

# NUTRITIOUS FOOD AND A HEALTHY DIET TOOLKIT FOR WOMEN

Mangroves for the Future  
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LIVE & LEARN  
Environmental Education

NUTRITIOUS  
FOOD AND A  
HEALTHY  
DIET TOOLKIT  
FOR WOMEN



**Nutritious Food and a Healthy Diet Tool Kit for Women**

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This toolkit has been developed as part of the Project “Promoting community resilience to Climate Change, by the introduction and dissemination of conservation agriculture, through Island Women’s Development Committees, in five islands in Baa Atoll in the North Province of Maldives”. The Project funded by IUCN/MFF is partnered with the Ministry of Fisheries and Agriculture, the Environmental Protection Agency and the Atoll Ecosystem Conservation Project under the Ministry of Housing and Environment. The Project’s aim is to initiate practical action and ensure future action is planned by Island, Atoll and Provincial stakeholders and in particular by island women, to strengthen community resilience to Climate Change in five islands in Baa Atoll by December 2012.

This toolkit has been designed based on the widely accepted premise that global Climate Change represents both the most immediate and most significant threat to coastal resource management in the Maldives. While it is true to say that concern and understanding about the causes and consequences of global Climate Change are now well established at the national level within the Maldives, at the community level there is much less awareness of the threat posed by Climate Change to individual islands and the actions that could be taken to strengthen community resilience to Climate Change.



A study was undertaken by Live & Learn in the five communities (Kudarikilu, Kamadhoo Kihadhoo, Dhurvadhoo and Maalhos) in Baa Atoll to document the perceptions of the women farmers and the community on nutritious food available on the island. The study showed that seasonal differences affect the daily meals of the communities. It depends on the availability of fish. During the fishing season they are able to have more fish in their diets. On the other hand if the catch is not good they have to rely on canned tuna. The participants highlighted that the elderly and infants require food from different food groups which are not available in the communities all year round.

All the participants recognized the transition of their diet to an increased amount of sugary and processed foods. They also commented that they now desire these foods over traditional island foods (which are not of the same nutritional quality as they once were). Men and women held a similar understanding of changes in food access, quality, and the effects on nutrition and livelihoods of increasing reliance on

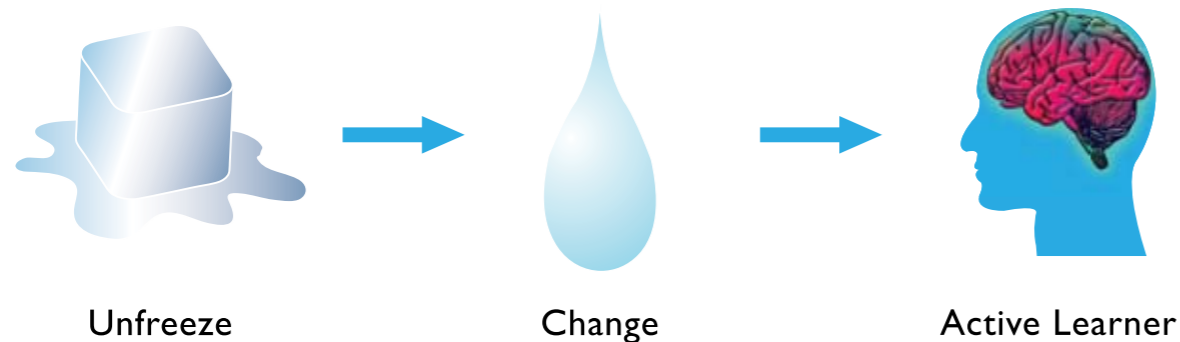
store purchased imported foods. Women were more aware of the effect of imported and processed foods on stretching of family finances. It became apparent that a high portion of each community had become accustomed to reliance on store bought processed foods and imported vegetable and fruits. Some stories related that participants had made a conscious choice to not put a lot of effort into farming as the risk on crops failing, was not found to be proportionate to their effort invested in gardening. The reasons provided were that the farmers did not have access to fertilizers and pesticides on the island and they did not have people who have the knowledge of farming methods and techniques.

The community members pointed out that vegetables and fruits are very rarely used in their diet. The reasons are fruits and vegetables are not available from the island and the imported fruits and vegetables are expensive. Even though some fruits like guava and passionfruit are available on the island, none of them was mentioned. Fish is the common meal for all the households, because it is accessible and they enjoyed. The students’ and community’s knowledge on the nutritional value of locally available foods was very low and the perceptions of the community were that the traditional diet of the Maldivians is a balanced diet.

This toolkit is designed to create more awareness among the community members on the nutritious food available and grown in their own communities. This toolkit will be used to train health personnel and school health assistants in all five communities using the “train the trainers” approach. A master trainer will train the necessary personnel and the trained personnel will conduct trainings at the community level.

## CHANGE MODEL

Adapted from Kurt Lewin's Change Management Model



This model has been adapted from Kurt Lewin's Change Model; to fit the nature of the change required of the target group.

**Unfreezing** is about accepting and being aware of the need to change current dietary habits which are inappropriate. It includes weighing up the pros and cons and helping participants to decide to change.

**Change** is the transition stage, where participants embark on a journey to change. This is the stage where changes are being made and reflections are done on the nature of the changes made. Support, guidance and reinforcement are vital.

**Active learner** stage is completely different from Kurt Lewin's refreeze stage. Refreezing provides the concept of making the change permanent and not being open to other views and ideas. However beneficial the changes may have been, keeping an open mind and helping participants to be lifelong learners and further improving their health, dietary habits and practices are vital.

## ACTIVITY 1

### LEARNING OUTCOMES:

### INSTRUCTIONS:

1. Ask each participant to wear the name tag.
2. In case of odd numbers, make one group of 3.
3. Ask the participants to interview each other.

