
UNIT 13 NUTRITION DURING EARLY CHILDHOOD

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13.1 INTRODUCTION

In Units 12 and 17 of DECE-1 you were introduced to the main points to keep in mind while feeding toddlers and preschoolers. This Unit would help you to learn more about their nutritional requirements and how you can plan good diets for them.

Objectives

After studying this Unit, you should be able to:

- list the recommended dietary intakes for energy and protein in the case of toddlers and preschoolers
- describe the importance of regular weight gain in early childhood
- list factors influencing meal planning for toddlers and preschoolers
- discuss feeding of young children in child care centres.

13.2 THE TODDLER

You are already aware that toddlerhood brings with it a rapid increase in height and weight. The toddler is able to walk and then run. She is also able to grasp and manipulate objects around her. Her absorbing interest in the world around her helps her to explore her environment.

What are the nutritional needs of the toddler? How can we make sure she gets adequate amounts of nutrients from her diet? We will answer these questions in the subsequent discussion.

13.2.1 RDIs for the Toddler

The recommended dietary intakes for the toddler are given in Table 13.1. *As in the case of the other age groups we have studied, we will focus only on energy and protein.*

Table 13.1: RDIs for Energy and Protein for Toddlers (1-3 years)

Nutrients	RDIs for Toddlers
Energy (Kcal)	1240
Protein (g)	22

Source: Nutrient Requirements and Recommended Dietary Allowances for Indians, ICMR (1990)

Increased physical activity and rapid growth leads to high nutrient needs. In general, the requirements for nutrients is high when we consider the small body size. In addition to providing energy and protein we must take particular care to include rich sources of calcium, vitamin A and iron in the daily diet. Do you know why this is so? Yes, calcium is necessary to keep the bones and teeth strong. Vitamin A maintains good vision and the health of the toddler's eyes and skin. Iron is needed for maintaining haemoglobin levels in the blood. As the toddler learns to walk and to explore the environment, she is also exposed to various infections. Protective nutrients such as vitamins and minerals help to keep her healthy and also promote recovery when she is ill.

13.2.2 Meal Planning for the Toddler

The meals offered to the toddler must include items from each of the three food groups such as energy-giving, body-building and protective/regulatory. We must be careful to include energy-rich foods such as cereals, protein-rich foods such as pulses, meat, egg, calcium-rich foods such as milk and milk products and iron-rich foods such as meat (liver), pulses and green leafy vegetables.

The types of meals we would offer to the toddler depends on the income of the family, regional/social factors determining food selection and preparation for the young child. With her growing independence, the toddler quite often likes to feed herself and develops definite food preferences.

After crossing the age of one, the appetite is good though the number of feeds may be less than earlier. Bite sized foods (or finger foods) which are easy to handle are enjoyed most by the toddler (Figure 13.1). However it is best to give raw foods such as apples or carrots in pieces large enough to hold. Larger pieces are safer than small chunks. Small pieces may result in choking.

Toddlers approaching the age of two can handle a small apple or a large section of it. Whole nuts should be avoided and they should be broken up. Meat and fish should be cooked tender; bones should be completely removed and meat should be mashed to prepare it for finger or spoonfeeding. It is important to supervise young children closely when eating.



Fig. 13.1: Children enjoy finger foods

Special efforts have to be made by the caregiver to encourage toddlers to eat different kinds of fruits and vegetables. However, a child should never be forced to eat any food.

Any food which is poorly consumed should be offered to the child when she is hungry. You could offer vegetables first while other foods are being prepared. Different vegetables could be steamed, for example, and spread on a plate. As she eats, the toddler could learn to differentiate between red carrots, white cauliflower flowerettes and green spinach and pale green cabbage.

Parents or caregivers often soothe or reward a child by giving foods such as biscuits, crackers, chips, chocolates or toffees. However we must remember not to offer these too close to mealtimes. This would result in the toddler eating less of her regular meals. Eating sweet items constantly can cause cavities and spoil the child's teeth. Convenience foods such as noodles should not be used too often. They contain chemicals such as preservatives and flavouring agents.

