



SLMNA

SRI LANKA MEDICAL NUTRITION ASSOCIATION

NEWSLETTER

SLMNA OFFICIAL NEWSLETTER

Linking Nutrition Research to Practice

MESSAGE FROM EDITORS

Welcome to the newsletter of Sri Lanka Medical Nutrition Association. SLMNA is your professional association which has grown so far with your contribution and continuous support. We proudly present the second newsletter of the year 2018. As members of the family of Medical Nutritionist, it's us who will walk through this path sharing the updated knowledge. Grab your opportunity to share your knowledge, experience and thoughts on timely nutrition related topics with the light of evidence based literature. Feel free to stay connected with us through our email (slmna2015@gmail.com) and the web site slmna.lk

In this edition we are covering the following key topics,

1. **SLMNA pioneer's story**
2. **Past events and upcoming events**
3. **Article of the month**
4. **Capture of the month**
5. **Food of the month**



SLMNA Pioneer's Story

The President and the Founder of Sri Lanka Medical Nutrition Association

Dr.Renuka Jayatissa

MBBS, MSc, MD,
Consultant Medical Nutritionist
Head of the Nutrition Department
Medical Research Institute - Sri Lanka

Dr. Renuka Jayatissa is the founder of SLMNA, who devoted herself to establish the field of Medical Nutrition a reality in Sri Lanka, by pioneering the commencement of MSc. Human Nutrition and the MD Clinical Nutrition programmes as post graduate streams for medical professionals.

Her enthusiasm towards this field made her well qualified in Human Nutrition with her post graduate training at the London School of Hygiene and Tropical Medicine. She has also gained experience in dietetics and clinical nutrition from the Royal London Hospital.

Serving her motherland with the knowledge and experience that she gained through her professional qualifications and achievements, she worked for the Ministry of Health as a chief health and nutrition professional for more than 25 years.

Presently she is the Head of the Nutrition Department at Medical Research Institute, Colombo. Meanwhile she serves as the visiting Consultant Medical Nutritionist in the National Hospital of Sri Lanka and holds the Presidency of SLMNA for the third consecutive year.

PAST EVENT

01 Annual General Meeting (AGM) of Srilanka Medical Nutrition Association was held on 03rd of February 2018 at Neuro Trauma Auditorium at NHSL. AGM was chaired by the President Dr.Renuka Jayatissa. The new council was appointed.