Time: 1 ½ hrs.

Materials: Name Tag with the below titles:

Ask them to interview on the following topics:

- Get to know each other.
- Identify existing food habits, likes and dislikes.
- The most exciting or wonderful meal they had.
- A fruit or vegetable they have not tasted but would love to taste.
- Their role in deciding the choice of food for themselves and for their family.
- A colour and a fruit, vegetable or plant which best describes who they are and how they feel.

Ask each participant to briefly present a summary (of no more than 2 minutes) of the participant she interviewed to the entire group.

Discuss with the whole group, important information on food habits gathered from the presentation.

## ACTIVITY 2

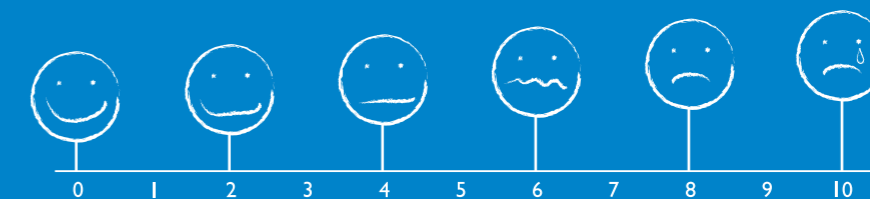
### LEARNING OUTCOMES:

- Create awareness about existing food consumption patterns.
- Identify the proportion of food (from major food groups) in the daily menu.
- Compare the daily existing menu with professional standards and assess personal daily dietary needs.

Time: 2 hrs.

### INSTRUCTIONS:

1. Divide participants into small groups of 3-4 members and provide with a large piece of paper.
2. Ask each participant to note down the list of food (groceries) they buy, in order of quantity. Next, get them to make a list of daily usage (again in order of quantity). Compare the differences.
3. Within the group, compare the food consumption patterns. Ask them "Is it the same? If different, how does it differ?"
4. Ask the participants to group their lists into the food groups below:
  - Grains (cereals, oats, rice, flour etc.)
  - Vegetables
  - Fruits
  - Milk, and other milk and dairy products (eggs, butter, yoghurt, etc.)
  - Meat and beans and fish
5. Help participants to identify the proportion of each food group they have in their daily diets, and record as shown in the diagram above. The names of food groups can be written as indicated with arrows.
6. Provide participants with the My Plate Icon (ChooseMyPlate.Gov).
7. Get participants to compare their daily menu analysis with the standards in MyPlate.
8. Discuss how the MyPlate standards apply to the Maldives. Ask participants what problems (if any) they would encounter in maintaining these dietary standards.
9. Ask participants to express their satisfaction with present food patterns on a 10 point scale (with 10 as the most satisfactory and 0 as the least)



Note: MyPlate Icon is a product of United States Department of Agriculture (At <http://www.cnpp.usda.gov/Publications/MyPlate/GettingStartedWithMyPlate.pdf>). It is used in this Tool Kit only for comparison and teaching purpose and hence, is NOT permitted to be adapted or any alterations made to colour or design.



# ROLE OF WATER IN OUR DIET

## ACTIVITY 3

### LEARNING OUTCOMES:

- Identify the importance of water for our body.
- Analyze the sugar contents in beverages.
- Decide to reduce on drinks and other beverages and drink more plain water in order to reduce on calories.

Time: 2 hrs.

Materials: Bathroom scale .Fact sheet (Water and Nutrition). Collection of drink bottles or cans (soft drinks and energy drinks).

### INSTRUCTIONS:

1. Ask participants to note their weight in lbs. Ask participants to calculate half their weight. E.g. If the weight is 150lbs. half of it is 75. Tell them that we are required to drink half our body weight (in ounces) of water every day so a person with 150 lbs. body weight needs to drink 75 ounces of water an average size glass often contains 8 oz. of water.
2. Ask participants to discuss the activities they are involved in, during the day. Ask them to discuss how much time they spend doing work and moving around, how strenuous the activities are, and the time they have to sit and relax.
  3. Discuss the body's process of perspiration or sweating, which occurs as water loss as we move around or exert ourselves. Hence, our body needs to replace the water lost. Point out that we live in the tropics and the weather is hot all year round. So discuss more reasons on why we need water. Share the fact sheet 'Water and Nutrition'; and give the participants time to read. Discuss it further.
  4. Find out participants' views on drinking other liquids, such as juices, tea, coffee drinks rather than water. Seek their opinion. Tell them that beverages do have water but the sugar contained adds calories and can lead to other health problems. If we want to have control over our weight and stay healthy we need to reduce our intake of sweetened drinks and maintain a balanced diet.
  5. Share the drink cans and bottles with participants. Discuss the list of ingredients on the product label. There may be some numbers which refer to artificial colours, preservatives, or artificial sweeteners. These have been produced chemically. Also ask the participants to note the sugar content and number of calories, or kilojoules in the drink. Tell them that sugar may also be included in the following names. High fructose corn syrup, fructose, fruit juice concentrate, honey, sugar, syrup, corn syrup, sucrose and dextrose.
  6. Tell participants that if they want to add flavour to their water, they can always add a lemon wedge.



# CARBOHYDRATES GOOD OR BAD

## ACTIVITY 4

### LEARNING OUTCOMES:

- Identify the significance of good carbohydrates in our diet.
- Identify major sources of good carbohydrates.
- Plan for the inclusion of essential carbohydrates in required amounts in our daily diets.

Time: 2 hrs.

