

SRI LAKSHMI NARAYANA INSTITUTE OF MEDICAL SCIENCES



Date: 08/09/2021

From
Dr. Muthukumarasamy. B
Professor and Head,
Department of General Medicine
Sri Lakshmi Narayana Institute of Medical Sciences
Bharath Institute of Higher Education and Research
Chennai

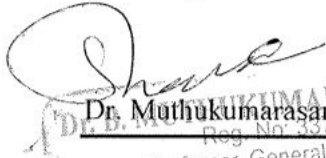
To
The Dean,
Sri Lakshmi Narayana Institute of Medical Sciences
Bharath Institute of Higher Education and Research
Chennai

Sub: Permission to conduct value-added course: HEALTHY EATING HABITS

Respected Madam,

With reference to the subject mentioned above, the department proposes to conduct a value-added course titled: "Healthy eating habits" on 07/10/2021. We solicit your kind permission for the same.

Kind Regards


Dr. Muthukumarasamy. B

Professor, General Medicine

Sri Lakshmi Narayana Institute of Medical Sciences
Osudu, Kudapakkam, Puducherry-605 502.

FOR THE USE OF DEANS OFFICE

Names of Committee members for evaluating the course:

The Dean: Dr. Jayalakshmi

The HOD: Dr. Muthukumarasamy. B

The Expert: Dr. Aravind. C

The committee has discussed about the course and is approved.


Dean

Dr. G. JAYALAKSHMI, BSC., MBBS., DTCD., M.D.
DEAN
Sri Lakshmi Narayana Institute of Medical Sciences
Osudu, Ageram Kudapakkam, Post,
Villanur Commune Puducherry-605 502.


Dr. C. ARAVIND, M.D.,
Subject Expert

Reg. No: 68432
Professor & HOD, General Medicine
Sri Lakshmi Narayana Institute of Medical Sciences
Osudu, Kudapakkam, Puducherry-605 502.


HOD

Dr. B. MUTHUKUMARASAMY, M.D.,
Reg. No: 33723
Professor, General Medicine
Sri Lakshmi Narayana Institute of Medical Sciences
Osudu, Kudapakkam, Puducherry-605 502.

2021-09-08 11:00:00
Sri Lakshmi Narayana Institute of Medical Sciences
Osudu, Kudapakkam, Puducherry-605 502.



OFFICE OF THE DEAN

Sri Lakshmi Narayana Institute of Medical Sciences

OSUDU, AGARAM VILLAGE, VILLIANUR COMMUNE, KUDAPAKKAM POST,
PUDUCHERRY - 605 502.

[Recognised by Medical Council of India, Ministry of Health letter No. U/12012/249/2005-ME (P -II) dt. 11/07/2011]
[Affiliated to Bharath University, Chennai - TN]

Circular

16/09/2021

Sub: Organising Value-added Course: HEALTHY EATING HABITS reg

With reference to the above-mentioned subject, it is to bring to your notice that Sri Lakshmi Narayana Institute of Medical Sciences, **Bharath Institute of Higher Education and Research**, is organising a Value-added course, titled, "Healthy eating habits" between October 2021 and December 2021. The course content enclosed below.

The hard copy of the application should be sent to the institution by registered/ speed post only so as to reach on or before 28/09/2021. Applications received after the mentioned date shall not be entertained under any circumstances.



Dean

Dr. G. JAYALAKSHMI, BSC., MBBS., DTCD., M.D.
DEAN

Sri Lakshmi Narayana Institute of Medical Sciences
Osudu, Ageram Kudapakkam, Post,
Villanur Commune Puducherry-605 502.

Encl: Copy of Course content.

COURSE PROPOSAL

Course Title: Healthy eating habits

Course Objective: To create an awareness among students of the 2nd year M.B.B.S about healthy eating habits; the various food fads and how to make a suitable meal plan

Course Outcome: Awareness about the healthy eating practices was imparted to the participants. The various unhealthy food fads were highlighted and effective strategies to follow a healthy meal plan were taught.

Course Audience: A batch of 25 students belonging to the Second year of M.B.B.S

Course Coordinator: Dr. Muthukumarasamy. B

Course Faculties with Qualification and Designation:

1. Dr. C. Aravind
Professor
Department of General Medicine
2. Dr. K. Manickam
Associate Professor
Department of General Medicine

Course Curriculum/Topics with schedule

SINo	Date	Topic	Time	Hours	Name of the faculty
1.	07/10/2021	The menace of overweight and obesity	5 pm to 7 pm	2 hours	Dr. C. Aravind
2.	10/10/2021	The healthy eating pyramid	4: 30 pm to 6: 30 pm	2 hours	Dr. K. Manickam
3.	14/10/2021	The importance of vegetables in one's diet	5 pm to 7 pm	2 hours	Dr. Muthukumarasamy. B
4.	17/10/2021	How much do we need to consume fruits?	5 pm to 7 pm	2 hours	Dr. C. Aravind
5.	21/10/2021	Food fads	5 pm to 7 pm	2 hours	Dr. K. Manickam
6.	04/11/2021	The various crash diets – are they healthy?	4: 30 pm to 6: 30 pm	2 hours	Dr. C. Aravind
7.	07/11/2021	KETO diet	5 pm to 7	2 hours	Dr. K. Manickam

			pm		
8.	11/11/2021	Why say no to high carbs?	5 pm to 7 pm	2 hours	Dr. C. Aravind
9.	14/11/2021	Metabolic syndrome	4 pm to 6 pm	2 hours	Dr. K. Manickam
10.	18/11/2021	Healthy vs. unhealthy fats	4 pm to 6 pm	2 hours	Dr. C. Aravind
11.	21/11/2021	How to prepare a daily meal plan	4 pm to 6 pm	2 hours	Dr. K. Manickam
12.	25/11/2021	The importance of drinking adequate water	4 pm to 6 pm	2 hours	Dr. C. Aravind
13.	28/11/2021	Junk food and high sodium diet	4 pm to 6 pm	2 hours	Dr. Muthukumarasamy. B
14.	02/12/2021	Carbonated and alcoholic beverages	4 pm to 6 pm	2 hours	Dr. C. Aravind
15.	05/12/2021	The role of whole grains	4 pm to 6 pm	2 hours	Dr. Muthukumarasamy. B
			Total Hours	30	

REFERENCE BOOKS:

