



## What Is This Module About?

Are you getting the proper nutrition? Do you eat the right kinds and the proper amounts of food? Is your body able to use the nutrients in them to keep you healthy?

All of us have different levels of nutrition. Some are healthy while some suffer from lack of proper nutrients. This is caused by many factors, including our different attitudes and habits.

What are the signs that you are getting the proper nutrition? What are the signs that you are not?

This module will help you answer such questions. It is divided into two lessons:

Lesson 1 — *Good Nutrition or Malnutrition?*

Lesson 2 — *Diseases Caused by Poor Nutrition*

There are two other NFE A&E modules that deal with the topic of nutrition. These are ***Proper Nutrition: A Basic Need*** and ***Eat Right, Be Healthy***. You may also want to study these to learn more about the topic.



## What Will You Learn From This Module?

After studying this module, you should be able to:

- ◆ differentiate good nutrition from malnutrition;
- ◆ assess your nutritional status;
- ◆ identify conditions of poor nutrition; and
- ◆ identify diseases brought about by poor nutrition.



## Let's See What You Already Know

Place a check mark (✓) on the line if the statement is true, and an X-mark (X) if it is false.

- \_\_\_\_\_ 1. The key to proper nutrition is eating all the food that you can eat.
- \_\_\_\_\_ 2. The three basic food groups are the Go, Grow and Glow foods.
- \_\_\_\_\_ 3. A fat man is a healthy man.
- \_\_\_\_\_ 4. A balanced diet is necessary for health.
- \_\_\_\_\_ 5. A healthy person has normal weight, clear skin, good appetite, and firm and strong muscles.
- \_\_\_\_\_ 6. Malnutrition refers to the condition of the body when it does not get enough nutrients.
- \_\_\_\_\_ 7. The main function of calcium is to form the red pigment of the blood.
- \_\_\_\_\_ 8. Severe lack of Vitamin A is believed to be the main cause of blindness in children.
- \_\_\_\_\_ 9. Poverty is also a factor that contributes to the occurrence of malnutrition among some of our countrymen.
- \_\_\_\_\_ 10. Eating many times a day is practicing good nutrition.

Well, how was it? Do you think you fared well? Compare your answers with those in the *Answer Key* on page 35.

If all your answers are correct, very good! This shows that you already know much about the topic. You may still study the module to review what you already know. Who knows, you might learn a few more new things as well.

If you got a low score, don't feel bad. This means that this module is for you. It will help you understand important concepts that you can apply in your daily life. If you study this module carefully, you will learn the answers to all the items in the test and a lot more! Are you ready?

You may now go to the next page and begin Lesson 1.

## Good Nutrition or Malnutrition?

Good nutrition starts with eating the right kinds and the proper amounts of food. You should eat foods rich in nutrients that your body needs. Nutritious foods are the key to good health.

After reading this lesson, you should be able to:

- ◆ explain the meaning of the terms *good nutrition* and *malnutrition*;
- ◆ determine your nutritional status; and
- ◆ identify the types of malnutrition.



### Let's Try This



Jane



Jon-Jon

Which of them is practicing proper nutrition? \_\_\_Jane \_\_\_Jon-Jon

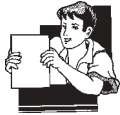
Why do you think so?

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To know if your answers are right, read on.



## Let's Learn

The picture of Jane eating barbecue and vegetables with rice, a banana and calamansi juice shows proper nutrition. If you answered that Jane is the one practicing proper nutrition, you are right! The meal that Jane is eating is what we call a **balanced meal**. It is a meal that consists of foods from the three basic food groups.

The three basic food groups are Go, Grow and Glow foods. (If you want to learn more about them, you can read the module entitled *Eat Right, Be Healthy*.) **Go** foods are energy-giving foods like bread, rice, camote and potatoes. **Grow** foods are body-building foods like chicken, pork, fish and beef. They are responsible for our body's growth and tissue repair. **Glow** foods are body-regulating foods like fruits and vegetables, from which we get vitamins and minerals. They are responsible for the normal functioning of the body.



Go foods

Grow foods

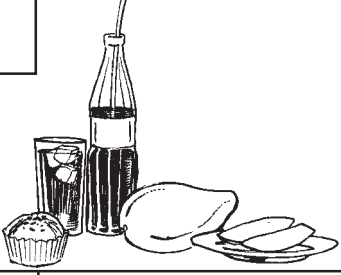
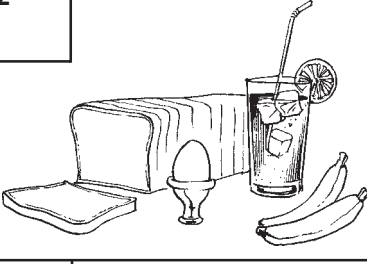

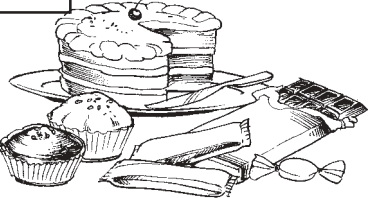


Glow foods

Eating a wide variety of foods from the three groups in the right amounts will give you the **nutrients** that you need. These nutrients from foods are what makes you healthy and strong. They are substances which your body needs to grow and stay alive. Without them, you will become sick and die.



## Let's Try This

Place a check mark (✓) inside the small box in the upper left-hand corner of each picture if the foods shown are balanced and nutritious.

1		2		3	
4		5		6	



## Let's Think About This

If you placed a check mark on Pictures 2, 5 and 6, then you are right! These groups of food are balanced meals. They will be able to give you the necessary nutrients so that you will grow healthy. Choosing your food wisely will help keep your body fit and safe from sickness. This is practicing **good nutrition**.

Having **good nutrition** means eating the right kinds of foods in the right amounts. Good nutrition means getting all the nutrients your body needs to make you healthy and strong.

Do you think you are practicing good nutrition? \_\_\_Yes \_\_\_No

Why or why not?

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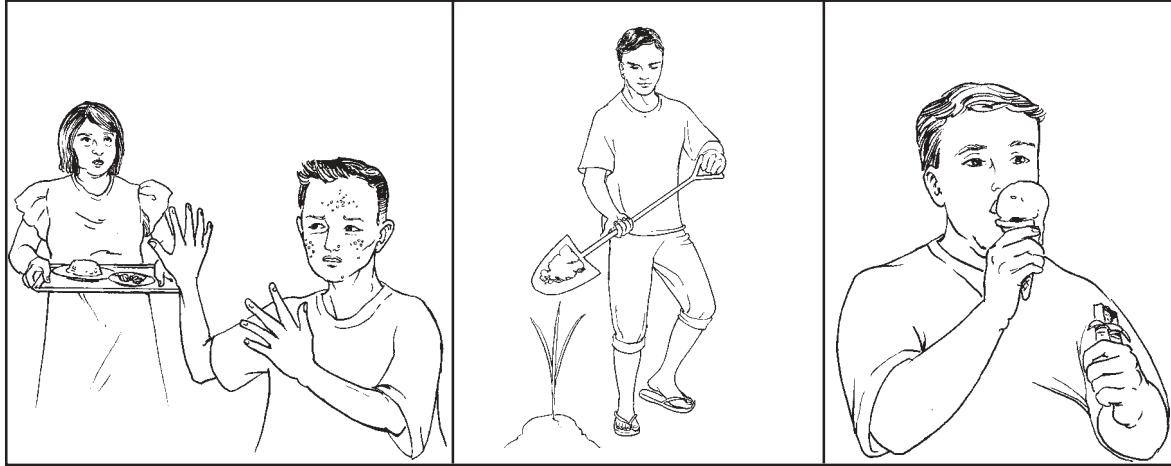


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## Let's Study and Analyze

How can you tell if a person is healthy or not? Can you tell from the signs on a person's body?