Material: Map of staple foods. Fact sheet (Good Carbs)

### THE GOOD GUYS!



### THE BAD GUYS!



### INSTRUCTIONS:

1. Discuss the term 'staple food' with the participants. What is our staple food and why do we call it staple food?
2. Share the map (of staple foods) that is provided with the toolkit. Discuss the staple foods of different countries. Ask participants the question – 'What is common about staple foods?' They are the major source of energy or fuel for our bodies.
3. Discuss that the major source of carbohydrates is starchy food which include legumes, starchy vegetables (yams, potatoes, carrots etc.) and whole-grain breads, cereal and rice. Carbohydrates that contain vitamins and minerals are found in milk and milk products, vegetables and some fruits.
4. Group participants 4 – 5 in a group.
5. Go back to MyPlate.gov and see how much is allocated for carbohydrates. Ask participants to check how much of carbohydrates are suggested and decide practical adjustment to this requirement, to fit the availability and existing food cultures.
6. Share with participants the information (Harvard – School of Public Health) that carbohydrates are essential for physical activity and proper organ functioning. However, some forms of carbohydrates are much better than others.
7. Discuss the best sources of carbohydrates, and vegetables, fruits and beans with the participants. The refined carbohydrates such as white rice, white flour, and other refined white grains and pastries made of white flour contribute to weight gain and may lead to diabetes and heart disease.
8. Share the fact sheet on Good Carbs for further information. Let them read and discuss in groups. Get participants to plan their daily menu with inclusion of good carbs.



## ACTIVITY 5

### LEARNING OUTCOMES:

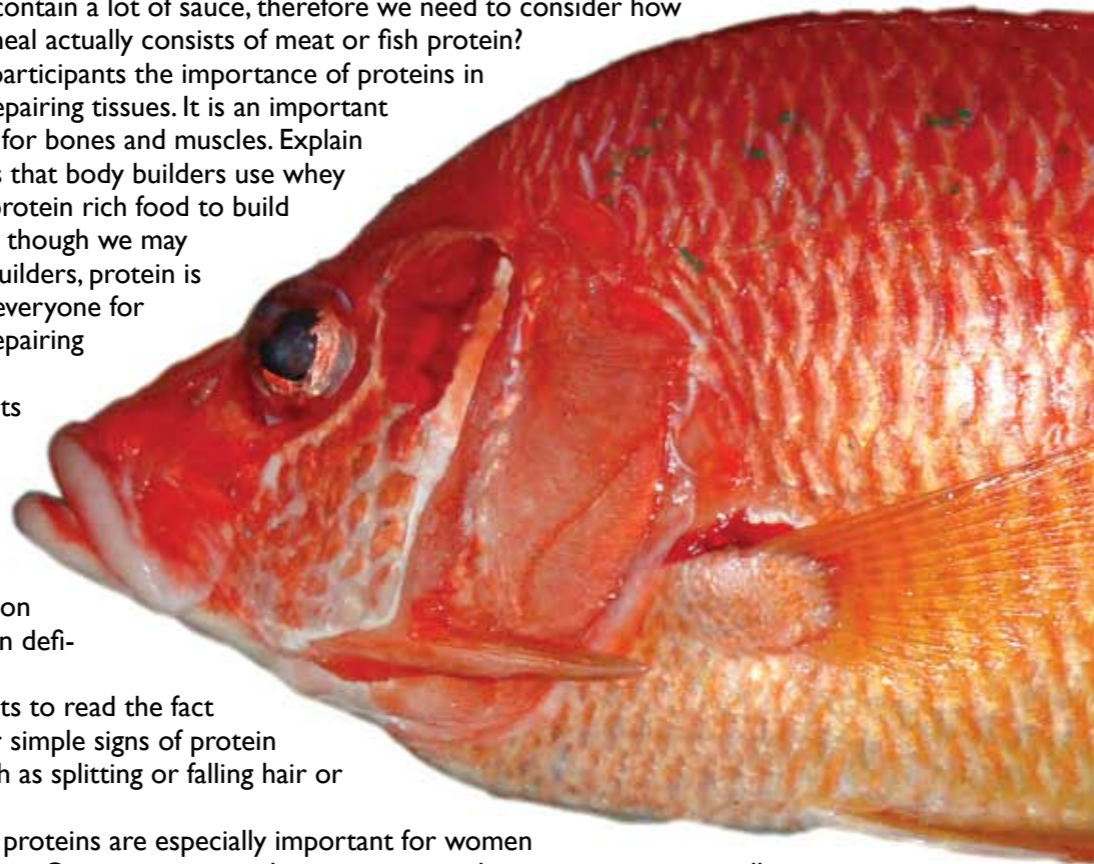
- Identify our protein requirements, especially for women during pregnancy.
- Identify foods rich in proteins and plan a daily menu inclusive of protein rich foods.

Time: 2 hrs.

Materials: Fact sheet on signs of protein deficiency, flip chart.

### INSTRUCTIONS:

1. Ask participants how much fish or meat they eat each day. Fish curries and meat curries often contain a lot of sauce, therefore we need to consider how much of the meal actually consists of meat or fish protein?
2. Discuss with participants the importance of proteins in building and repairing tissues. It is an important building block for bones and muscles. Explain to participants that body builders use whey proteins and protein rich food to build muscles. Even though we may not be body builders, protein is important to everyone for building and repairing body tissues.
3. Ask participants to form small groups of 4 – 5.
4. Provide participants with the fact sheet on signs of protein deficiency.
5. Ask participants to read the fact sheet, look for simple signs of protein deficiency, such as splitting or falling hair or brittle nails.
6. Tell them that proteins are especially important for women during pregnancy. Get participants to brain storm on why proteins are especially important during pregnancy.
7. Explain that proteins are required for the growth and development of the fetus.
8. List down on the flip chart protein rich foods.
  - Fish/chicken
  - Egg whites.
  - Milk.
  - Yoghurt.
  - Beans.
  - Nuts.
  - Lentils.
9. Ask participants to work in groups to plan a daily menu inclusive of protein rich foods.



## ACTIVITY 6

### LEARNING OUTCOMES:

- Calculate own BMI and interpret results.
- Identify the right types of fats.
- Decide on ways and methods by which you can address issues of over-weight or underweight. weigh issue.

