

10. PROCESS OF MEAL PLANNING

In the last chapter, you read about the significance principle and the factors influencing the diet, the process of planning the diet at home is done at some level by every housewife. Some housewives buy fruit vegetables for a week in advance, dry ration collects for a month, they think about the meals from morning to evening for next day. In this chapter, we will discuss about the practical process of balanced diet plan for the family. Its principles and influencing factors should be kept in mind before planning a diet to reconsider these points briefly :

- (i) All the nutrients are met by the daily needs of all the members of the family by planning a diet.
- (ii) Diet plan should be done by considering the entire day as a unit i.e. planning of different diets for the whole day.
- (iii) Diet planning can save a lot of time and energy of the housewife and should be according to interest of family members.
- (iv) 3 to 4 meals are planned primarily in one day but according to the needs and habits of the individual and family members. The number of meals given in the day can be reduced or increased.
- (v) There should be a gap of at least 2 to 3 hours between each meal and the time of the first meal should be taken from 7:00 am to 8:00 - 9:00pm.
- (vi) Diverse food preparation should be done throughout the day by selecting different age groups. Quantity of food items should be considered with the nutritional requirements of the members.
- (vii) It is necessary not only to achieve balanced and nutritious diet while feeding, but the food should be attractive, tasteful and digestible, in which the person can achieve complete fulfillment and satisfaction.

How to plan a diet?

Some practical things are essential before planning a diet if you observe the process of making and serving food in two or three houses, you will see that :

- (i) The method of taking raw food items to make food is different from each house Quantity of food items such as dry lentils or rice etc. are also measured in similar way. Each housewife has its own measurement, some of take flour by handful while others use cup or glass or bowl.
- (ii) Chapatti size varies house to house, some use thin while other make thick. Likewise, some prepared thick dal while others thin. In making curry vegetables, ingredients used for it may be different and vary in cooking methods.
- (iii) There are also different utensils, such as glasses/ bowl/spoons, which are served in the houses, food served in the big bowl to the older members, while the small children are served in small bowls.

On the basis of above observation, you will find that if we prepare a diet plan in the common manner such as two chapatti, one bowl of pulse, half cup raita, one plate rice, half bowl vegetable etc, then the quantity of food items eaten by two families will be different for the members, because the utensils or units

used in the service of serving food are different for measuring the food items in the family. The amount of nutrients received from these will also not be appropriate for different members or different families. For example, if two housewife prepare chapatti, then

flour quantity may be different. The quantity will be different, if the housewife planned a diet on the basis of the number of chapatti, the amount of dough used for the same number of chapatti is used different. Similarly, other food items can also vary from family to family.

Table 10.1 : Reference unit of raw food for planning a diet

Food Ingredients	Reference unit (gm)	Food Ingredients	Reference unit (gm)
Grains	30	Green Vegetables	100
Pulses	30	Other vegetables	100
Egg	50	Fruits	100
Meat/Fish	50	Sugar	5
Milk	100	Butter/oil	5
Tuber	100		

A normal size and thickness of chapatti is made of 30 grams of flour, which is neither too small nor too big, nor is it thin or thick, 30 grams of dal fills with a medium sized bowl may satisfy for a normal person. The weight of a normal egg and medium sized fruit is

approximately 50 grams & 100grams, respectively. Similarly, non-vegetarian dishes such as meat fish etc., at least 50 grams of raw food is required. In this way, for any type of vegetable served to a normal adult, at least 100 grams of raw vegetable is required.

Table 10.2 : Balance diet for girls (13-18 Years; NIN - 2010)

Eating Unit	Reference Unit (gm)	Consumption unit		Total Amount	
		13-15yrs	16-18yrs	13-15yrs	16-18yrs
Grains	30	11	11	330	330
Pulses	30	2	2.5	60	75
Milk	100	5	5	500	500
Tuber	100	1	2	100	200
Green Vegetables	100	1	1	100	100
Other vegetables	100	2	2	200	200
Fruits	100	1	1	100	100
Sugar	5	5	5	25	25
Butter/oil	5	8	7	40	35

Note : Non vegetarian person can use 50 gm of egg/meat/fish in place of 30 gm dal/day

We can not change the utensil to be used at home for serving and cooking, therefore it is necessary that in order to estimate the quantity given in the reference unit, choose any utensil available in the house and to measure the quantity of different types of food items to be filled in it. We can use measuring spoon or set of glasses or weighing balance to measure the quantity of food.

Now, as an example, we will see that how many reference units of different food items should be included in a teenager so that the diet can be balanced. In the table, 10.2 (13 to 18 year old teenager), the

required variety of various items, unit and total quantity is given. This quantity of food items has been proposed by the National Institute of Nutrition, Hyderabad. It shows that you should use different units of different food groups throughout the day to take a balanced diet, as per our food related habits and the time of the meal. We should use different units of different food groups throughout the day. To help you, for example, a teenager whose age is 17 to 18 years student of class 12th and stays in school upto 2:00 pm daily from 8:00 am is being given a day diet plan table no. 10.3

Table 10.3 Meal planning for girls

Time	Food Item	Quantity	Food Groups	Unit
Breakfast 7-7:30 am	Milk	1 glass	Milk	2
	Toast	2 Bread	Grain	2
	Cereals	1½ Plate	Sugar	1
	Idli/Dosa	2	Butter	1
School Tiffin	Cereals	1½ plate	Grain	1½
	Idli/dosa	2	Oil	½
			Root vegetable	½
			peanut	½
Lunch 2-2:30 pm	Chapatti/rice	2/1 spoon	Grain	3
	Lentils spinach	1 bowl	Butter	1
	Vegetable curd	¾ bowl	Lentils	1
			Green veg.	½
			Oil	½
			Milk	½
Snacks 5-6 pm	Tea	1 cup	Milk	½
	Biscuit	4	Sugar	1
	Fruits	1	Grains	1
			Oil	2
			Fruits	1
Dinner 8-9 pm	Chapatti	3	Grain	3
	Rice	½ plate	Butter	1
	Beans	1 bowl	Grain	1
	Cabbage/potato	1 bowl	Lentils	1
			Root veg.	½
			Oil	½
			Cabbage	1
			Potato	½
			Oil	½
Before sleeping	Milk	1 glass	Milk	2
			Sugar	2