Miguel

Ramon

Joel

1. Who do you think is healthy among the three young men?

\_\_\_Miguel     \_\_\_Ramon     \_\_\_Joel

2. What are the signs of a healthy body?

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## Let's Think About This

If you think Ramon is the healthy one among the three young men, you are right! You can see from his body that he is healthy compared to Miguel and Joel. Ramon has just the right body build — neither too thin nor too fat. This suggests that he has a normal body weight for his age. He also has clear skin, glossy hair and a nice set of teeth.

Now, what are some signs which tell that a person is not healthy?

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Looking at the pictures on page 6, you can easily tell that Miguel and Joel are not healthy. Miguel is very thin and underweight while Joel is fat and overweight. Miguel has some skin blemishes, too.

A person is healthy when he or she is **well-nourished**. This means that he or she is eating right and getting the proper nutrients for the body. A person is said to be **malnourished** when he or she does not get the needed nutrients to remain healthy.



## Let's Try This

Look at yourself in the mirror. You can also ask a friend, family member or co-learner to look at you and describe you.

What can you say about yourself and the way you look?

1. What is your body build?  thin  fat  just right (medium)
2. Is your skin clear and free from skin disorders like pimples and rashes?  Yes  No
3. Do you have healthy, glossy hair?  Yes  No
4. Do you have clear eyesight?  Yes  No
5. Do you have good body posture?  Yes  No
6. Are your teeth free from tooth decay?  Yes  No
7. Do you have enough energy to do work without getting tired easily?  
 Yes  No
8. Do you have a good appetite?  Yes  No



## Let's Talk About This

If you answered *yes* to most of the questions, then you are probably a healthy person. Some signs which indicate good nutritional status are:

- ◆ Normal weight
- ◆ Firm and strong muscles
- ◆ Clear skin
- ◆ Clear eyesight
- ◆ Healthy, glossy hair
- ◆ Teeth free from cavities and decay
- ◆ Good appetite
- ◆ Good amount of energy to do work

Can you give some other indicators of good health?

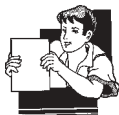
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You may compare your answers with those in the *Answer Key* on page 36.

These physical signs are reflections that a person is in good health. A person will not have a healthy appearance if he or she does not practice good nutrition.



## Let's Learn

Nutrition is the foundation of good health. Your nutritional status gives you a picture of how healthy you are.

Your **nutritional status** is the condition of your body depending on how it uses the food you eat.



Do you remember what good nutrition means? Having good nutrition means eating the right kinds and amounts of foods. It means being able to get all the nutrients your body needs to grow and be healthy.

There is also the condition which is the opposite of good nutrition. It is called **malnutrition**.

**Malnutrition** is the condition of your body when it does not get the proper amount of nutrients to grow and remain healthy.

How can you tell if a person is suffering from malnutrition?



## Let's Study and Analyze

Let us again look at the pictures of Miguel and Joel.



Miguel

Joel

1. Look at Miguel. What is he doing?

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2. Look at Joel. What kinds of food is he eating?

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3. Which of them appear to have good nutrition? Why?

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The two pictures show conditions of malnutrition. Miguel is very thin and underweight. This condition is called **undernutrition**. As you can see, he refuses the food his mother brings him. Undernutrition may be caused by low food intake, bodily disorders or diseases. Its signs are extreme loss of weight, body fat and muscle.

On the other hand, Joel's condition is what you call **overnutrition**. You can see from the picture that he is fat. He is eating ice cream and candies, which do not have much nutrients in them. They can give you the energy you need to do your activities but your body does not benefit much from them. These foods do not fill your stomach and only cause you to crave for more food.

Now look at this picture. What do you think does it show?



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Often, malnutrition is caused by poverty and lack of food. In our country, many people don't have money to buy food so they are not able to get the proper nutrients their bodies need. As a result, they become undernourished.



## Let's Read

Read this short dialogue between two friends.

<p>Hey, do you know that Aling Doring's children are sick?</p> 	<p>Really, what happened?</p>	<p>Lately, they have been so thin and pale and they easily get tired. The doctor said they are undernourished.</p> 	<p>Poor children! It seems that they don't get enough food to eat.</p>
<p>Aling Doring and I often go to the market together. She always buys dried fish for their meals.</p> 	<p>Doesn't she buy any vegetables?</p>	<p>She said her children don't like the way she cooks vegetables. Maybe they just aren't used to eating vegetables.</p> 	<p>No wonder her kids are sick. They lack important nutrients in their diet.</p>



## Let's Talk About This

Answer the following questions about what you have just read. Write your answers in the blanks.

1. What is wrong with Aling Doring's children?

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2. What seems to be wrong with the food that Aling Doring serves her children?

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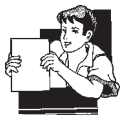
3. Are Aling Doring's children receiving good nutrition? Why or why not?

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You may compare your answers with those in the *Answer Key* on page 36.



## Let's Learn

Aling Doring's children are not getting all the nutrients they need to grow healthy. They do not eat vegetables and so they lack proteins, vitamins and minerals. The type of malnutrition these children suffer from is called **specific deficiency**. It is characterized by the lack of certain nutrients in one's diet.

Young children run the greatest risk of malnutrition. They are at that stage of life when growth is fast. They need more nutrients for energy, growth and strength. Sometimes, they lack some essential nutrients. Because of this, different diseases affect them. Severe malnutrition during the first four years of life can result in damages in the brain and bodily functions.

Pregnant and nursing mothers also have high nutritional needs. A mother feeds her child through her own body, before and after birth. Therefore, the mother's nutrition is very important. When the mother is malnourished, the baby may contract diseases easily and may even die.





## Let's Try This

Visit your barangay health center. Interview the health worker about current or upcoming activities and programs about health and nutrition. Write down the information you gathered in the blanks below.

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You can participate in these activities and help in spreading information about these in your neighborhood. You may tell your neighbors that much can be learned about health and nutrition from the health center. They can attend free seminars on health and nutrition as well as get free vitamins.



## Let's See What You Have Learned

- A. Place a check mark (4) in the blank before each number if the statement is true. Place an X-mark (8) if the statement is false and explain why it is so in the blanks provided.

\_\_\_1. Nutrition is basic to good health.

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\_\_\_2. The amount of food that you eat every day can determine your nutritional status.