Time: 2 hrs.

Materials: Bathroom scales, calculators (one for each group), measuring tape for each group, BMI formula card, fact sheet (Healthy Fats)).

### INSTRUCTIONS:

Ask participants to form groups of 5-6 people and do a self assessment of their weight whether she is overweight or underweight. They need not reveal it to other members of the group.

Ask the groups to record the weights and heights of group members of the group (weight in kg. and height in meters). Note them down.

Tell the groups that the next step is to calculate each participant's BMI (body mass index) which identifies whether an individual is underweight or overweight.

Provide the participants with the formula card and guide them through it. The formula card also contains how to interpret results.

Compare results with personal assessments. Were they right or wrong? Based on the results find out what their intentions are for improving and/or maintaining healthy weight.

Discuss the following points as guidelines for weight reduction and maintenance.

- Do not starve yourselves. Rather cut down on calories or amount of food, eat a balanced diet (as recommended in MyPlate.gov) and lead an active lifestyle. It is recommended that people do 30 minutes of aerobic exercise, four times per week. Aerobic exercise means that your heart is beating fast and you can't sing but you could still talk.
- Remember that fats are also important for our bodies. It cannot be eliminated completely. Being underweight is also dangerous as being overweight.
- By taking the right quantities and right types of fat, it helps to protect our internal organs, and provides us with the much needed energy for our work. Women are active at home and outside, and therefore, require this energy.
- Fats are found in a variety of foods, ranging from butter, oils, poultry (chicken), dairy products and processed food. Share the fact sheet on Healthy Fats. Give the participants time to read. Discuss. Have them right down intended plan of action that they intend to take in order to maintain healthy body weight.





## ACTIVITY 7

### LEARNING OUTCOMES:

- Reflect on the case study and find out alternative ways by which they can get their vitamin requirements.
- Reflect on the importance of a healthy balanced diet.
- Identify the dangers of taking excessive amounts of certain vitamins

Time: 1 hr. 15 minutes.

Materials: Case study 1, fact sheet (Essential Vitamins) copies.

Instructions: Share the case study, discuss and ask questions.

### CASE STUDY 1 – ESSENTIAL VITAMINS

Rasheeda complains that vitamins are so expensive. She says working outside, and looking after 4 kids and doing the household work makes her feel exhausted and she experiencing frequent colds. To combat this, she is taking 2 varieties of vitamins. The expense of looking after her family's needs, such as buying food, and school materials, as well as the additional cost of vitamins is a financial strain. Share this case study with participants.

### ASK THE FOLLOWING QUESTIONS-

1. What suggestions do you have to offer to Rasheeda?
2. Why do people take vitamins?
3. What could people do to avoid taking vitamin supplements?
4. Is it good to over load with two types of vitamins? Why? Why not?
5. Do participants think that eating a balanced diet can help avoid having to spend too much on vitamins?
6. Share the fact sheet and give time for participants to read through.
7. Based on the information from the fact sheet; are the foods essential for getting the nutrition requirements available in the island? Discuss.

## ACTIVITY 8

### LEARNING OUTCOMES:

- Reflect on the case study and the prevalence of cholesterol problems in the island community/ island.
- Identify measures you can take to increase good cholesterol and reduce bad cholesterol.
- Identify the role of women in helping to reduce cholesterol problems amongst family members.

Time: 1 hr. 30 minutes.

Materials: Case study 2, fact sheet (Cholesterol) copies.

Instructions: Share the case study, discuss and ask questions.

### CASE STUDY 2 – CHOLESTEROL AND WOMEN

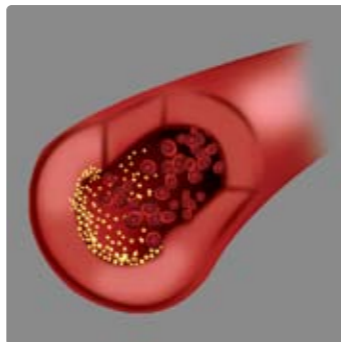
Aroosha is shocked. She just collected her blood report. Her cholesterol was 45 points higher than it should be. She never thought she would be at risk of cholesterol. Azlifa has heard about a lot of friends with cholesterol problems. She has no idea of what to do now.

Total cholesterol is the total of the bad cholesterol and good cholesterol. Even though the total cholesterol is high, high levels of good cholesterol and low levels of bad cholesterol reduces the risk of heart disease to some extent.

Share the case study with the participants.

### ASK THE FOLLOWING QUESTIONS-

1. Imagine you are Aroosha, how would you feel?
2. How can you help Aroosha?
3. Is cholesterol a major problem amongst women in the island?
4. Are many people aware of what cholesterol is and the causes of high levels of cholesterol?
5. Share the fact sheet on cholesterol with the participants. Give them time to read.
6. Discuss the role of women (as those who plan and prepare food) in helping reduce cholesterol problems amongst family members.



## ACTIVITY 9

### LEARNING OUTCOMES:

- To raise awareness of women being more at risk of osteoporosis than men
- Identify ways by which we can lower the risk of osteoporosis
- Plan and identify methods by which they can create awareness amongst others regarding osteoporosis

Time: 2 hrs.

