

# Simply Nutrition

栄養系学生のための総合英語



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## Preface

Nutrition studies have grown in importance and popularity in Japan in recent years. There are a number of well-written nutrition-related English-study textbooks on the market. However, there has been a clear need for a textbook that; 1) addresses the scientific topics and vocabulary needs for students majoring in nutrition, 2) includes nutritional content specifically taught at Japanese universities and perhaps most importantly, 3) is written in a simple, clear style at a level suitable for non-English majors. In addition to reading passages, Simply Nutrition includes a variety of focused exercises. These include those to strengthen reading and listening comprehension, to increase knowledge of key phrases and grammatical structure necessary for nutrition-related communication, and to stimulate student discussion through task-based exercises about nutrition.

In the development of Simply Nutrition, special thanks goes to Seitoku University's Department of Human Nutrition, especially Professor Kiyoshi Gotow, who was instrumental in keeping the book focused on the specific English and topic needs of future Japanese dietitians and nutritionists.

## はじめに

昨今日本では、栄養学が非常に重要視され、人気の高い分野となってきました。それとともに栄養学関連の質の高い英語教材が数多く出版されています。中でも現在必要性がもっとも高まっている教材とは 1) 栄養学を専攻している学生に必要な科学的なトピックと単語を提示するもの、2) 日本国内の大学で教えられる栄養学の内容に特化したもの、さらに重要なのはそれらが 3) 英語を専門科目としない学生に基準を合わせた、シンプルでわかりやすいものです。Simply Nutrition は、読解文のほかにもフォーカス別にさまざまな練習問題が含まれており、これらは読解力や聴解力を高めるだけでなく、栄養学関連のコミュニケーションに欠かせないキーフレーズと文法構成の知識を強化することができます。さらに栄養学関連のタスク活動を基本とした練習問題は、学生間の対話や議論が促すよう構成されています。

本書執筆にあたり、聖徳大学の人間栄養学部、そして将来の日本の管理栄養士、および将来の日本の栄養士に必要な英語やトピックに特化するために多大なご指導、ご協力をいただきました、後藤潔教授に深く感謝申し上げます。

# Contents

<b>Unit 1:</b>	<b>Nutrition for Good Health</b>	<b>6</b>
<b>Unit 2:</b>	<b>Carbohydrates</b>	<b>10</b>
<b>Unit 3:</b>	<b>Fats and Proteins</b>	<b>14</b>
<b>Unit 4:</b>	<b>Vitamins and Minerals</b>	<b>18</b>
<b>Unit 5:</b>	<b>The Importance of Balance</b>	<b>22</b>
<b>Unit 6:</b>	<b>Diets for Different Needs</b>	<b>26</b>
<b>Unit 7:</b>	<b>The Dangers of an Unbalanced Diet</b>	<b>30</b>



<b>Unit 8:</b>	<b>Managing Body Weight</b>	<b>34</b>
<b>Unit 9:</b>	<b>Our Food Choices</b>	<b>38</b>
<b>Unit 10:</b>	<b>Eating Disorders</b>	<b>42</b>
<b>Unit 11:</b>	<b>Foods that Can Make You Sick</b>	<b>46</b>
<b>Unit 12:</b>	<b>Safe Food Preparation</b>	<b>50</b>
<b>Unit 13:</b>	<b>Water and Other Drinks</b>	<b>54</b>
<b>Unit 14:</b>	<b>The Changing Japanese Diet</b>	<b>58</b>
<b>Unit 15:</b>	<b>The Work of a Dietitian</b>	<b>62</b>