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\_\_\_3. You may become malnourished if you do not eat a wide variety of foods every day.

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\_\_\_4. Good nutrition starts from choosing the right kinds of food.

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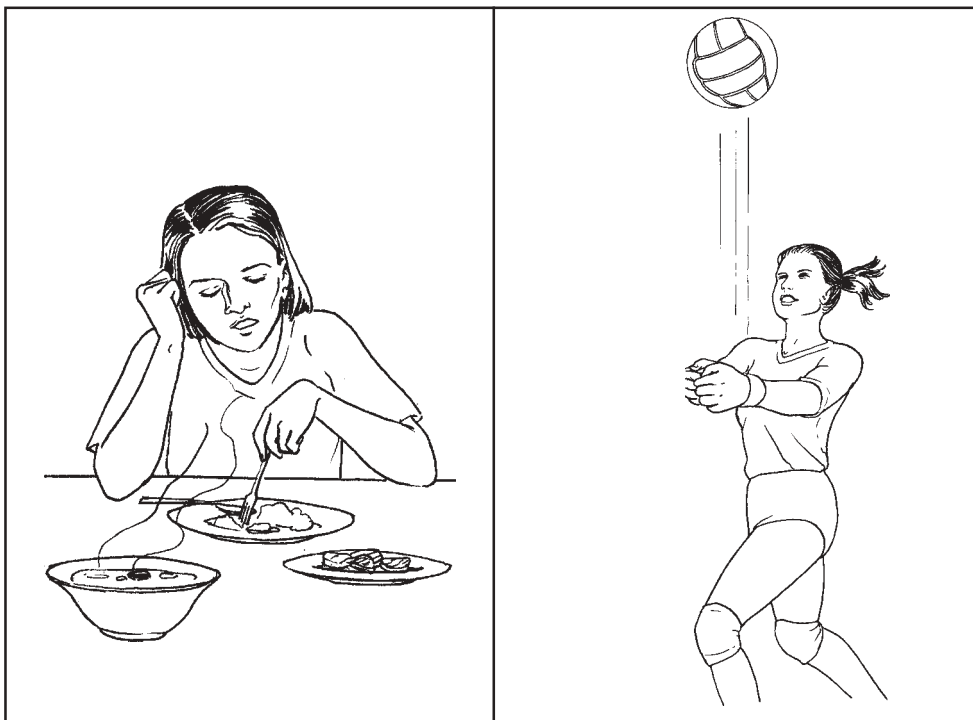
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\_\_\_5. A fat person is healthy.

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B. Compare the two pictures below of Malou and Terry.



**Malou**

**Terry**

1. What do you think is wrong with Malou?

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2. What is Terry doing? What does this say about her level of energy?

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3. Looking at the two girls, which of them do you think practices good nutrition? Why?

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You may compare your answers with those in the *Answer Key* on pages 36–37.



## Let's Remember

- ◆ Having good nutrition means eating the right kinds of food in the right amounts. It means getting all the nutrients your body needs to keep you healthy and strong.
- ◆ Malnutrition is the condition of your body when it does not get the proper amounts of nutrients to grow and remain healthy.
- ◆ Nutritional status is the condition of your body depending on how it uses the food you eat. You can either be properly nourished or malnourished.
- ◆ There are several forms of malnutrition. These are overnutrition, undernutrition and specific deficiency.

# Diseases Caused by Poor Nutrition

Many of our fellow Filipinos suffer from different diseases caused by improper nutrition. Mainly because of lack of knowledge about proper nutrition, many are faced with the problem of malnutrition. What can be done to solve this?

It is important to know the value of good nutrition as well as the consequences of improper nutrition. This will help you determine your own nutritional status and find ways of preventing diseases caused by malnutrition.

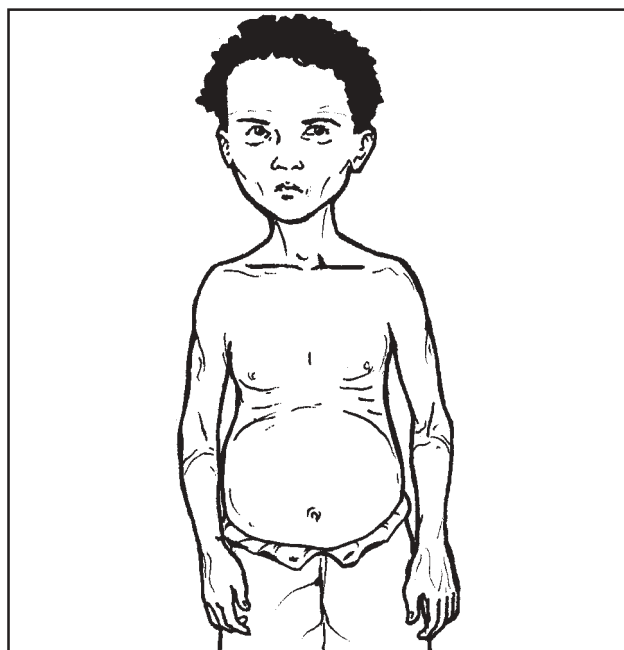
After studying this lesson, you should be able to:

- ◆ identify conditions of malnutrition; and
- ◆ cite some diseases caused by malnutrition.



### Let's Try This

Study the picture below.





1. Does the boy look healthy? \_\_\_Yes \_\_\_No
2. Describe his appearance (body, face, skin, hair).

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3. What do you call this condition?

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Have you written down your answers? If so, read on to learn if they are correct.



## Let's Talk About This

The little boy in the picture is definitely not healthy. He is actually in a severely malnourished condition. He is abnormally skinny—practically skin and bones. Also, his stomach is huge and protruding. This is called a *potbelly*. His skin is very much wrinkled and his hair is stiff and wiry.

It was mentioned in Lesson 1 that children are in greater risk of malnutrition. Why do you think so?

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Malnutrition leads to deficiency diseases which affect children first because their bodies are still developing. They are also the least able to take care of themselves. Nutritional deficiencies manifest themselves much more quickly in children.

What do you think will happen if you don't eat for too long?

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When you go hungry for too long, you do not only get abnormally thin or skinny. The rest of your bodily systems start to operate poorly as well. There just isn't enough of "life energies" present in your body when it is missing many nutrients. These nutrients are necessary to carry on the thousands of processes that the body undertakes to maintain good health.



## Let's Read

Read the short article below.

### Malnutri-News

#### Red Boy With a Moon Face

*Ghana, Africa*

1930s

A disease has broken out which the natives call *kwashiorkor*. It means "red boy" because victims develop dark skin patches and suffer from skin peeling. Body tissues swell and the feet or face get puffy. The hair gets pale and thin. The victim loses vigor and appetite.

The people of Ghana say that the sickness usually strikes children whose mothers immediately give birth again after having them. Nutritionists found out that these children are weaned from the mother's milk when the new baby is born.

They are then given a diet of mainly starchy foods or sugar water. Hence, the child stops getting protein, which causes the disease to appear.



## Let's Try This

Based on what you have read, answer the following questions.

