



Exploring potatoes as complementary feeding during weaning

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Weaning and the introduction of complementary feeding play an important role in shaping a child's food journey during the transition from fluids to solids. The increased need for kilojoules and nutrients during this time requires the introduction of nutrient-dense, easily digestible foods that are of an acceptable consistency, while also palatable for young children.

There are vastly different approaches to weaning practices with culture, economics, beliefs and trends influencing the foods chosen for weaning. In South Africa, complementary feeding practices are characterised by the early introduction of foods and liquids other than breastmilk, limited dietary diversity and the use of commercial infant cereal. Staple foods are common among first foods for complementary feeding.

Healthy complementary feeding

Potatoes' textural diversity makes it possible for mashing into various levels

of smoothness, allowing children to be exposed to textural eating through a singular nutritious foodstuff. The neutral taste of potatoes also makes them an excellent carrier for other fruit and vegetables, and provides an array of nutrients for growing children, such as potassium and small amounts of high-quality protein fibre.

The nutritional status of young children can be directly linked to development, social upliftment and the resources available within their communities. Malnutrition at any stage in a child's life can have devastating consequences on the child's future. In South Africa, a desperate need exists to eliminate starvation and malnutrition.

By introducing foods that promote healthy complementary feeding practices to poorer communities and teaching parents the importance of feeding their children nutritionally adequate foods, the overall health of South Africans can be improved. This can further create self-sufficiency and promote local resilience. Guidance and education on best practices for

complementary feeding are therefore essential.

Putting potatoes to the test

Three final-year students from the University of Pretoria's Department of Consumer and Food Sciences were challenged to develop weaning food recipes that contain potatoes as well as other fruit and vegetables that are readily available in a community vegetable garden.

The weaning food project originated from a One Health research initiative funded by UNICEF and conducted by various departments at the University of Pretoria. The project focussed on the implementation of sustainable vegetable gardens within informal communities, with a specific focus on the residents of Cemetery View in the east of Pretoria.

During this study, it was found that potatoes are a crop of choice for people living in informal settlements and a food that they would feed their young children. Although not mentioned in the *Paediatric Food-Based Dietary Guidelines of South Africa*, the nutritional qualities of potatoes lend them to being



harnessed as a weaning food and can be used to increase dietary diversity.

Potatoes are more economical to produce and purchase than cereal crops, and they provide more nutrients per monetary unit than any other carbohydrate crop, thus making them a noteworthy contributor as a weaning food in developing countries.

A treat for tiny taste buds

For this project, three recipes were meticulously prepared, based on factors


such as ingredients, cost, available equipment, sensory properties, and target market. The recipes underwent numerous phases of development, with sensory panel evaluations and adaptations to ensure that the best possible product was developed.

The students showed insight and depth of knowledge and delivered recipes that would tickle tiny taste buds while providing an array of nutrients. Two of the recipes contained a variety of vegetables and chicken, with potatoes acting as an emulsifier.

One of the recipes was specifically targeted at babies being introduced to solids and contained basic flavours of potato, carrot and chicken. The other recipe was developed with more experienced eaters, who have already been weaned, in mind and included more complex flavours of tomatoes and onions along with potatoes and chicken.

The third recipe, a fruit salad boost baby puree made with milk, banana, papaya, guava and orange, also contained the surprise base element of potatoes. The potatoes bulked the puree and added texture as well as

functional properties to improve the eating experience.

This study once again confirmed the potato as an all-rounder that can be enjoyed from an early age and used in a variety of ways. Once the community gardens at Cemetery View start flourishing, mothers will be able to harvest fresh produce for their children and provide them with an improved diet for optimal development. 

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