Toddlers quickly pick up the likes and dislikes of their parents or other people around them. This is the reason why likes and dislikes should not be mentioned or emphasized in the presence of the child (Figure 13.2). Also, the toddler would have preferences of her own. She can become quite assertive about foods she accepts and rejects. It is best to introduce new foods to the child, one at a time. Only small amounts should be given. The child should never be forced to eat. A food once rejected can be tried again after a few weeks. The child may eat it the second time. In the second year, temper tantrums and refusal to eat may be common in some children.



Fig. 13.2: Attitudes of parents influence the child's food habits

Foods served to young children should not be too spicy. This is because their digestive tract is tender and can be easily irritated. Foods rich in fibre should also be avoided. Toddlers are very sensitive to taste and hence strongly flavoured foods may not be accepted.

Toddlers like to participate in feeding themselves. They are capable of more refined cup drinking and better chewing. By two years of age they can feed themselves with a spoon and by three years of age they can suck through a straw. The child would eat best with the family, learning by imitation.

We must remember that each child is different and has her own pace of growth. We should never force a toddler to accomplish tasks such as feeding before she is ready for it. This makes her feel ashamed and makes her doubt her own abilities. On the other hand, the toddler may take on tasks which are too difficult and must be restrained from risky activities such as cutting with a knife.

Toddlers are constantly on the move. They find it difficult to sit still and concentrate on any one activity for a long period. Hence feeding time tends to be short. Colourful foods in interesting shapes and varied sizes help to attract their attention.

A regular meal pattern is of great importance. The toddler cannot eat much at a time and does not like to spend time eating. So, small frequent meals are best. Snacks which are easy to eat and rich in nutrients such as energy, protein, vitamin A, iron and calcium should be offered. As in the case of the infant, bulk is a problem for the toddler as well. Items such as laddoos and biscuits are good if they are properly planned. Toddlers may eat little of these items but that gives them enough needed nutrients. They can easily be held by the child as she plays.

Toddlers who are ill or are recovering from illness need special attention. A toddler who loses weight is at great risk. Suitable amounts of food cooked in a soft, easily digestible form must be offered. Foods rich in energy, protein, vitamins and minerals as well as fluids should be given. When the child reaches her original weight and starts gaining weight again, we can consider her to be out of danger. Preparing the toddler's favourite foods often motivates the child to eat well, particularly during the period of recovery. Breast feeding should be continued in the early period of toddlerhood.

Check Your Progress Exercise 1

- 1) Sita is two years old and very active. List any five important points you would consider in planning meals for her.

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- 2) How do RDIs for energy and protein change from infancy to toddlerhood?

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13.3 THE PRESCHOOLER

The preschooler maintains a steady pace of growth. Like toddlers, preschoolers are very active. During the preschool years the bones of the arms, legs and trunk grow rapidly. Muscular growth is significant with improvement in muscle tone and strength. The brain, lungs and heart function better. These changes help the preschooler to learn new skills and refine them, as you have learned in Unit 17 of Course 1.

The needs for growth and activity determine the nutrient requirements. The discussion which follows will tell you about the nutrients to emphasize in the preschooler's diet and points to keep in mind while planning meals and snacks.

13.3.1 RDIs for the Preschooler

How much of energy and protein does the preschooler require? Table 13.2 gives you the answer.

Table 13.2: RDIs for Energy and Protein for Preschoolers (3-6 years)

Nutrient	RDIs for preschoolers
Energy (Kcal)	1690
Protein (g)	30

Compare this with RDIs for energy and protein for toddlers given in Table 13.1. RDIs have increased in the case of both energy and protein.

As in the case of toddlers, the nutrients to emphasize include energy, protein, calcium, vitamin A and iron. Figure 13.3 gives you an example of an interesting chart which could be used to indicate the importance of vitamin A rich foods when you talk to parents. Charts like this could be put up in the room where you feed the children.