1. What do you call the disease that broke out in Africa in the 1930s?

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2. Who were affected by this disease?

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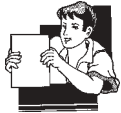
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3. What are the signs and symptoms of this disease?

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You may compare your answers with those in the *Answer Key* on pages 37–38.



## Let's Learn

When our body does not get the different nutrients that it requires, we get malnourished. Our body suffers when we do not get enough of nutrients such as proteins, vitamins and minerals. We become more prone to infections, sickness and even death.

In the “Malnutri-News” you have just read, a certain disease was mentioned, called *kwashiorkor*. It is caused by severe malnutrition and usually affects children from very poor countries.

Children suffering from kwashiorkor severely lack all the necessary nutrients and this shows in their bodies. They are so thin that their bodies have a skeletal look. They also experience muscle loss and their skin is wrinkled.

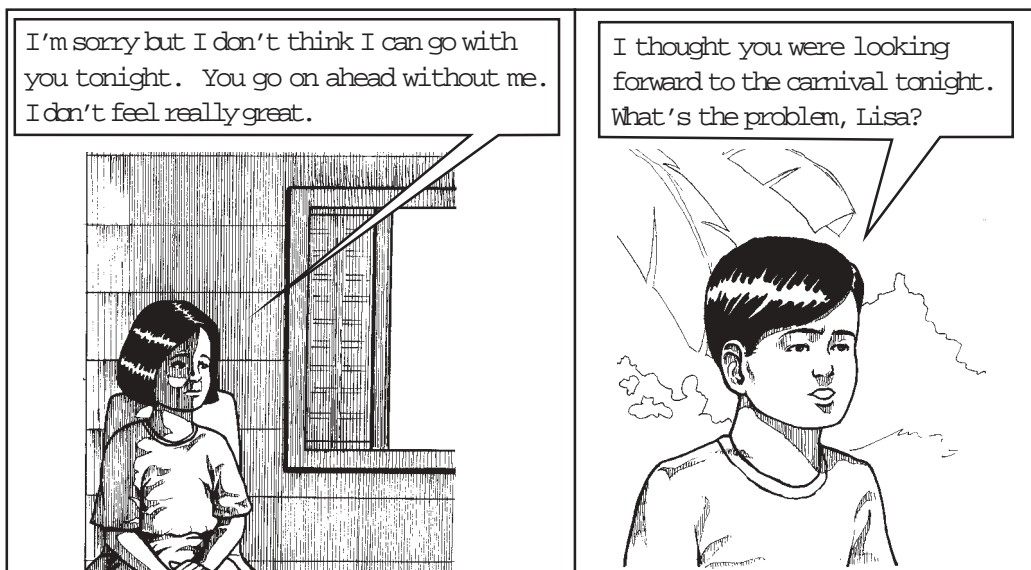
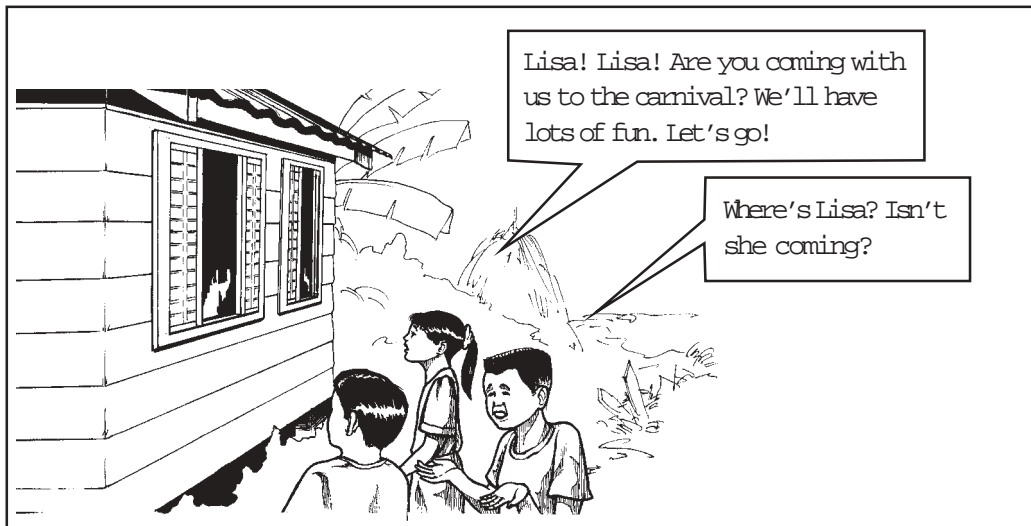
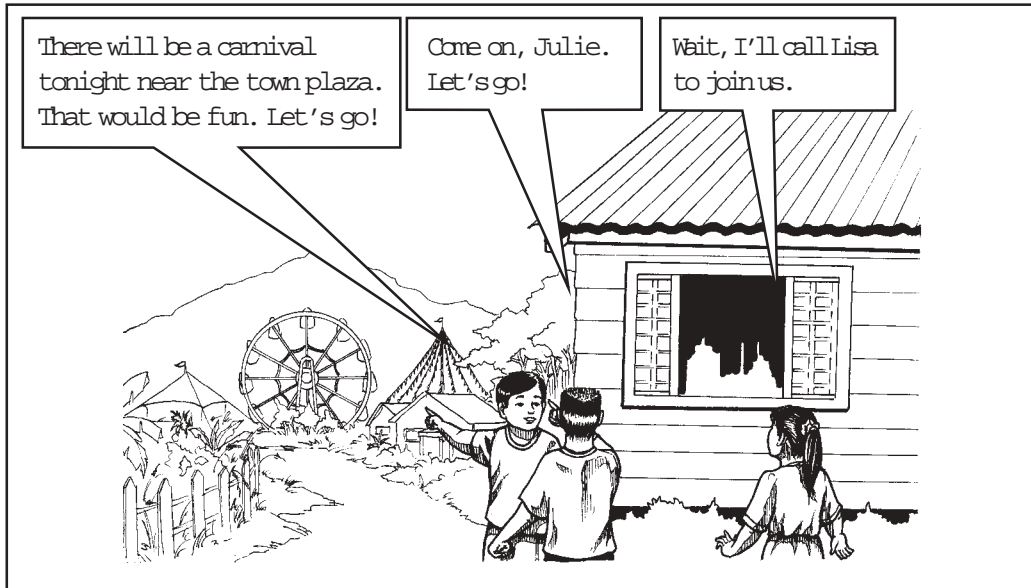
Another disease caused by malnutrition is called *marasmus*. This is similar to kwashiorkor. Marasmus is the severe wasting of the body due to inadequate intake of proteins and other nutrients. A child suffering from marasmus looks like a living skeleton.

