GUIDELINES FOR A HEALTHY CANTEEN IN WORK PLACES



A Publication by
Nutrition Division – Ministry of Health



GUIDELINES FOR A HEALTHY CANTEEN IN WORK PLACES

A Publication by Nutrition Division – Ministry of Health
2013

In collaboration with World Health Organization

World Health Organization

1

Contents

Forword ---- 03
Preface ---- 04
Background ---- 05
1.0 Healthy eating ---- 06
1.1 Food Groups ---- 06
1.2 Variety of foods ---- 06
1.3 Fresh fruits ---- 07
1.4 Fresh vegetables ---- 07
1.5 Protein rich foods ---- 08
1.6 Milk and Milk products ---- 08
1.7 Healthy oils and nuts ---- 09
1.8 Use of oils in cooking ---- 09
1.9 Salt in food preparation ---- 10
1.10 Use of sugar ---- 10
1.11 Safe drinking water ---- 10
2.0 Selection of menus ---- 11
2.1 Breakfast ---- 11
2.2 Lunch ---- 12
2.3 Dinner ---- 12
2.4 Desserts ---- 12
2.5 Snacks ---- 13
3.0 Consumer awareness ---- 14
3.1 Visuals on the guide ---- 14
3.2 Colour code system ---- 15
3.3 The Green food category– Best choice ---- 15
3.4 The Amber food category– Select carefully ---- 15
3.5 The Red food category– Occasionally ---- 18
4.0 Food and Drinks guide ---- 20
5.0 Food Safety ---- 26
6.0 Annexes ---- 35



Foreword

It is well–known that nutrition plays a vital role in ensuring a healthy life. Infact, many of the chronic diseases could be prevented by dietary modifications such as limiting salt, sugar and fat as well as engaging in regular physical activities.

“Food based dietary guidelines for Sri Lankans” outlines the dietary approaches for healthy living. I appreciate that the nutrition division has taken steps to implement above guidelines through healthy canteen concept.

This publication no doubt helps creating an environment that will promote healthy lifestyles by improving the food choices and in promotion of healthy foods and drinks in the canteen premises. It also clearly highlights and helps in limiting unhealthy options.

I am confident that posters published along with these guidelines will serve as a guide for workers for better selection of healthy food types, quantifying the food for daily energy requirements for each individual and finally helps in selecting various physical activities which they should engage.

Effective implementation of healthy canteen guidelines will not only prevent workers getting lifestyle and diet related chronic diseases but also pave the way for them to be more productive.

Maithripala Sirisena
Minister of Health
Democratic Socialist Republic of Sri Lanka.
Suwasiripaya,
Rev, Baddegama Wimalawansa Thero Mawatha,
Colombo 10.

Preface

Sri Lanka is undergoing a nutritional transition with under nutrition as well as rising over–nutrition leading to a sharp increase of diet and lifestyle associated chronic diseases. Latest Sri Lankans statistics indicate that over–nutrition and obesity among women of reproductive age group (15–49 years) has augmented to a staggering 31.2% of the popul––ation where as under–nutrition among the same group is 16.2%. Ischemic heart disease has become the commonest cause of death in Sri Lankans. Diabetes, hypertension, atherosclerotic diseases as well as cancer are on the rise causing a significant burden to the country's economy.

The dietary pattern of Sri Lankans is undergoing changes from a traditional plate of whole meal rice and curries to one of convenient food. Majority of working population, many of whom are at high risk for non communicable diseases lead a predominantly sedentary life style. Cafeteria of working places usually provide two main meals, (breakfast and lunch) and probably one or two snacks during work hours. Many Sri Lankan food outlets are stocked with a range of unhealthy items of food, especially high in salt, sugar, and oil exposing the consumers to a increased risk of non communicable diseases.

Establishing healthy canteens in work places using a standard guideline will not only help to overcome unhealthy dietary practices of employees in their working environment, but also change their attitudes influencing them to make healthy food choices at home and in the wider community.

The objective of this exercise is to encourage relevant authorities to refer to this document in establishing or upgrading canteens of their work places. It will be of a great benefit to the employees.

Dr. Nihal Jayathilaka
Secretary,
Ministry of Health
Democratic Socialist Republic of Sri Lanka
Suwasiripaya
Rev, Baddegama Wimalawansa Thero Mawatha
Colombo 10.

Background

Sri Lanka is undergoing a nutrition transition facing under nutrition and over nutrition in the same households, at times burdened with escalating chronic diseases. Substantial proportion of working population leads a sedentary lifestyle due to the nature of their work.

Canteen of a work place may provide up to two– third of daily food, mainly breakfast and lunch and one or two snacks. Therefore foods that are sold in the canteen is bound to have a significant health effects on the workers.

An average canteen can provide a substantial proportion of daily nutritional intake if both breakfast and lunch are eaten from the canteen. The canteen can model healthier food choices that are tasty, enjoyable and affordable. This can influence his or her food choices overall.

All canteens have a responsibility to provide safe food. Safe food means that it is prepared cooked, transported and served in such a way as to retain nutrients, to prevent harmful chemicals contamination and to minimise harmful bacterial contamination



and growth. Poor food handling can cause food poisoning. It can also reduce the quality of the food being served. Therefore provision of food under proper hygienic conditions is pertinent to a healthy life.