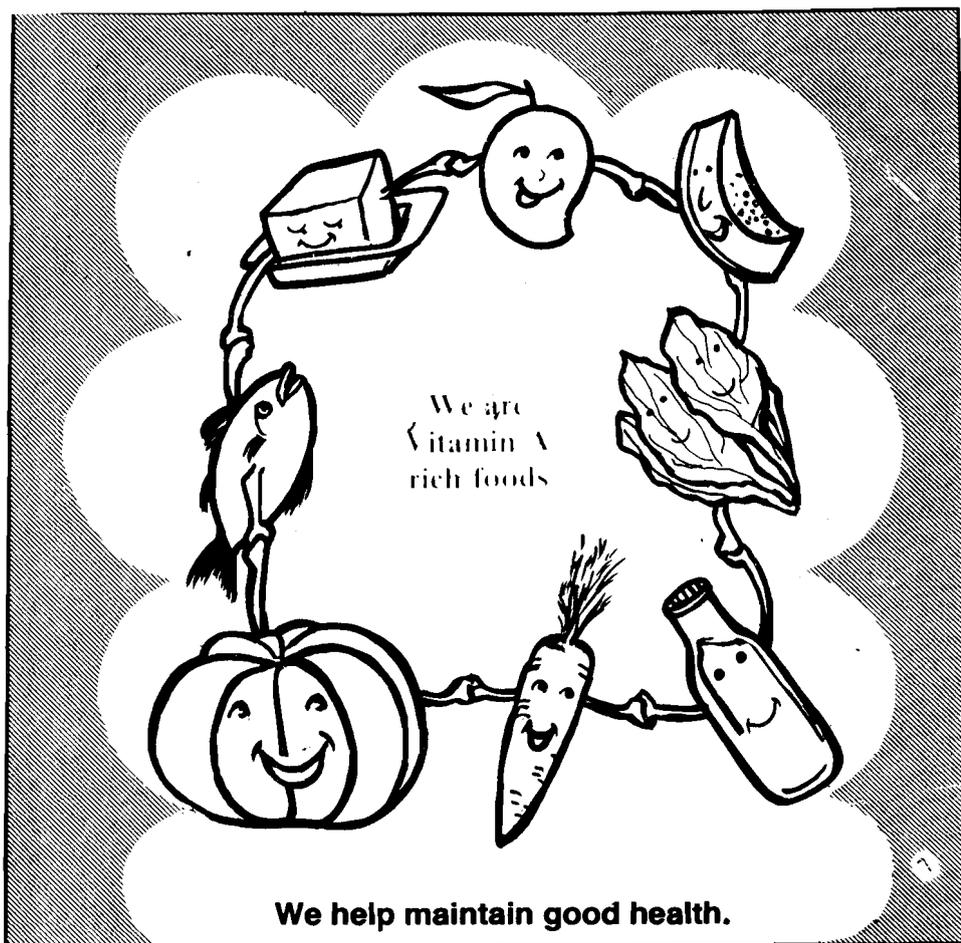


Fig. 13.3: An interesting chart on vitamin A rich foods

13.3.2 Meal Planning for the Preschooler

The preschool years are characterized by fairly well established dietary preferences and increased ability of the child to exercise her independence in selecting foods and in feeding herself.

The considerations we have to keep in mind while planning meals for preschoolers are very similar to those in toddlerhood. Can you list them? The following chart summarizes the major do's and don'ts in feeding preschoolers.

POINTS TO REMEMBER

The Preschooler

Do's	Don'ts
1) Include foods from each of the food groups in each meal.	1) Never force the child to eat
2) Serve foods rich in energy, protein, vitamin A, calcium and iron.	2) Try not to use food as a means of reward or punishment
3) Provide small, frequent meals	3) Do not restrict the food intake when the child is ill
4) Include nutritious snacks between meals which are easy to handle.	4) Do not let snacks take the place of main meals
5) Prepare meals according to the likes/dislikes of the child	5) Avoid serving foods that are too hot or too cold
6) Provide more food in easily digestible form during illness and recovery	6) Do not let the child eat too many sweet, sticky foods or convenience foods
7) Ensure that meal times are relaxed	7) Avoid highly flavoured or spicy foods

Source: *ANC-1, Block 3 (IGNOU) p. 60*

The preschooler often goes to a childcare centre. This would mean having to make adjustments in timing, nature and frequency of meals. It is important that she begins the day with a good breakfast. This helps to keep the child alert and active. Some preschool centres provide a midmorning meal — an occasion for children to eat together and have fun sharing their food. Other centres rely on the parents who send packed lunches for their children. We discuss aspects related to this in Section 13.5.