Materials: Case Study 3, Fact Sheet (Osteoporosis)

### INSTRUCTIONS:

Share the Case Study, discuss and ask questions

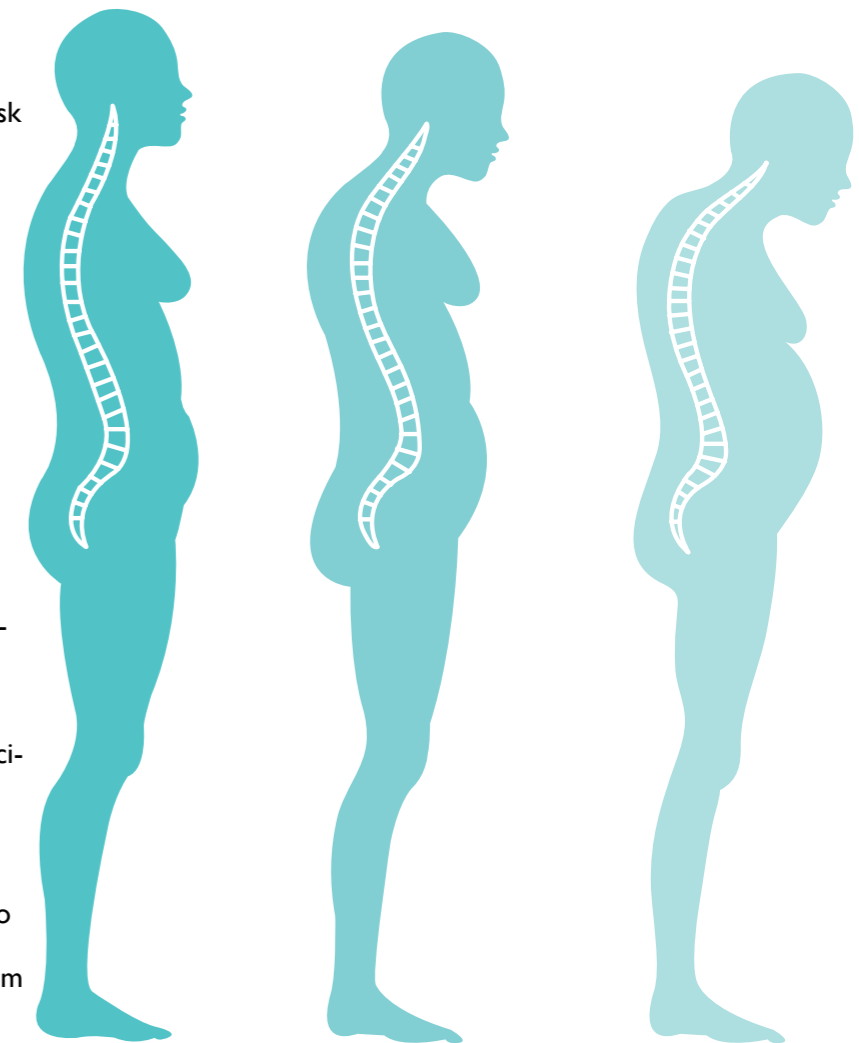
### CASE STUDY 3- WOMEN AND OSTEOPOROSIS

It is sad to say but science indicates that women are more prone to suffer from osteoporosis than men.

Women of all ages are required to be more cautious to take measures to keep their bones strong. Many women in our families and in our island already suffer from osteoporosis. How can we build strong bones to lower the risk of osteoporosis?

### INSTRUCTIONS

1. Share the case study with participants.
2. Find out from the participants the prevalence of osteoporosis in their community/island.
3. Ask the following questions- Do any of your family members, relatives or friends suffering from osteoporosis? What are the symptoms
4. Share the Fact Sheet. Give time for participants to read.
5. Discuss the contents.
6. Ask the participants to plan actions they are going to take to create awareness and help family, friends and relatives to take measures to lower risk of osteoporosis.
7. Ask the participants to form a group (amongst those who are interested) to create awareness of osteoporosis in the community (especially amongst women).





## ACTIVITY 10 LEARNING OUTCOMES:

- Make coordinated efforts to address the shortage of fresh fruit and vegetable availability in the island
- Decide on home gardening as a possible means for self-sufficiency and also for getting fresh vegetables and fruits.

Time: 4 hrs

Materials: Case Study, poem (provided with the toolkit)

## CASE STUDY 4 – SHORTAGE OF VEGETABLE AND FRUITS

Humeysa says she is tired. She has been walking from shop to shop to buy some vegetables and fruits. They do not seem to have much except for pumpkin and eggplant. She says she is fed up of eating the two. The only fruit available is banana, and they seem to be over ripe. No papayas either. She says she even tried the boats that came in from other islands. But no luck.

### INSTRUCTIONS

1. Share the case study with participants. Discuss the shortage of vegetables and fruits in the island.
2. Discuss the possible alternatives. Suggest the possibilities of growing their own vegetables and fruits in their back yard or even in front garden.
3. Discuss the following aspects.
  - Growing your own vegetables is self-rewarding. You get your own fresh vegetables.
  - It is a great hobby, and brings the family together.
  - It makes the garden bright and beautiful. You can even plant flowers in certain areas.

Share the poem provided with the toolkit. Discuss.

## ACTIVITY 11 LEARNING OUTCOMES:

- Identify the vegetables and fruit that can be planted and will grow in hot weather
- Develop a draft plan for gardening

Time: 3 hrs

Materials: Fact Sheet (Gardening)

