

有声英语教学丛书

美国广播英语



4

大众医学卫生专辑

DAILY SCIENCE REPORT

上海译文出版社

每日科技报道

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(大众医学卫生专辑)

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说 明

《美国广播英语》系根据美国之音特别英语节目每日科技报道的录音选编而成。

每日科技报道内容极其广泛，涉及天文地理、理工农医，着重介绍科普知识和科技新成就；文笔简炼生动，叙述深入浅出，词汇大量复现；语音标准，朗读优美。

第四辑和第五辑为大众医学卫生专辑，共选入24篇有关报道。这两辑中序号相同的文章，内容比较接近，句型和词汇也基本相同，有利于复习巩固和听力训练。每篇文章的标题系编者所加。各篇均编有生词、注解、习题及参考译文，以便于自学。

本书适合于我国大学各专业学生及科技人员学习听说科技英语使用。

第四、第五两辑各备盒式录音带一盒，系根据美国之音当天广播录制。除第五辑中个别文章的录音有杂音干扰外，其余各篇噪音较少，不影响学习。本书录音带由上海音乐书店特约经销。

本辑由罗灿文副教授、方兆敏老师审校。

我院美籍教师 Marjorie Francisco 夫人审阅了全稿，特此致谢。

大连铁道学院外语教研室

一九八二年三月

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permitted to run as much as they wanted. The other group of mice was placed in a small cage. These mice were not able to move around very much.

After 35 days the two scientists examined the brains of the mice. The brains of the mice that exercised weighed about 3% more than the brains of the mice that did not exercise. The part of the brain that controls movement weighed about 10% more. And there were about 16% more connections among nerve cells in that part of the brain. The results of this experiment support earlier findings that exercises can help some babies learn to walk sooner than expected³.

The good effects of physical exercise are not limited to children and middle-aged persons. Research shows that exercise continues to be an important part of our lives after we grow old. For example, we begin to lose calcium from our bone cells by the time we are 50 years old⁴. Our bones get weaker and can break more easily. This condition is called osteoporosis. Physical exercise helps prevent the loss of calcium from the bones, reducing the dangers of osteoporosis.

Doctors say that exercise is especially helpful for older women, because women suffer from osteoporosis more than men. Women can take female hormone drugs to ease the long-term effects of the disorder. But some hormones increase the chance of developing cancer of the uterus. So doctors say physical exercise is a much safer method of treatment.

— *Chris Johnson*

1980.8.21.

New Words and Phrases

middle-aged <i>a.</i>	中年的	nerve [nɜ:v] <i>n.</i>	神经
strengthen ['streŋθən] <i>v.</i>	加强, 变强	cell [sel] <i>n.</i>	细胞
muscle ['masl] <i>n.</i>	肌肉	publish ['pʌbliʃ] <i>v.</i>	出版
blood pressure	血压	mice <i>n.</i> [maɪs]	鼠, 耗子
break up	破碎, 破坏	mouse [maʊs]	的复数
clot <i>n.</i>	凝块	move around	到处走动
blood clot	血块	calcium ['kælsɪəm] <i>n.</i>	钙
Michigan ['mɪʃɪɡən] <i>n.</i> (美国)	密西根州, 密执安州	bone <i>n.</i>	骨(骼)
the University of Michigan	密西根大学, 密执安大学	osteoporosis ['ɒstɪəpəʊ'rɒsɪs] <i>n.</i>	骨质疏松
growth rate	生长速度	female ['fi:meɪl] <i>a.</i>	女性的, 妇女的
baby ['beɪbi] <i>n.</i>	婴儿, 幼畜	hormone ['hɔ:məʊn] <i>n.</i>	荷尔蒙, 激素, 内分泌
hamster ['hæmstə] <i>n.</i>	仓鼠	drug [drʌg] <i>n.</i>	药(物)
cage [keɪdʒ] <i>n.</i>	笼, 罩	ease [i:z] <i>v.</i>	减轻, 放松
inactive [ɪn'æktɪv] <i>a.</i>	不活动的, 不活跃的	disorder [dɪs'ɔ:də] <i>n.</i>	混乱, 失调
Chicago ['ʃi:kə:ɡəʊ] <i>n.</i>	(美国)芝加哥市	uterus ['ju:tərəs] <i>n.</i>	子宫