Preschoolers often enjoy helping in the feeding of younger children. So if there are younger children in the childcare centre, the preschooler in your care can also participate in their feeding though it should always be under close adult supervision. Along with this, they could eat their own food too.

As in the case of toddlers, the supporting role of the childcare worker becomes crucial. Patience is required to feed a young, active child who would rather play than eat. Foods in bite sized pieces or finger foods big enough to handle and hold are important. Foods which the child likes very much should be served later after the less desired foods. The number of times a child is exposed to a food is important. She is more likely to try out foods which are familiar.

Pleasant, relaxed meal times are all important. Negative associations with feeding are very difficult to remove. So meal time with the family or in the child care centre should always be a time to look forward to for the preschooler. Foods which are attractive to look at make the preschooler want to eat. We are all familiar with biscuits made like a human face or like a favourite cartoon character; laddoos with a centre of one colour, the outside of another colour; burfis made in different shapes and sizes; sandwiches with many layers and fillings of different kinds; rotis rolled or layered. The possibilities are so many. If you put your imagination to work, you would be able to create interesting snacks and lunches.

Check Your Progress Exercise 2

- 1) Which of the following would be good snacks for a preschooler? Tick the most appropriate.
- i) Atta (Wheat-flour) – soya – carrot biscuit
 - ii) Peanut brittle (chikki)
 - iii) Bread rolls with egg and vegetable filling
 - iv) Chapatis with jam and butter
 - v) Laddoos made of wheat flour, besan (bengal gram flour), peanuts and spinach powder

- 2) Give reasons for your selection in (1)

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13.4 PLANNING BALANCED DIETS FOR TODDLERS AND PRESCHOOLERS

We have already introduced you to the process of planning diets in the case of pregnant and lactating women. Do you recall the three major steps? They are:

- 1) Deciding on the amounts of different foods to be given
- 2) Distributing the foods over the day's meals
- 3) Deciding on menu based on distribution of foods over day's meals.

Table 13.3 gives you the amounts of different foods which could be included in the diet of Mohan, a two year old boy.

Table 13.3: Balanced Diet For Mohan

Foods	Amount in grams
Cereals	80
Roots and tubers	120
Sugar/Jaggery	20
Fats and Oils	20
Milk	500
Pulses	30
Green leafy vegetables	50
Other vegetables	80-100
Fruits	160-200
Total energy (Kcal)	1240
Total protein (g)	37

If you have a household weighing balance at home you could use it. However, having a weighing balance is not essential at all. As we mentioned earlier, the practical kit we are providing you (which consists of standard cups, spoons and glass) would help you to measure out the required amounts for each day.

Now let us distribute the amounts, indicated in Table 13.3 over the entire day. Before we do this step, we must think of a suitable meal pattern for Mohan. How many meals should we offer him in the day? Five to six would be the best since he cannot eat much at a time.

Table 13.4: Distribution of Foods Over Day's Meals for Mohan's diet

	Breakfast	Mid-morning	Lunch	Mid-afternoon	Tea	Dinner	Total
Cereals	10	10	20	10	10	20	80
Roots and tubers	30	—	30	30	—	30	120
Sugar/Jaggery	5	5	—	—	10	—	20
Fats and Oils	5	—	10	5	—	10	30
Milk	125	125	—	—	125	125	500
Pulses	—	—	15	15	—	—	30
Meat/fish poultry eggs	—	—	—	—	—	—	—
Green leafy vegetables	—	—	—	50-75	—	50-75	100-150
Other vegetables	—	20-25	20-25	20-25	—	20-25	80-100
Fruits	40-50	40-50	40-50	—	40-50	—	160-200

This table may still not make as much sense to you as a menu. Table 13.5 gives you a possible menu based on the distribution of foods given in Table 13.4.

