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Development and characterization of texture-modified pork ball for elderly

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In the elderly population, one of the restrictive factors in food consumption may be that some foods become troublesome to eat as losing their teeth and swallowing dysfunction at an elderly age. The purpose of this work was to develop texture-modified pork ball with varying level of pork (30-38%), lard (20-24%) and tapioca flour (1.8-3.4%) added. All formulated products were investigated in terms of textural properties and sensory evaluation. The result showed that hardness, springiness, cohesiveness, gumminess, chewiness increased whereas adhesiveness decreased, when the pork level increased and the lard and flour decreased. Sensory evaluation was performed by elderly subjects using 5-points hedonic scale and 5-point just-about-right. The subjects were grouped into three categories by posterior occlusal contact, according to the Eichner Index. Group A had contacts in four support zones; group B had one to three zones of contact or contact in the anterior region only and group C had no support zones at all, although a few teeth could still remain. The result indicated that all developed formulas of texture-modified pork ball had just about right in color, taste and easy to chewing and overall liking score was in the range of like slightly to like moderately. From sensory evaluation, the suitable level of each ingredient was found to be 38% pork, 20% lard and 1.8% flour for group A and 34% pork, 22% lard and 2.6% flour for group B and C. This product combined with other foods could be used for improving nutritional status of elderly.

Biography

Numphung Rungraung has completed her Master's degree in Food and Nutrition for Development, Institute of Nutrition, Mahidol University. She is a Researcher of Center of Innovation and Reference on Food for Nutrition (CIRFON), Institute of Nutrition, Mahidol University. Her research interest focuses on formulation of food products for nutrition purposes, food processing and storage on antioxidant activity and physicochemical properties of food products.

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