

Food Texture Modifications for Dysphagia Patients

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Nowadays, the elderly population is growing rapidly in many parts of the world. A common problem with the elderly is choking while eating. However, elderly people often have Parkinson's disease, a neurological disease. Globally, the prevalence of Parkinson disease (PD) has doubled in the past 25 years with global estimates in 2019 showing over 8.5 million individuals living with PD. In addition, 82 percent of Parkinson's patients suffer from choking and swallowing problems. Food choking is also the primary cause of increased risk of lung infection, and it is also the first cause of death of Parkinson's patients. However, the swallowing ability of patients can be improved by training under the supervision of rehabilitation medicine. A suitable diet for dysphagia patients recommended by the National Dysphagia Diet (NDD) standards must be a soft, slippery, non-watery gel to prevent choking and clogging of the throat. However, a ready-to-eat diet suitable for dysphagia patients is not yet available in the market. Thus, the objective of this research was to produce ready-to-eat food for Dysphagia patients by using agar, carrageenan, gelatin, xanthan gum, and konjac glucomannan at different concentrations to modified food texture for practice swallowing ability and consume in daily life. In this experiment, the texture modified food was analyzed for viscosity, texture profile analysis, color, pH, syneresis, and total microbial count during storage to predict shelf life. The results indicated that the texture modified food containing 1%w/v of carrageenan had a suitable texture characteristic for 1st and 2nd level by NDD standards patients. Storage of the sterilized samples at room temperature for 9 weeks showed a decrease in hardness and viscosity, an increase in brownness, but no change in adhesiveness, springiness, cohesiveness, pH, and total microbial count. In addition, samples showed no syneresis throughout the storage period.