques, food processors are now able to increase the bioavailability of antioxidants in their products. This is beneficial for consumers, as antioxidants are known to have a

range of health benefits. There are several different types of food processing techniques used to increase the antioxidant bioavailability of food. The most common techniques include freezing, drying, fermenting, and juicing.

Freezing: Freezing food is a simple technique that is used to preserve the antioxidants in the food. Freezing food prevents the oxidation of the antioxidants, which in turn increases the bioavailability of the antioxidants in the food.

Drying: Drying food is another method of preserving antioxidants. This process involves removing moisture from the food, which helps to prevent oxidation and increases the bioavailability of the antioxidants.

Fermenting: Fermenting food is a process that helps to break down the complex molecules found in food. This process helps to increase the bioavailability of the antioxidants in the food.

Juicing: Juicing is a process that helps to extract the antioxidants from the food this process is beneficial, as it helps to increase the bioavailability of the antioxidants in the food. Food processing techniques can be used to increase the bioavailability of antioxidants in food. This is beneficial for consumers, as it increases the health benefits of the food. It is important to note, however, that not all food processing techniques are effective in increasing antioxidant bioavailability. It is important to research the different techniques available and understand their effects on antioxidant bioavailability before making any decisions. Antioxidants are compounds found in many foods that can help protect our bodies from disease and aging. They are especially beneficial when consumed in combination with other nutrients and compounds found in foods. However, processing foods can cause a loss of antioxidants and other beneficial compounds. As a result, study has looked into the effects of processing time on antioxidant bioavailability, and the results are intriguing. By processing food, the amount of antioxidants in the food can be reduced. This reduction is due to the destruction of the protective layer of the antioxidants, and the breakdown of the antioxidants themselves. The longer a food is processed, the greater the decrease in antioxidant content.

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