- HARRISON'S PRINCIPLES OF INTERNAL MEDICINE; 18th EDITION**
- HANDBOOK OF CLINICAL NUTRITION; Douglas Heimburger, Jamy Ard; 4th edition**

VALUE ADDED COURSE

1. Name of the programme and code
Healthy eating habits; IM04
2. Duration & period
30 hrs;
3. Information Brochure and course content of value-added courses
Enclosed as Annexure – I
4. List of students enrolled
Enclosed as Annexure – II
5. Assessment procedures:
Short notes – Enclosed as Annexure – III
6. Certificate model
Enclosed as Annexure – IV
7. No. of times offered during the same year
1; October 2021 – December 2021
8. Year of discontinuation
2022
9. Summary report of each program year wise:


VALUE ADDED COURSE: October to December 2021					
Sl. No.	Course code	Course name	Resource persons	Target Students	Strength and year
1	IM04	Healthy eating habits	Dr. C. Aravind Dr. K. Manickam	2 nd year MBBS	25 (October 2021 – December 2021)

10. Course feedback

Enclosed as Annexure - V

RESOURCE PERSON – Dr. C. Aravind

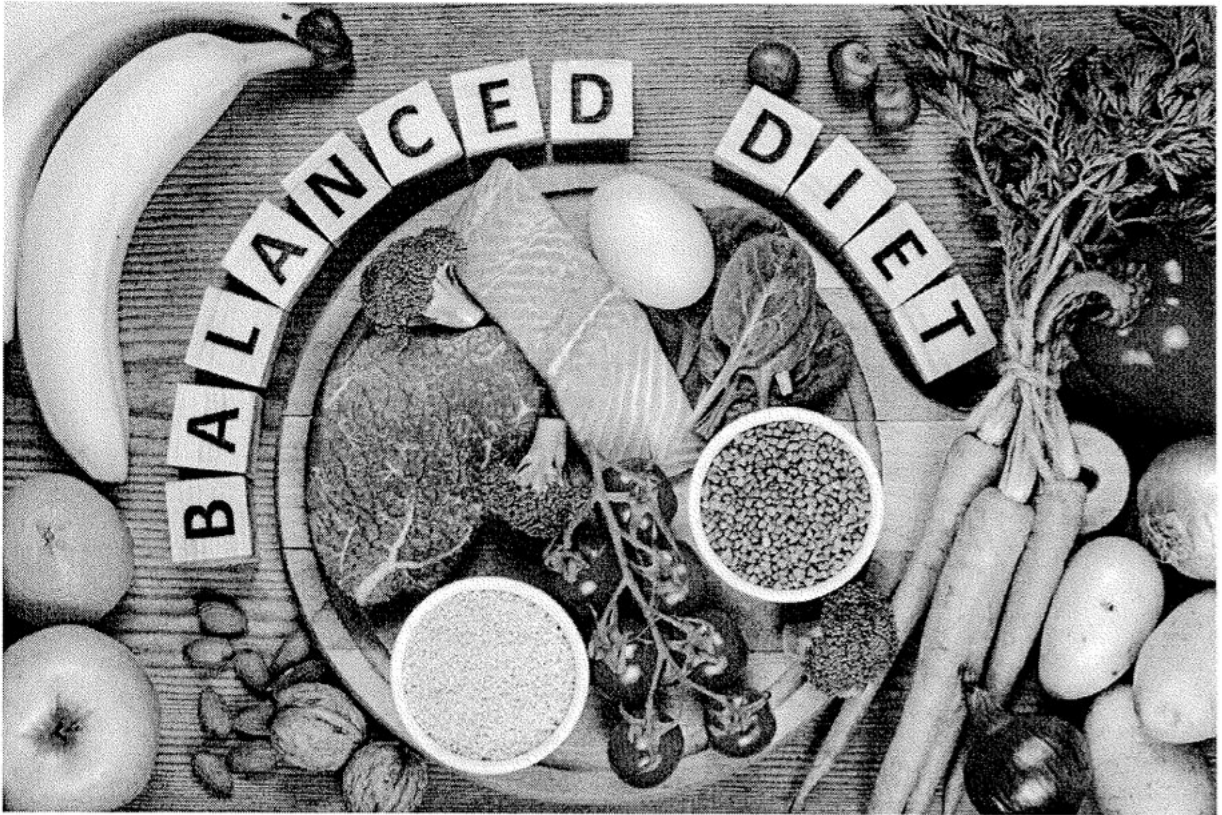
COORDINATOR- Dr. Muthukumarasamy. B


Dr. C. ARAVIND, MD.,
Reg.No:68432
Professor in HOD, General Medicine
Sri Lakshmi Narayana Institute of Medical Sciences
Kudanakkam, Pudukottai, Tamil Nadu, India
Dr. B. MUTHUKUMARASAMY, MD.,
Reg. No: 33723
Professor, General Medicine
Sri Lakshmi Narayana Institute of Medical Sciences
Kudanakkam, Pudukottai, Tamil Nadu, India

ANNEXURE I

PARTICIPANT HANDBOOK

HEALTHY EATING HABITS



VALUE ADDED COURSE (VAC 04)

COURSE DETAILS

PARTICULARS	DESCRIPTION
Course title	HEALTHY EATING HABITS
Course code	IM04
Objective	<ol style="list-style-type: none">1. The menace of overweight and obesity2. The healthy eating pyramid3. The importance of vegetables in one's diet4. How much do we need to consume fruits?5. Food fads6. The various crash diets – are they healthy?7. KETO diet8. Why say no to high carbs?9. Metabolic syndrome10. Healthy vs. unhealthy fats11. How to prepare a daily meal plan?12. The importance of drinking adequate water13. Junk food and high sodium diet14. Carbonated and alcoholic beverages15. The role of whole grains
Key competencies	On successful completion of the course, the students will have a better knowledge about healthy eating habits
Target students	Second year MBBS
Duration	30 hours; between October 2021 and December 2021
Assessment procedure	Short notes

HEALTHY EATING HABITS

Nutrition is a basic human need and a prerequisite to a healthy life. A proper diet is essential from the very early stages of life for proper growth, development and to remain active. Food consumption, which largely depends on production and distribution, determines the health and nutritional status of the population. The recommended dietary allowances (RDA) are nutrient-centred and technical in nature. Apart from supplying nutrients, foods provide a host of other components (non-nutrient phytochemicals) which have a positive impact on health. Since people consume food, it is essential to advocate nutrition in terms of foods, rather than nutrients. Emphasis has, therefore, been shifted from a nutrient orientation to the food-based approach for attaining optimal nutritional status. Dietary guidelines are a translation of scientific knowledge on nutrients into specific dietary advice. They represent the recommended dietary allowances of nutrients in terms of diets that should be consumed by the population

WHY DO WE NEED NUTRITIONALLY ADEQUATE FOOD?

