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**Hygienic estimation of nutrition of schools in different countries**

Introduction. For a healthy growth and development, humans need hygienic nutrition that meets the daily-recommended allowance to ensure the best consumption of micro and macronutrients that promote a healthy life.

The recommended daily allowance differs from human to human due to many reasons such as age, gender and lifestyle. Schools all over the world are responsible for providing nutrition for their students, and that should be hygienic in terms of nutrition and safety as students spent around 9 hours at schools.

Aim. The aim of our research is to investigate the hygienic nutritional content of school’s lunch menu in different countries, to conclude which of them satisfy the daily-recommended allowance and provide the best nutrition for their students.

Methods and materials. In this investigation, I will using different reliable resources, websites and information from schools to conclude the nutritional value of the schools lunch menu. To do this I will be comparing different school lunch menus and their nutritional value based on a 2000-calorie diet. And based these factors I will decide which country has the best lunch menu that satisfy the hygienic requirement and give their students the needed macro (proteins, fats and carbohydrates) and micro (vitamins and minerals) nutrients.

Results and conclusion. Based on the data I collected from reliable resources I found out that USA and Bahrain provide the worst and least nutritional lunch menus, as the school only prove fast food and fat saturates meals which exceed the daily recommended allowance and has little micro nutritional value which is very critical for the age of middle year students ( 9 -13) as in these years maturation and puberty starts, so they need enough micro nutrients to not face any disturbances in these important changes. This might be a contributor to the fact that USA and Bahrain have a high rate of child obesity due to this unhygienic lunch menu.

The German and Japanese lunch menus had good source of macro and micronutrients and provided enough and satisfactory amount of calories and nutrition, which can be a contributor and a major factor in having low obesity rate in children.

The Indian school lunch menu had the best hygienic school lunch menu, as it provided excellent macro and micro nutrition with enough amount of calories, which was the best in all of the compared menus.

A preteenager (9-13) needed enough macro and micro nutrition as well a good source of calories, there were two countries (USA and Bahrain) that did not meet our hygienic requirements and based on that fact their lunch menus do not satisfy our requirements. However, the three other countries (Japan, Germany and India) have a very good hygienic nutritional value and they satisfy our hygienic requirements.

Ways of improvement. The two unsatisfactory countries (USA and Bahrain) should improve their lunch menus by removing the fast food options (hotdog, hamburger and pizza) and add more nutritional food as soup and low-fat vegetable curry with has a satisfactory hygienic nutritional value.