# **ALIVE AND ACTIVE**

健 "幸" ライフ志向の総合英語

Masamichi Asama Nicholas Lambert Iwao Yamashita



#### まえがき

超高齢社会の到来により、生産人口の減少および社会保障費の増加から、国策としての「健康寿命の延伸」が盛んに叫ばれるようになりました。しかし、人間個々にとっては、遥か昔より今日にいたるまで、元気で最後まで暮らせる、いわゆる「美しい老い」は不変の目的と言えるでしょう。そのような潜在ニーズを反映してか、多様な健康食品の販売に始まり、フィットネスクラブの乱立にいたるまで、健康ビジネス産業の盛況ぶりには目を見張るものがあります。昨今のコロナ禍にあっては、健康意識の増大はますます高まっていっているといっても過言ではありません。しかし、ステイホームをしばしば奨励されるコロナ禍では、どうしても外的刺激に触れる機会が減じ、自律的な健康志向努力にも自ずと限界がありそうです。このことは学びに関しても決して例外ではありません。無機質なオンライン授業ばかりだと、どうしても思考が停滞し、学びの意欲が削がれがちになってしまいます。

そこで本英語テキストは「思考する英語」をテーマに全体を編集いたしました。重厚な内容の本文に加え、外国語運用能力において語彙力が非常に重要な位置を占めている点をも考慮し、コンテクストを見極めながら行う語彙学習や論理的思考およびクリティカルシンキングを養う問題を散りばめました。さらには精度が高くなったウェブ翻訳ツールの影響で、「英作文」の授業を廃止した大学も出現している実際をも鑑み、英作練習問題にも工夫を凝らしてみました。

本テキストがコロナ禍で浮上し始めたワクチン接種や高齢者の生活スタイルをはじめと する問題に対して、少しでも学習者の意識が先鋭化されれば幸いです。

なお、刊行にあたり、南雲堂編集部の加藤敦氏には大変お世話になりました。ここに深 く感謝の意を表します。

> 2022 年 10 月 1 日 編著者代表 淺間正通

#### 本テキストの特徴

#### Warm-up Exercise

TOEIC の最初に出題される写真・イラスト描写問題です。まずは手軽に取り組めるビジュアルな学びから入り、入門的なリスニング力を培います。

#### Inspiration Exercise

本文中に出現する語彙について定義したリスニング問題ですが、一部はディクテーション 方式にもなっていますので、トップダウン型処理とボトムアップ型処理の併用によって答 を導く問題となっています。

#### Word-attack Exercise

いわゆる多義語を抽出しています。あくまでも本文中に出現している語(網掛け)についての意味用法を問うものです。ここでは短文ではありますが、コンテキストを見極めながら正確なリーディングにおける判断力を養う意図から問題設定してあります。3択となっていますが、判断基準に迷う場合には本文中の対象語の意味を繰り返し確認するようにしてみてください。

#### Comprehension Exercise

本文の内容に対する正確な理解を問う問題となっています。本文の全体的な文脈をしっかりと押さえながらチャレンジしてみる必要があります。

#### Discourse Exercise

パラグラフリーディングにおける結束性(cohesion)および一貫性(coherence)についての認識を応用した問題です。文脈重視で順序だてないとしっかりとした英文として成立しません。導く接続詞などは重要なヒントとなりますので、文法力も動員しながらチャレンジしてみてください。

#### Production Exercise

英作文用の練習問題ですが、多様なヴァリエーションで設定しています。特にウェブ翻訳 ツールでの語用的誤用に関わる問題にあっては、翻訳ツールが和文のどの箇所に引っか かって過ちを犯したのかなど、分析的な捉え方も必要となってきます。

#### CONTENTS

Section I	EXERCISE AND HEALTH	
Unit 1	Nutrition and Fitness 【栄養とフィットネスの正しい関わり合い】	6
Unit 2	<b>24/7 Fitness Clubs</b> 【いつでもどこでもフィットネス】	10
Unit 3	Exercise and Brain Function 【運動で脳年齢の若返り】	14
Unit 4	<b>Exercise Therapy</b> 【運動療法は質と TPO 次第】	18
Section II	ADAPTIVE TECHNOLOGIES	
Unit 5	<b>To Age or Not to Age</b> 【高齢化社会を支える新たなテクノロジーの出現】	22
Unit 6	Riding into the Future 【高まる電動自転車人気】	26
Unit 7	3D Printing for Healthcare and Sport 【健康スポーツへの画期的技術応用】	30
Unit 8	<b>Adaptive Sports</b> 【不可能を可能にするスポーツの進化形】	34
Section III	HEALTH MANAGEMENT	
Unit 9	First Response 【不測の事態に備えた応急手当】	38
Unit 10	<b>Vaccinations — Crucial or Dangerous</b> 【ワクチン接種をめぐる賛否両論】	42
Unit 11	Medical Tourism	46
Unit 12	<b>Athletic Performance Enhancement</b> 【スポーツにおける薬物使用の功罪】	50
Section IV	EXERCISE AS AN INDUSTRY	
Unit 13	<b>Athletic Footwear Design</b> 【進化するスポーツシューズの機能性】	54
Unit 14	<b>Adventure is for Fashion!</b> 【変化し始めたアドベンチャーの流儀】	58
Unit 15	<b>Esports</b> 【e スポーツのジレンマ】	62