Objectives of having a healthy canteen

1. To offer a nutritionally complete and safe food choices for workers.
2. To educate the employees on proper food habits and behaviour.
3. To combat and control diet related health problems of workers including chronic diseases.
4. To improve working capacity and avoid abstinence of workers.
5. To promote correct food habits in the workers family and in the society.

1.0 Healthy eating

1.1 Food Groups

A nutritionally complete diet which consists of following six food groups should be available in the canteen every day.

There are six food groups that provide energy and nutrients to keep healthy and each food gives different nutrients needed for body.

Therefore it is recommended that every meal served should ideally comprise of food of all six groups.

Group 01

Cereals, yams, rice and rice flour products, bread, and wheat flour products, etc.

Group 02

Fruits – Banana,Orange, Mango, Pineapple, Water melon, Guava, Rabutan, avocado and other fruits.

Group 03

Vegetables and green leaves

Group 04

Protein rich foods – Fish, eggs, meat, soya, soya products, dry fish, sprats, pulses and legumes

Group 05

Milk and milk products – Yoghurt, Curd, Fresh milk

Group 06

Oily nuts and seeds – Peanut, cashew nut and sesame based foods.

1.2 Variety of foods

Meal Provided by the canteen should consist of a wide variety.

Nutritional quality of one food item differs from that of the other. Variety of foods invariably ensures wider nutrient content and therefore meals should consist of a wide range of food items.





- A range of food items should be available in the canteen for a better selection covering all six food groups.
- Make changes to the items regularly.

1.3 Fresh Fruits

Fresh fruit should be available in the canteen for sale.

Fruits are very good source of vitamins, minerals, antioxidants and fibre. They are needed for vital function of the body thus helps maintaining good health.

Nevertheless, the consumption of fruits of the working population is substantially low. This makes them vulnerable to many nutrition imbalances. Fresh fruits should be available in the canteen for sale to change this trend.

- Offer seasonal low cost fruits.
- Present it in a ready to eat manner.
- It is preferable to serve fruit juices with no added sugar or minimally added.
- Hygienic practices should be adopted in the preparation.

1.4 Fresh Vegetables

Fresh vegetables and greens (in the form of salads and cooked items) should be available for sale.

Vegetables are rich in vitamins, minerals antio–xidants and fibre and is an essential ingredient of the diet that helps in healthy living.

- Raw, unprocessed vege–tables should be thor–oughly washed before cutting up.
- Avoid washing of cut vegetables.

- Vitamins are lost during preparation and cooking of vegetables. This can be minimized by using shorter cooking time.
- It is preferable to add some lime juice for salads and green leaves.
- As minimum of five fruits and vegetables are rec–ommended for a day, at least 1–2 fruits and 2–3 vegetables including one item of green leaves should be available everyday.

1.5 Protein rich foods

At least one protein rich food should be avai–lable for each main meal.

Pulses, Legumes, soya, fish, dry fish, sprats, eggs, chicken, and meat contain proteins which help in growth and maintenance of the human body. Thus this has to be an essential accompaniment of a meal.

- It is essential to have protein rich foods for a healthy life.
- It is preferable to remove skin of chicken or visible fat of other meats during preparation.
- Ensure the centre of frozen food is fully thawed before cooking and fish and meat should be cooked thoroughly till the pink colour fades away.

1.6 Milk and milk products

Liquid milk and milk products should be available in the can–teen.

Milk provides many nutrients including energy, protein, minerals and vitamins. It contains high amounts of saturated fat, thus con–suming milk in moderate amounts is considered a healthy practice.





- Explore the possibility of offering fresh milk. Alternatively offer hygienic pasteurised, sterilized or ultra heated milk products.
- Milk products such as yoghurt and curd should be available.
- Ensure storage of milk products and pasteurized milk in properly chilled refrigerators (below 4^{0}C).
- It is preferable to have non fat or low fat products as a healthy option for adults.

1.7 Healthy Oils and Nuts

Nuts and certain fruits which contain healthy oils should be available for purchase.

Nuts and certain fruits which contain healthy oils help to control cholesterol level in the body and reduce the risk of developing heart diseases.

- Offer peanut, gingelly, cashew nut and their products as they contain healthy oils.
- Avocado is a fruit which contains healthy oils and may be served when available.

1.8 Use of oil in cooking

In preparation of food, minimum amount of oil should be used.

Overuse of oil, particularly those with high percentage of saturated fats exposes individuals to a higher risk of chronic illnesses.

- Limit number and frequency of deep fried food items available in the canteen.
- Repeated deep frying tends to develop unhealthy trans fat in the oil, mostly with unsaturated oils. Therefore, coconut oil (saturated oil) is preferable for deep frying. Reusing of oils used for deep frying should be discouraged.
- Minimum amount of oil should be used for tempering and roasting. Unsaturated oils are preferable for tempering,

roasting and salad dressing but not for deep frying.

Eg : oils of gingelly, olive, canola, sunflower, corn and soya

1.9 Salt in food preparation

Limit the salt in food preparation.