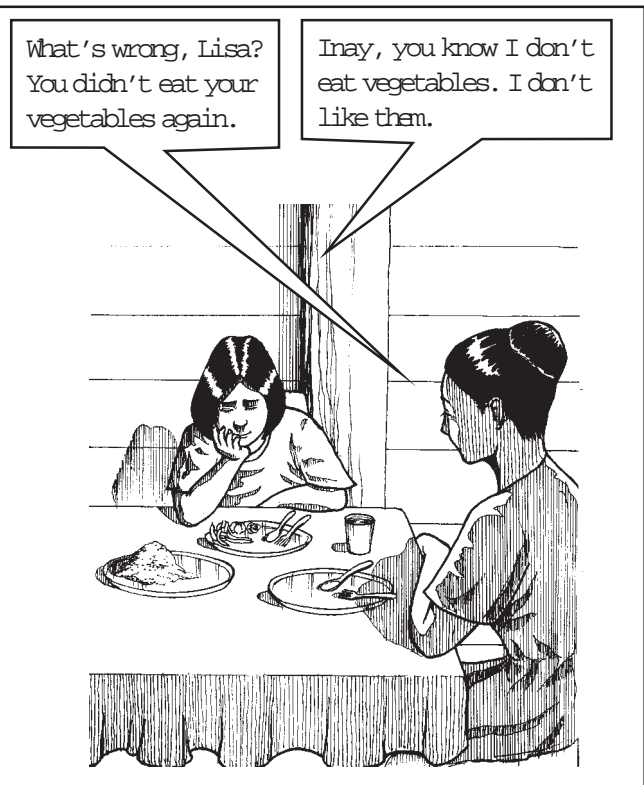
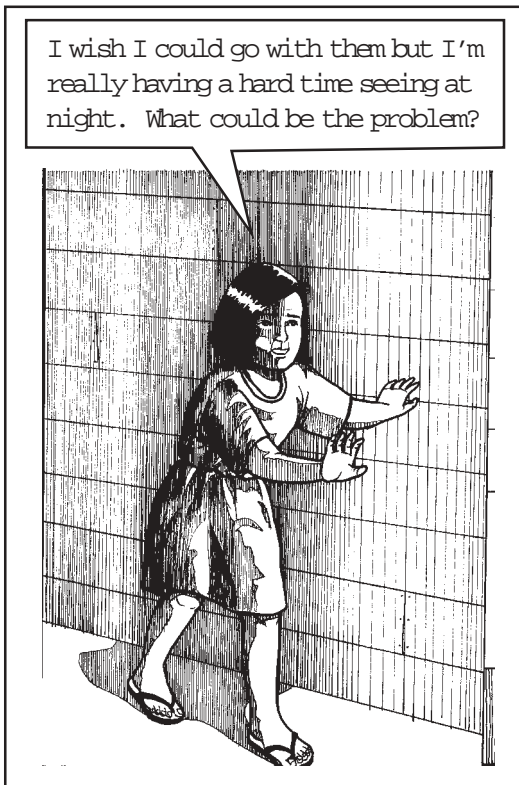
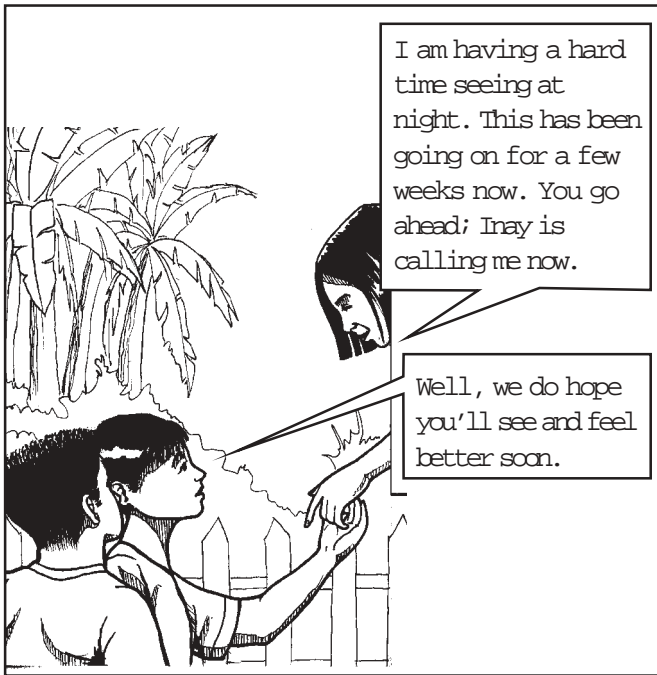
Those affected by these diseases get other infections in different body parts and systems. However, kwashiorkor and marasmus may be prevented by ensuring an adequate intake of nutritious foods.



## Let's Read

Read the following comic strip.







## Let's Talk About This

Based on the comic strip you have read, answer the questions below.

1. What is wrong with Lisa?

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2. Do you think Lisa eats balanced meals? \_\_\_Yes \_\_\_No  
Why or why not?

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3. Do you think Lisa's vision problem is related to her dislike of vegetables? \_\_\_Yes \_\_\_No Why or why not?

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Compare your answers with mine.

Lisa is having problems seeing at night. This is called *night blindness*. It is a disorder that usually affects children.

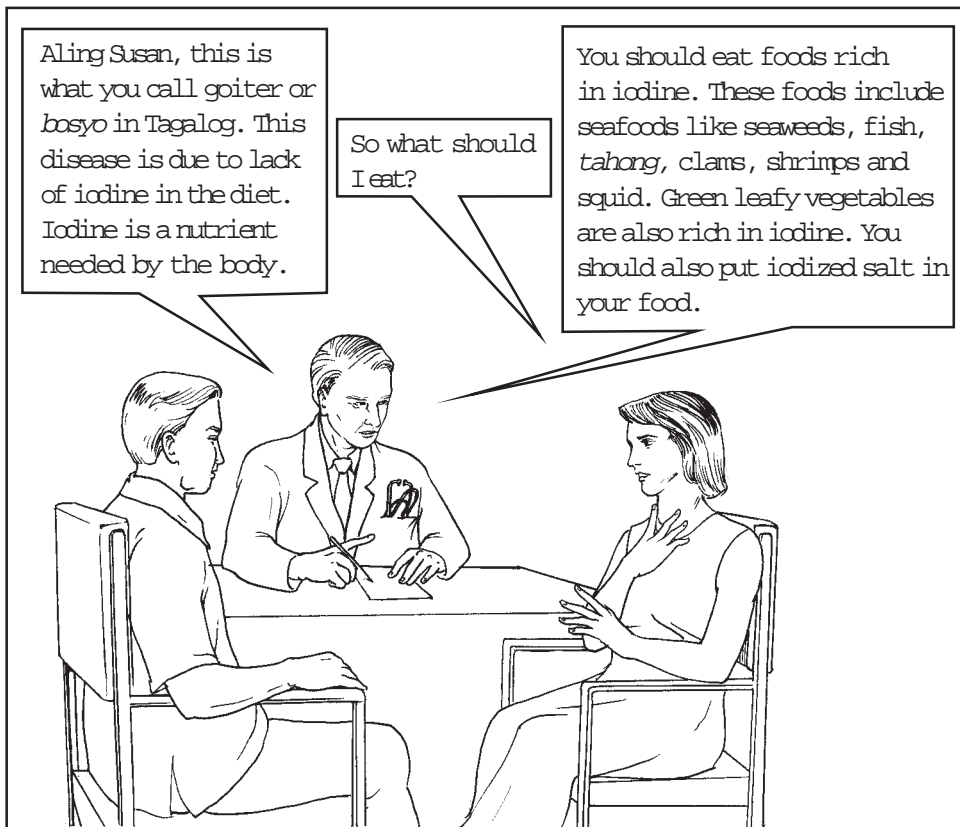
Lisa does not eat balanced meals because she does not eat vegetables. This deprives her of the nutrients she needs.