Unit 1

## **Nutrition and Fitness**

【栄養とフィットネスの正しい関わり合い】





We all know that we can support good physical health by eating well and getting sufficient exercise. These two components are central to the quality of life: they keep us *alive* and active (the title of this textbook). We can eat almost anything to stay alive, but with the right combination of nutrition and exercise we can also have an active and satisfying life. In this first reading we are going to examine how nutrition and fitness work together to build a healthy life.

But what exactly is a healthy life? Most people would say that it is when we look and feel good and are able to do the physical activities that we need or want to do in our daily lives. According to a lot of research, regular exercise is important to having a healthy life, but nutrition has an even greater impact. 10 Because of this, many sport trainers and coaches consider healthy food intake (providing good nutrition) as the primary fitness goal. When we eat right, we feel healthier, stronger, more confident and ultimately happier.

Nutrition is the process by which living things receive the food necessary for them to grow and be healthy. This process doesn't mean simply to consume food or drink. It also involves the selection and consumption of food and drinks that contain important nutrients that bodies need to grow well and maintain health: water, vitamins, minerals, protein, carbohydrates, and so on. However, as our bodies pass through different developmental stages (e.g., infant to teenager, young adult to elderly) our nutritional needs change in type and quantity. That is because our body structures and physical abilities change as we grow older (e.g., body sizes increase, muscles develop in strength, mobility and control). We can help these physical changes by matching our nutrition to our physical development and needs. Moreover, through using exercises that complement our nutritional intake and are appropriate to our age, physique and general health, 25 we can improve our overall level of fitness and well-being.

Some research studies have shown that having proper nutrition in the first year of life is the most important for lifelong health. For instance, children who are overweight at the age of one are more likely to struggle with weight problems throughout their lives than children who are at healthier weights at that age. For healthy bone growth, children have a greater need for calcium than adults do. The elderly also need more calcium than younger adults so as to strengthen bones that are weakening with aging. Thus, good nutrition can help with both physical development and maintenance, and can also aid in health improvement during times of injury or illness.

The nutritional needs for performing a physical activity depend on three main factors: intensity, duration, and type. One part of a food's nutritional value

is its quantity of calories. A calorie is a measurement of the amount of energy a certain food provides to fuel physical activities. For high intensity activities such as playing football or skiing, there is a larger calorie need than for less intensive activities such as taking the dog for a walk. Doing an activity for an hour requires more calories than doing it for 30 minutes. An aerobic activity (or cardio) such as distance running uses a lot of oxygen and raises the heart rate. As a result it burns more calories than an anaerobic (or non-aerobic) activity such as sprinting or weight-lifting which is short in duration but higher in intensity.

Lifestyle choices related to physical fitness (e.g., interests and hobbies, types of employment) as well as factors such as age, gender, and general health condition produce varying nutritional needs. A common saying is that "we are what we eat." So if we don't make the best nutritional choices, who we are will 50 probably not be who we should be.

#### Notes

- *l.* 11 **intake** = an act of taking something into the body
- l. 13 ultimately = finally; (e.g. He thought seriously of quitting, but ultimately decided to stay on.)
- l. 17 **nutrient**「栄養物」
- l. 18 carbohydrate「炭水化物」
- l. 19 infant「幼児期」
- *l.* 24 **complement** = to add to something in a way that improves it
- l. 25 appropriate to...「…に適した」
- l. 25 **physique**「体格;からだつき」(e.g. He has a fine physique.)
- l. 26 well-being「健康(な状態)」
- l. 33 **thus** = in this way
- l. 37 intensity「激しさ;強度」
- l. 44 anaerobic「無酸素性の」
- l. 45 **sprint**「(特に短距離間を) 全力疾走する」

#### Warm-up Exercise





# Nutrition Facts Serving Size 1/4 Cup (30g) Servings Per Container About 38

- Protein 5g

  Vitamin A 0% Vitamin C 0%

  Calcium 4% Iron 8%

  \*Percent Daily Values are based on a 2,000 calorie diet.\*

- 1. What is this table?
  - (A) (B) (C)
- 2. What is the meaning of "Daily Value"?
  - (A) (B) (C)
- 3. What is the "Serving Size" of this product?
  - (A) (B) (C)