Nutrients that we obtain through food have vital effects on physical growth and development, maintenance of normal body function, physical activity and health. Nutritious food is, thus needed to sustain life and activity. Our diet must provide all essential nutrients in the required amounts. Requirements of essential nutrients vary with age, gender, physiological status and physical activity. Dietary intakes lower or higher than the body requirements can lead to undernutrition (deficiency diseases) or overnutrition (diseases of affluence) respectively. Eating too little food during certain significant periods of life such

as infancy, childhood, adolescence, pregnancy and lactation and eating too much at any age can lead to harmful consequences. An adequate diet, providing all nutrients, is needed throughout our lives.

A healthy diet helps to protect against malnutrition in all its forms, as well as noncommunicable diseases (NCDs), including such as diabetes, heart disease, stroke and cancer.

Unhealthy diet and lack of physical activity are leading global risks to health.

WHAT IS A BALANCED DIET

A balanced diet is one which provides all the nutrients in required amounts and proper proportions. It can easily be achieved through a blend of the four basic food groups. The quantities of foods needed to meet the nutrient requirements vary with age, gender, physiological status and physical activity. A balanced diet should provide around 50-60% of total calories from carbohydrates, preferably from complex carbohydrates, about 10-15% from proteins and 20-30% from both visible and invisible fat.

In addition, a balanced diet should provide other non-nutrients such as dietary fibre, antioxidants and phytochemicals which bestow positive health benefits. Antioxidants such as vitamins C and E, beta-carotene, riboflavin and selenium protect the human body from free radical damage. Other phytochemicals such as polyphenols, flavones, etc., also afford protection against oxidant damage. Spices like turmeric, ginger, garlic, cumin and cloves are rich in antioxidants.

DIETARY PRACTICES IN DIFFERENT STAGES OF LIFE

Healthy dietary practices start early in life – breastfeeding fosters healthy growth and improves cognitive development, and may have longer term health benefits such as reducing the risk of becoming overweight or obese and developing NCDs later in life.

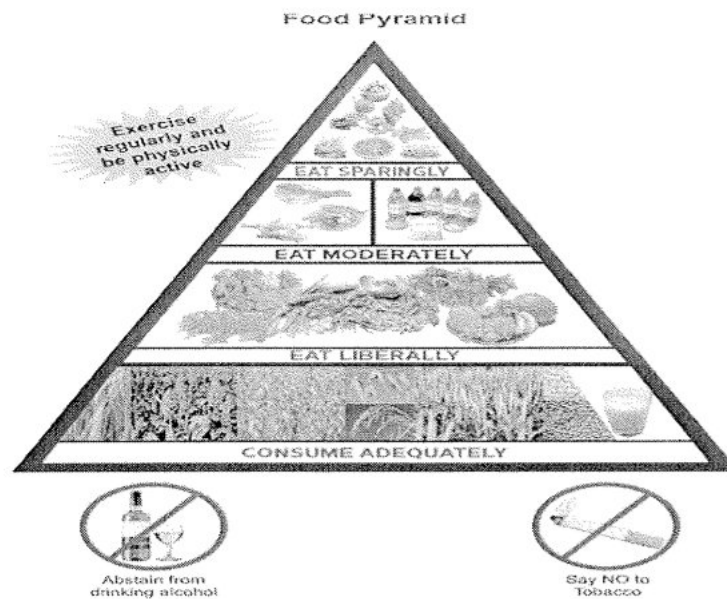
Energy intake (calories) should be in balance with energy expenditure. To avoid unhealthy weight gain, total fat should not exceed 30% of total energy intake. Intake of saturated fats should be less than 10% of total energy intake, and intake of trans-fats less than 1% of total energy intake, with a shift in fat consumption away from saturated fats and trans-fats to unsaturated fats and towards the goal of eliminating industrially-produced trans-fats.

Limiting intake of free sugars to less than 10% of total energy intake is part of a healthy diet. A further reduction to less than 5% of total energy intake is suggested for additional health benefits.

Keeping salt intake to less than 5 g per day (equivalent to sodium intake of less than 2 g per day) helps to prevent hypertension, and reduces the risk of heart disease and stroke in the adult population.

WHO Member States have agreed to reduce the global population's intake of salt by 30% by 2025; they have also agreed to halt the rise in diabetes and obesity in adults and adolescents as well as in childhood overweight by 2025.

Consuming a healthy diet throughout the life-course helps to prevent malnutrition in all its forms as well as a range of noncommunicable diseases (NCDs) and conditions. However, increased production of processed foods, rapid urbanization and changing lifestyles have led to a shift in dietary patterns. People are now consuming more foods high in energy, fats, free sugars and salt/sodium, and many people do not eat enough fruit, vegetables and other dietary fibre such as whole grains.



The exact make-up of a diversified, balanced and healthy diet will vary depending on individual characteristics (e.g., age, gender, lifestyle and degree of physical activity), cultural context, locally available foods and dietary customs.

However, the basic principles of what constitutes a healthy diet remain the same.

For adults

A healthy diet includes the following:

Fruit, vegetables, legumes (e.g., lentils and beans), nuts and whole grains (e.g., unprocessed maize, millet, oats, wheat and brown rice).

At least 400 g (i.e. five portions) of fruit and vegetables per day, excluding potatoes, sweet potatoes, cassava and other starchy roots.

Less than 10% of total energy intake from free sugars, which is equivalent to 50 g (or about 12 level teaspoons) for a person of healthy body weight consuming about 2000 calories per day, but ideally is less than 5% of total energy intake for additional health benefits. Free sugars are all sugars added to foods or drinks by

the manufacturer, cook or consumer, as well as sugars naturally present in honey, syrups, fruit juices and fruit juice concentrates.

