

## Research Article

# Effect of Common Culinary Methods Practiced in Sri Lanka on the Nutrient Composition of Commonly Consumed Vegetables and Other Foods

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In Sri Lankan traditional cooking, coconut and spices are incorporated to enhance the taste, flavor, and aroma. However, little attention has been given to assess the effect of these ingredients on the nutritional and chemical composition of the consumed food. The objective of this study was to ascertain the effect of traditional cooking methods on the chemical composition of vegetables, cereals and cereal-based foods, legumes, and selected nonvegetarian food varieties consumed in the daily diet. The results indicate that the addition of coconut milk (CM), coconut scraps, and coconut oil (CO) had a significant impact on the fat content of the prepared foods ( $p < 0.05$ ). Cooking facilitated the incorporation of fat into food. According to the results, more percentage increases of fat content were observed in tempered string beans (97.51%) and cauliflower milk curry (96.6%). Data revealed that boiling helped to reduce the fat content in cereals and legumes. The cooked foods prepared using traditional recipes with CM, CO, or scraps have higher nutritional content than raw foods and have a significant nourishing potential that meets the daily energy requirements ( $p < 0.05$ ). It can be concluded that the chemical composition of cooked food serves as a more realistic guideline in recommending dietary interventions in disease and weight management.

## 1. Introduction

In Asian countries such as Sri Lanka, the daily diet is mainly dominated by rice and vegetables. The combination allows adding variety to the everyday diet while providing nourishment and energy to sustain the quality of life. However, dietary patterns change over time. It is associated with many factors such as availability of food (seasons), income, food cost, preferences, cultural beliefs, and geographical and climatic changes [1].

Apart from rice and vegetables, locals also add meat products to their diets. Boiled legumes (lentils, cowpea, mung bean, and chickpea) and foods prepared with varieties of cereals (bread, roti, hoppers, noodles, string hoppers, and pittu) are other common supplements in Sri Lankan cuisine.

The nutritional quality provided by any food will be determined by the method of cooking and processing. Nutrients can be lost by leaching or chemical degradation into the cooking matrix. Foods are mostly prepared based on their cost, convenience, safety, and sensory preferences [2]. A substantial amount of nutritional loss occurs during cooking. However, on the other hand, it improves food quality by deactivating microorganisms and antinutritional substances present in foods naturally or contaminant incorporated into food during the postharvest handling. Studies have shown that selecting the proper cooking method can enhance the availability of healthy nutrients [3]. Cooking increases digestibility by improving the food texture [4]. Cooking improves the sensory properties of foods such as taste, color, and aroma. Therefore, cooking has both beneficial and