- President

Dr. Renuka Jayatissa
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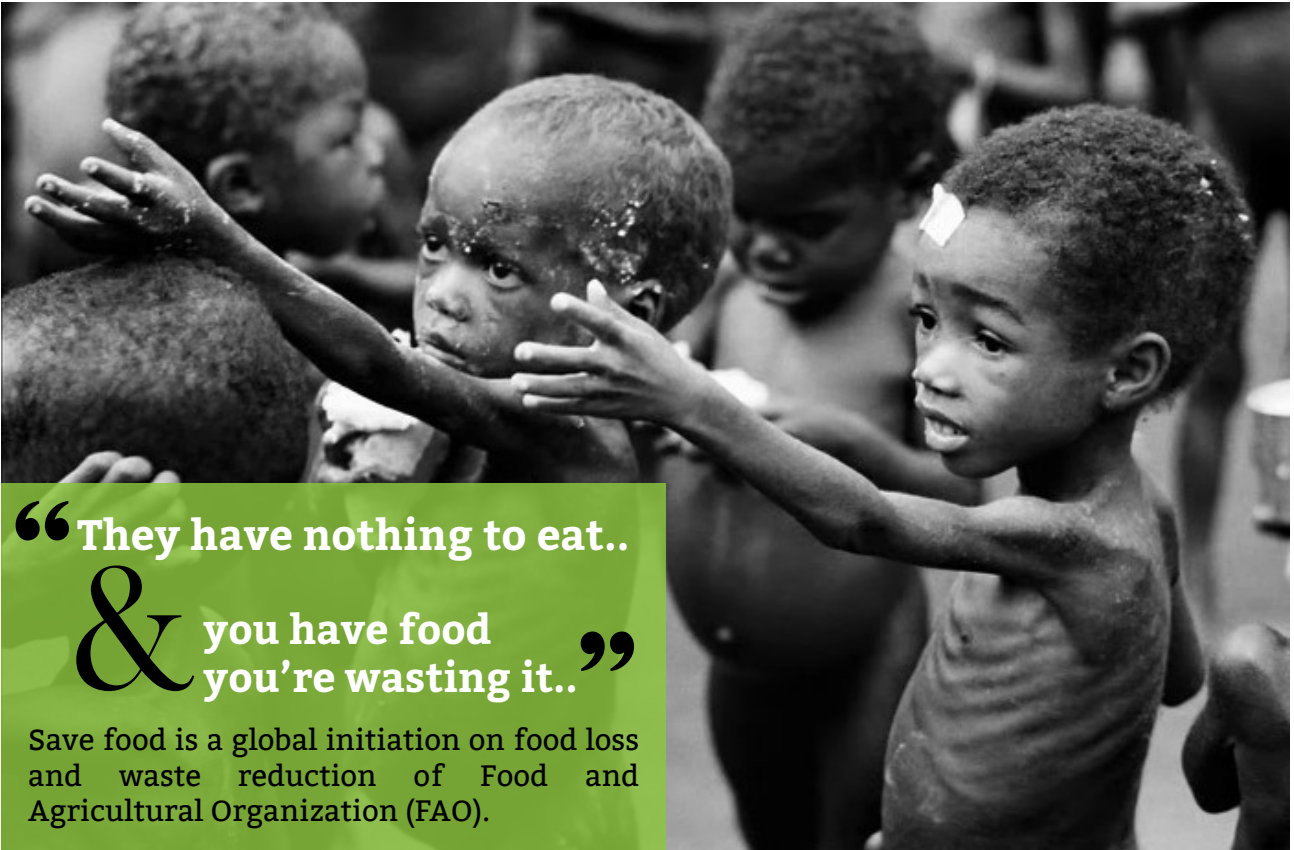
Dr. Prabuddha Dodangoda
MBBS

UPCOMING EVENT

01 Work Site Wellness Programme (WSW)

WSW programme is to be initiated by SLMNA under the guidance of Dr. Renuka Jayatissa, Consultant Medical Nutritionist by 27th of February 2018. This programme is meant to empower the working force of the community in Sri Lanka to identify their own nutritional gaps and to promote self monitoring. SLMNA organizes this kind of a programme for the first time in Sri Lanka for the betterment of the country with a healthy work force.

CAPTURE OF THE MONTH



“They have nothing to eat..
& you have food
you’re wasting it..”

Save food is a global initiative on food loss and waste reduction of Food and Agricultural Organization (FAO).

There is

20% meat food loss

20% dairy food loss

45% tubers and root food loss

While

percentage of world population considered to be starving is 26% according to world hunger statistics

FOOD OF THE MONTH - SOYA



Soya foods are made from the soya bean plant. This belongs to the Pea family. Soya food is a part of Asian diet. Recent advances in food technology have resulted in soya foods becoming a part of the main stream of diet.

Soya products are of two types

01. Fermented soya foods - temphe and miso
02. Unfermented soya foods - soya milk, tofu

What do soya foods provide?

The soya bean contains a range of essential nutrients including high quality protein, fiber, unsaturated fat, vitamins and minerals. Soya is also the main dietary source of isoflavones.

Isoflavones

Belongs to family of plant phytoestrogen. It has a similar but not identical chemical structure to human hormone oestrogen. Despite this similarity, they behave in the body differently. Overall, isoflavones have beneficial effects on

organs such as breast, bone and prostate. Research also shows isoflavones possess anti-oxidant, anti-inflammatory and anti-coagulatory, anti-carcinogenic effects.