Notes

1. They run a lot, no matter how much food they get to eat.

它们跑得很久, 不管它们能得到多少食物吃。

1) "a lot" (许多, 大量)在句中作状语。

2) "no matter how much" (不管多少)引出让步状语从句。

3) "how much food" 是 get 的宾语, to eat 作 food 的定语。

2. ... they will grow as much as one and one half times bigger than normal.

它们将长得比普通的老鼠大半倍(是一倍半)。

3. ... exercises can help some babies learn to walk sooner than expected.

……锻炼能帮助有些婴儿比预计更早地学会走路。

句中 *than* 后是个省略性的状语从句, 省略部分 (*it was*) 一般不写出来。

4. ... We begin to lose calcium from our bone cells by the time we are 50 years old.

……我们到五十岁时开始损失骨细胞中的钙。

“by the time” (到…时候)引出时间状语从句。

Comprehension

1. What good does physical exercise do us ?
2. How do exercise and food affect growth rates in young laboratory animals ?
3. Tell the difference in growth rates between active and inactive children, according to an experiment with two groups of mice.
4. What is osteoporosis ? Can physical exercise help prevent the loss of calcium from bones ?
5. Why is physical exercise especially helpful for older women and a much safer method of treatment ?

参 考 译 文

体 育 锻 炼

越来越多的证据表明, 体育锻炼能减少中年人患某些疾病的危险性。锻炼可强壮心肌, 降低血压并提高人体分解血

块的能力。最近的研究表明，体育锻炼对儿童也同样重要。

密执安大学的一位研究者凯特丽娜·鲍尔正在研究锻炼和食物是怎么影响实验室中幼小动物的生长速度的。鲍尔教授发现，幼仓鼠一俟长大到能使用笼子中的供锻炼用的轮子时就开始奔跑。不管它们能得到多少食物吃，它们跑得很久，不过，如果仓鼠只吃一点儿东西，它们生长就缓慢。但是，如果它们能得到额外的食物，而且继续奔跑的话，其生长速度将是普通仓鼠的一倍半。

科学家们认为，活泼孩子和不活泼孩子之间也存在着类似的生长速度的差别。芝加哥西北医学牙科学学校的两位研究人员说，锻炼促使控制运动的神经细胞的发育。他们在《科学新闻》杂志上发表了他们的发现。这两位研究人员 J.J. 派希和 G.M. 怀斯研究了两组老鼠。一组老鼠放在有许多种锻炼器具的大笼子里，它们可尽情地奔跑；另一组老鼠放在小笼子里，它们不能大量地奔跑和活动。

三十五天以后，这两位科学家检查这些老鼠的大脑。锻炼的老鼠的脑子重量比不锻炼的重 3 %。控制运动的部分要重约 10 %。并且这部分大脑神经细胞间的联系也要多约 16 %。这项实验结果证实了早先的发现：锻炼能帮助一些婴幼儿提早学会走路。

体育锻炼的好处不限于儿童和中年人。研究表明，我们年老后，锻炼仍然是我们生命的一个重要部分。例如，到五十岁时，我们的骨细胞就开始脱钙，骨骼就变弱，更容易断裂。这种情况叫做骨质疏松。体育锻炼有助于防止骨质脱钙，减少骨质疏松的危险性。

医生们说，锻炼对老年妇女特别有益，因为妇女比男子

骨质疏松现象更严重。妇女可服用雌性激素药物来减轻这种疾病的长期影响。但是，某些激素会增加罹患子宫癌的可能。因此，医生们说，体育锻炼是一种极为安全的治疗方法。

克里斯·约翰逊

1980.8.21

2. Man and Water

Every year there are reports of people dying as a result of extremely hot weather¹. Many of the victims are old persons, whose hearts or breathing systems fail. But many die from a lack of water.

