

# Food Products and its Evaluation Techniques

Elizabete Wenzel\*

Department of Food and Experimental Nutrition, Faculty of Pharmaceutical Sciences, University of São Paulo (USP), São Paulo, SP, Brazil

## Abstract

Foods are a concoction of elements that can provide the body with nutrients that, once metabolised, are primarily utilised to produce energy, heat, replenishment and material for organs and tissues to grow. This ensures the regular performance of critical processes required for the human body's growth. In order to describe foods' nutritional and market values, it is important to understand their chemical makeup and the characteristics of the components that make up each one.

**Keywords:** Replenishment • Aoultry • Antihepatotoxic

## Introduction

Chemicals are the fundamental building blocks of the entire universe. Chemicals make up all living things, including people, animals and plants. Chemical components make up every food item. Chemicals included in food are generally safe and are frequently beneficial; for instance, nutrients like carbs, protein, fat and fibre are made up of chemical compounds. Many of these come in their natural forms and enhance both our dining pleasure and a well-rounded diet [1].

## Description

We can now detect and distinguish a wide range of fungus and yeasts in foods thanks to widely used molecular techniques based on DNA. The PCR-based techniques have a high degree of sensitivity and can amplify a little quantity of nucleic acids. Finally, methods for the removal of the interfering material within foods can affect these amplification test systems to add power to the detection of fungi. The study of chemical reactions and interactions between all biological and non-biological components of food is known as food chemistry. As examples of biological substances, consider foods like beef, poultry, lettuce, beer and milk. In terms of its primary constituents, such as carbs, lipids and protein, it is comparable to biochemistry; however, it also encompasses elements like water, vitamins, minerals, enzymes, food additives, tastes and colours [2].

Before science could confirm its possible health benefits, chocolate was used as a delicacy, aphrodisiac and a folk remedy for many years. Polyphenols, which serve as antioxidants and have possible anti-inflammatory, cardioprotective, anti-hepatotoxic, antibacterial, antiviral, antiallergenic and anti-carcinogenic qualities, are the main components of cocoa and chocolate that benefit human health. The impact of cocoa and chocolate on human health is briefly discussed in this study, along with a brief review of the scientific literature on cocoa polyphenols. Even while there is now a lot of study on the possible health advantages of dark chocolate and cocoa, there are still many unanswered questions and several hotly debated topics. It is clear that

**\*Address for Correspondence:** Elizabete Wenzel, Department of Food and Experimental Nutrition, Faculty of Pharmaceutical Sciences, University of São Paulo (USP), São Paulo, SP, Brazil; E-mail: Elizabete89@usp.br

**Copyright:** © 2022 Wenzel E. This is an open-access article distributed under the terms of the creative commons attribution license which permits unrestricted use, distribution and reproduction in any medium, provided the original author and source are credited.

**Date of Submission:** 29 June, 2022, Manuscript No. jgdr-22-78519; **Editor Assigned:** 01 July, 2022, PreQC No. P-78519; **Reviewed:** 14 July, 2022, QC No. Q-78519; **Revised:** 18 July, 2022, Manuscript No. R-78519; **Published:** 24 July, 2022, DOI: 10.37421/2472-0542.2022.8.423

additional research is required in this area before it can be said with certainty that chocolate has a negative impact on health.

Instrumentation and the use of physical and chemical methods are used to assess the quality of foods. Both subjective and objective factors affect food quality. While nutritional and microbiological quality cannot be subjectively judged, appearance, texture and flavour may. Important techniques for evaluating food include tests for discrimination, tests for rating, sensitive evaluations, objective assessment [3]. After consuming food or drink, the food sensory evaluation determines how a person reacts to stimuli. It is in charge of responding to questions about product quality and current rival offerings. The review process typically involves research and development, technical and manufacturing staff, factory managers, quality assurance managers and marketing managers. Personal preferences and perceptual skills are typically centred on the activation of sense organs.

Manufacturers constantly alter the content of food products; yet, it is uncommon to monitor these changes. This study's goal was to use a variety of analytical techniques to compare the nutritional profiles of particular Brazilian food groups between the years 2003 and 2013. A total of 259 products from four different food groups were tested for their carbohydrate, fat, protein, dietary fibre (DF) and energy content. Principal component analysis (PCA) and hierarchical cluster analysis were used to segregate the products from each group and evaluate them based on their percentage change (HCA). Using HCA rather than PCA allowed for a clearer observation of separation. At least one component in most of the clusters showed a significant difference [4]. In order to either increase the content of healthy nutrients like dietary fibre, whole grains, fruit, vegetables and unsaturated fats or decrease the content of harmful nutrients like sodium, saturated fat, trans fat, or energy (kilojoules), a processed food product's nutrient composition must be changed. The reduction of added sugars, lipids, saturated fatty acids, trans fatty acids and sodium should be the main goal of product reformulation, according to the World Health Organization. Keeping food components including dietary fibre (DF), minerals and vitamins as well as food qualities like aroma, flavour, texture and shelf life is crucial.

Numerous research have examined nutrient changes in food products, particularly in nutrients like trans fatty acids and sodium that are connected to the rise in non-communicable disease incidence. However, little is known about modifications to food formulations that affect multiple major nutrients or categories of particular items. The approaches of percentage change and absolute change, each of which has its own limits, are typically employed to assess or monitor food reformulation. Since percentage change is arbitrary, it could overstate minor changes [5].

## Conclusion

Using this Duo Trio Test technique, it may be determined whether there is a sensory difference between two samples of food or drink. There are

always two test samples, a reference sample and one of the test samples is the reference sample and the other is the test sample. Participants are asked to name a model that is comparable to the reference sample. Duo-trio tests are occasionally employed in place of triangle tests for assessing unidentified changes between samples, however they are less effective. It is advised to use at least 7–10 assessors.

---

## Acknowledgement

None.

---

## Conflict of Interest

There are no conflicts of interest by author.

---

## References

1. Fonseca, Rafael, Peter Leif Bergsagel, Johannes Drach and John Shaughnessy, et al. "International Myeloma Working Group molecular classification of multiple myeloma: spotlight review." *Leukemia* 23 (2009): 2210-2221.
2. Bergsagel, P. Leif, María-Victoria Mateos, Norma C. Gutierrez and S. Vincent Rajkumar, et al. "Improving overall survival and overcoming adverse prognosis in the treatment of cytogenetically high-risk multiple myeloma." *Am J Hematol* 121 (2013): 884-892.
3. Frosch, Michael, Thomas Vogl, Rüdiger Waldherr and Clemens Sorg, et al. "Expression of MRP8 and MRP14 by macrophages is a marker for severe forms of glomerulonephritis." *J Leuko Biol* 75 (2004): 198-206.
4. Horvath, Istvan, Xueen Jia, Per Johansson and Chao Wang, et al. "Pro-inflammatory S100A9 protein as a robust biomarker differentiating early stages of cognitive impairment in Alzheimer's disease." *ACS Chem Neurosci* 7 (2016): 34-39.
5. Rajkumar, S.V., V. Gupta, R. Fonseca and A. Dispenzieri, et al. "Impact of primary molecular cytogenetic abnormalities and risk of progression in smoldering multiple myeloma." *Leukemia* 27 (2013): 1738-1744.

**How to cite this article:** Wenzel, Elizabete. "Food Products and its Evaluation Techniques." *J Exp Food Chem* 8 (2022): 423.