# Unit 1

## Nutrition for Good Health



### ▶▶ A Key Words ▶▶▶▶▶



- |                              |            |                    |           |
|------------------------------|------------|--------------------|-----------|
| 1. nutrition                 | 栄養         | 16. carbohydrate   | 炭水化物      |
| 2. provide                   | 与える、供給する   | 17. protein        | タンパク質     |
| 3. affect                    | 影響を及ぼす     | 18. dietitian      | 栄養士       |
| 4. harmful                   | 有害な        | 19. guideline      | ガイドライン、指針 |
| 5. lifestyle-related disease | 生活習慣病      | 20. recommend      | 推奨する      |
| 6. take in                   | 取り込む（摂取する） | 21. well-nourished | 栄養状態のよい   |
| 7. measure                   | 測定基準       | 22. suffer         | 苦しむ       |
| 8. contain                   | 含む         | 23. deficiency     | 欠乏、不足     |
| 9. overweight                | 太りすぎの      | 24. saturated fat  | 飽和脂肪      |
| 10. consume                  | 消費する、摂取する  | 25. blood pressure | 血圧        |
| 11. nutrient                 | 栄養素        | 26. require        | 必要とする     |
| 12. lead to                  | ～を引き起こす    |                    |           |
| 13. prevent                  | 防ぐ、阻む      |                    |           |
| 14. longevity                | 寿命         |                    |           |
| 15. well-balanced diet       | バランスの取れた食事 |                    |           |



We all have favorite foods that we like to eat. But do these foods provide us with the nutrition that we need? The science of nutrition gives us the answer. Nutrition is the study of food and how food affects our health. It tells us which foods are good for us and which are harmful. Nutrition is also the study of people's food choices and the results of those choices from good health to lifestyle-related diseases. In addition, nutrition tells us what the body 5 does with the food we eat.

Food gives us energy. Most of us take in enough calories. Calories are units for measuring how much energy is contained in food. But some of us take in too many calories and become overweight. Sometimes the foods we consume do not have enough of the vitamins, minerals and other nutrients we need. This can lead to all kinds of health 10 problems. To stay healthy, we should eat a variety of foods that give us enough energy and all the important nutrients. Eating the right foods helps prevent lifestyle-related diseases and increases our longevity. Our diet—what and how much we eat—also affects how we look and feel. That is why we should have a well-balanced diet containing the five major nutrient groups—carbohydrates, fats, proteins, vitamins, and minerals. Three of these nutrients— 15 carbohydrates, fats, and proteins— give us the energy we need to do all our daily activities.

The people who study food and diets are called dietitians. Dietitians have made guidelines that tell us which foods we should and should not eat. These guidelines recommend the amounts of calories and nutrients we need each day. If we get the right amount of nutrients, we will be well-nourished. If we do not get enough vitamins and 20 minerals, we will suffer from a deficiency and may become sick. You don't need to take in every vitamin or mineral every day, but you should get all of them within a week. Some people, however, need more nutrients than others.

Dietitians make guidelines to help us stay healthy and prevent various problems. For example, the guidelines tell us that we have to be careful not to eat too much fat, sugar, or salt. 25 If you eat too much salt or fat, you might have heart problems. Saturated fat is the worst kind of fat. Sugar is bad for your teeth. Eating too much salt can raise your blood pressure.

The science of nutrition is important to us all because we all want to live long, healthy lives. Nutrition is also exciting: every year, dietitians discover new things about food and health. Thanks to their research, we now know a lot more about how to stay healthy than we did 100 30 or even 50 years ago. (464)

## ▶▶ C Reading Comprehension ▶▶▶▶▶▶

Read the following sentences. Write T if the sentence is true or F if it is false.

本文の内容に一致するものにはTを、一致しないものにはFを空欄に入れましょう。

1. \_\_\_\_ We get the energy we need from carbohydrates, vitamins, and minerals.
2. \_\_\_\_ Guidelines are made to help people eat healthy diets.
3. \_\_\_\_ We need to eat all the important vitamins and minerals every day.
4. \_\_\_\_ Saturated fat is the only kind of fat that is good for you.
5. \_\_\_\_ Dietitians have not learned new things about nutrition for a long time.

## ▶▶ D Useful Expressions ▶▶▶▶▶▶



Fill in the blank in each sentence below with one of the phrases. Then listen to check your answers.