Her vision problem is related to her dislike of vegetables. She does not eat vegetables so she could be deficient in some vitamins or minerals obtained from these foods. These nutrients are needed for her to see well and clearly.



## Let's Read

Here is another comic strip for you to read.





## Let's Study and Analyze

Answer the following questions about what you have just read. Write your answers in the blanks.

1. What is the cause of the disease called goiter or *bosyo*?

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2. What kind of foods should be eaten to prevent this kind of disease?

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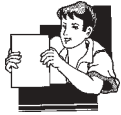
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You may compare your answers with those in the *Answer Key* on page 38.





## Let's Learn

Many diseases are caused by the failure to eat the right kinds of food. You may contract different diseases when you fail to eat foods that contain nutrients that your body needs.

Some of these diseases were already mentioned. They are night blindness and goiter. Do you recall what causes them?



Severe lack of Vitamin A in the diet is believed to be the main cause of **night blindness**. This disorder is common among children, especially in the Philippines. Night blindness also places children under a greater risk of contracting severe measles and respiratory diseases.

What triggers this deficiency in young children is the low Vitamin A content in their mother's milk. They were most likely not given additional food with enough Vitamin A. Aside from this, the body poorly absorbs Vitamin A when there is protein malnutrition.

To prevent this disorder, children should be given proper amounts of foods rich in Vitamin A such as liver, egg yolk, green and yellow vegetables and yellow fruits.

**Goiter** or bosyo is a disease caused by deficiency in iodine. This disease is marked by an abnormally large thyroid gland. This gland is located just behind the Adam's apple.

Goiter is caused by lack of iodine in the diet. This may be prevented by eating seafoods. Can you give examples of seafoods?



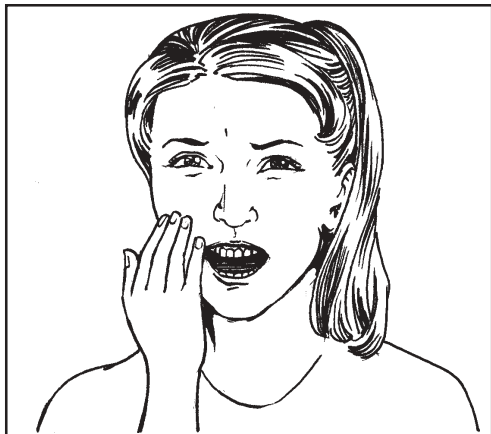
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Examples of seafoods are fish, squids, shrimps, seaweeds and shellfish like oysters, *tahong* and clams. Eating green leafy vegetables may also prevent goiter. Iodized salt is also recommended to be used in cooking foods.



What can you see in the picture?  
Nita's gums are swollen and they easily bleed when she brushes her teeth. These are symptoms of the disease called *scurvy*. **Scurvy** is caused by deficiency in Vitamin C.

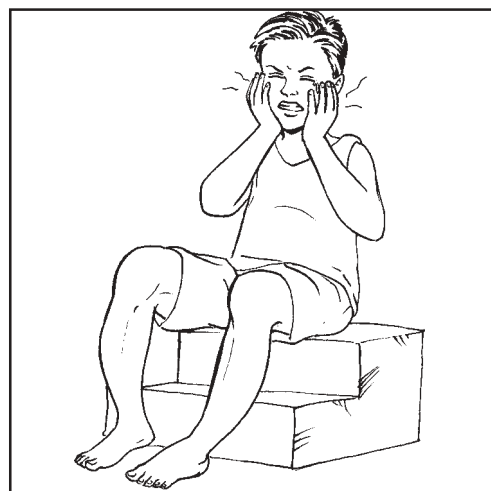
People who have scurvy have swollen gums, loose teeth and small black-and-blue spots on the skin. If untreated, a person may die from scurvy.

Scurvy may be treated and prevented by eating foods rich in Vitamin C. Examples include citrus fruits like orange, *calamansi*, *dalanghita* and lemon. Tomatoes, guavas, and green leafy vegetables are also rich in Vitamin C.

The boy in the picture is crying because his decaying teeth are painful.

He is also bowlegged because of soft bones. The boy in the picture is suffering from **rickets**. It is a disease brought about by deficiency in the mineral calcium and Vitamin D.

To prevent this disease, children should be given milk, fish liver oil or butter, egg yolk and vegetables.





Another disease that may arise from poor nutrition is **anemia**. Some symptoms of this disease include numbness in the hands and feet, weight loss, weakness and rapid heartbeat. If left untreated, this disease can cause death.

Anemia is caused by a deficiency in iron. To prevent this disease, the diet should include liver, fruits and green vegetables.



### Let's Try This

You have just learned about some of the common diseases caused by poor nutrition. Can you still remember what they are?

How can we prevent these diseases from spreading? In the table below, write the foods that should be eaten to prevent these diseases.

Deficiency Disease	Cause	Foods that should be eaten to prevent and cure the disease
1. Scurvy	Deficiency in Vitamin C	
2. Anemia	Deficiency in iron	
3. Rickets	Deficiency in calcium and Vitamin D	
4. Night blindness	Deficiency in Vitamin A	
5. Goiter	Deficiency in iodine	

You may compare your answers with those in the *Answer Key* on page 38.



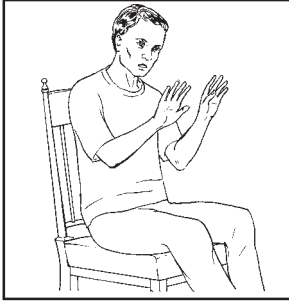
## Let's See What You Have Learned

A. Under Column A are some diseases caused by poor nutrition. Match them with their causes under Column B. Write the letter of your answer in the blank before each number.

### Column A

### Column B

\_\_\_ 1.



**Anemia**

a. Deficiency in Vitamin A

b. Deficiency in Vitamin C

c. Deficiency in Vitamin D and calcium

d. Deficiency in iron

e. Deficiency in iodine

\_\_\_ 2.



**Scurvy**

\_\_\_ 3.



**Night blindness**

\_\_\_4.



**Goiter**

\_\_\_5.



**Rickets**

B. Study the picture carefully and read its short description.

This is a picture of a severely malnourished baby in a very poor community. Social workers and health workers help to ease extreme malnutrition by taking care of these children. They feed the children with milk that is rich in all the nutrients they need. They also give them medicines, vitamins and minerals that can cure children's diseases caused by malnutrition.



1. Describe what the child looks like.

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2. What possible diseases could the child have?

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3. What are the symptoms of these diseases?

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4. Why are children easily afflicted with such diseases?