Table 13.5: Deciding on Menu Based on Distribution of Foods Over Day's Meals

Foods	Foods Allocated for Meals	Menu
BREAKFAST		
Cereals	10 g (One small bread slice)	● Milk
Roots and tubers	30 g (Quarter of a small potato)	● Sweet and savoury sandwich rounds (One sandwich with potato butter filling, the other with fresh stewed apple filling)
Sugar/Jaggery	5 g (One teaspoon)	
Fats and Oils	5 g (One teaspoon)	
Milk	125 ml (Half a glass or one tea cup or standard measure upto mark)	
Fruits	40-50 g (Quarter of a medium sized apple)	

MID-MORNING

Cereals	10 g (Less than half of 1/4 cup of atta i.e. whole wheat flour)	<ul style="list-style-type: none"> ● Orange milk shake ● Wheat carrot laddoos (Crushed puffed rice and steamed, grated carrot made into balls with jaggery syrup)
Sugar/jaggery	5 g (One teaspoon)	
Milk	125 ml (Half a glass or one tea cup or standard glass upto mark)	
Other vegetables	20-25 g (Three fourths of small carrot)	
Fruits	40-50 g (Half of small orange)	

LUNCH

Cereal	20 g (Little less than 1/4 cup of atta i.e. whole wheat flour)	<ul style="list-style-type: none"> ● Chapatis ● Moong dal
Roots and tubers	30 g (Quarter of a small potato)	<ul style="list-style-type: none"> ● Capsicum, potato and tomato diamonds (Boiled and cooked vegetables mashed, formed into diamond shape and lightly browned on tawa)
Fats and oils	10 g (Two teaspoons)	<ul style="list-style-type: none"> ● Sapota
Pulses	15 g (Less than half of 1/4 cup)	
Other vegetables	20-25 g (One small tomato, one small capsicum)	
Fruits	40-50 g (One small sapota)	

MID-AFTERNOON

Cereal	10 g (Less than half of 1/4 cup atta i.e. whole wheat flour)	<ul style="list-style-type: none"> ● Atta-besan cheela with savoury filling (pancake made of whole wheat flour, bengal gram flour with vegetable filling)
Roots and tubers	30 g (Quarter of small potato)	
Fats and oils	5 g (One teaspoon)	
Pulses	15 g (Less than half of 1/4 cup besan i.e. bengal gram flour)	
Green Leafy Vegetables	25 g (Little less than 3/4 cup loosely filled, finely cut spinach)	
Other vegetables	20-25 g (Six to seven flowerettes of cauliflower)	

TEA TIME		
Cereal	10 g (Two teaspoons of cornflour/custard powder)	● Fruit Custard
Sugar/ Jaggery	10 g (Two teaspoons)	
Milk	125 ml (Half glass or one tea cup or standard glass upto mark)	
Fruit	40-50 g (Quarter of a small banana & quarter of small guava finely cut without seeds, skin)	
DINNER		
Cereal	20 g (Little more than three fourths of 1/4 cup rice)	● Rice nest with vegetables (Very soft cooked rice shaped into a circle, the centre filled with boiled, salted vegetables)
Roots and tubers	30 g (Quarter of small potato)	● Green cutlets (Potato, spinach boiled, mashed, shaped into rounds and lightly browned on a tawa)
Fats and oils	10 g (Two teaspoons)	
Milk	125 ml (Curd made from half glass milk or standard glass filled to mark)	● Curd
Green leafy vegetables	25 g (Little less than 3/4 cup spinach loosely filled and finely cut)	
Other vegetables	20-25 g (Beans three or four; carrots one small piece)	

With this step, we have planned a diet for Mohan, a toddler. You could think of various other ways to distribute the total amounts of foods and convert this into menus. We have given just one suggestion.

Another point to keep in mind is that we have planned this diet for a toddler belonging to a vegetarian family. If you want to plan for a non-vegetarian, you could add about 40-50 g eggs/meat/fish in a day and cut down say 15 g of pulses. Do you know why we do this? This is because eggs/meat/fish are protein sources just like pulses. If we add more protein, we must take away some other protein source so that the total protein content does not go too high.