Table 1 Soya Foods Available In Sri Lanka

Soya alternative to dairy Soya milk Soya yoghurt Soya cheese	Soya meat alternatives Soya mince, soya chunks, textured vegetable protein Soya or tofu sausages	Soya beans Whole soya beans Dried soya beans
Tofu Bean curd made from unfermented soya milk	Fermented soya foods Temphe soya bean Natto (fermented soya bean) Miso	Soya desserts and custard
Soya flour	Soya bean oil	Soya containing bread

Table 2 Nutritional Profile Of Soya Bean

Protein	Soya is a complete protein containing all essential amino acids Digestibility score similar to meat and dairy
Fat	Naturally low in saturated fat Predominantly containing unsaturated fats, specially linoleic (omega 6) and alpha linolenic acid (omega 3)
Carbohydrate and fiber	Soya contains low glycaemic index carbohydrates. A source of dietary fiber, mainly soluble fiber. 85 g of cooked soya bean provides approximately a one third (5.5 g) of daily fiber recommendation of Sri Lankan adult.
Minerals	A source of calcium, iron, magnesium, copper, potassium and manganese. It is naturally low in sodium. 85g of cooked soya provides approximately following amounts of adult daily recommendations of following minerals. 10 % calcium 18% magnesium 12.5% iron 23% copper 12% potassium
Vitamins	Contains vitamin B ₆ , E, K and folate 85 g of cooked soya bean provides approximately the following amounts of adult daily recommendations 14% B ₆ 23% folate
Other benefits	Isoflavones

Summary

It is clear that soya is a nutritious, safe and palatable part of the diet.

It is considered as a good source of protein, fiber, micronutrients with anti-inflammatory, anti-coagulatory and anti-carcinogenic properties. Soya foods helps to achieve a protein rich plant based diet, by reducing animal protein consumption especially for vegetarians.

References

- USDA national nutrient data base

National and International soy organizations

www.usda.gov

www.soyfood.org

www.soygrowers.com

ARTICLE OF THE MONTH

Vegetarian diet: Benefits over Limitations

By Dr. Nilanthi Rajakaruna MBBS, MSc in Human Nutrition

A vegetarian diet has many nutritionally beneficial components, including higher fibre content, vitamins such as vitamin C and E, folic acid, minerals such as potassium, magnesium, more unsaturated fat and lower levels of saturated fat and cholesterol than non-vegetarian diets. It also has more antioxidants and phytochemicals. (Craig, 2009)

It has been shown that the vegetarian diet reduces the risk of overweight and obesity, cardiovascular disease, hypertension and type II diabetes. There is also evidence that the risk of some cancers, gallstones, constipation, and diverticular disease is low in vegetarians. (Marsh, Zeuschner, & Saunders, 2011)

Benefits

1. Reduced risk of overweight and obesity

Studies have shown that vegetarians have a lower BMI than non-vegetarians. This could be due to lower energy density in a vegetarian diet due to lower fat and higher fibre intake. Also, some of the food consumed more by vegetarians such as whole grains and nuts are individually associated with a lower risk of weight gain and obesity. In non-vegetarians, a higher intake of red meat is associated with increased risk of gaining weight. (Marsh et al., 2011)

2. Reduced risk of cardiovascular disease

There are evidences suggesting that there is a reduced risk of coronary heart disease with regard to its morbidity and mortality. Vegetarians are generally found to have a better cardiovascular risk profile than non-vegetarians with lower total cholesterol and LDL cholesterol levels. (Marsh et al., 2011)

3. Reduced risk of diabetes mellitus

In Adventist Health Study 2, after adjusting for confounding factors, there was a 46% reduction of risk in lacto-vegetarians to develop diabetes mellitus. (Marsh et al., 2011)

4. Helps in prevention and management of hypertension

Vegetarian diets are associated with low blood pressure levels. Many dietary factors, such as high potassium, low sodium and high fibre can contribute to this effect. (Ross, Caballero, & Cousins, 2014)