6 ALIVE AND ACTIVE Unit 1 Nutrition and Fitness

#### **Inspiration Exercise**



次の 1-3 の英文を聴いて下線部を補い、さらにその意味を表している本文中の語を 答えなさい。

1.	It is the noun form of th	e word which means "	
	as food and the way that they influence your health."		
	In other words: (	)	
2.	It is the verb form of the time,	word which is defined as "to use fuel, energy, or"	•
	In other words: (	)	
3.	The word means		<u>.</u> -
	In other words: (	)	

#### **Word-attack Exercise**

(C)

次の 1-3 の本文中に出現している語と最も近い意味で使用されている英文を (A) (B) (C) の中から選びなさい。

#### 1. examine

- (A) The doctor who <u>examined</u> my throat didn't say anything about the disease.
- (B) Each student will be <u>examined</u> orally by a team of teachers in order to graduate.
- (C) Please examine the error information printed in the book.

#### 2. involve

- (A) It is important to involve all the group members in the discussion.
- (B) I do not want to be <u>involved</u> in the new project.
- (C) Global warming closely <u>involves</u> the issue of rising sea levels.

#### 3. raise

- (A) If you want to ask a question at the meeting, you will need to <u>raise</u> your hand.
- (B) The Bank of England <u>raised</u> interest rates last week in order to reduce inflation.
- (C) I was born in Tokyo but <u>raised</u> in Kyoto.

#### **Comprehension Exercise**

本文の内容に即して、次の英文の内容が正しければ T (True) を、誤っていれば F (False) を記しなさい。

- ) 1. Bones in the early phase of development necessitate more calories.
- ) 2. People with thinning bones need more calcium.
- ) 3. A long swim would require more calories.
- ( ) 4. Physically matured adults would require less calcium.
- ( ) 5. Walking slowly would need less calories than walking quickly.

#### **Discourse Exercise**



次の出だしに続く英文を意味の通るように並べかえなさい。

We all know that we can support good physical health by eating well and getting sufficient exercise. These two components are central to the quality of life: they keep us alive and active.

- A. In order to gain that satisfaction, quality nutrition can help with the physical development of children as well as the body maintenance of the elderly.
- B. The right combination of nutrition and regular exercise is essential to having an active and satisfying life.
- C. Consequently it is important to make the best nutritional choices to match our varying nutritional needs.

Answers.	( )	( )	(
Allawela.	,	(	(

#### **Production Exercise**



Exercise addiction is a type of (have / behavioral / effects / that / can / addiction / negative) on physical health, mental health, and general way of life.

火火・	
和文:	

Unit 2

# 24 / 7 Fitness Clubs

【いつでもどこでもフィットネス】





One of the most popular ways for an adult to try to keep fit is to join a fitness club. Such a club usually offers a variety of training equipment and facilities, group training courses, personal training, advice for self-training programs, shower and sauna facilities, private lockers for storage of personal belongings. In addition, it may provide extras such as towels, equipment or clothing rentals, sales of exercise aids and nutritional supplements, massage services, and light meal services. Fitness clubs have a range of membership fees, from single day passes to long-term contracts with rates matched to contract length: the longer the contract, the cheaper the effective daily rate. For example, a club might charge \$10 for a single day pass, \$60 for a week-long pass, and \$200 for a monthly pass.

Many people sign a long-term membership contract, thinking that they will be motivated to come regularly to the club because they won't want to waste such a big sum of money. However, even people who are highly motivated when they join a club often stop attending regularly because they are busy, tired, 15 injured or ill, or else find that the hard effort needed to carry out their fitness programs is simply not enjoyable. Moreover, it is common for working people to discover that the daily fitness club schedule does not allow them much time to visit after work. After all, many people have to rush to work in the morning, while after work they may need time for family or friends, meals, rest and 20 relaxation. Traditionally, fitness clubs have had opening hours from 8-9 a.m. until 9-10 p.m. That leaves very little time for busy adults to go to a fitness club during weekdays. Although they could exercise at their clubs on the weekends, people are often busy with work or social activities on those days. Even if club members do have the time for the gym on weekends, they frequently manage 25 only one or two visits per week or month—which is insufficient exercise for general well-being. Thus, the average club member would be better off buying single day passes than taking out a longer contract.

Many workers have evening or night jobs, so that their free time is late at night or in the early morning, and thus outside the opening hours of traditional 30 fitness clubs. In addition, there are some people who are *early birds* or *night owls*, feeling naturally more energetic outside the normal hours of daily activity. These people may prefer to go to a fitness club late in the evening or early in the morning. Because of this problem of access, recently more and more fitness clubs worldwide have extended their opening hours to satisfy their clients' 35 schedules and desires. Furthermore, since there is an over-abundance of fitness clubs in many cities, there is often a lot of competition to find and keep new club

members. So fitness clubs that are always open (24 hours, 7 days a week) have become more common in recent years.

