

# Research on the formulation and processing of Chinese style nutritional tube-feeding food

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## ABSTRACT

In this study, the imported commercial tube feeding formulated milk used in the hospitals were changed into Chinese style tube-feeding nutritional food. The purpose is to prepare the Chinese style tube-feeding nutritional food which is suitable for the constitution of the people, and the efforts were made to investigate the formula design processing and analysis of nutritional components of the Chinese tube-feeding. The liquid Chinese tube feeding cans were made into 300 calories per can. As for formula design, the statistical software of experimental design calculated the most suitable formula. It was found that the optimum viscosity is 223cps, the formula including the staple food: brown rice powder 5g, potato 60g and corn syrup 15g; the vegetable: pak-choi 60g; the portein: egg white 67g; lipid: corn oil 10g. The optimized processing conditions of finisher, deodorization and sterilization were investigated with different rotational speed, temperature and time, such as 95% material will passing through 80-120 mesh after finishing at 1,500 rpm for 5 min, deodorization was held at 97-99 for 16 min, and sterilization was held at 121 for 20 min, During the processing, washing and heating at high temperature had a great effect on nutrition components like vitamins and minerals whereas had small effect on carbohydrates, protein, lipid, cellulose and ash, Therefore, the pretreatment, heating time and temperature were controlled to prevent the loss of nutrient by washing and heating. The result of the sensory evaluation of Chinese tube-feeding showed that the sample made egg is most acceptable by assessors, and it the nutrition and caloric requirement of the patients over long period time, because the nutrition formula components conform to the require amount of design and have higher nutrition components label than the present commercial products.

Keywords : tube-feeding ; formula

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