Less than 30% of total energy intake from fats. Unsaturated fats (found in fish, avocado and nuts, and in sunflower, soybean, canola and olive oils) are preferable to saturated fats (found in fatty meat, butter, palm and coconut oil, cream, cheese, ghee and lard) and trans-fats of all kinds, including both industrially-produced trans-fats (found in baked and fried foods, and pre-packaged snacks and foods, such as frozen pizza, pies, cookies, biscuits, wafers, and cooking oils and spreads) and ruminant trans-fats (found in meat and dairy foods from ruminant animals, such as cows, sheep, goats and camels). It is suggested that the intake of saturated fats be reduced to less than 10% of total energy intake and trans-fats to less than 1% of total energy intake. In particular, industrially-produced trans-fats are not part of a healthy diet and should be avoided. Less than 5 g of salt (equivalent to about one teaspoon) per day (8). Salt should be iodized.

For infants and young children

In the first 2 years of a child's life, optimal nutrition fosters healthy growth and improves cognitive development. It also reduces the risk of becoming overweight or obese and developing NCDs later in life.

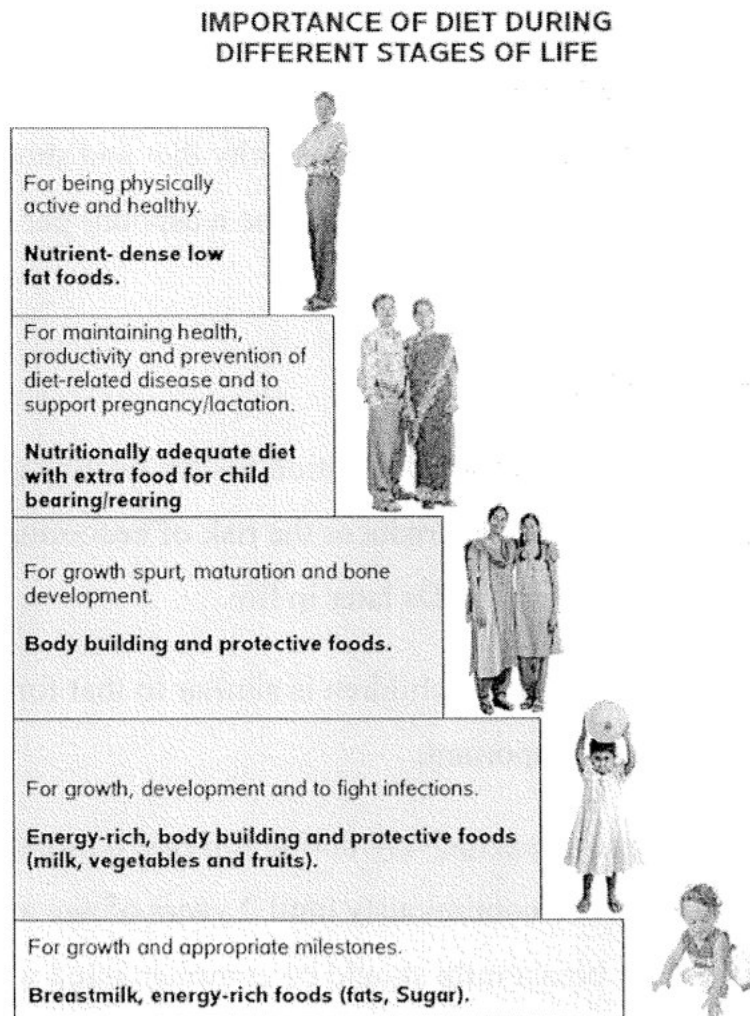
Advice on a healthy diet for infants and children is similar to that for adults, but the following elements are also important:

- ✓ Infants should be breastfed exclusively during the first 6 months of life.
- ✓ Infants should be breastfed continuously until 2 years of age and beyond.
- ✓ From 6 months of age, breast milk should be complemented with a variety of adequate, safe and nutrient-dense foods. Salt and sugars should not be added to complementary foods.

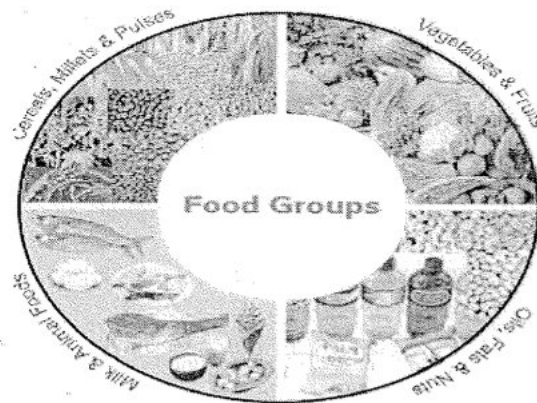
For pregnant and lactating mothers

Pregnancy is physiologically and nutritionally a highly demanding period. Extra food is required to meet the requirement of the fetus. Similarly Lactating mother require extra food to secrete adequate quantity/quality of milk.

They should eat a wide variety of food which contain rice, wheat, millets for maximum energy ,cooking oil for energy and PUFA, milk, fish, meat, poultry and eggs for quality protein and seasonal vegetables and fresh fruits for requirement of minerals and vitamin.



PRACTICAL ADVICE ON MAINTAINING A HEALTHY DIET



A. Fruit and vegetables

Eating at least 400 g, or five portions, of fruit and vegetables per day reduces the risk of NCDs (2) and helps to ensure an adequate daily intake of dietary fibre.

Fruit and vegetable intake can be improved by:

- ✓ always including vegetables in meals;
- ✓ eating fresh fruit and raw vegetables as snacks;
- ✓ eating fresh fruit and vegetables that are in season; and
- ✓ eating a variety of fruit and vegetables.

B. Fats

Reducing the amount of total fat intake to less than 30% of total energy intake helps to prevent unhealthy weight gain in the adult population. Also, the risk of developing NCDs is lowered by:

- ✓ reducing saturated fats to less than 10% of total energy intake;
- ✓ reducing trans-fats to less than 1% of total energy intake; and

- ✓ replacing both saturated fats and trans-fats with unsaturated fats (2, 3) – in particular, with polyunsaturated fats.

Fat intake, especially saturated fat and industrially-produced trans-fat intake, can be reduced by:

- ✓ steaming or boiling instead of frying when cooking;
- ✓ replacing butter, lard and ghee with oils rich in polyunsaturated fats, such as soybean, canola (rapeseed), corn, safflower and sunflower oils;
- ✓ eating reduced-fat dairy foods and lean meats, or trimming visible fat from meat; and
- ✓ limiting the consumption of baked and fried foods, and pre-packaged snacks and foods (e.g. doughnuts, cakes, pies, cookies, biscuits and wafers) that contain industrially-produced trans-fats.