Salt is the main contributor of sodium in diet, an essential nutrient whose balance in the body is generally well maintained. Excess use of salt results a higher risk of chronic illnesses. Thus, It is reco–mmended that, daily intake of salt should be less than 5g (less than one tea spoon) per person.

- Do not add too much of salt in food preparation exceeding the above limit.
- Use other spices and herbs instead of salt.
- Limit number of salty food items in the daily menu and snacks.

  Eg: Dry fish, Papadum, Pickles, Sauces, Sausages, Processed meat and snack (cookies, bites and pota–toes chips etc...).

1.10 Use of sugar

During the preparation of foods and drinks, refined sugar should be limited.

Sugar should not be added to tea and other drinks which are available in the canteen. Sugar can be added to tea or fruit juices only with the request of each consumer (Minimum amount of sugar recommended).

1.11 Safe drinking water

Clean and safe drinking water should be available in the canteen.

Water is important for many metabolic functions of the body. Amount of water which is used by a person for a day should spread thro–ughout the day.

- Provide boiled cooled water at all times.
- Everyone should aim to drink at least 6 – 8 glasses of water per day.

2.0 Selection of Menus

2.1 Breakfast

Breakfast can be served as cereal based or pulses or legume based, or root based food.

Following are some options

- Parboiled rice and lightly polished rice
- Rice flour based products

  Eg: string hoppers, hoppers, pittu, rotti, thosai, and idly etc.
- Rice flour based products mixed with kurakkan, ulundu and atta flour

  Eg. String hoppers, pittu, rotti, thosai idly and chapathi
- Milk rice and milk rice mixed with green gram
- Bread and wheat flour based products

  Eg: String hopper, rotti and pittu
- Rice flour based products should be given the preference to that of wheat flour. However, rice is preferable to flour based foods which can give sharp rise of blood sugar.
- Legumes and pulses

  Eg: Cowpea, gram and green gram, etc.
- Boiled manioc, sweet potatoes, and other varieties of yams
- Fruits, fruit juice, vege–tables and protein rich foods including milk and milk products should be available in the breakfast enabling workers to cover necessary food groups.

2.2 Lunch

Rice should be the staple food for lunch.

- Rice (preferably parboiled or lightly polished rice) is





the ideal staple food for lunch. Starchy foods like noodles and macaroni etc. too, can be used alte–rnatively.

- There should be a mini–mum of two vegetable curries, one dish of green leaves and one dish of protein rich foods (Animal based and plant based).
- Amount of rice served has to be half of the plate and other half has to be from vegetables, green leaves and protein rich food.
- Fresh fruits or fruit salad should be available in the canteen as a dessert.

2.3 Dinner

Rice or alternative sources of starch can be served for dinner.

- Rice is preferable to flour based foods as starchy foods can give sharp rise of blood sugar.
- Alternatively starch based food items can be served with vegetables, green leaves, protein rich foods and fruits.

2.4 Desserts

Wide variety of healthy desserts should be available in the can–teen.

- Fresh fruits and fruit salads should be made available on a daily basis.
- Curd, yoghurt, dried fruits and low sugar gingelly based products may be offered as desserts.
- Dessert with high amount of fat, sugar or salt should be discouraged and displayed according to the colour code system (Annex 04).



2.5 Snacks

Healthy snacks should be available in the canteen.

- Fruits – banana, orange, guava and fruit salads etc.
- Natural fruit juices, Lime, Lemon, Orange, Wood apple, avocado, and mixed fruit juice etc, with no added sugar
- Ulundu wade and Dhal wade
- Low sugar gingelly based products
- Milk based products, Fresh milk, milk packets or bottles (Low sugar), yoghurt and curd
- Soy milk
- Oily nuts – cashew nuts, Peanuts and products based on them
- Boiled green gram, kadala and cowpea etc.
- Cob of corns
- kolakenda

- Snacks with high fat, high sugar or high salt should be discouraged and displayed according to the colour code system (Annex 04).









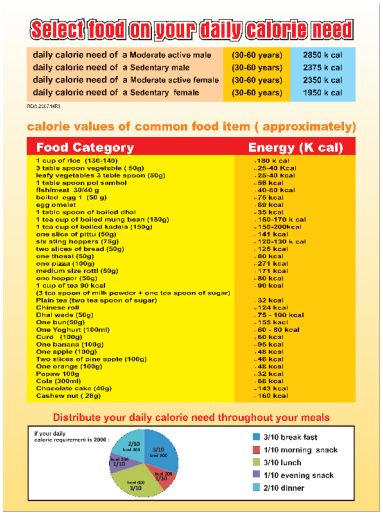
3.0 Consumer awareness

Correct guidance for healthy eating and life style (posters or banners) should be displayed within the canteen environment.

Colourful posters and banners on healthy eating and life style are encouraged to educate the employees of correct food habits and discourage the unhealthy choices in the working envi–ronment.

3.1 Visuals on the guide

Calorie value (Annex 01)



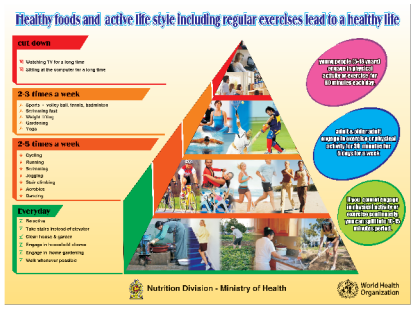
A poster for guidance of calorie value of each food item will help the consumer to take an adequate calorie intake per day.