Water is necessary for life and good health. We often forget this fact when we think about the other building blocks of life such as vitamins, minerals and proteins. We can live for many days without eating, but two or three days without water usually leads to death.

The human body may look solid, but most of it is water. New born babies are as much as 85% water. Women are about 65% water and men about 75%. Women usually have less water than men because women, in general, have more fat cells, and fat cells hold less water than other kinds of cells.

Water does many different things to keep us healthy. It carries hormones, antibodies and foods through the body, and carries away waste materials. This is why different parts of the body contain different amounts of water. For example, blood is 83% water, muscles are 75% water, the brain is 74%, and bones are 25%.

Water is also necessary for cooling the body on hot days and when we are working hard or exercising. Water carries body heat to the surface of the skin, where the heat is lost through perspiration³. Researchers say cold

liquids cool us faster than warm liquids, because cold liquids take up more heat inside the body and carry it away faster. They say, however, that cold sweet drinks do not work well because the sugar slows the liquid from getting into the blood-stream.

Researchers also note that fat cells block body heat from escaping quickly. Fat cells under the skin act like warm clothing to keep body heat inside. This is why overweight people have a more difficult time staying cool than thin people³.

The body loses water every day through perspiration and urine. If we lose too much, we will become sick. A 10% drop in body water can cause the blood system to fail. A 15-20% drop usually leads to death. To replace what is lost, health experts say grown persons should drink about 2 liters of liquids each day, and more in hot weather. They say we also can get some of the water we need in the foods we eat⁴. Most fruits and vegetables are more than 80% water. Meats are 50-66% water. And even bread is about 33% water. Water may be one of the most simple of all chemical substances, but it is the most important substance that we put into our bodies.

— Chris Johnson

1980.8.4.

New Words and Phrases

victim ['vɪktɪm] *n.*

受害者, 牺牲者

lack of

缺乏

building block

breathing system 呼吸系统

组成单位, 结构单元

vitamin ['vitamin] <i>n.</i>	维生素, 维他命	blood-stream <i>n.</i>	血流
mineral ['minərəl] <i>n.</i>	矿物; 矿泉水; 无机物	block ... from ...	挡住, 阻止
protein ['prəʊtɪn] <i>n.</i>	蛋白质	clothing ['klaʊðɪŋ] <i>n.</i>	(总称) 衣服; 被褥
fat <i>a.</i>	胖的, 肥的	overweight ['əʊvə'weɪt] <i>a.n.</i>	超重, 过重的
fat cell	脂肪细胞	urine ['juːrɪn] <i>n.</i>	尿
antibody ['æntɪ'bɒdi] <i>n.</i>	抗体	grown persons	成年人
perspiration [ˌpɜːspə'reɪʃən]	<i>n.</i> 汗, 出汗	fruit [fru:t] <i>n.</i>	水果
take up	占, 吸取, 开始	vegetable ['vedʒɪtəbl̩] <i>n.</i>	蔬菜; 植物
sweet drinks	甜饮料	meat [mi:t] <i>n.</i>	肉
sugar ['ʃʊɡə] <i>n.</i>	糖	bread [bred] <i>n.</i>	面包

Notes

- Every year there are reports of people dying as a result of extremely hot weather.
每年都有关于人们由于炎热而致死的报道。
句中中介词 *of* 表示: 关于...的;
1) "people dying ..." 是个动名词复合结构, 作 *of* 的宾语;
2) *dying* 是动词 *die* (死亡) 的动名词;
3) *as a result of*: 由于...的结果。
- ..., where the heat is lost through perspiration.
……热量在那儿(皮肤表面)通过排汗消失。
这是个非限制性定语从句, 关系副词 *where* 说明 "the surface of the skin".
- This is why overweight people have a more difficult time staying cool than thin people.
这就是太胖的人比瘦子难以保持凉爽的原因。

分词短语 “staying cool than thin people” 在 why 引起的表语从句中作状语, 其中 staying (保持下去) 用作系动词, cool 作表语。

4. They say we also can get some of the water we need in the foods we eat.

他们说, 我们也能够从我们吃的食物中获得我们需要的一些水分。

“we need” 和 “we eat” 均为省去关系代词的定语从句, 分别说明 water 和 food。

Comprehension

1. What kind of reports appear every year?

2. Name some of the building blocks of life.

Can we live for many days without water?