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You may compare your answers with those in the *Answer Key* on page 39.



## Let's Remember

- ◆ When your body does not get the different nutrients it needs, you can suffer from malnutrition. You also become prone to infections, sickness and even death.
- ◆ The two diseases that severely afflict malnourished children in very poor countries are kwashiorkor and marasmus.
- ◆ Some common deficiency diseases in our country include night blindness, anemia, goiter, scurvy and rickets.

You have almost finished studying the module. Congratulations! You have been a diligent learner. So that you will remember the important points you have studied, read a summary of the module below.



## Let's Sum Up

- ◆ Your nutritional status refers to the condition of your body depending on how it uses the food that you eat. You can either be in a state of good nutrition or of malnutrition.
- ◆ There are several forms of malnutrition: overnutrition, undernutrition, and specific deficiency.
- ◆ Some specific deficiency diseases caused by poor nutrition include anemia, scurvy, rickets, night blindness and goiter.
- ◆ Kwashiorkor and marasmus are two diseases associated with severe malnutrition.



## What Have You Learned?

- A. Identify what is being described in each statement. Choose your answers from the words or phrases inside the box.

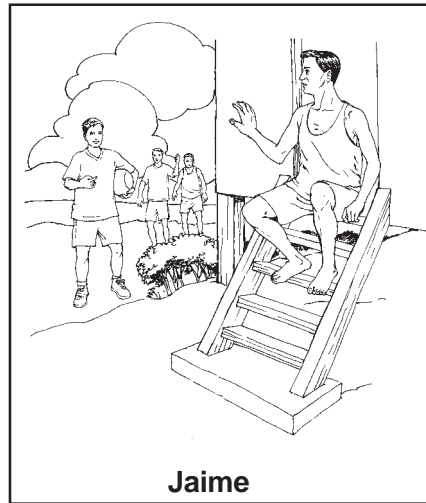
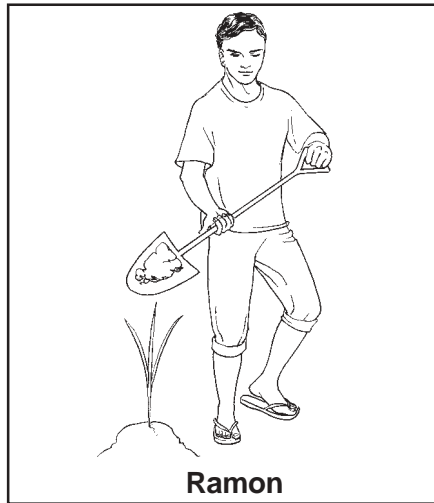
<b>scurvy</b>	<b>liver, fruits, green vegetables</b>
<b>Go, Grow and Glow foods</b>	<b>malnutrition</b>
<b>Vitamin A</b>	<b>good nutritional status</b>
<b>thyroid gland</b>	<b>marasmus</b>
	<b>good nutrition</b>
	<b>specific deficiency</b>

- \_\_\_\_\_ 1. Children who lack this vitamin develop the disease called night blindness.
- \_\_\_\_\_ 2. Eating the right amounts of foods from these food groups ensures us of a balanced diet.
- \_\_\_\_\_ 3. It means eating the right kinds of food in the right amounts. It also means getting all the nutrients that our bodies need to grow healthy and strong.
- \_\_\_\_\_ 4. Sorayda is not getting the proper amount of nutrients from foods to keep her healthy and strong. What is Sorayda's condition called?
- \_\_\_\_\_ 5. Kiko does not eat certain kinds of vegetables. Therefore, he lacks some minerals that are needed for his body to function normally. What is this type of malnutrition?
- \_\_\_\_\_ 6. This disorder occurs when you lack Vitamin C. Your gums get swollen and they easily bleed when you brush your teeth.
- \_\_\_\_\_ 7. Ria should eat these kinds of foods because she has anemia. Some symptoms of anemia include weight loss, weakness and rapid heartbeat.



- \_\_\_\_\_ 8. This disease is characterized by severe wasting of the body due to inadequate intake of proteins and other nutrients. A child with this disease looks like a living skeleton.
- \_\_\_\_\_ 9. When a person is in this condition, he has normal weight, clear skin and eyesight, good appetite, and enough amount of energy to do work.
- \_\_\_\_\_ 10. An enlargement of this part of the body characterizes the disease called goiter or *bosyo*. This disease is caused by lack of iodine in the diet.

B. Compare the two pictures below and answer the questions that follow.



1. Who looks healthier, Ramon or Jaime? Why?

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2. What are some signs of having a good nutritional status?

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3. Do you think you are in good nutritional status? Why or why not?

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You may compare your answers with those in the *Answer Key* on pages 39–40. If your total score is:

- 10–13 Excellent! You have learned a lot from this module. You can now proceed to the next one.
- 7–9 Good! Just review the parts of the module that you did not understand very well.
- 0–6 Review the entire module to understand it better. You can do it!



## Answer Key

### A. Let's See What You Already Know (page 2)

1. 8 The key to proper nutrition is eating the right foods in the right amounts.
2. 4
3. 8 When a person is fat, it does not mean that he or she is healthy. A healthy person has normal weight that is right for his/her age, height, sex and lifestyle.
4. 4 We need a balanced diet to ensure that we get all the nutrients our body needs to grow healthy and strong.
5. 4
6. 4 When our bodies do not get the right nutrients from food, we get malnourished.
7. 8 Calcium is needed by the body for the formation of strong bones and teeth.
8. 4 Deficiency in in Vitamin A causes the disease called night blindness which is common among children.
9. 4 Due to poverty, many of our countrymen cannot afford to eat a balanced meal every day. This causes a lack of the essential nutrients to grow healthy. Therefore, they become malnourished.
10. 8 Having good nutrition does not mean eating many times a day. It means eating the right foods in the correct amounts.

## B. Lesson 1

*Let's Talk About This (page 8)*

Here are some indicators that one is in good health:

- a. has good posture (straight back)
- b. has no skin diseases like athlete's foot, ringworm and allergies
- c. does not easily get tired and sick
- d. has no addictions; no drinking problems
- e. has sharp hearing
- f. has sharp memory
- g. is able to sleep well

You may have listed some other indicators as well. Discuss your answers with your Instructional Manager or Facilitator.

*Let's Talk About This (pages 11–12)*

1. Aling Doring's children are sick. They are thin and pale, and they easily get tired.
2. Aling Doring always buys dried fish for her children. She does not buy vegetables because her children do not eat them. While there are also some nutrients that may be obtained from dried fish, still, vegetables are very important. They supply our bodies with many nutrients like vitamins and minerals.
3. Aling Doring's children are not receiving good nutrition. Since they do not eat a balanced diet, they lack the essential nutrients needed for good health. Lack of some nutrients leads to the development of certain diseases.

*Let's See What You Have Learned (pages 13–15)*

- A. 1. 4
2. 8 The amount of food that we eat every day does not determine our nutritional status. If you eat so much food in a day, it does not mean that you will be in good nutritional status. What determines your nutritional status are the kinds and amounts of food you eat.