Six food groups (Annex 02)



A poster on six food groups will help the consumer to identify the six food group and their contents separately.

Physical activity (Annex 03)



A poster on physical activity will help worker to maintain a healthily body weight through a balanced food

intake and regular physical activity.

Colour Code system (Annex 04)



Colour code system should be implemented to make the consumers (workers) aware on health effects of different food and to identify the foods which should be limited.

Eg– High fat, high sugar, high salt foods

3.2 Colour Code system

A method of determining the acceptability of different food items based on nutrition and health factors has been devised using a colour coding. This colour code system helps consumers to identify healthy foods and foods to be limited. Foods are divided Green, Amber and red categories depe–nding on the contents, quantity and the method of preparation of each food item. Food items that are on sale should be displayed under a background of colour of green, amber or red. A guide to categorise food items is given below.

3.3 The Green food category – Best choice

Food in the Green segment is based on basic six food groups.

Foods from this segment are the best choices because they:

- Are good sources of nutrients which are esse–ntial for daily life
- Contain less saturated fat, added sugar and salt
- Help to avoid an intake of excess calories



Table : 01 – The Green Food Category

Food Type	Example
Cereals and yam	Parboiled & lightly milled rice Whole rice flour preparations eg: pittu, string hoppers & rotti Wheat flour preparations (mixed with kurakkan & atta flour) eg: string hoppers, hoppers, pittu & rotti Bread (Brown & white) & all kind of buns Pasta & noodles (mixed with kurakkan flour) Cob of corn Manioc, sweet potatoes & other yams
Legumes & Pulses	Green gram, gram, cowpea, soya bean & tofu Ulundu based products eg : Thosai & idly
Fruits	Fresh fruits, fruit salad, dried fruits & natural fruit juice with no added sugar
Vegetables & Green leaves	Raw or cooked vegetables & green leaves
Dairy products	**Low fat or non fat dairy products** (more preferable for adults) Fresh milk, milk packets & bottles (Low sugar) Yoghurt, curd & cheese Dairy alternative – soy milk
Fish Lean meat Poultry Eggs and alternatives	All type of fish beef & pork Skinless chicken Egg Dry fish & sprats Canned fish

Nut & seeds	Unsalted peanut, cashew nut & gingelly products with low sugar
Drinks	Water, tea , coffee, soups, kolakenda, king coconut water & other herbal drinks

It is important to provide variety of food within the green category for selection. This will open an opportunity to choose healthier varieties.

3.4 The Amber food category – Select carefully

Food that are fit into the amber food category are mainly processed foods that have some refined sugar, salt, or fat added to them. It is recommended that these foods should be selected carefully as they:

- Have some nutritional value
- Have moderate amount of saturated fat and/or added sugar and /or salt
- In large serving sizes or in regular use can contribute excess energy resulting chronic diseases

Amber food should not dominate the menu

The foods that are found in the amber segments offer convenience but they should not dominate the menu and number of amber foods on the menu should be kept at low level.

Avoid large serving sizes of amber food

- Avoid large serving sizes and select moderate serving size and should not be used on a regular basis as it can result in chronic diseases.
- There can be healthier choices with some nutritional value and reduced level of fat, salt, and sugar when compared to other foods in Amber zone.
- It is better to select healthier preparations within the amber zone and select the amber foods only on one or two days of the week.

Table 02 : The Amber food category

Food Type	Example
Fried foods	Fried noodles, fried rice, ulundu & dhal wade, cutlets patties & rolls
Wheat flour preparations	Nan , parata & pastries
Dairy foods & dessert	Fresh milk, Yoghurt, curd & cheese (full cream) ice cream & pudding
Flavoured milk drinks	Milk shakes, chocolate milk & malted milk
Processed meat	Sausages, meat balls, chicken nuggets & fish fingers
Spreads	Butter & Margarines
Savoury products	pizza & burger
Snack food bars	Break fast bars
Cake	Butter cake, fruit cake & sponge cake Biscuits without cream
Biscuits	Biscuits with dried fruits & nut Cookies & Crackers
Sweet meats	halapa, rulan aluwa, valithalapa, pan cake & lavaria
Drinks	Sugar Sweetened fruit juice

3.5 The Red food category – occasionally

The occasional foods that make up the red segment of the food spectrum should be eaten occasionally, because they,

- Lack adequate nutritional value
- Are high in saturated fat added sugar and salt
- Can contribute to excess energy and resulting chronic diseases
- Food under this category should be limited to occasions less than once a month.