C. Salt, sodium and potassium

Most people consume too much sodium through salt (corresponding to consuming an average of 9–12 g of salt per day) and not enough potassium (less than 3.5 g). High sodium intake and insufficient potassium intake contribute to high blood pressure, which in turn increases the risk of heart disease and stroke.

Reducing salt intake to the recommended level of less than 5 g per day could prevent 1.7 million deaths each year.

People are often unaware of the amount of salt they consume. In many countries, most salt comes from processed foods (e.g. ready meals; processed meats such as bacon, ham and salami; cheese; and salty snacks) or from foods consumed frequently in large amounts (e.g. bread). Salt is also added to foods during cooking (e.g. bouillon, stock cubes, soy sauce and fish sauce) or at the point of consumption (e.g. table salt).

Salt intake can be reduced by:

- limiting the amount of salt and high-sodium condiments (e.g. soy sauce, fish sauce and bouillon) when cooking and preparing foods;
- not having salt or high-sodium sauces on the table;
- limiting the consumption of salty snacks; and
- choosing products with lower sodium content.

Some food manufacturers are reformulating recipes to reduce the sodium content of their products, and people should be encouraged to check nutrition labels to see how much sodium is in a product before purchasing or consuming it. Potassium can mitigate the negative effects of elevated sodium consumption on blood pressure. Intake of potassium can be increased by consuming fresh fruit and vegetables.

D. Sugars

In both adults and children, the intake of free sugars should be reduced to less than 10% of total energy intake. A reduction to less than 5% of total energy intake would provide additional health benefits.

Consuming free sugars increases the risk of dental caries (tooth decay). Excess calories from foods and drinks high in free sugars also contribute to unhealthy weight gain, which can lead to overweight and obesity. Recent evidence also shows that free sugars influence blood pressure and serum lipids, and suggests that a reduction in free sugars intake reduces risk factors for cardiovascular diseases.

Sugars intake can be reduced by:

- limiting the consumption of foods and drinks containing high amounts of sugars, such as sugary snacks, candies and sugar-sweetened beverages (i.e. all types of beverages containing free sugars – these include carbonated or non-carbonated soft drinks, fruit or vegetable juices and drinks, liquid and powder concentrates, flavoured water, energy and sports drinks, ready-to-drink tea, ready-to-drink coffee and flavoured milk drinks); and
- eating fresh fruit and raw vegetables as snacks instead of sugary snacks.

OBESITY AND OVERWEIGHT

A dramatic increase in the prevalence of overweight and obesity among all age groups has occurred in last 2-3 decades. There is no clear definition of a desirable or ideal body weight. The most commonly used ratio is BMI which is computed by dividing the weight in kilograms by the square of the height in meters [BMI = Weight (kg) ÷ (Height M)²].

Definition of obesity is based on the degree of excess fat. More than a general accumulation, the distribution of fat around the abdomen is now considered to be more harmful than fat around the hips. Accumulation of fat around abdomen indicated by higher waist circumference is considered as risk factor. In general, BMI ranging from 18.5 to 25 is considered to be normal. However, for Asians it is recommended that the BMI should be between 18.5 and 23, since, they tend to have higher percentage body fat even at lower BMI compared to Caucasians and Europeans, which puts them at higher risk of chronic non-communicable diseases.

The cut-off levels for categorizing overweight and obesity in children and adolescents are different. Since, growth spurt in boys and girls occurs in different age groups, age and gender specific BMI centiles of reference

population is used to assess their nutritional status. Thus, children with BMI less than 5th centile are considered as undernourished and those with =5th and <85th centiles are normal, and with >85th and <95th centile are considered as overweight. More than 95th centile are considered as obese.

Why should we avoid obesity

There are several health consequences of obesity. Excessive body weight increases the risk of heart disease, hypertension, diabetes, gallstones, certain types of cancers and osteoarthritis. Obesity invariably predisposes to reduced levels of high density lipoproteins ('good' cholesterol) and to increased levels of low density lipoproteins ('bad' cholesterol), and triglycerides, besides an abnormal increase in glucose and insulin levels in blood. Considering the increasing trend in the prevalence of coronary artery disease, hypertension and diabetes in India, it is important to maintain desirable body weight for height and avoid obesity.

How to reduce body weight

There is no single regimen for weight reduction; it has to be individualized. Weight reduction should be gradual. Weight reduction diets should not be less than 1000 Kcal/day and provide all nutrients. A reduction of half a kilogram body weight per week is considered to be safe. Extreme approaches should be avoided and use of drugs may be dangerous. In children, obesity should be controlled by increasing physical activity rather than restricting food intake. Modifications in dietary habits have to be incorporated into one's lifestyle along with adequate exercise to keep the body weight within the normal limits.

FOOD BELIEFS, FADS AND TABOOS

Food habits are formed early in childhood, passed on from the elders in the family and perpetuated to adulthood. Food beliefs either encourage or discourage the consumption of particular type of foods. There can be neutral, harmless or harmful practices. Unfortunately, most of the food fads and prejudices (taboos) are associated with women and children, who are also the most vulnerable to malnutrition. Exaggerated beneficial or harmful claims in respect of some foods, without scientific basis constitute food fads. In addition, the belief of heat producing and cold inducing foods is widely prevalent. Some examples are jaggery, sugar, groundnuts, fried foods, mango, bajra, jowar, maize, eggs and meat. Papaya fruit is strongly suspected to lead to abortion, though there is no scientific basis. Buttermilk, curd, milk, green gram dhal, green leafy vegetables, ragi, barley flour and apples are considered as cold inducing foods which are actually nutritious. Vegetarianism is often practiced in India on religious grounds. Since vitamin B is present only in 12 foods of animal origin, vegetarians should ensure an adequate consumption of milk. During certain illnesses like measles and diarrhoea, dietary restriction is practiced. This can aggravate malnutrition in young children.

WHY DO WE NEED WATER?

Water is the major constituent of human body it accounts for 70% of our body weight. It plays a key role in elimination of body wastes and regulation of body temperature. The body loses water through sweat, urine and faeces. This loss must be constantly made good with clean and potable water. A normal healthy person needs to drink about 8 glasses (2 litre) of water per day. During very hot weather and while undertaking vigorous physical activity, this requirement increases as a considerable amount of water is lost through sweat.