Next, we will turn our attention to planning a diet for Basanti who is 5 years old. First let us list the total amounts of foods that should be included in her diet. This information is summarized in Table 13.6.

Table 13.6: A Balanced Diet for Basanti

Foods	Amount (in grams)
Cereals	: 160
Roots and tubers	: 120
Sugar/Jaggery	: 35
Fats and Oils	: 30
Milk	: 500-ml
Pulses	: 30
Meat/Fish/Poultry/Egg	: —
Green leafy vegetables	: 100
Other vegetables	: 150-200
Fruits	: 160-200
Total Energy (kcal)	: 1690
Total Protein (g)	: 46

Basanti attends a preschool. Her preschool does not provide a midmorning meal. However, her mother sends a packed meal so that Basanti can eat together with her friends in the preschool. She has lunch when she gets back home.

On the basis of this information, how many meals should we plan for? Five meals would be a suitable meal pattern — breakfast, midmorning, lunch, teatime and dinner. Now, can you distribute the amounts indicated in Table 13.6 over the day's five meals? Complete Table 13.7(a). Remember portion sizes suitable for preschoolers. (See Section 8.4.2, Unit 8, Block 2)

Table 13.7 (a): Distribution of Foods Over Day's Meals for Basanti's Diet: Your Suggested Alternative

	Breakfast	Mid-Morning	Lunch	Tea	Dinner	Total
Cereals						160
Roots and tubers						120
Sugar/Jaggery						35
Fats and Oils						30
Milk						500 ml
Pulses						30
Meat/fish/poultry/ egg						—
Green leafy vegetables						100
Other vegetables						150-200
Fruits						160-200

Once you have decided on the distribution comes the exciting part of putting down the menu. Look at the foods you have included one meal at a time and think of the dishes you can offer for each meal. You would recall that the midmorning meal is intended to be eaten by Basanti at her preschool centre. So it should be in a form easy to hold, handle and pack and of course, it should be nutritious.

Now let us show you the distribution we worked out (Table 13.7(b)).

Table 13.7 (b): Distribution of Food Over Day's Meals for Basanti: Another Alternative

Foods	Breakfast	Mid-Morning	Lunch	Tea	Dinner	Total
Cereals	30	20	45	20	45	160
Roots and tubers	—	—	60	—	60	120
Sugar/Jaggery	5	10	10	10	—	35
Fats and Oils	5	—	10	5	10	30
Milk	125	125	62.5	125	62.5	500 ml
Pulses	—	—	15	—	15	30
Meat/Fish/Poultry/ egg	—	—	—	—	—	—
Green leafy vegetables	—	50	—	—	50	100
Other vegetables	50	—	50	—	50	150
Fruits	40	—	60	60	—	160

Now let's convert this into a menu. Table 13.8 gives you one possible menu.

Table 13.8: Deciding on Menu Based on Distribution of Foods Over Day's Meals

Foods	Foods and their Amounts Allocated for Meals	Menu
BREAKFAST		
Cereals	30 g (One medium sized bread slice)	
Sugar/Jaggery	5 g (One teaspoon)	
Fats and Oils	5 g (One teaspoon)	● Milk Shake
Milk	125 ml (Half glass or one tea cup or standard measure upto mark)	● Crisp, buttered toast rounds with tomato paste filling
Other vegetables	50 g (One tomato, small)	
Fruits	40 g (Half a small orange)	

MID-MORNING

Cereals	20 g (Little less than 1/4 cup atta)	<ul style="list-style-type: none"> ● Laddoos made of whole wheat flour, spinach powder, khoa, jaggery
Sugar/jaggery	10 g (Two teaspoons)	
Milk	125 ml (Half glass or one tea cup or standard measure upto mark)	
Green leafy vegetables	50 g (One and a half cups of loosely filled finely cut spinach dried in the sun and powdered)	