枠内から正しい語句を選んで空欄に入れたあと、CDを聞いて答えをチェックしましょう。

stay in good health  
conduct research

cut down on  
an important role

are a result of

1. We should all learn about nutrition, because it plays \_\_\_\_\_ in health.
2. If we consume the recommended amounts of calories and nutrients every day, we can \_\_\_\_\_.
3. Many life-style diseases \_\_\_\_\_ poor diet choices and a lack of exercise.
4. If you \_\_\_\_\_ the number of calories you consume each day, you will likely lose weight.
5. Dietitians \_\_\_\_\_ to learn new things about nutrition and how it affects our health.

## ▶▶ E Structure ▶▶▶▶▶▶

Write the word “much” or “many” in the spaces below.

much か many のどちらか正しいものを空欄に入れましょう。

1. How \_\_\_\_\_ sugar do we have?
2. Desserts like cakes and cookies usually contain \_\_\_\_\_ calories.
3. We can prevent \_\_\_\_\_ diseases by eating a healthy diet.
4. Calories are units for measuring how \_\_\_\_\_ energy foods contain.
5. You shouldn't put too \_\_\_\_\_ salt on your food.



## ▶▶ F Dictation ▶▶▶▶▶▶



1-5

Listen to the passage and write in the missing words below.

次の要約を聞いて、空欄に適切な語句を入れましょう。

Your body **requires** \_\_\_\_\_ and nutrients for growth and daily activity. The food choices you make today may not affect your health right away, but they will have a big effect \_\_\_\_\_. That's why \_\_\_\_\_ to have a healthy diet at a \_\_\_\_\_. You \_\_\_\_\_ you get the calories and nutrition your body needs for both the short-term and \_\_\_\_\_.

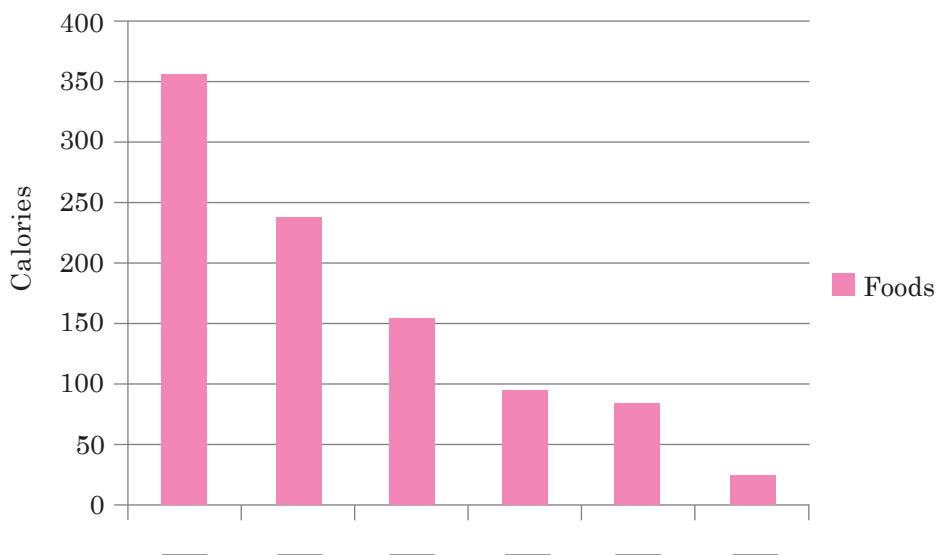
## ▶▶ G Food Bite ▶▶▶▶▶▶

Look at the foods below and guess how many calories they have. Put the correct letter into the space under the graph.

枠内の食べもののカロリーを予想し、その記号をグラフの下に入れましょう。

- A. 1 apple      B. 1 cup of ice cream      C. 3 thin slices of cheddar cheese  
D. 1 piece of chocolate cake      E. 1 slice of white bread      F. 1 cup of broccoli