3. 4

4. 4

5. 8 A fat person is not healthy. He is overweight. This condition is called overnutrition. Too much fat in the body is bad for the health. Fat people have the tendency to develop heart problems and other disorders. A healthy person enjoys normal weight.

- B.
1. What is wrong with Malou is that she does not have a good appetite. She does not want to eat and this makes her weak. She does not receive the necessary nutrients that will provide her with energy that she needs to perform tasks. She also does not receive the nutrients that will make her healthy.
  2. Terry is playing volleyball and looks like an active girl who is full of energy. Eating the right kinds and amounts of foods gives her the energy and nutrients she needs.
  3. Between the two girls, Terry looks like she has good nutrition. She looks healthier and has more energy than Malou. Without good nutrition, Terry will not be able to have a healthy body. She has the energy to perform many activities because she eats the right foods. Malou is weak and cannot perform as many activities as Terry because she does not eat right.

## C. Lesson 2

*Let's Try This (pages 18–19)*

1. The disease that broke out in Africa in the 1930s is called *kwashiorkor*. It literally means “red boy” because the disease is characterized by the presence of dark skin patches accompanied by skin peeling.
2. Children who are immediately followed by a new baby in the family are commonly affected by this disease. This is because they do not get enough of their mother’s milk when the new baby is born. Children from very poor countries are often afflicted with this disease. These children do not get enough nourishment because their parents do not have money to buy milk and food.

3. The signs and the symptoms of this disease include the following:
  - a. swelling of body tissues
  - b. puffy feet and face
  - c. presence of dark skin patches and skin peeling
  - d. pale and thin hair
  - e. loss of vigor and appetite

*Let's Study and Analyze (page 24)*

1. This disease is caused by lack of iodine in the diet.
2. To prevent or cure this kind of disease, iodine-rich foods should be eaten. These foods include seafoods and green leafy vegetables. Seafoods include fish, shellfish and seaweeds. Iodized salt is also a good source of iodine.

*Let's Try This (page 27)*

<b>Deficiency Disease</b>	<b>Cause</b>	<b>Foods that should be eaten to prevent and cure the disease</b>
1. Scurvy	Deficiency in Vitamin C	<i>Calamansi, dalandan, green leafy vegetables</i>
2. Anemia	Deficiency in iron	Eggs, milk, liver, fruits, green vegetables
3. Rickets	Deficiency in calcium and Vitamin D	Milk, fresh liver oil, egg yolk, vegetables
4. Night blindness	Deficiency in Vitamin A	Eggs; milk; cheese; liver; green and yellow vegetables like carrots, squash, sweet potatoes
5. Goiter	Deficiency in iodine	Seafoods like fish, shrimps, shellfish; iodized salt

*Let's See What You Have Learned (pages 28–30)*

- A.
1. (d) A person who lacks iron becomes anemic, or contracts the disease called anemia.
  2. (b) Scurvy is a disorder that a person who lacks vitamins C may suffer from.
  3. (a) Not getting enough vitamin A can result in a disorder called night blindness.
  4. (e) Goiter is caused by lack of iodine in the diet.
  5. (c) When a person doesn't get enough vitamin D and calcium, he or she may contract the disease called rickets.
- B.
1. The child is severely malnourished. He is very thin, almost skin and bones like a living skeleton. His faced is very wrinkled.
  2. The child could be suffering from diseases caused by deficiency in nutrients. He could also be suffering from kwashiorkor or marasmus.
  3. Children who are suffering from kwashiorkor and marasmus are so thin that they almost look like skeletons. They experience severe muscle loss and premature skin wrinkles.
  4. Children are easily affected because they are still at the growing stage when they need all the nutrients they can get to become healthy.

**D. What Have You Learned?** *(pages 32–34)*

- A.
1. Vitamin A
  2. Go, Grow and Glow foods
  3. good nutrition
  4. malnutrition
  5. specific deficiency
  6. scurvy
  7. liver, fruits, green vegetables

8. marasmus
  9. good nutritional status
  10. thyroid gland
- B.
1. Ramon is healthier than Jaime. He is in good nutritional status. He has firm and strong muscles, plus the energy to help his father in their farm. His hair is healthy and glossy. He has clear skin. These are reflections of a healthy body.
  2. Some signs of good nutritional status are:
    - a. clear eyesight and hearing
    - b. clear skin (skin free from allergies and diseases)
    - c. good posture
    - d. good appetite
    - e. teeth free from decay
    - f. healthy, glossy hair
    - g. sufficient amount of energy to do work

You may have also listed some other signs of good nutritional status. Discuss your answers with your Instructional Manager or Facilitator.

3. Here is my sample answer:

*I think I am in good nutritional status. I eat foods that are healthy and I stay away from “junk” foods. I eat balanced meals every day, meals that include foods from the three food groups.*

*I have clear skin and glossy hair. I have healthy gums and do not have tooth decay. My weight is just right for my age and height. I do not easily get sick or tired.*

(This is a sample answer only, against which you can check your own answer. For additional feedback, discuss your answer with your Instructional Manager or Facilitator, or with a barangay health worker.)





## Glossary

**Assess** Evaluate; estimate; determine the value. *Example:* You can *assess* a person's nutritional status by looking at his physical characteristics.

**Balanced meal** Meal consisting of foods from the three basic food groups.

**Deficient** Lacking; insufficient. *Example:* A person who is *deficient* in iron may contract anemia.

**Disease** Illness; sickness. *Example:* A *disease* is often caused by poor nutrition.

**Fend** Guard; defend. *Example:* To *fend* against sickness, our body must be healthy and strong.

**Malnutrition** The condition of your body when it does not get the proper amount of nutrients to grow and remain healthy.

**Minerals** Substances essential to good health found in a variety of foods.

**Nutrients** Substances from food that are needed for a person to grow and continue living.

**Nutritional status** The condition of your body which depends on how it uses the food that you eat.

**Prone** Inclined; tending. *Example:* Many children in poor families are *prone* to malnutrition.

**Protein** A substance that our body needs for growth and tissue repair.

**Protruding** Prominent; raised; projecting. *Example:* Malnourished children often have very thin bodies and *protruding* bellies.

**Recommended** Approved; advised. *Example:* The *recommended* diet consists of foods from the three food groups.

**Specific deficiency** Malnutrition characterized by lack of certain nutrients.

**Triggers** Causes. *Example:* Poor nutrition *triggers* certain diseases.

**Vigor** Power; strength; energy. *Example:* An anemic person is usually weak and lacking in *vigor*.

**Vitamins** Substances that are essential to good nutrition. Deficiency in certain vitamins can lead to disorders.



## References

Bunch, Bryan. 1999. The Family Encyclopedia of Disease: A Complete and Concise Guide to Illnesses and Symptoms. *Vitamin-Deficiency Diseases*. Scientific Publishing, Inc. <[http://www.medic-planet.com/MP\\_article/internal\\_reference/Vitamin-deficiency\\_diseases.](http://www.medic-planet.com/MP_article/internal_reference/Vitamin-deficiency_diseases.)> January 25, 2001, date accessed.

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