Initially, 24/7 fitness clubs only provided access to club facilities such as weights and exercise machines. Responding to complaints by members who wanted full use of club facilities and services (requiring service staff such as lifeguards, personal trainers, and fitness instructors) during the night hours, fitness club chains such as 24/7 Fitness Club or Anytime Fitness are opening branches worldwide. In this way, they attract more club members and avoid many complaints about poor access or services. As the famous American inventor Benjamin Franklin once commented, "Well done is better than well said." With fitness club access at any hour, members can do more than *talk* about getting exercise: they can *do* exercise at their own convenience. For that reason, visits to the gym may become more frequent and longer membership contracts more cost-effective.

#### Notes

- l. 04 personal belongings「身の回り品;所持品」
- l. 26 **insufficient**「不十分な;不足な」(n. insufficiency)
- l. 27 be better off...「…の方がもっと良い状態になる」(e.g. Perhaps I was better off not knowing.)
- l. 28 taking out a longer contract 「長期契約を結ぶ」
- l. 31 early bird「早起きの人」
- l. 31 **night owl**「夜更かしする人; 夜型人間」
- l. 36 over-abundance「過剰」
- 1. 47 Benjamin Franklin「ベンジャミン・フランクリン」ベンジャミン・フランクリン (1706-1790) は、アメリカ合衆国の政治家、外交官、著述家、気象学者、発明家で、アメリカ独立宣言の起草委員の一人、
- 1. 47 Well done is better than well said. 「良い言葉より良い行いの方が勝るものだ」ベンジャミン・フランクリンの名言の一つ. 「どんなに良いことを言ったとしても良い行動には勝てない」という意味

#### Warm-up Exercise





### 次の写真を見たのち、1-3の質問文と選択肢を聴いて正しい答えを選びなさい。



- 1. How many people are jumping?
  - (B) (C)
- 2. How many pairs are facing each other?
  - (A) (B) (C)
- 3. What is the woman in front doing?
  - (A) (B) (C)

10 ALIVE AND ACTIVE Unit 2 24 / 7 Fitness Clubs 11

#### **Inspiration Exercise**



次の 1-3 の英文を聴いて下線部を補い、さらにその意味を表している本文中の語を 答えなさい。

1.	The word represents		
	especially those that can be carried.		
	In other words: (	)	
2.	This is the situation in which		
	In other words: (	)	
3.	This is		about something
	In other words: (	)	

#### Word-attack Exercise

次の 1-3 の本文中に出現している語(下記対象語が複数出現していても、ここでは 本文中に網掛けしてある語)と最も近い意味で使用されている英文を (A)(B)(C) の中 から選びなさい。

#### 1. pass

- (A) I have to pass The National Museum of Modern Art on my way to the university.
- (B) Would you please pass me the salt?
- (C) I lost my boarding pass somewhere around Gate 15.

#### 2. charge

- (A) How much do you charge for a bottle of wine made in Bordeaux?
- (B) Who will be in <u>charge</u> of this project while I am away for a month?
- (C) The part-time worker at the gas station didn't know how to charge up the batteries.

#### 3. rest

- (A) My girlfriend suddenly tried to rest her head on my left shoulder.
- (B) When driving long distances, you should take a rest every two hours.
- (C) Please enjoy the rest of your stay in this hotel.

#### **Comprehension Exercise**

本文の内容に即して、次の英文の内容が 24/7 型のフィットネスクラブに関するもの には Y (Yes) を、そうでないものには N (No) を記しなさい。

- ) 1. Morning people and night people have difficulty in making good use
- 2. Using single day passes can never be more economical than paying for a long-term membership.
- ) 3. You can take lessons from your personal trainer.
- ) 4. Regardless of their size, they provide around the clock service.
- ) 5. Fitness clubs do not allow members to use the gym on weekends.

#### **Discourse Exercise**



次の出だしに続く英文を意味の通るように並べかえなさい。

One of the most popular ways for an adult to try to keep fit is to join a fitness club.

- A. And some fitness clubs go even further, by offering unlimited access to their facilities and services 24/7.
- B. They often do this by offering opening hours to match their clients' schedules.
- C. Such clubs offer a variety of facilities, equipment and training programs.

Answers.	(	

#### **Production Exercise**



下記の英文は、無料のウェブ翻訳ツールで和文入力して訳出したものであるが、語 用的誤用が生じて不自然となっている。正しく直しなさい。

#### 【入力和文】

君はエアロバイクを速くこげばこぐほどカロリーを燃焼する。

#### 【訳出文】

\* The faster you burn an aero bike, the more calories you burn.

Ans.	