Table 03 – The red food category

Food Type	Example
Sugar sweetened drinks	Soft drinks (carbonated), colas, energy drinks, sport drinks, & cordial
Deep fried foods	All type
Pastries (rich in fat & salt)	All type
Confectioneries	Toffees, lollies, chocolate & chocolate bars
Savoury snacks	Crisps, potato chips, & other similar products
Ice cream	Large portion of ice cream, Ice chocks & popsicles
Desserts	Jelly
Cakes & buns	Cream buns, doughnuts, & icing cakes
Biscuits	Cream biscuits, savoury biscuits & wafers
Oil cakes	kawum, kokis, athirasa & mung kawum
Spreads	Fat spreads (High amount of trans fat)
Sweet meats	dodol, musket & bombe sweets
Sauces & condiments	Tomato sauces & ketchup, chilli sauces, soya sauces, chutney & mustered paste

Occasionally



4.0 Food and Drinks guide

This table provide a guide to food and drinks commonly supplied by food outlets. Food and drinks have been classified in the category they are most likely to fit GREEN, AMBER and RED. Varieties of foods and drinks may differ due to ingredients used or cooking techniques. So certain products may fit into more than one category as shown in table 04.

Table 04 – Food and drink guide in the canteen

Food	Green	Amber	Red	Comments
Parboiled & lightly milled rice	●			
Milk rice	●			
Rice with green gram	●			
Cob of corn	●			
Pop corn	●	●		Salted & flavored pop corn are grouped in the amber segment
Boiled gram, cowpea, green gram & soya bean, Cooked dhal, gram, cowpea green gram, soya bean & tofu	●			
Boiled manioc, sweet potatoes & other yam	●			
Fried rice Yellow rice Biriyani		●		
Whole Rice flour preparation. eg: String hoppers, hoppers, pittu & rotti	●			

Food	Green	Amber	Red	Comments
Wheat flour preparations with kurakkan, soya & green gram flour eg: String hoppers pittu & rotti	●			
Wheat flour preparation with atta flour, eg: chapathi	●			
Vegetable rotti		●		
All buns (without cream)	●			
Dhal wade & Ulundu wade		●		
Pizza & Burger		●		
Parata, Nan & Kottu		●	●	If use high amount of palm oil & salt, they are categorized in the red zone
Dough nut & Éclairs			●	
Pastries (vegetable, chicken, meat & fish)		●	●	If they are rich in saturated fat, trans fat & salt, they are categorized in the red zone
Cutlets, rolls, patties & hot dogs		●		
White or Brown bread with vegetable or fish paste	●			

Food	Green	Amber	Red	Comments
White or Brown bread with butter or margarine		●		
White or brown bread with dhal , fish or vegetable curry	●			
Pasta & Noodles (plain)	●			
Fried pasta & noodles		●		
Thosai & idly	●			
Cut fresh fruits Fruit salad Dried fruit Natural fruit juice (without sugar)	●			
Vegetable salad Cooked vegetables Cooked green leaves Coconut sambol	●			
Seeni Sambol		●		
Non fat or low fat milk products Milk Yoghurt Curd Cheese Soy milk (dairy alternative)	●			

Food	Green	Amber	Red	Comments
Full cream milk products Milk Yoghurt Curd Cheese		●		Full cream milk product contain high amount of saturated fat & they are categorized in the amber segment.
Ice cream		●	●	Large servings of ice cream are categorized in the red segment
Ice chocks Popsicles			●	
Fish Lean beef & pork Skin less chicken Egg Chicken parts (cooked or roasted)	●			
Dried fish Sprats Canned fish	●	●		High salt & brine in sprats, dried fish & canned fish are categorized in the amber segment
Meat ball Sausages Burger Chicken nuggets Fish fingers		●		
Deep fried chicken parts Deep fried fish Deep fried meat Deep fried vegetables			●	

Food	Green	Amber	Red	Comments
Unsalted peanut Unsalted cashew nut Gingerlly products with low sugar	●			
Salted peanut Salted cashew nut Gingelly products with high sugar		●		
Water Soup Kolkenda King coconut water Herbal drinks : coriander water & beli mal	●			
Plain tea Plain coffee	●			Plain tea is a good source of antioxidant.
Milk tea Milk coffee	●	●		if it is non fat or low fat milk can be grouped in the green segment
Puddings Watalappan		●		
Jellies			●	
Milk shake Chocolate milk Malted milk		●		
Sauces & ketchup Chutney Jam, Pickles Mustered paste Salad dressing			●	
Butter cake Cake (fruit & nut) Sponge cake		●	●	Large serving of cake is grouped in the red segment.

Food	Green	Amber	Red	Comments
Icing cake Gatos			●	
Biscuits Crackers Cookies Snack food bars		●		
Cream biscuits Savory biscuits, wafers			●	
Savory snack (crisp) Potato chips			●	
Papadum		●		
Soft drinks (carbonated) Colas Sport drinks Energy drinks Cordial & squashes			●	
Toffee, chocolate, chocolate bars, lollies & chewing gum			●	
Butter, margarine & unsaturated oil (Eg : corn, sun flower & soya oil) Mayonnaise		●		
fat spreads			●	
Kewum, Kokis, Athirasa, Mung kawum			●	
Pan cake, Laveria Walithalapa, Aluwa Rulan		●		

5.0 Food safety

Food outlets have a responsibility to maintain safe food handling practices and high standard of hygiene. This is essential to avoid food poisoning and ensures customers have access to high quality safe food.

5.1 Canteen Environment

Authorities should ensure that a proper location and an environment is provided for the canteen and kitchen and is regularly cleaned.