MEAL PLAN

Sample Meal Plan for Adult Woman (Sedentary)

Meal Time	Food Group	Raw	Cooked Recipe	Servings Amounts
Breakfast	Milk	100 ml	Milk or Tea or Coffee	1/2 Cup 2 Cups 1 Cup
	Sugar	10 g		
	Cereals	50 g	Breakfast item	
	Pulses	20 g		
Lunch	Cereals	100 g	Rice	1 Cup
			Pulkas	2 Nos.
	Pulses	20 g	Dhal	1/2 Cup
	Vegetables	100 g	Veg. curry	1/2 Cup
	Vegetables	50 g	Veg. salad	7-8 Slices
	Milk	100 ml	Curd	1/2 Cup
Tea	Cereals	50 g	Snack	
	Milk	50 ml	Tea	1 Cup
Dinner	Sugar	10 g		
	Cereals	100 g	Rice	1 Cup
			Pulkas	2 Nos.
	Pulses	20 g	Dhal	1/2 Cup
	Vegetables	100 g	Veg. curry	1/2 Cup
	Milk (Curd)	50 ml		
	Vegetables	50 g		
Fruit	100 g	Seasonal	1 Medium	

1 Cup = 200 ml

Note: For Non-Vegetarians - Substitute one pulse portion with one portion of egg/meat/chicken/fish

Use 20 g visible fat and <5g salt during preparation of meal per day.

Breakfast items: Idli - 3 Nos. / Dosa - 2 Nos. / Upma - 1 Cup / Bread - 3 Slices / Porridge - 1-1/2 Cups / Corn flakes with milk - 1-1/2 Cup.

Snacks: Poha - 1 Cup / Toast - 2 Slices
Dhokla - 4 Nos.

Sample Meal Plan for Adult Man (Sedentary)

Meal Time	Food Group	Raw	Cooked Recipe	Servings Amounts
Breakfast	Milk	100 ml	Milk	1/2 Cup
	Sugar	15 g	Tea or Coffee	2 Cups 1 Cup
	Cereals	70 g	Breakfast item	
	Pulses	20 g		
Lunch	Cereals	120 g	Rice	2 Cups
			Pulkas	2 Nos.
	Pulses	20 g	Dhal	1/2 Cup
	Vegetables	150 g	Veg. curry	3/4 Cup
	Vegetables	50 g	Veg. salad	7-8 Slices
	Milk	100 ml	Curd	1/2 Cup
Tea	Cereals	50 g		
	Milk	50 ml	Tea	1 Cup
Dinner	Sugar	10 g		
	Cereals	120 g	Rice	2 Cups
			Pulkas	2 Nos.
	Pulses	20 g	Dhal	1/2 Cup
	Vegetables	150 g	Veg. curry	3/4 Cup
	Milk (Curd)	50 ml		
	Vegetables	50 g		
Fruit	100 g	Seasonal	1 Medium	

1 Cup = 200 ml

Note: For Non-Vegetarians - Substitute one pulse portion with one portion of egg/meat/chicken/fish

Use 25 g visible fat and <5g salt during preparation of meal per day.

Breakfast items: Idli - 4 Nos. / Dosa - 3 Nos. / Upma - 1-1/2 Cup / Bread - 4 Slices / Porridge - 2 Cups / Corn flakes with milk - 2 Cups.

Snacks: Poha - 1 Cup / Toast - 2 Slices
Dhokla - 4 Nos.

HOW TO PROMOTE HEALTHY DIETS

Diet evolves over time, being influenced by many social and economic factors that interact in a complex manner to shape individual dietary patterns. These factors include income, food prices (which will affect the availability and affordability of healthy foods), individual preferences and beliefs, cultural traditions, and geographical and environmental aspects (including climate change). Therefore, promoting a healthy food environment – including food systems that promote a diversified, balanced and healthy diet – requires the involvement of multiple sectors and stakeholders, including government, and the public and private sectors.

JUNK FOOD

Unhealthy foods are those containing little or no proteins, vitamins or minerals but are rich in salt, sugar, fats and are high in energy (calories). Some examples are chocolates, artificially flavored aerated drinks, potato chips, ice creams, french fries etc.

Why should we restrict Junk food?

Frequent consumption of unhealthy processed food increases calorie intake without providing any nutrients, vitamins and minerals. Apart from being non-nutritious, processed foods also contain food additives. Food additives consumed beyond permissible limits may have adverse effects on health. Thus, consumption of processed foods may not only affect intake of nutrients, but in addition, increase the risk of exposure to various chemical additives.

In the coming years, with larger constraints on time at home, demand for processed foods are certain to increase. Therefore, it is necessary to ensure that intake of a nutritionally balanced diet is not compromised with unwise intake of various processed and convenience foods.

- Encouraging consumer demand for healthy foods and meals through:
- promoting consumer awareness of a healthy diet;
- developing school policies and programmes that encourage children to adopt and maintain a healthy diet;
- educating children, adolescents and adults about nutrition and healthy dietary practices;
- encouraging culinary skills, including in children through schools;
- supporting point-of-sale information, including through nutrition labelling that ensures accurate, standardized and comprehensible information on nutrient contents in foods (in line with the Codex Alimentarius Commission guidelines), with the addition of front-of-pack labelling to facilitate consumer understanding; and
- providing nutrition and dietary counselling at primary health-care facilities.
- Promoting appropriate infant and young child feeding practices through:
- Implementing the International Code of Marketing of Breast-milk Substitutes and subsequent relevant World Health Assembly resolutions;
- Implementing policies and practices to promote protection of working mothers; and
- Promoting, protecting and supporting breastfeeding in health services and the community, including through the Baby-friendly Hospital Initiative.

WHO response

The “WHO Global Strategy on Diet, Physical Activity and Health” was adopted in 2004 by the Health Assembly. The strategy called on governments, WHO, international partners, the private sector and civil society to take action at global, regional and local levels to support healthy diets and physical activity.