3. Who have more water, women or men? Why?

4. What can water do to keep us healthy?

How much water does blood, muscles, the brain and bones contain, respectively?

5. Where and how is the body heat lost?

Which is better to cool us on hot days, warm liquids, cool liquids or cold sweet drinks? State your reason.

Tell why overweight people have a more difficult time staying cool than thin people.

6. How much liquids should grown persons drink each day? Why?

What is the amount of water in fruits? Vegetables? Meats?

And bread?

参 考 译 文

人 和 水

每年都有关于人们由于炎热而致死的报道。其中许多受害者是老年人, 他们的肝脏或呼吸系统出现衰竭。但是, 许多

人死于脱水。

水是生命和健康的必需品。我们只想到生命的其他一些结构单元，如维生素、矿物质和蛋白质，水的必要性这一点却经常忘记。我们不吃东西可活好多天，但两三天不喝水通常会引起死亡。

人体看起来是个固体，但其大部分却是水，新生儿85%是水，妇女约65%是水，男子约75%。妇女通常比男子含水量少，因为，一般说来，妇女脂肪细胞多，而脂肪细胞比其他细胞含水量少。

为保持我们身体健康，水做着许多不同的事情。它向全身运送激素、抗体和食物，并把废物带走。这就是人体各部分含水量不相同的原因。例如，血液的83%是水，肌肉的75%是水，脑是74%，骨则是25%。

在热天时，或在我们紧张劳动和锻炼时，要使身体凉快，水也是必需的。水把人体热量带到皮肤表面，通过排汗散失热量。研究者们说，冷的液体要比热的液体使人体变凉快，因为冷的液体能吸取体内较多的热量，并且能较快地运走热量。然而，他们说，甜的冷饮吸热排热能力并不好，因为糖分降低了液体进入血流的速度。

研究人员们还指出，脂肪细胞阻止人体热量的快速消散。皮下脂肪细胞象保暖的衣服一样保持体内的热量。这就是太胖的人比瘦子难以保持凉爽的原因。

人体每天通过汗和尿排出水份。如果失水过多，我们就会得病。体内水份失去10%就能使血液系统失去作用。失水15—20%常会导致死亡。健康专家们说，要补偿失去的水份，成年人每天要饮用约2升饮料，热天还要多些。他们

说，我们也可从我们吃的食物中获取某些我们需要的水份。大部分水果和蔬菜含水 80 % 以上，肉含水 50—66 %。甚至面包也含约 33 % 的水。水可能是一种最简单的化学物质，但却是我们摄入体内的一种最重要的物质。

克里斯·约翰逊

1980.8.4

3. The Brain

There was a time when man thought his brain had little use.¹ Some thought it was just the resting place for the spirit. They believed that thoughts were created in the stomach and feelings in the heart.²

Now, however, scientists understand that the brain is the most important part of our body. It sends and receives thousands of millions of messages through its nerve cells every day. In this way the brain controls the other parts of the body and such things as growth, pain and the emotions. The possible connections among the different nerve cells in one human brain are greater than the number of all the atoms in the universe.

Actually man has two brains: one is on the right side of his head and the other is on the left. The two sides are connected by nerve tissue called the corpus callosum. The right side of the brain controls the actions and reactions of the left side of the body. The left side of the brain controls the right side of the body.

Scientists also have learned that the right side of the brain deals with art and musical ability, the recognition of faces, and the ability to judge distances. The left side deals with language learning and the understanding of numbers.

The two sides of the brain are not independent even though they have different jobs to do. They cooperate