- The premises of storing raw materials, preparing foods, storing of cooked food and serving areas should be cleaned at the end of each day.
- Canteen and the kitchen premises should be main–tained without odour and smoke.
- It should be free of flies, cockroaches, ants, dogs, cats, rats and other pests.
- Environment of the canteen should be attractive and the surrounding should be free of weeds and grass.
- It is necessary to design, build and maintain a proper drainage system.

5.2Maintenance of the premises

Building of the canteen and of the kitchen should be properly maintained.

- Building for a canteen or location of the canteen inside a building should be acceptable to the Medical Officer of Health of the area and the surrounding area should be free of any sources of pollution or any other hazards.
- The floor of the building should be cemented or tiled and inside walls of the





room should be either tiled or enamel painted up to six feet so that it could be washed often easily.

- Sufficient safeguards sho–uld be provided to prevent flooding, accu–mulation of dusts and infestation of pests if the location of the building is prone to such hazards.

5.3 Supply of clean water

An adequate supply of potable water should be available in the canteen.

- Facilities should be avai–lable for proper storage of water.
- Utensils used for this purpose should have lids or covers that could be cleaned easily.
- Sample of water should be taken once in three months and tested for conformity with bacteriological and chemical standards.
- Waste water should be properly drained into a sewage pit with a covered drainage.

5.4 Waste disposal

Disposable items should be collected, stored and disposed methodically.

- Containers with lids should be used for the collection of solid waste generated in the canteen and the kitchen.
- All liquid waste should be properly drained into a sewage pit or a similar pit with a covered drainage.



5.5 Food Storage (Raw and Cooked)

Food items should be stored in an orderly manner.

- It is essential to have a storeroom to stock foods

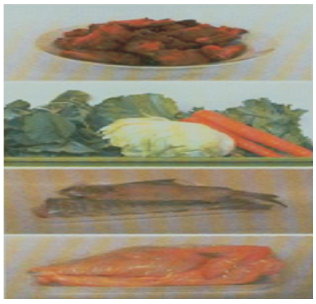
in an orderly manner so that it could be taken out for use without exposing them for contamination and attacked by insects, rodents and other pests.



- The walls of the room should be either tiled up to six feet or enamel painted so that it could be washed often easily.
- An aluminium protective strip should be fixed beneath the storeroom door so that animals like rats cannot creep through the space.
- The windows should be fixed with nets so that animals cannot enter the storeroom.

❖ Storage of perishable food items

- Perishable food such as vegetables, green leaves and fruits should be stacked with sufficient ventilation or in a refrigerator.



- A deep freezer should be used to store meat, fish etc.

❖ Storage of non perishable food items

- Dry items like canned food, sugar, salt etc. should be stored sepa–rately.
- Palettes should be used to store bags of rice, dhal, f1our, sugar, etc.

❖ Storage of condiments

- Containers of different sizes should be used to store dry ingredients. Larger containers are suitable for storing of larger quantities and smaller containers are

used for storing of smaller quantities for daily use which will minimise the contamination.

- All such containers should be properly labelled.



❖ Storage of cooked food

- All cooked food should be suitably covered and they should be kept separately from raw foods.
- All cooked food items should be covered and stored in a place three feet above the ground.

5.6 Washing Facilities

Washing place should be facilitated for regular washing.

- A place of washing should be designed and constructed to facilitate repeated washing and should be sufficiently sloped for proper drainage of water.



- The washing tanks should be tiled and such tanks should be facilitated to wash at least a minimum of three times.

5.7 Food preparation unit

Food preparation area should be equipped with adequate equipment and utensils for safe food preparation.

- A table with a stainless steel top should be available for the purpose of cutting food items.



- Chopping machines or chopping boards (e.g. for bread, vegetable, meat and fish) should be in different colours for easy identification (e.g. meat chopper in red).



- Coconut scrapers (manual or automatic) should be maintained hygienically.
- Corroded or damaged utensils should not be used.
- Utensils and spoons used for cooking should be made of stainless steel.
- Dustbins and waste material containers should have proper lids.
- The serviettes offered should be clean and dry.
- All equipment and utensils should be so designed and installed as to facilitate its cleaning and the cleaning of adjacent areas.
- All equipments such as chopping machines, mix–ers, and scraper utensils used for cooking and spoons should be thoroughly cleaned to avoid contamination.

5.8 Kitchen

The place that is used for cooking should be ventilated and cooked food should be kept separately.



- There should be a chimney for emission of fumes and gas.
- Exhaust fans could be used to minimise the temperature inside the kitchen.

- The cooked food should keep separately from uncooked foods and food should be kept well protected until they are served.

5.9 Cross contamination

Avoid Cross contamination in the food establishment through proper food han–dling practices.

- Prepare raw meat in an area away from other foods
- Ensure the centre of frozen fish and meat are fully thawed before cooking
- Wash hands after handling raw meat and fish
- Wash and sanitize all food –contact surfaces that touch raw meat
- Used separate spoons for serving each foods
- Used separate chopping boards, tongs, spoon and other utensils for cooked and uncooked food

5.10 Food display unit

Food should be arranged and displayed in a glass cupboard or refrigerator in a manner to prevent contamination.

