Children eating more vegetables ?!

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A study conducted at the University of Granada has proved that children eat up to 80 percent more vegetables when they are allowed to choose. Researchers have also found that the bitterness of calcium –which is noticeably present in vegetables such as spinachs, collard greens cabbage, onions, chard or broccoli– can be a factor negatively influencing children's consumption of vegetables

A gesture as simple as allowing children to freely choose the vegetables they want to eat helps to increase the consumption of these foods in children, as University of Granada has found. Moreover, his work suggests that the bitter taste of calcium, present in vegetables such as spinach, collard greens, cabbage, onions, chard or broccoli, can be a factor negatively influencing children’s consumption of vegetables.

To carry out this experimental study, the authors analyzed the main factors determining vegetable consumption in children under 6 years by evaluating the effectiveness of a strategy called "Provision of choice". In this strategy children were allowed to choose the vegetables they wanted to take in each meal.

Provision of choice

Researchers worked with 150 children at four public schools in Granada, Spain, managed by the Foundation Granada Educa. Children were allowed to choose the vegetables they wanted to eat for lunch. Similarly, they were given a tool known as "Provision of Choice", which was found to increase consumption of vegetables by up to 80 percent. They further noted that children who were allowed to choose ingested 20 grams more, representing an average of 40 grams per day between lunch and dinner. Given that the ration of vegetables served was 150 grams, "it is a very important quantity”, the authors of the paper state.

The main autor of this pioneer research in Spain is Paloma Rohlfs Domínguez, at the Institute for Neuroscience of the University of Granada; the paper was conducted by professor Jaime Vila Castelar, at the department of Personality, Evaluation and Psychological Treatment. Other researchers from the University of Granada, and of the University of Wageningen, Netherlands also participated in this research study.

This work also revealed that children’s sensitivity to the bitterness of glucosinolate –present in vegetables– caused by the chemical component 6-n-propylthiouracil (PROP), may be one of the reasons why many children reject vegetables. Similarly, the bitter taste of calcium also affects negatively.

The results obtained in this study were partially published in the international journal Brain Research Bulletin, and are available online in Sciencedirect.

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