### INSTRUCTIONS:

1. Organise participants into groups of 4 – 5. Ask them to list down plants and vegetables that are commonly grown in the island and those that are rare or hardly found.
2. Ask the participants to select the types of vegetables and fruits that they would prefer to plant (keeping in mind the varieties that grow in the tropics).
3. Discuss how to get seeds or seedlings, and whether land is available either in the front garden or backyard of the participants' houses. It can be a joint family project where everyone is involved.
4. Discuss all possibilities, such as parent teacher association members working with schools to create a garden plot in schools. It can be a project of school teachers, parents and students, and organized as part of co-curricular activities of students.
5. If land is not available suggest container vegetable gardening. Share the Fact Sheet for further information. Ask them to read through and make detailed individual plans for home gardening and group plans for school projects or anywhere else in the community.
6. Ask participants to complete a rough draft of the plan and timeline for collecting materials and starting the garden.
7. Discuss sources (government, NGOs and private) from where to seek help for information, seeds or seedlings.
8. Identify participants who have access to computers so that they can provide information on gardening. Plan monthly sessions for this group to meet with other participants to share knowledge. The session can also be utilized for sharing experiences.
9. The secret is starting it at a small level with what is available and then gradually expanding. Find out whatever is feasible for the participants.
10. Following are some useful sites for information.
  - <http://www.tropicalpermaculture.com/tropical-vegetables.html>
  - [http://journeytoforever.org/farm\\_library/AD9.pdf](http://journeytoforever.org/farm_library/AD9.pdf)
  - [http://www.ehow.com/facts\\_7720936\\_vegetable-gardening-tropics.html](http://www.ehow.com/facts_7720936_vegetable-gardening-tropics.html)
  - <http://gardening.about.com/od/vegetablepatch/a/ContainerVeggie.htm>
  - <http://www.vegetablegardeningguru.com/containers.html>
  - <http://www.hgic.umd.edu/content/documents/hg600.pdf>





## ACTIVITY 12

### LEARNING OUTCOMES:

- Plan recipes that are nutritionally healthy
- Make a compilation of healthy recipes

Time: 3 hrs.

Materials: Paper for writing, Fact Sheet (Preparing Food - keep the nutrients)

### INSTRUCTIONS:

1. Form small groups of 4-5 participants.
2. Ask the groups to write down one recipe for each group. These can include snacks, dishes for main meal, healthy rice dishes, healthy methods of preparing roshi (e.g. using wheat flour, and adding grated carrots, etc. to the flour while mixing). Details should be given of the type of oil to be used if any in cooking.
3. Tell the participants to utilize all the information they acquired in the course to prepare food that is healthy and ensuring that the nutritional value is not lost in cooking. Share the Fact Sheet (preparing food-keep the nutrients). Give them time to read and discuss
4. Recipes can be new or existing that have been changed to maintain their nutritional value.
5. A brief description of the nutritional value should be included.
6. Once the groups are finished get the groups to present their recipes. Let the groups comment and give constructive comments.
7. If there are similar recipes, choose the one that is more nutritious or try and bring adjustments to vary it.
8. Propose the idea of developing a recipe book based on the recipes (see Activity 12).. Select a committee from amongst the participants to work on it.
9. Ask each group to prepare a cooking demonstration for the next class. They should be told that they have to focus on the recipes they wrote today.



## ACTIVITY 13

### LEARNING OUTCOMES:

- Prepare healthy nutritious meals
- Demonstrate the preparation of recipes to selected observers
- Promote the ways nutritious values of foods can be maintained in preparation/ cooking

Time: 5 hrs

Materials: Cooking stoves for each group, cooking utensils, raw ingredients for cooking, markers, papers, blue tak and other necessary items

### INSTRUCTIONS:

1. Prepare posters and displays about cooking and healthy meal tips. Put them up.
2. Invite some of the community members to come and watch the demos.
3. Demonstrate the cooking of the pre-planned recipes.
4. Get feedback and comments from observers.



## FOOD MARKET/ FOOD FAIR

### ACTIVITY 14

#### LEARNING OUTCOMES:

- Plan for a food market (nutritious food)

Time: 2 1/2 hrs

#### INSTRUCTIONS:

1. Ask participants to prepare a half-day weekend food fair, once a month. This is like a canteen with many stalls. They can plan to have it in a community setting, where they will sell prepared food.
2. The food for sale should have nutritional standards which should be kept by anyone participating. The recipes have to be approved by a committee in advance (resource person).
3. Open it for the public. Each participating member or group will have to rent a table as their mini stall.
4. Plan to start off on a small level but with foods that are nutritious and easy to prepare and cost effective.
5. Advertise well to make an impact.



# FACT SHEETS WATER AND NUTRITION

Water is essential for human life and nutrition. It forms a major component of every body cell, tissue and organ.

## FUNCTIONS OF WATER INCLUDE-

- Regulation of body temperature
- Transporting oxygen and nutrients through the blood
- Removing waste through urine and faeces
- As lubrication for our joints.
- As a major component of our body fluids (as mucus and tears)
- Giving cells shape and stability

## TIPS-

- When you are out always carry a water bottle. You can always freeze some freezer safe water bottles and have it with you for ice cold water.
- Always prefer water to sweetened beverages and drinks.
- Serve water with meals. Always go for water even when eating out.
- If you need to make it more exciting add slices of lemon, cucumber, or watermelon to your water.
- For a refreshing low-calorie drink add a splash of 100% juice to plain ice water.
- If you do choose a sugar sweetened beverage select a small size.
- Try to be a role model to your family and friends

# FACT SHEETS - GOOD CARBS



Carbohydrates (sometimes termed as carbs) are an important part of a healthy diet. However, it is important to know that all types of carbohydrates may not be that good for you. Carbohydrates consist of sugars and starches and are found in foods such as rice, pasta, roshi, bread, etc.

Carbohydrates are classified into bad carbs and good carbs. The bad carbs are rich in processed sugar and fattening. Examples of bad carbs are - white flour, white rice, white pasta, and white bread; and processed foods (such as cakes, cookies, biscuits and chips); and foods rich in sugar such as puddings, custard and jams.

## THE GOOD CARBS ARE-

- Sweet potatoes
- Fruit and vegetables are a good source of carbs. They are rich in fibre and help the digestion and metabolism of other foods, are rich in nutrients, and are low calorie foods.
- Whole grains like oats and other cereals, whole wheat flour, whole wheat bread.
- Brown rice, millet, barley, etc.
- Beans, legumes, lentils, chick peas etc.
- Nuts and seeds

Fruits, vegetables and whole grain foods contain fibre which is a type of carbohydrate that the body cannot digest. Fibre is the form of carbohydrate that is not stored as sugar in the body; and it passes through the body undigested and helps eliminate waste along with it. Eating more fibre rich foods helps to lower risk of heart disease, diabetes, digestive problems/ disorders and constipation.