- All food served in the canteen must be wrapped or covered when on display.
- Unpackaged self serviced foods must be provided with tongs, spoons, bags or paper ready for customers to serve themselves without touching the food with bare hands.



- The food should preferably be served in stainless steel, china clay or glass dishes. When plastic container is used, they should be made out of food-grade plastic.

- Keep hot food hot (above 60°C) and cold food cold (below 5°C).



- Cooked foods should be kept at the upper shelves of the refrigerator to prevent contamination.
- When food is stored, the refrigerator should never be switched off.
- Make sure food is served as soon as possible after preparing.
- All food items should be discarded after the expiry date.

5.11 Customer serving section

Adequate facilities should be provided to the consumer for hand washing, eating or drinking and dum–ping the waste.

- Proper lighting and ventilation should be provided in the serving section.
- Hand washing basin with soap/liquid soap should be available for hand washing.
- Hand washing basins should be properly conn–ected to the drainage system.



- Potable water should be provided for drinking.
- Colour coding should be used for separate waste bins to dump used paper, remnants of food and polythene.
- Washable tables should be available in the canteen and leftover food and

plates should be removed from the table immedi–
–ately after the customer leave.

5.12 Personal hygiene

Employees should maintain their personal hygiene well.

- Clean clothing should be worn by everyone. Aprons should be provided and they should be washed on a daily basis.



- Hair should be covered fully with a cap to avoid food contamination by hair particles.
- Enclosed non slip shoes should be worn at all times in the canteen.
- Hands should be washed thoroughly and separate basins should be provided with running water and soap.
- Clean and dry towels should be available to wipe the hands.
- Hands should be properly washed before starting work, after using the toilet, touching hair, between handling raw and cooked foods, after touching waste foods or other refuse and after handling money.
- Nails should be clipped short and kept clean with no nail polish or false nails.
- Jewellery should not be worn in hands or fingers when preparing foods.
- When preparing food, it should be tasted only as and when required and should be done in a hygienic manner.

- Food should not be handled when suffering from a transmittable disease cond–ition or having symptom of diarrhoea, vomiting, fever, or having unhealed wounds or sores.
- All employees should be subjected for a medical examination at least twice a year and should be certified as fit for work by a medical officer.
- All medical reports should be readily available, to be produced before the law enforcement officer when–ever they are requested.



5.13 Toilet facilities

Adequate and conve–niently located toilet facilities should be provided for all employees and for customers.

- The toilets should not face the kitchen and not adjoin the place where food is served.
- Soap should be made available with water for washing of hands in the toilet.

In addition to these guid–elines, the food (hygiene) regulations 2011 and other regulations that are in force under Food Act. No.26 of 1980 will be applicable for such operations.

Annex 01

Select food on your daily calorie need

daily calorie need of a Moderate active male	(30-60 years)	2850 k cal
daily calorie need of a Sedentary male	(30-60 years)	2375 k cal
daily calorie need of a Moderate active female	(30-60 years)	2350 k cal
daily calorie need of a Sedentary female	(30-60 years)	1950 k cal

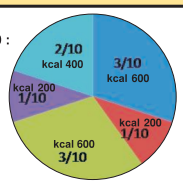
RDA 2007/MRI

calorie values of common food item (approximately)

Food Category	Energy (K cal)
1 cup of cooked rice (130-140)	~180 k cal
3 table spoon of vegetables (50g)	~25-40 Kcal
3 table spoon of leafy vegetables (50g)	~25-40 kcal
1 table spoon of pol sambol	~58 kcal
fish/meat 30/40 g	~40-80 kcal
1 boiled egg (50 g)	~75 kcal
egg omelet	~89 kcal
1 table spoon of boiled dhal	~35 kcal
1 tea cup of boiled mung bean (150g)	~150-170 k cal
1 tea cup of boiled kadala (150g)	~150-200kcal
one slice of pittu (50g)	~141 kcal
six sting hoppers (75g)	~120-130 k cal
two slices of bread (50g)	~125 kcal
one thosai (50g)	~80 kcal
one pizza (100g)	~271 kcal
medium size rotti (50g)	~171 kcal
one hopper (50g)	~80 kcal
1 cup of tea	~90 kcal
(3 tea spoon of milk powder + one tea spoon of sugar)	
Plain tea (two tea spoon of sugar)	~32 kcal
Chinese roll	~124 kcal
Dhal wade (50g)	~75 - 100 kcal
One bun(50g)	~155 kacl
One Yoghurt (100ml)	~60 - 80 kcal
Curd (100g)	~60 kcal
One banana (100g)	~95 kcal
One apple (100g)	~48 kcal
Two slices of pine apple (100g)	~46 kcal
One orange (100g)	~48 kcal
Papaw 100g	~32 kcal
Cola (300ml)	~88 kcal
Chocolate cake (40g)	~143 kcal
Cashew nut (28g)	~160 kcal