LUNCH

Cereals	45 g (One and a half 1/4 cups rice)	<ul style="list-style-type: none"> ● Rice ● Moong dal ● Vegetable surprise (Potato cups made of boiled mashed potato with filling of boiled beans and cottage cheese or paneer) ● Banana
Roots and tubers	60 g (One small potato)	
Sugar/Jaggery	10 g (Two teaspoons)	
Fats and Oils	10 g (Two teaspoons)	
Milk	62.5 ml (One fourth glass or half tea cup or standard measure upto mark of milk converted into paneer)	
Pulses	15 g (Less than half of 1/4 cup)	
Other Vegetables	50 g (10-15 beans)	
Fruits	60 g (Half a small banana)	

TEA

Cereal	20 g (Less than 1/4 cup suji or semolina)	<p>Semolina kheer with stewed apple sauce</p>
Sugar/Jaggery	10 g (Two teaspoons)	
Fats and Oils	5 g (One teaspoon)	
Milk	125 ml (Half glass or one tea cup or standard measure upto mark)	
Fruits	60 g (One small apple)	

DINNER	
Cereal	45 g (Little more than 1/3 cup of atta or whole wheat flour)
Roots and tubers	60 g (One small potato)
Fats and Oils	10 g (Two teaspoons)
Milk	62.5 ml (One fourth glass or standard measure upto mark of milk made into curd)
Pulses	15 g (Less than half of 1/4 cup)
Green leafy vegetables	50 g (One and a half cups of loosely filled, finely cut spinach)
Other vegetables	50 g (One small tomato)

- Spinach potato rolls
- Curds

13.5 PLANNING MEALS AND SNACKS AT CHILD CARE CENTRES

Your role as a childcare worker includes planning meals and snacks to be served at the Child Care Centre. The main steps you could follow are as follows:

- i) List the names of suitable meals/snacks you could serve which are nutritious, easy to prepare and easy to handle for a young child
- ii) List the ingredients you would need and how you plan to purchase them — one day beforehand or a week in advance, etc. Work out the cost and make sure it fits within your budget.
- iii) Identify pre-preparation tasks which could be carried out by your helper, if available, on a day-to-day basis according to the weekly menu.
- iv) Supervise preparation of meals/snacks at the Child Care Centre as well as serving of meals/snacks to the children at your centre.

13.6 ROLE OF THE CAREGIVER IN FEEDING TODDLERS AND PRESCHOOLERS

The caregiver has a major role to play in providing suitable snacks to toddlers and preschoolers as well as to give advice to parents or relatives about feeding them.

In the first year of toddlerhood, the child has a good appetite and tolerates bite sized food. It is important to introduce the child to a variety of foods. By the second year of toddlerhood the child tolerates regular foods well. There is some decrease in the quantity of food eaten at a time because growth begins to slow down. Also, the child is often absorbed in so many play activities that she may tend to eat frequently but eat less at a time. In many creches/preschools young children may be bottle-fed and the bottle may

be left in the mouth when the child sleeps. This is a bad practice and can result in the child choking on the milk. It has also been observed that severe dental caries may develop; in other words the teeth decay, and become painful.

During toddlerhood the child becomes assertive and perceives herself as distinct from others. She gradually begins to enjoy eating with the family. Thus mealtimes become occasions where the child watches others and learns. However many children do show temper tantrums or refuse to eat food. Sudden changes in mood may be a feature.

It is crucial that the child demonstrates a need for autonomy. You have studied about developing autonomy in Section 15.2 of Block 3 of Course 1. You would have realized that attempting to accomplish tasks beyond the toddler's ability causes frustration and feelings of shame and doubt. Expecting a toddler to feed herself without spillage, for example, is unreasonable. Scolding her for "creating a mess" would cause feelings of shame and doubt. Some of the specific considerations the caregiver should keep in mind in this context are:

- enhancing the quality of meal times and sharing food by making the experience pleasant, positive and encouraging.
- developmental readiness of the child to eat the particular food and handle serving utensils/equipment.
- use of small tableware such as plates/bowls with a curved edge
- use of glasses or cups with heavy bottoms since they are less likely to spill over
- use of clear, transparent bowls, cups, glasses filled only partially
- encouraging older children to participate in feeding younger children; allowing children 18-24 months old to participate in meal service by watching older children serve themselves
- encouraging younger children to eat by themselves and not feeding them.