# FACT SHEETS - SIGNS OF PROTEIN DEFICIENCY

- The first signs of protein deficiency show on your hair and nails. Splitting and/ or falling hair and brittle nails are warning signs.
- Extreme tiredness, sleeping too much are also signs that you need extra protein.
- Irregularity in bowel movement is another sign of protein deficiency.
- If your muscles appear more flabby, showing slow muscle growth you need to get more protein.
- If your heart rate falls below 60 beats per minute get medical attention. Low blood pressure is one of the later signs of protein deficiency.





# FACT SHEETS - HEALTHY FATS

Research indicates that it is not the amount of fats we eat that matters. More than the amount, it is the type of fats we eat that matters. While bad fats are dangerous as they increase cholesterol levels and increase the risk of heart diseases, good fats react differently protecting our hearts and improving our general health. Omega 3 fats (a type of good fat) is essential for our physical and emotional health.

## THERE ARE MANY TYPES OF FATS. THEY ARE-

- monounsaturated fats
- polyunsaturated fats
- saturated fats
- trans fats

Out of these fats, the monounsaturated fats and polyunsaturated fats are the good fats, while saturated fats and trans fats are the bad ones.

## MONOUNSATURATED FATS AND POLYUNSATURATED FATS

- Olive oil
- Canola oil
- Sunflower oil
- Peanut oil
- Sesame oil
- Avocados
- Olives
- Nuts (almonds, peanuts, macadamia nuts, hazelnuts, pecans, cashews)
- Peanut butter
- Soybean oil
- Corn oil
- Safflower oil
- Walnuts
- Sunflower, sesame, pumpkin seeds
- Flaxseed
- Fatty fish (salmon, tuna, mackerel, herring, trout, sardines)
- Soymilk
- Tofu

Instead of adopting a totally no fat diet, go for good fat.

In order to eliminate trans fats from your diet, check labels for trans fats. Avoid commercially baked goods and fast food (which mainly contain trans fats). Limit saturated fats in your diet. Limit red meats such as beef, full-fat dairy products, and remove chicken skin whenever choosing chicken in your meals. Omega 3 fats are good to be eaten every day. Fish, walnuts, canola oil and olive oil are good sources of omega 3 fats. Decide on total intake of fats depending on your life style (active or not), weight, age and your health condition.



GOOD FATS



BAD FATS





# FACT SHEETS - ESSENTIAL VITAMINS

Women require certain essential vitamins to keep healthy and fit. For women there is more variance of the required amount of certain vitamins depending on the stage of life; such as where folic acid is required during pregnancy and vitamin D is required during menopause.

	Function	Sources	
Vitamin A	Keeping eyes healthy Preventing age related blindness	Fruits and vegetables - mainly tomatoes, guavas, carrots, pumpkins, and green leafy vegetables.	
Vitamin B6	Helps body metabolism and brain functions. Deficiency can lead to anaemia, poor brain function and even depression.	Bananas, cereals, oatmeal, avocados, beans, meat or chicken, seeds (such as pumpkin seeds).	



	Function	Sources	
Vitamin D	As a hormone. Regulates bone solidity together with calcium. Deficiency can lead to osteoporosis	Exposure to early morning sunlight. Fish. Vitamin fortified products.	
Vitamin E	Antioxidant. Production of red blood cells. Maintenance of integrity of cellular membranes. Helps slow down aging.	Nuts and nut products. Wheat germ. Cod liver oil. Corn oil. Sunflower oil. Margarine.	

“LET FOOD BE YOUR MEDICINE”  
-Hippocrates (the father of medical science)

Natural, whole foods are the best source of nutrients our body needs to consume, and also the BEST MEDICINES.

Taking care of yourself by providing the proper nutrition can make you live longer, maintain your youthfulness, and live a healthier and happier life.

## WHAT IS CHOLESTEROL?

Cholesterol is a waxy fat like substance found in some foods, in our blood streams and in our body cells. Cholesterol is essential for our bodies.

There are two types of cholesterol.

The bad cholesterol (LDL) is the main cholesterol carrier in the blood.

The good cholesterol (HDL) is (like the drain cleaner you pour into kitchen sink) the one which provides some protection to artery blockage.



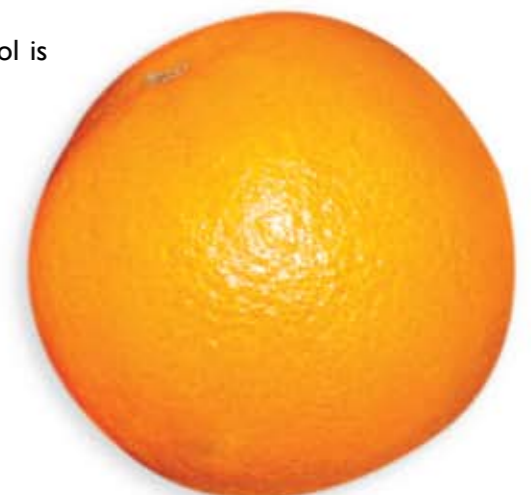
## WHAT ARE CHOLESTEROL RISK FACTORS?

They include diet, age, weight, gender, genetics, disease and lifestyle. Out of these factors, diet and lifestyle are factors which we can influence. The cholesterol already present in our blood can be increased by high consumption of cholesterol and saturated fat in our diet. Increase in dietary cholesterol can lead to build up of plaque which can lead to narrowing of blood vessels. This is like the kitchen drain pipes. When you pour fat and oils down the sink, it gets blocked. Risk of heart disease can be reduced by increasing good cholesterol.