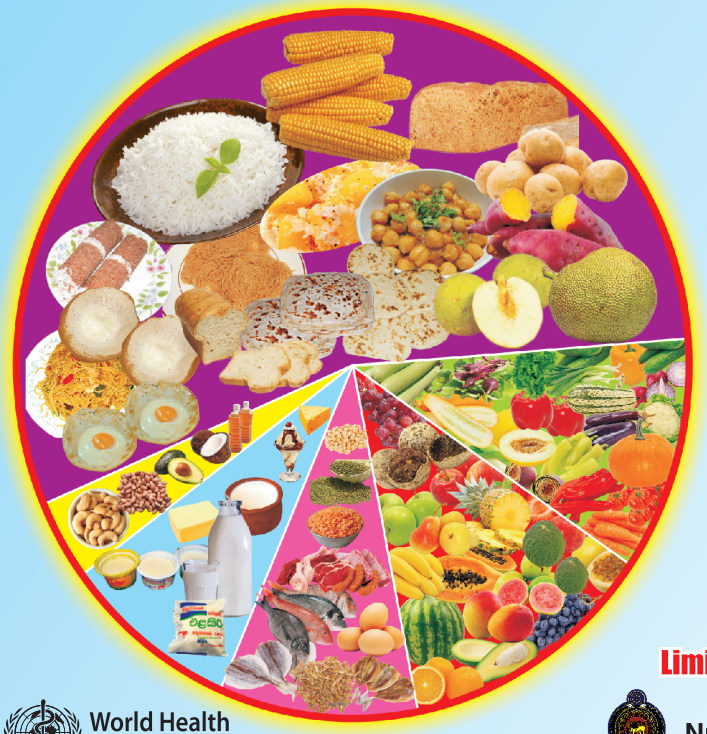
Distribute your daily calorie need throughout your meals

if your daily calorie requirement is 2000 :



- 3/10 break fast
- 1/10 morning snack
- 3/10 lunch
- 1/10 evening snack
- 2/10 dinner

Eat variety of foods every day covering all six food groups



1. Eat cereal based foods three times a day
2. Vegetables
3. Fruits

Eat plenty of Vegetables and Fruits

4. Include fish, egg, sprats, dried fish, poultry, lean meat & pulses into your daily diet.
5. Consume milk & milk based products daily
6. Include fish, gingelly, cashew nut, pea nut, kottan and avocado as sources of healthy fat.

Limit food with high high fat, sugar & salt

World Health Organization

Nutrition Division - Ministry of Health

Annex 02

Healthy foods and active life style including regular exercises lead to a healthy life

cut down

- ☒ Watching TV for a long time
- ☒ Working on a computer for a long time

2-3 times a week

- Sports - volley ball, tennis, badminton
- Swimming fast
- Weight lifting
- Gardening
- Yoga

2-5 times a week

- ★ Cycling
- ★ Running
- ★ Swimming
- ★ Jogging
- ★ Stair climbing
- ★ Aerobics
- ★ Dancing

Everyday

- ☑ Be active
- ☑ Take stairs instead of elevator
- ☑ Clean house & garden
- ☑ Engage in household chores
- ☑ Engage in home gardening
- ☑ Walk whenever possible



young people (5-18 years) engage in physical activity or exercise for 60 minutes each day.

adult & older adult engage in exercise or physical activity for 30 minutes for 5 days for a week

if you cannot engage in physical activity or exercise continuasly, you can split into 10-15 minutes period.

Nutrition Division - Ministry of Health

World Health Organization

Annex 03

Use colour code for selecting food

Best Choice

Natural food with essential nutrients

cereals
fruits & vegetables
fish egg, dry fish, lean meat,
pulses , milk, milk products

Include food from all groups in
adequate quantity for achieving
healthy life & proper weight



Select carefully

Caloric food with excess amount
of sugar, salt & oil, but they may
have some nutritive value

Regular intake in large
portions may lead to diabetes,
hypertension & heart diseases



Occasionally

High calorie food with
excess amount of
sugar, salt & oil

Regular intake may lead to diabetes,
stroke, Heart Diseasery and cancer



Nutrition Division - Ministry of Health

World Health Organization

Formulation

1. **Dr. Chandanee Withana**
   Nutrition Specialist
   Ministry of Health

2. **Sajeewani Mirihagalla**
   Food Technologist
   Ministry of Health

Editing

1 **Dr. U.M.M.Samaranayake**
   Director Nutrition
   Ministry of Health

2 **Dr. Senarath Mahamithawa**
   Deputy Director – Nutrition
   Ministry of Health

3. **Dr. Renaka Jayathissa**
   Head – Nutrition Department
   MRI

4. **Dr. H.D.B Herath**
   Deputy Director – Enviromental & Occupational Health
   Ministry of Health

Technical Contribution

1. Dr. D.B.T. Wijerathne
   Add. Secretary
   Ministry of Agriculture

2. Mrs. Malini Mallawarachie
   Food Technologist
   Food Advisory Committee

3. Chalni Ilangamge
   Nutritionist
   Ministry of Health

4. H.Thilakarathne
   Asst. Director
   Food Control Unit
   Ministry of Health

Graphic Design

1. E. Araskumar
   Development Assistant
   Ministry of Health

2. Jagath Dayaratne
   Planning and Programing Assistant
   Ministry of Health



Ministry of Health – Nutrition Division

ISBN 978-955-0505-39-5

Printed by Bimsara Graphics Systems