

Slide 1: Hi everybody welcome back to the session today and last two classes we have seen what are the basic food groups, how a balance diet can be defined, what are the components of various balanced diet, and then we have also seen how the food guide is useful for planning a meal. Now let us go to what is actually a meal planning. So with meal planning, we have to think what to eat, when to eat, and how to eat.

Slide 2: So what is a meal planning? Meal planning involves planning, purchasing, preparation, and serving. So you can see here the entire group is sitting for planning a meal. So if it is a family, the entire family can sit together discuss and plan a meal together. Then for purchasing you better go to a wholesale shop and purchase, therefore you get a variety as well as the cost will be reduced. Then for preparation you plan beforehand and try to combine various foods and prepare food. And serving, serving also is an important thing, when the entire family should sit together and have at least one meal a day and the way serve, it makes a lot of difference in eating the food.

Slide 3: So while planning a family meal, you should take in account their age and occupation of the entire family members, because you have different age groups and different types of work they attend to, so all these have to be taken into consideration. With the help of the food guide you start selecting the foods, which are suitable for different age and the occupation and so amount of food needed is to be decided for each group, because a younger one may require less amount of food compared to an adult, therefore you decide the amount of food for each group and then use seasonal vegetables and fruits so that they are fresh at the same time inexpensive and you get a lot of variety. Then pick the foods which add up to meet the needs of various family members. So it should not be that, you use the food, which one of the family member likes. So you choose a food which the entire family likes. Now for this cooperation will lead to great acceptance and enjoyment of meals. This cooperation comes when everybody is involved in planning a meal. So that they adjust to whatever is planned and they are ready to accept the food that is prepared. And this is intimately connected to the food purchase. So whatever meal you plan, so the ingredients that are required for preparing a meal is already there with you so it is related to the purchasing of food. Now purchase of food depends upon the space and condition of storage. Suppose you don't have a large space for storage, how do you buy large quantity of the grains and vegetables. So grains we were talking about, to buy the grains when this season is there. So... but buying large quantities of grains is impossible if you do not have proper storage space. Therefore depending upon the space and condition of the storage we buy the vegetables and the other food.

Slide 4: So how do we go about in the meal planning is, you follow a daily food guide, then... and in the daily food guide, you first take the cereals and breads, because the maximum quantity is the cereals and bread in our diet. Then you think of the bodybuilding foods. So you have 3 to 5 servings for children, 5 or more servings for teenagers, and 4 servings for adults. Because children are in the growing period they require more protein, and then teenagers also are very active and also in the growing period, they require a little more, and but adults the protein requirement is only for maintenance of the body. Therefore the number of servings required for an adult is lesser. And then after that you always search for green and orange or

yellow vegetable and fruits. Because green, orange and yellow fruits and vegetables are rich in vitamin E, at the same time rich in vitamin C, and you get most of the minerals and vitamins from them. And then you select the foods, which are rich in vitamin C like citrus fruits, guava, green chilies also have sufficient amount of vitamin C, so therefore you select them. Then after that you select the other vegetables and fruits to cover up all the minerals and vitamins. The last thing, which you add in your meal planning is the fats and sugars. So these fats and sugars must be, the maximum should be 25 grams not more than that.

Slide 5: Now the objectives of meal planning should be one is to satisfy the nutritional needs of the entire family members according to the age and occupation. So you take into consideration each and every member of the family, starting from an infant to the old age. So infant I mean when it starts eating the food. Then keep the expenditure within your family food budget. When all of us sit together and plan, some of the family members may want food which is very expensive, then we try to convince, and keep the food within the budget, that our family requires. Then decide the amount of food to be purchased from each group. Because if you don't plan and purchase the food, most of it may go waste or some of it may be wasted without using the food. There for unnecessary purchasing is an expenditure. Then consider the family size, composition, and food storage. You should think how much storage space you have, what is the composition and what is the size of the family. So depending upon the size of the family, you bring the material.

Slide 6: Then after we plan the mean, it has to be converted into a meal, isn't it. So prepare the food purchase list according to the family members, then use the cooking methods, which retain the nutrients with palatability, that means you should follow the tips where you do not undergo a loss of nutrients during your cooking process. So select methods which preserve the nutrients, so that you give good nutrients to the family, and serve meals which are appetizing and attractive. Always when you serve hot food it is appetizing and attractive and at the same time you take a little trouble and make it attractive, it's acceptable by the family members. Manage the time, energy and available materials to prepare the meals. Then make a weekly plan of all the meals, so that you are prepared for the entire week, what you want to eat and what you want to serve the family members, so that it saves time, energy and money also when you buy in lot. So at the same time when you plan meals for an entire week, you will avoid the monotonous meals in the week.

Slide 7: Then you have also to think about the nutritional adequacy of the meal. So the mean should... meal that is planned should meet all the nutritional needs for the whole family and this can be done by selecting the foods from daily food guides so that the cycle goes on without any problem.