### How Many Calories?



# Unit 2

## Carbohydrates



### ▶▶ A Key Words ▶▶▶▶▶▶



4



1-6

- |                                     |             |                                     |           |
|-------------------------------------|-------------|-------------------------------------|-----------|
| 1. <b>digest</b> (digestive system) | 消化する (消化器官) | 17. <b>high fructose corn syrup</b> | ブドウ糖果糖液糖  |
| 2. <b>glucose</b>                   | グルコース       | 18. <b>starch</b>                   | でんぷん      |
| 3. <b>blood-sugar level</b>         | 血糖値         | 19. <b>fiber</b>                    | 繊維        |
| 4. <b>glycogen</b>                  | グリコーゲン      | 20. <b>source</b>                   | みなもと      |
| 5. <b>store</b>                     | 蓄える         | 21. <b>break down</b>               | 分解する      |
| 6. <b>liver</b>                     | 肝臓          | 22. <b>chew</b>                     | 噛む        |
| 7. <b>molecules</b>                 | 分子          | 23. <b>intestine</b>                | 腸         |
| 8. <b>monosaccharides</b>           | 中性単糖類       | 24. <b>absorb</b>                   | 吸収する      |
| 9. <b>disaccharides</b>             | 二糖類         | 25. <b>human waste</b>              | 糞尿        |
| 10. <b>polysaccharides</b>          | 多糖類         | 26. <b>attach</b>                   | くっつく、付着する |
| 11. <b>fructose</b>                 | フルクトース、果糖   | 27. <b>cholesterol</b>              | コレステロール   |
| 12. <b>sucrose</b>                  | スクロース、ショ糖   | 28. <b>risk</b>                     | 危険性       |
| 13. <b>lactose</b>                  | ラクトース、乳糖    | 29. <b>cancer</b>                   | 癌         |
| 14. <b>sugar cane</b>               | サトウキビ       | 30. <b>grains (whole grains)</b>    | 穀類 (全粒)   |
| 15. <b>sugar beets</b>              | テンサイ        | 31. <b>processed foods</b>          | 加工食品      |
| 16. <b>refined (sugar)</b>          | 精製された (砂糖)  | 32. <b>brown rice</b>               | 玄米        |



Carbohydrates are one of the five types of nutrients. We get much of our energy from carbohydrates. Our digestive system changes carbohydrates into glucose, a form of sugar that enters our blood. Our body uses glucose to make energy. Since our brain can only get energy from glucose, it is important that our blood-sugar level does not become too low. Our blood sugar comes from the carbohydrates we consume and the glycogen stored in our liver. 5 Carbohydrates are grouped by the number of sugar molecules they contain; these include monosaccharides, disaccharides, and polysaccharides.

### Monosaccharides and Disaccharides

Monosaccharides are single-carbohydrate molecules, and disaccharides are made of two single-carbohydrate molecules. These are often called sugars. Glucose and fructose are 10 monosaccharides. They are found in fruit. The common name for glucose is blood sugar and the common name for fructose is fruit sugar. Sucrose and lactose are disaccharides. Their common names are table sugar and milk sugar. Sucrose is found in sugar cane, sugar beets, fruit, and vegetables. Lactose is found in milk and milk products. These kinds of sugar are found naturally in many foods, which contain other nutrients, like vitamins and minerals. 15 The refined sugar from sugar cane and sugar beets contains only sucrose. High-fructose corn syrup contains only fructose and glucose. Both of these refined sugars contain no other nutrients, such as vitamins and minerals. They also make our blood-sugar levels jump up quickly. That's why they are not as good for us as more natural sugars.

### Polysaccharides

20

Polysaccharides are made up of many molecules of monosaccharides. Starch and fiber are polysaccharides that come from plant food sources and glycogen is made up of polysaccharides that come from animal food sources. When we consume starch, it is broken down into glucose in our digestive system, starting with the chewing in our mouth to final digestion in our intestines. Glucose (blood sugar) is easily absorbed into our blood. The excess amount of blood sugar in our 25 bodies is stored as glycogen in the liver and in muscles. But the liver cannot store much glycogen. And if we exercise too little, the glycogen in our muscles does not get used. If we consume more sugar and starch than our body can use, the extra glucose will be stored as fat.