Governments have a central role in creating a healthy food environment that enables people to adopt and maintain healthy dietary practices. Effective actions by policy-makers to create a healthy food environment include the following:

Creating coherence in national policies and investment plans – including trade, food and agricultural policies – to promote a healthy diet and protect public health through:

- increasing incentives for producers and retailers to grow, use and sell fresh fruit and vegetables;
- reducing incentives for the food industry to continue or increase production of processed foods containing high levels of saturated fats, trans-fats, free sugars and salt/sodium;
- encouraging reformulation of food products to reduce the contents of saturated fats, trans-fats, free sugars and salt/sodium, with the goal of eliminating industrially-produced trans-fats;
- implementing the WHO recommendations on the marketing of foods and non-alcoholic beverages to children;
- establishing standards to foster healthy dietary practices through ensuring the availability of healthy, nutritious, safe and affordable foods in pre-schools, schools, other public institutions and the workplace;
- exploring regulatory and voluntary instruments (e.g. marketing regulations and nutrition labelling policies), and economic incentives or disincentives (e.g. taxation and subsidies) to promote a healthy diet; and
- encouraging transnational, national and local food services and catering outlets to improve the nutritional quality of their foods – ensuring the availability and affordability of healthy choices – and review portion sizes and pricing.

In 2010, the Health Assembly endorsed a set of recommendations on the marketing of foods and non-alcoholic beverages to children. These recommendations guide countries in designing new policies and improving existing ones to reduce the impact on children of the marketing of foods and non-alcoholic beverages to children. WHO has also developed region-specific tools (such as regional nutrient profile models) that countries can use to implement the marketing recommendations.

In 2012, the Health Assembly adopted a “Comprehensive Implementation Plan on Maternal, Infant and Young Child Nutrition” and six global nutrition targets to be achieved by 2025, including the reduction of stunting, wasting and overweight in children, the improvement of breastfeeding, and the reduction of anaemia and low birthweight.

In 2013, the Health Assembly agreed to nine global voluntary targets for the prevention and control of NCDs. These targets include a halt to the rise in diabetes and obesity, and a 30% relative reduction in the intake of salt by 2025. The “Global Action Plan for the Prevention and Control of Noncommunicable Diseases 2013–2020” provides guidance and policy options for Member States, WHO and other United Nations agencies to achieve the targets.

With many countries now seeing a rapid rise in obesity among infants and children, in May 2014 WHO set up the Commission on Ending Childhood Obesity. In 2016, the Commission proposed a set of recommendations to

successfully tackle childhood and adolescent obesity in different contexts around the world.

In November 2014, WHO organized, jointly with the Food and Agriculture Organization of the United Nations (FAO), the Second International Conference on Nutrition (ICN2). ICN2 adopted the Rome Declaration on Nutrition, and the Framework for Action which recommends a set of policy options and strategies to promote diversified, safe and healthy diets at all stages of life. WHO is helping countries to implement the commitments made at ICN2.

In May 2018, the Health Assembly approved the 13th General Programme of Work (GPW13), which will guide the work of WHO in 2019–2023. Reduction of salt/sodium intake and elimination of industrially-produced trans-fats from the food supply are identified in GPW13 as part of WHO's priority actions to achieve the aims of ensuring healthy lives and promote well-being for all at all ages. To support Member States in taking necessary actions to eliminate industrially-produced trans-fats, WHO has developed a roadmap for countries (the REPLACE action package) to help accelerate actions.

Annexure II

Bharath Institute of Higher Education and Research

Sri Lakshmi Narayana Institute of Medical Sciences

Participant list with signatures

Value added course: **HEALTHY EATING HABITS**

(dated 07/10/2021)

Sl.No	Reg.No	Name of the candidate	Signature
1.	U15MB274	DEEPIKA PRIYADHARSHINI. B	Deepika P
2.	U15MB275	DEVANAND .M	Dev
3.	U15MB276	DEVANATHAN. R	Devanathan R
4.	U15MB277	DHANA PRIYA .P	Dhana
5.	U15MB278	DHANALAKSHMI. M	Dhanalakshmi
6.	U15MB279	DHANUSH .R	Dhanush
7.	U15MB280	DHANUSH KODALI	Dhanush K
8.	U15MB281	DHIVYA KUMARI .P	Dhivyakumari
9.	U15MB282	DIVYA .S	Divya
10.	U15MB283	DIVYA DHARSHINI .N	Divyadharsini
11.	U15MB284	EVANGELINE PRETTY .G	Evangeline
12.	U15MB285	EZHILARASI. R	Ezhilarasi
13.	U15MB286	FATHIMA BANU. A	Fathima
14.	U15MB287	GAYATHRI .M	Gayathri
15.	U15MB288	GOGUL SUGAN. K	Gogul
16.	U15MB289	GOKULA KRISHNAN. E	Gokula
17.	U15MB290	GOWTHAM. M .R	Gowtham
18.	U15MB291	GOWTHAM.S	Gowtham S

19.	U15MB292	HARIHARAN.S	HARIHARAN.S
20.	U15MB293	HARINI .L	Harini
21.	U15MB294	ILAMATHI.S	Ilamathi
22.	U15MB295	ILAYARAJA .B.U	Ilayaraja B.U
23.	U15MB296	JAMZER. J	Jamzer. J.
24.	U15MB297	JANARTHANAM. M	Janarthanam
25.	U15MB298	JANISHA MARAGATHA J P	Janisha

ANNEXURE – III



**SRI LAKSHMI NARAYANA INSTITUTE OF MEDICAL
SCIENCES**

HEALTHY EATING HABITS

SHORT NOTES

Course Code: IM04

WRITE SHORT NOTES ON THE FOLLOWING:

1. Keto diet
2. Importance of low carbohydrate diet
3. What is metabolic syndrome?
4. The healthy eating pyramid



HEALTHY EATING HABITS

SHORT NOTES

Course Code: IM04

WRITE SHORT NOTES ON THE FOLLOWING:

1. Keto diet
2. Importance of low carbohydrate diet
3. What is metabolic syndrome?
4. The healthy eating pyramid

8
10

- ① The keto diet is a high fat adequate protein, low carbohydrate diet that in medicine is used mainly to treat need to control epilepsy in children. The diet forces the body to burn fats rather than carbohydrates.
- ② Low carb diets emphasize healthy source of carbs, fat & protein may help lower risk of type 2 diabetes and heart disease.
- ③ Metabolic syndrome is a cluster of conditions that occur together, increasing your risk of heart disease, stroke and type 2 diabetes. These include ↑BP, high blood sugar, excess body fat around waist and abnormal cholesterol, or triglyceride levels.