Slide 8: Now what an each meal should include. You should include foods that give energy and protein, that means you have to include cereals and their products, which are the main source of energy and they also provide protein, because they are eaten in large quantity. Then you have to select the foods that supply vitamin C and vitamin A minerals and fibers which are present in vegetables and fruits. Then you have to also feel that the food is satisfied. Therefore

you have to select these sugars, fats and oils, which give us energy, satisfaction and also taste to the food. Then the main thing is the protein, which is supplied by dals, milk, egg, and fish. This supply, proteins, vitamins and some of the B-complex vitamins and also some minerals. So all these should be included in a good meal.

Slide 9: The food is supposed to be the basic necessity of life. Our existence is because of food. So if the allowances of food is low, then there is a greater need for planning the meal very carefully. So to ensure the nutritional adequacy of each the family member, you have to take proper care and see that all the nutritional needs of each family member is met in a manner that it... it meets the recommended dietary allowance.

Slide 10: Now you also have to think the cost of the food, so first decide what is the budget that has to be spent on food. So that when you go to the market you don't exceed the budget and purchase more amount of food. Then select foods which are available within the budget that is available. Select the, whatever is the choice of food, select the best ones within the budget that is available with you, then plan meals and buy food. So just without planning meals, if you go to the market you can buy whatever is not necessary also. So to plan your budget you have to plan meal and then go to the market.

Slide 11: Then economic sources of various nutrients you have energy foods, grains and starchy roots are economical. All the root vegetables are rich in starch and starch is nothing but carbohydrate which gives us energy. So this is an economical source of the energy. Then grain supply protein in addition to energy. I told you, when we have seen about the carbohydrates, we see cereals also supply 6 to 11 grams of protein per 100 grams, apart from the calories they supply. So you can include cereals as a part of protein also. Then fats, oil, sugar and jaggery used to make the food palatable, and also they are source of energy, but these are expensive. So we need not plan foods in such a way that we can... we have to use lot, or the foods which require deep fat frying can be avoided, therefore you can reduce the cost of food preparation. Then butter and ghee they are the good sources of vitamin A and we were discussing that butter and ghee can be prepared at home so that it works out to be less expensive. So know the cost and select the ingredients, which are rich sources of energy. Now protein foods, you can select dals and whole beans, which are supposed to be the cheaper foods, compared to the meat poultry fish and all, which are also rich in protein. So you can select the dal and whole beans. Then fresh fish, if among the nonveg, the fresh fish that is available when you purchase it near the river side, that will be cheaper, compared to wherever there is no river and the fish comes from somewhere else, the cost of the fish increases. So whoever says on the river banks or the place where river is near, cheap is... fish is available cheaply and that can be used as a source of protein. Then cuts of meat also can be used as a protein food. And in rural places you see, they have kitchen gardens and they also have poultry. So out of the poultry they can get eggs and poultry by growing in their own home. So milk also is an important protein. At the same time, we can buy the milk from the government sources and if it is a rural area they have rare animals, and the milk can be taken from home.

Slide 12: Vegetables and fruits, they are important sources of vitamins and minerals. So some of the vegetables which are seasonal so at... when during the season they become very inexpensive. For example you take tomatoes, during off season the rate goes up to 70 to 80 rupees per kg and in the season it comes down to 1 rupee a kg. So you by seasonal vegetables and they become inexpensive. So various greens are available throughout the year. So many have a very bad opinion about greens that they... that is a poor man's diet, but greens are richest sources of vitamins and minerals and these are available throughout the year, one or the other green leafy vegetable is available throughout the year, let us make use of that to have a nutritious food.

Slide 13: And in rural areas the food budget is completely different than this city dwellers. They are not salaried people so they cannot plan their budget. So one thing is they can grow vegetables and fruits that is needed in their kitchen and they can have staple foods that are grown in their own firm and they can have, I mean store it for the entire year and they can grow dals and vegetables fruits also for their home consumption in their own farm. So the quantity of their diets and the quality of diets also will be highly improved if they have all the food groups put into your... into their diets.

Slide 14: Now factors affecting food selection are, one of the main thing is food acceptance. Unless you accept the food selection, it becomes very difficult. Suppose you go to market and you don't get the food that you accept, it becomes very difficult job for the person, who is purchasing to buy the vegetables also. Then food misinformation, sometimes quack information quack is there regarding foods and giving a false information about food, you have food fallacies, you have misconceptions about food. All these will affect the food selection. When you think something is wrong about the food, you don't select that food, though nutritionally it is very good, because the knowledge about the nutrition of that particular vegetable is not known. Then tradition, traditionally some foods are not eaten. So though they are very good, for example pumpkin is... in some places pumpkin is not eaten, though it is grown, it is not eaten, but it is a very nutritious vegetable. So like that traditionally also some foods are avoided and some foods are accepted. Therefore meal planning is very important to have a very good diet for the family and keep the family healthy and based on the plan of the meal, we can select the foods, we can purchase the foods and prepare the foods in such a way that all the members have a satisfactory meal with good nutrients. Thank you.