The supportive attitude of the caregiver is of great importance. Eating with the child and letting mealtimes remain relaxed and not rushed helps to let the child associate mealtimes with pleasant feelings.

Check Your Progress Exercise 3

1) How would it help you if you plan a weekly menu of snacks to be served in a childcare centre?

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2) Indicate whether statements (i) to (v) are true or false. Correct the false statements.

i) Preschoolers must not be encouraged to feed themselves because they tend to spill foods.

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ii) Toddlers and preschoolers can be served the same number of meals a day i.e. four.

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iii) Preschoolers like to try foods which look attractive.

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iv) Young children should be carefully supervised while eating.

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v) Toddlers should not be breastfed.

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13.7 SUMMING UP

The major points that have emerged from this unit are as follows:

- rate of growth gradually decreases during toddlerhood and the preschool years
- activity level is high during toddlerhood and the preschool years as the child plays and learns to control her body better
- feeding a young child should take into consideration the capacities the child has acquired e.g. ability to drink from a cup or serve herself with a spoon. Pushing her to do too much too soon may have an adverse effect.
- the young child should be encouraged to feed herself even if she spills some food or smears her mouth and face.
- four to five meals should be served to the preschooler and five to six to the toddler. Small, frequent meals are best.
- nutritious snacks should be rich in energy, protein, vitamin A/iron/calcium. Rich sources of these nutrients must be included.
- mealtimes should be relaxed and pleasant so that the young child associates feeding with positive feelings
- eating in a group should be encouraged at home as well as in a childcare centre. The young child learns to try new foods and learns to feed herself by imitating older children as adults.
- the young child should be introduced to a variety of foods particularly fruits and vegetables
- balanced diets should be planned keeping in mind the social, economic, regional considerations. Portion size or the amount a child can eat at a time should always be kept in mind.
- serving foods with interesting shapes, colour combinations, and textures encourage the toddler/preschooler to try a new food or even familiar foods.

13.8 GLOSSARY

- Finger foods** : Foods in pieces small enough to handle i.e. hold and eat
- Haemoglobin** : Compound (Substance) found in blood which helps to transport oxygen from lungs to body cells
- ICMR** : Indian Council of Medical Research

13.9 ANSWERS TO CHECK YOUR PROGRESS EXERCISES

Check Your Progress Exercise 1

- 1) i) Meals offered to Sita must include items from each of the three food groups
 - ii) A variety of foods should be introduced in her diet particularly fruits and vegetables. She would easily pick up the likes and dislikes of her parents/ relatives so they should avoid indicating their preference.
 - iii) Small, frequent meals are best
 - iv) Nutritious snacks must be emphasized
 - v) Social and emotional factors should be considered in feeding. Eating in the family group is good. She should be allowed to feed herself and should not be scolded for spilling foods.
- 2) RDIs for energy and protein are higher per kg body weight in infancy as compared to toddlerhood because of the higher rate of growth. However, total figures for energy and protein RDIs increase in the case of toddlerhood because the body weight is more.

Check Your Progress Exercise 2

- 1) (i), (iii), (v)
- 2) All three (i), (iii), (v) are balanced snacks. They are rich in nutrients such as energy, protein, vitamins and minerals. They are also easy to hold and serve can be made in varying shapes or sizes.

Peanut brittle is not suitable because it is not balanced, difficult to chew and sticks to the teeth. This can promote tooth decay if the child does not wash her mouth. Serving it occasionally at home is alright.

Chapati with jam and butter is also not balanced.

Check Your Progress Exercise 3

- 1) Planning a weekly menu would help us to organize pre-preparation and preparation of snacks and dishes; purchase of food items in advance and their proper storage; work schedules for child care workers. It would also enable us to plan balanced meals and snacks which are easy to prepare and serve. Special attention can also be given to offering variety in colour, texture and flavour.
- 2) i) False. Preschoolers must be encouraged to feed themselves even if they sometimes spill foods.
- ii) False. Meal frequency must be higher in the case of toddlers.
- iii) True
- iv) True
- v) False. From 12-18 months the toddlers can be given breast milk in addition to supplementary foods.