Table 10.4 Total units of food items

Food groups	Breakfast	tiffin	lunch	snacks	dinner	Before bed	Total
Grains	1	1.5	3	1	3+1	-	10½
Lentils		½	1	-	1	-	2½
Milk	2	-	½	½	-	2	5
Root veg.	-	½	-	-	½+½	-	1½
Green veg	-	-	½	-	1	-	1½
Other veg.	-	-	½+¼	-	-	-	¾
Fruits	-	-	-	1	-	-	1
Sugar	2	-	-	1	-	2	5
Oil/butter	1	½	1+½	2	1+½+½	-	7

You saw in the table above :

- (i) We distribute the total amount of essential nutrients for a balanced diet of a teenager on the basis of unit number for various reasons throughout the day.
- (ii) This diet plan is sample for one day only, you can make changes in the selection of the food items and the recipes made for daily consumption. But keep in mind that the total amount of quantity of food items should be supplied by various food items. Regarding the substances you have read in detail in class XI, for example, grains like wheat rice maize millet etc., gram mung bean etc. from dal family is consumed.
- (iii) Parathas can be made from various food items such as cereals, grains of cereal, etc. Instead of biscuits, in the breakfast, Poha, Semolina, oatmeal or idli dosa can be used. Other dishes of dal instead of plain dal like dry pulses, kadi, pakora, kachori and pudding can also be eaten.
- (iv) The nutrition may vary as per age, body stature, physiological state and activities. A small height 14 years old girl having thin body with less active require less nutrition than a girl of 16-18 years with highly active. The only change made
- (v) in the energy content of food by reducing ghee/ oil and sugar, no need to make changes in protective food like fruits, vegetables, milk, pulses etc.
- (v) In addition to the personal diet and dietary habits of the teenager, the quantity of food consumed in the food can be reduced or more, but this change should also be done in the energy consumed foods, not in other food items.
- (vi) There should be flexibility in the daily diet plan of the teenager, for example, instead of 10 units of grains, 8 to 9 units can be consumed from 11 to 12 units on one day, and in the same way, green leafy vegetables can not eat at all. Some day can be given only 2 times, but such a change should not be for long. Consumption of sweets for longer period will lead to obesity. Protective food items such as pulses, fruit and a vegetables. Physical growth should not reduce as they may increase the chances of blockage or disease.
- (vii) We can plan a balanced diet in low income by selecting cheap and available food items instead of the included food items in the above diet, for example gram dal can be selected instead of rajma.

Advantage of planning diet with reference unit :

- (i) With the help of reference unit, not only students, but also a less educated housewife can easily plan a balanced diet.
- (ii) The diet can easily be balanced according to the financial condition.
- (iii) Various types of food items are included under the food group, the age of all the members of the family, depending on the demand of nutritious on the basis of sexual orientation, etc., can be used to make the food balanced by easily selecting food items.
- (iv) Balanced diet can be plan with taking food items, or measuring the quantity of different food items which are filled in any vessel available in the house.
- (v) Do not include the baby upto 1 year in the consumer unit

In this way you have seen that with the help of consumption units you can plan a balanced diet for yourself. With the consumption of balanced diet, you will be healthy and will be able to do creative work for your society and nation. You will study in next chapter about nutrition requirement for different age group, income group, activities and physiological conditions. Nutritional requirements are based on changes in body as well as specific characteristic of group. Therefore, all points are included in the chapter so that student can plan diet as per specific requirement of individual.

Important Points :

1. Diet is planed at some level in every home by the housewives, but it is not necessary that it is balanced diet.
2. Food should be plan with considering the principles of diet and influencing factors.
3. The measurement of the utensils used in the home to prepare food vary in size of raw foods.
4. To measure the various food items, the housewife can choose one of the utensils available in the house and the can be measure with the glass to estimate the food items to be filled in it.

5. She should use reference unit to plan a balanced diet for herself and her family according to need and limited resources.
6. The reference unit is the amount of food that is called its quantity which should be prepared for the food based on that food item.
7. With the help of the reference unit, students can plan a balanced diet according to the family members, including various types of food items.

Questions :

1. Choose the correct answers for the following question :
 - (i) The least amount of food that we need to make the food based on :
(a) Food groups (b) Foods
(c) Reference units (d) Measurements
 - (ii) Reference unit of green leafy vegetables is :
(a) 50gm (b) 200gm
(c) 100gm (d) None of above
 - (iii) Teenage girls of the family drink a glass of milk every day :
(a) Unequal (b) Definite
(c) Equal (d) None of above
2. Fill in the blanks :
 - (i) Diet should be planned by considering of the whole day
 - (ii) To diversify the diet, various food items should be included with the choice
 - (iii) To plan a balanced diet for our family, we should use
 - (iv) By selecting cheap and available food items,we can organize a balanced diet in low
3. What is the reference unit and what is the importance of planning diet?
4. How to plan your home diet as a skilled housewife. Explain.

Answers :

1. (i) c (ii) b (iii) a
2. (i) Activities (ii) Individual
(iii) food groups (iv) Income