When we feel hungry, we know that our blood sugar level is low. There are many good sources for starches, including rice, bread, pasta, potatoes, and beans. Many Japanese dietitians 30 recommend that 50 to 70 percent of our energy comes from carbohydrates. Most of those calories, though, should come from starches, because eating sugars causes our blood sugar to rise rapidly. While starch and glycogen can easily be digested, fiber cannot be digested so easily. Fiber gives us very little energy, but it is necessary to keep our body healthy: it is important because it helps move human waste through our digestive system. Fiber also 35 attaches to cholesterol in the intestine and carries it out of our body. In this way, it reduces our cholesterol level and lowers our risk for getting such lifestyle-related diseases as heart disease and cancer. (518)

## ▶▶ C Reading Comprehension ▶▶▶▶▶▶

Read the following sentences. Write T if the sentence is true or F if it is false.

本文の内容に一致するものにはTを、一致しないものにはFを空欄に入れましょう。

1. \_\_\_\_ It is important to always keep your blood sugar very low.
2. \_\_\_\_ Disaccharides are single carbohydrate molecules.
3. \_\_\_\_ In general, refined sugars are not as good for us as natural sugars.
4. \_\_\_\_ All polysaccharides come from plant-food sources.
5. \_\_\_\_ Fiber is a good source of calories, vitamins, and minerals.

## ▶▶ D Useful Expressions ▶▶▶▶▶▶



Fill in the blank in each sentence below with one of the phrases. Then listen to check your answers.

枠内から正しい語句を選んで空欄に入れたあと、CDを聞いて答えをチェックしましょう。

pay attention  
make up

change into  
make sure

get rid of

1. Carbohydrates are one of the nutrients that \_\_\_\_\_ the five types of nutrients.
2. Carbohydrates and sugars \_\_\_\_\_ glucose in our bodies.
3. Fiber is important because it helps us \_\_\_\_\_ waste.
4. If you eat a lot of carbohydrates, \_\_\_\_\_ that some of them are **whole grains**.
5. It is important to \_\_\_\_\_ to your cholesterol level to reduce your risk of heart disease and cancer.



## ▶▶ E Structure ▶▶▶▶▶▶

Fill in the blank in each sentence below with the correct comparative form of the adjective in parentheses.

形容詞の比較級を空欄に入れましょう。

Example: I think fruits are more delicious (delicious) than vegetables.

1. Glucose is \_\_\_\_\_ (easy) for the body to use for energy than other types of sugars.
2. Foods containing natural sugars are \_\_\_\_\_ (good) for us than refined sugar.
3. Whole grains are \_\_\_\_\_ (healthy) for us than refined grains.
4. Whole grains are \_\_\_\_\_ (nutritious) than most other kinds of carbohydrates.
5. Foods high in fiber are not digested easily, so they provide \_\_\_\_\_ (few) calories than other kinds of foods.

## ▶▶ F Dictation ▶▶▶▶▶▶



1-9

Listen to the passage and write in the missing words below.

次の要約を聞いて、空欄に適切な語句を入れましょう。

Whole grains are not processed, so they have more \_\_\_\_\_ than **processed foods**. Americans learn that, for a healthy diet, it is best to eat \_\_\_\_\_ whole grains. It is also better to eat whole grains without \_\_\_\_\_. Whole-grain muffins, cookies, or fried rice often \_\_\_\_\_ the fat and sugar in them than from the actual grains. The Japanese diet, however, does not usually \_\_\_\_\_ whole grains, though some Japanese eat **brown rice**.

## ▶▶ G Food Bite ▶▶▶▶▶▶

Match the sugars on the left with their descriptions on the right. Write the correct letters in the spaces.

左側は糖の種類を示したものです。それぞれの特徴を右側の説明から選んで、空欄に記号を入れましょう。

- |                   |   |
|-------------------|---|
| 1. sucrose _____  | a This is the main fuel for our body. It is often called blood sugar. |
| 2. lactose _____  | b. This is the natural sugar found in fruit.                          |
| 3. glucose _____  | c. This is refined sugar. It is often called table sugar.             |
| 4. fructose _____ | d. This is the natural sugar found in milk.                           |