## HOW CAN YOU ADDRESS YOUR CHOLESTEROL PROBLEMS?

1. Do not smoke. Smoking is a major cause of low levels of good cholesterol. Lead an active life style and include some form of exercise. Exercise helps to increase your good cholesterol.
2. Keep your weight under control. Being overweight increases the chance of lowering your good cholesterol and increasing bad cholesterol. Lead an active lifestyle.
3. Healthy diets help your cholesterol problems. Choose skimmed milk and low fat dairy products. If eating chicken or beef, trim the fat. Remove the skin from chicken.
  - Do not add fat to your cooking by frying or adding extra fats in any form. Use cooking methods such as steaming, sautéing, baking, boiling and grilling.
  - Use as little fats as possible in cooking and baking. Replace saturated and trans fats that raise your cholesterol by monounsaturated fats found in canola oil and olive oil.
  - Watch out for the cholesterol in foods. Cholesterol is found mainly in
  - animal foods. Cut down on cholesterol by reducing the intake of meat, eggs and other dairy products.
  - Eat foods that are rich in Vitamin C. There are certain studies that have found that Vitamin C in fruits such as oranges, broccoli and other vitamin C rich foods help raise good cholesterol.



But don't go for overloading yourself. Taking more than the adequate amount will not help.



## WHAT IS OSTEOPOROSIS?

It is a disease of the bones. The bones become weak and brittle or break easily. A broken bone can cause severe pain and prevent from moving or walking.

## WHAT BONES ARE AFFECTED?

It can affect any bone. But the more commonly affected bones are- hip, wrist, spine and vertebrae.

## ARE MEN AND WOMEN EQUALLY AT RISK OF OSTEOPOROSIS?

Women are more at risk than men. Women initially have lower bone density than men

At the same time, women lose bone mass more quickly as they age.

How will I get to know that I have weaker bones and am at risk of osteoporosis?

There are bone density tests which tell how fragile your bones are.

How can I build stronger bones?

Childhood is the time when the body does the most bone building. Being aware and making efforts during childhood and teen years to build strong bones is the best method.

## HOW CAN I HELP PREVENT BONE LOSS WITH AGING?

1. The best method is getting calcium through food, as these foods are also rich in other vitamins that will keep you healthier. If you need to take calcium tablets, seek the opinion of a doctor. Taking more calcium does not necessarily improve your bone density.

### SOME CALCIUM RICH FOODS ARE-

- Milk
  - Cheese
  - Yoghurt
  - Fish with bones.
  - Broccoli
  - Calcium fortified foods.
  - White beans.
2. Get enough Vitamin D as it helps absorption of calcium. Exposure to early morning sunlight is a good method of getting Vitamin D.
  3. Eat a healthy well balanced diet.
  4. Be active and involve in exercising and weight bearing physical activity.
    - Walking
    - Running
    - Climbing stairs
    - Gardening
    - Jogging
    - Hiking
    - Playing sports
    - Lifting weights
    - Yoga
    - Tai chi
  5. Don't smoke



It is best to eat vegetables (that can be eaten raw) in their raw state. Cooking beyond a temperature of 118°F tends to lose their nutritional value. Salads are a great way to get maximum nutritional benefits of vegetables. Preparing smoothies are also a great way to enjoy the benefits of vegetables and fruits. In a blended creation of fruits (even mixing a few vegetables such as beetroot and carrots) if preferred sweet, a little amount of natural honey or low fat yogurt is extremely beneficial.

Tomatoes benefit from heating. Lycopene, a vital photochemical found in tomatoes are made possible for absorption to the body through heating. The antioxidant powers of carrots are also increased through cooking. Hence, these 2 vegetables form exemptions

Much of the nutrients in vegetables tend to lie close to the skin surface. Overzealous trimming of vegetables tends to lose much of their nutritional value. Scrubbing and washing vegetables well are preferred to peeling. If peeling, trim it as thin as possible.

Some vitamins dissolve easily in water. Hence, prefer methods such as grilling, roasting, stir-frying, steaming or microwaving to preserve greater amounts of vitamins.

If you boil vegetables (please, do not over boil) and instead of throwing away the water use it for curry sauces etc. It is harmless if the vegetables are scrubbed clean before boiling.

Do not over-cook any food, whether vegetables fish or meat. Avoid methods such as deep frying. If needed to fry, either pan fry or stir fry with as little oil as possible.





# FACT SHEETS - GARDENING

Where availability of land is a problem, container gardening is a choice. This is also easier for women as they do not have to go into digging and preparing plots. Plots can be used where help from other family members is available, and space is not a problem. In cases of salinity and the need for raised gardens because of easy flooding and tides, container gardening is often times better.

Containers for gardening can range from plant pots, big wooden boxes, buckets, pails, empty paint containers, plastic bags, big water bottles, large food cans, or any other containers that you find in your own environment. The size of the container can be decided depending on how big the plant is. Whatever kind or colour of container used, it should have holes in the bottom or base to drain excess water.

Containers require more frequent watering than plants in the ground. When the roots expand and grow, it will need more water. Instead of waiting to see the plants wilt it is wise to judge and check the need for water.

Some vegetable and plant varieties that can be grown in the tropics and are suitable for containers are egg plants, carrots, cucumbers, beans, pumpkins, peppers and chilies, onions, radishes, tomatoes, sweet potatoes, kangkong, spinach (boaveli), cassava (yams) and a number of green leafy vegetables.

If you have enough space and prefer to plant it on the ground, you can do so. If you have a tiny garden, there is no need to crowd everything in one specific place. You can grow leafy vegetables as edging along borders and create your own work of art. If there is more space, bigger plots can be taken and the plots split into paths with space in between so that you don't have to walk on cultivated soil and damage the plants.

He who plants a tree  
Plants a hope.  
~Lucy Larcom, iPlant a Treei





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