(4) The healthy eating pyramid is a nutrition guide developed by Harvard School of Public Health suggesting quantities of each food category.

↳ that a human should eat each day.

The healthy eating pyramid is intended to provide a more sound eating guide pyramid created by USDA.



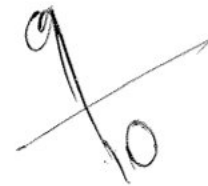
HEALTHY EATING HABITS

SHORT NOTES

Course Code: IM04

WRITE SHORT NOTES ON THE FOLLOWING:

1. Keto diet
2. Importance of low carbohydrate diet
3. What is metabolic syndrome?
4. The healthy eating pyramid



1) Keto diet

The ketogenic diet is high fat, adequate protein, low carbohydrate diet that in medicine is used to treat hard to control epilepsy in children.

The diet forces body to burn fat rather than carbohydrates.

2) Importance of low carbohydrate diet.

- low carbohydrate diet reduces your appetite.

- Increased level of HDL cholesterol.

- Helpful in reducing blood sugar & insulin level.

- May lower the blood pressure.

- Effective against Metabolic syndrome.

3) Metabolic syndrome is group of factors that increases

the risk of heart disease, DM & stroke. The factors are

1) ↑ BP > 130/85 mm Hg

2) ↑ Blood sugar level

3) Excess fat around the waist.

4) High triglyceride levels

ANNEXURE IV



Sri Lakshmi Narayana Institute of Medical Sciences

Affiliated to Bharath Institute of Higher Education & Research
(Deemed to be University under section 3 of the UGC Act 1956)

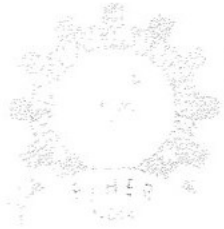


CERTIFICATE OF MERIT

This is to certify that EZHILARASI. R has actively participated in the Value Added Course on "HEALTHY EATING HABITS" conducted between October 2021-December 2021, organized by Sri Lakshmi Narayana Institute of Medical Sciences, Pondicherry- 605 502, India

Dr. C. Aravind
Dr. C. ARAVIND, MD.
Professor & HOD, General Medicine
Sri Lakshmi Narayana Institute of Medical Sciences
Osudu, Kudapakkam, Puducherry-605 502.
RESOURCE PERSON

Dr. B. Muthukumarasamy
Dr. Muthukumarasamy. B
Professor, General Medicine
Sri Lakshmi Narayana Institute of Medical Sciences
Osudu, Kudapakkam, Puducherry-605 502.
COORDINATOR



Sri Lakshmi Narayana Institute of Medical Sciences



CERTIFICATE OF MERIT

This is to certify that DEEPIKA PRIYADHARSHINI. B has actively participated in the Value Added Course on “HEALTHY EATING HABITS” conducted between October 2021- December 2021, organized by Sri Lakshmi Narayana Institute of Medical Sciences, Pondicherry- 605 502, India


DR. C. ARAVIND, MD.,
Reg. No: 68432
Professor & Head of Medicine
Sri Lakshmi Narayana Institute of Medical Sciences
Osud
RESOURCE PERSON


Dr. Muthukumarasamy. B
M.D. (DIPLOMA IN PUBLIC HEALTH)
Reg. No: 33723
Coordinator
Sri Lakshmi Narayana Institute of Medical Sciences
Pudupakkam, Pondicherry-605 502.

ANNEXURE V
Student Feedback Form

Course Name: **HEALTHY EATING HABITS**

Subject Code: **IM04**

Name of Student: Gayathri M Roll No.: 015 HB287

We are constantly looking to improve our classes and deliver the best training to you. Your evaluations, comments and suggestions will help us to improve our performance

Sl. NO	Particulars	1	2	3	4	5
1	Objective of the course is clear				/	
2	Course contents met with your expectations				/	
3	Lecturer sequence was well planned				/	
4	Lectures were clear and easy to understand					/
5	Teaching aids were effective					/
6	Instructors encourage interaction and were helpful	2			/	
7	The level of the course					/
8	Overall rating of the course	1	2	3	4	5

* Rating: 5 – Outstanding; 4 - Excellent; 3 – Good; 2– Satisfactory; 1 - Not-Satisfactory

Suggestions if any:

Date: 5/12/2021


Signature

ANNEXURE V

Student Feedback FormCourse Name: **HEALTHY EATING HABITS**Subject Code: **IM04**Name of Student: Deepika Prayadharshini B Roll No.: 015MB274

We are constantly looking to improve our classes and deliver the best training to you. Your evaluations, comments and suggestions will help us to improve our performance

Sl. NO	Particulars	1	2	3	4	5
1	Objective of the course is clear				✓	
2	Course contents met with your expectations				✓	
3	Lecturer sequence was well planned				✓	
4	Lectures were clear and easy to understand					✓
5	Teaching aids were effective					✓
6	Instructors encourage interaction and were helpful					✓
7	The level of the course				✓	
8	Overall rating of the course	1	2	3	✓ 4	5

* Rating: 5 – Outstanding; 4 - Excellent; 3 – Good; 2– Satisfactory; 1 - Not-Satisfactory

Suggestions if any:

Date: 5/12/2021

Signature 

COURSE COMPLETION LETTER

Date: 08/12/2021

From
Dr. Muthukumarasamy. B
Professor and Head,
Department of Internal Medicine
Sri Lakshmi Narayana Institute of Medical Sciences
Bharath Institute of Higher Education and Research
Chennai

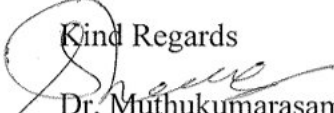
To
The Dean,
Sri Lakshmi Narayana Institute of Medical Sciences
Bharath Institute of Higher Education and Research
Chennai

Sub: Completion of value-added course: Healthy eating habits

Respected Sir,

With reference to the subject mentioned above, the department has conducted the value-added course titled: **“Healthy eating habits”** on 05/12/2021. We solicit your kind action to send certificates for the participants. Also, I am attaching the photographs captured during the conduct of the course.

Kind Regards


Dr. Muthukumarasamy. B
Dr. B. MUTHUKUMARASAMY, MD.,
Reg. No: 33723
Professor, General Medicine
Sri Lakshmi Narayana Institute of Medical Sciences
Osudu, Kudanerkkam, Puducherry-605 002

Encl: Photographs