5. Reduced risk of some cancers

Colon cancer

The higher fibre content in vegetarian meals than in non-vegetarian meals may contribute to reduced risk of colon cancer among vegetarians. Fibre reduces the surface contact of carcinogens with the intestinal wall. (Marsh et al., 2011)

Reduced risk of breast cancer

Research also suggests that vegetarian diet may be associated with a reduced risk of breast cancer. (Marsh et al., 2011)

Reduced risk of prostate cancer (“Position of the American Dietetic Association and Dietitians of Canada: Vegetarian diets,” 2003)

6. Reduced risk of other diseases

Some research suggested that vegetarian diet may reduce the risk of other diseases such as rheumatoid arthritis, diverticular disease, gall stones and gout. (Marsh et al., 2011)

Limitations

Vegetarians have a potential risk of developing the following nutrient deficiencies, if their diet is not carefully planned.

1. Energy

Due to low calorie and high fibre content in vegetarian diets, the energy need may be difficult to achieve, especially in growing stages of life, such as in infancy, childhood, adolescence, pregnancy and lactation. (Sardesai, 2012)

2. Protein

The quality of plant protein is low, due to the presence of limiting essential amino acids in plants. But in lacto-vegetarians, since they consume dairy products, they are able to get complete proteins in their diet. (Sardesai, 2012)

3. Iron

As vegetarian diets contain non-haem iron, the bioavailability is low and it depends on dietary enhancers and inhibitors.

4. Calcium

The bioavailability of calcium in plant sources is low, mainly due to the presence of phytate. Therefore, there is a risk of calcium deficiency in vegans. However, in lacto-vegetarians, as dairy products contain adequate absorbable calcium, they would be able to meet recommended calcium intake levels. (C M Weaver & Plawecki, 1994)

5. Zinc

The bioavailability of zinc in plant foods is low, due to the presence of phytic acid. Also, the bioavailability of zinc in refined cereals and dairy products is low.

6. Vitamin B₁₂

Vitamin B₁₂ is not present in plants, but available in dairy products. Therefore, lacto-vegetarians would not be at risk of developing Vitamin B₁₂ deficiency, but vegans.

How To Improve A Vegetarian Diet?

01. Include mostly nutrient rich, energy dense food in the diet with small amounts of low nutrient calorie food, such as sweets and simple sugars.
02. Include an adequate carbohydrate amount in the diet to provide energy. Because when animal sources are excluded from the diet, it will be low in fat and high in fibre and may have low energy content.
03. Include an adequate amount of plant protein in the diet to maintain muscle and not to be used as an energy source.
04. Include different plant protein sources in the diet, for mutual complementation of limiting amino acids in plant proteins to make complete proteins. Eg: Cereals (poor in Lysine and rich in Tryptophan) and pulses (rich in Tryptophan, and poor in Methionine).

05. Limit highly refined cereals and grains, to acquire adequate micronutrients from the diet. Eg. Zinc content reduces with the level of refining. Vitamin B and iron in cereal bran.
06. Include vitamin C rich food with the same meal to enhance iron absorption.
07. Avoid taking tea or coffee with the meal or within one hour after meal, since polyphenols and tannins are iron absorption inhibitors.
08. Germination and fermentation of pulses improve the bioavailability of iron, calcium and vitamins.
09. Consume adequate amounts of calcium rich food sources, not only dairy products, but also beans and green leafy vegetables.
10. Consume plant food rich in ω -3 fatty acids, such as soya products and canola oil.
11. To prevent Vitamin D deficiency, ensure exposure to sunlight.
12. To prevent vitamin B₁₂ deficiency in vegans, Vitamin B₁₂ fortified food or supplements are recommended.

Reference

Tips for Healthy Eating. (2018). Tips for Healthy Eating. [online] Available at: <https://tipsforhealthy-eatinglk.wordpress.com/> [Accessed 11 Feb. 2018].

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