

Will frozen vegetables lose nutrients? Someone did a test.

Detail Introduction :

Not long ago, the Shanghai Consumer Protection Committee tested the difference between fresh vegetables and frozen vegetables. They first selected frozen green beans, edamame, and quick-frozen broccoli, and corresponding fresh vegetables sold in supermarkets and sent them to Shanghai Nutrition Food Supervision and Inspection Station for testing.

The Shanghai Consumer Protection Committee measured the vitamin C content of frozen vegetables and fresh vegetables simultaneously and found that the vitamin C content of frozen green beans and edamame was not much different from the fresh state. The quick-frozen broccoli has less vitamin C content than the fresh state, which should take into account that in the production process after the vegetables are cut, the vitamin C will accelerate the oxidation.

Since the vegetables are picked, nutrients are continuously lost. Washing and cutting will accelerate the loss of nutrients, but freezing can slow the loss. Because fresh vegetables also undergo washing, cutting, etc. and cooking, the overall impact of freezing on nutrition is not large.

Commercial quick-freezing can be used at temperatures below minus 30°C, while ordinary refrigerators at home often cannot reach such a low temperature. This will cause the food to take longer to freeze, the structure of water in the food will change, which will affect the texture of the entire food, and the nutrients will be lost.

About 90% of the weight of vegetables and fruits is water and other components are stored in the hard cell walls to provide support structures for vegetables. If the temperature is not enough when freezing, the water in the food will slowly form ice crystals and continue to expand, breaking the cell walls. Therefore, for home-frozen fruits and vegetables, the texture will feel softer, especially frozen tomatoes, which often become mushy after thawing.

However, if there is relatively little water in the food and there are more starchy components, the texture changes caused by freezing are not so obvious, such as peas, corn, etc.