

有声英语教学丛书

美国广播英语

5

每日科技报道

大众医学卫生专辑

DAILY SCIENCE REPORT

上海译文出版社

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(大众医学卫生专辑)

大连铁道学院

李铭才 吴光华

夏长廉 钱建立

编 著

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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，共选二十四篇有关报道。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，以便自学。

本书适合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。除第五辑中个别篇目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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1. Physical Exercise and Heart Disease

Researchers in Boston claim they have the first direct evidence that physical exercise helps prevent heart disease. The researchers studied only macaque monkeys but they believe their findings will prove true for humans as well¹.

Over the years experts have said that moderate exercise is good for us.² They noted that persons who got regular exercise had less heart trouble. But they could not prove the connection between exercise and good health.

The researchers at Boston University Medical School say their studies provide this evidence. The researchers studied 27 macaque monkeys. These animals have many of the same heart problems as humans.

The monkeys were divided into three groups. One group ate normal monkey food for three years. These animals got no exercise.

The second group ate normal food for one year, then foods rich in fat for two years.³ These monkeys also got no exercise.

The third group, like the second, got normal food for one year and fatty foods for two years. However, these monkeys got a controlled amount of regular exercise. They ran on a wheel-like device for one hour three times a week.

After three years, the researchers studied a major artery in all of the animals. They measured the amount of fat that had built up on the inside walls of the artery. Such build-ups block the flow of blood, causing heart disease and leading to heart attacks.

In the first and second groups, which did not exercise, they found that fat filled 60 percent of the artery. It made no difference what the monkeys ate.⁴

In the group that exercised, however, fat filled only 15 percent of the artery, even though these monkeys ate lots of fatty foods.

The researchers also found that the monkeys which exercised had bigger hearts and their heart beats were slower.

If the results of this experiment are true for humans, it means that eating low-fat foods will not be enough to prevent heart disease. We must exercise, too.

About two years ago, researchers at Duke University reported an indirect link between physical exercise and heart attacks. They said exercise improves the body's ability to break up blood clots which block arteries and can cause heart attacks.

The body releases substances into the blood that help break up blood clots. This is known as fibrinolytic activity. The greater the fibrinolytic activity, the faster a clot is broken up, and the danger of life-threatening problems is reduced.

The researchers at Duke University measured the fibrinolytic activity of about seventy persons both before and after a ten-week exercise program. The researchers found a large increase in each person's clot-dissolving

substances after the exercise program. This was true even in those who continued other things that increase the dangers of heart attack, such as smoking.

— Chris Johnson

1982.2.10.

New Words and Phrases

Boston ['bɒstən] <i>n.</i>	heart beat	心跳
(美国)波士顿市	break up	分解
claim [kleim] <i>v.</i>	clot <i>n.</i>	血块
声称, 主张, 要求	fibrinolytic [ˌfaɪbrɪnəˈlɪtɪk] <i>a.</i>	使纤维蛋白分(溶)解的
macaque [məˈkɑ:k] <i>n.</i>	threaten ['θreɪn] <i>v.</i>	威胁, 恐吓; 有…危险
猕猴, 恒河猴, 短尾猴	life-threatening <i>a.</i>	有生命危险的, 威胁生命的
moderate ['mɒdərɪt] <i>a.</i>	clot-dissolving substance	分解(溶解)血块的物质
中等的, 适度的, 节制的		
regular ['regjələ] <i>a.</i>		
有规律的, 经常的, 定期的		
artery ['ɑ:təri] <i>n.</i>		动脉
build-up <i>n.</i>		聚集, 组合

Notes

1. ... their findings will prove true for humans as well.

……他们的发现也将适用于人类。

prove true: 证明是正确的(真的); 此处 prove 用作系动词, 与形容词 true 一起构成谓语, 其中常可加 “to be”, 如:

The method proved (to be) highly effective.

这个方法证明是非常有效的。

2. Over the years experts have said that moderate exercise is good

for us.

多年来专家们说,适当的体育锻炼对我们有益。

句中 over 为介词,表示“在…期间”。因为 years 为复数名词,所以译成“在几年内”,“多年来”。再如:

Over the years he's become more and more patient.

这几年来,他变得越来越耐心了。

3. The second group ate normal food for one year, then foods rich in fat for two years.

第二组先吃了一年普通食物,然后吃了两年高脂肪食物。

“normal food” “foods rich in fat” 为 ate 的两个并列的宾语,用 (and) then 连接,本句中省略了 and。

4. It made no difference what the monkeys ate.

不管这些猕猴吃什么东西都没影响。

“make (no) difference” 是个习惯用语,表示:有(没有)关系,有(没有)影响,有(没有)差别。

此处 what 引出一个主语从句,It 为形式主语。

Comprehension

1. Who has the first direct evidence that physical exercise helps prevent heart disease? What animals did they study? What health problems did all these animals have?
2. Why have experts said over the years that moderate exercise is good for us? Could they prove the connection between exercise and good health?
3. How did the researchers at Boston University Medical School make the experiment with the monkeys?
What did the three groups of the monkeys eat, respectively? Did they all get exercise?
4. What did the researchers study after three years of their experiment? Is the build-up of fat on the inside walls of the artery

harmful to the monkeys? What was the amount of fat in each group of the monkeys? And what did it show? Which group of the monkeys had bigger hearts and slower heart beats?

5. How did the researchers at Duke University find an indirect link between physical exercise and heart attacks? What is the body's fibrinolytic ability?

参考译文

体育锻炼与心脏病

波士顿的研究者们声称，他们已经有了第一个直接的证据，证明体育锻炼有助于预防心脏病。这批研究者仅仅对猕猴进行了研究，但是他们认为，他们的发现也将适用于人类。

多年来专家们说，适当的体育锻炼对我们有益。他们指出，经常进行体育锻炼的人少患心脏病，但是他们却不能证明体育锻炼与良好健康状况之间的关系。

波士顿大学医学院的研究者们说，他们的研究却提供了这么一个证据。这批研究者研究了27只猕猴，这些猴子得的许多心脏病与人相同。

这些猴子分成三组。一组吃了三年猴子吃的普通食物，它们得不到体育锻炼。

第二组先吃了一年的普通食物，然后吃了两年高脂肪食物，这组猴子也得不到体育锻炼。

第三组与第二组一样，吃了一年的普通食物，两年的高脂肪食物。但是，这组猴子得到了经常性的有控制的体育锻炼。

炼。它们在一个轮子似的体育器械上奔跑，每周三次，每次一小时。

三年以后，这批研究者研究了所有这些猴子的主动脉。他们测量了动脉内壁上积聚的脂肪量，这样的脂肪积聚阻挡血液流动，从而引起心脏病，导致心脏病突发。

他们发现，不进行锻炼的第一、第二组，动脉的60%充满着脂肪，不管这些猕猴吃什么东西都没影响。

但是，进行锻炼的那一组猕猴的动脉，只有15%充满着脂肪，即使那些猴子也吃了大量的高脂肪食物。

这批研究者们还发现，锻炼的猴子心脏大，心跳慢。

如果这项实验结果适用于人的话，就意味着，单靠吃低脂肪食物还不足以防止心脏病，我们还必须进行体育锻炼。

大约在两年以前，杜克大学的研究者们报告说，体育锻炼与心脏病突发之间有着一种间接的关系。他们说，锻炼能增强人体分解血块的能力。这种血块会阻塞动脉，从而引起心脏病突发。

人体能往血液中分泌有助于分解血块的物质，这就是所谓纤维蛋白分解能力。纤维蛋白分解能力越大，血块分解就越快，危及生命的危险也就减少了。

杜克大学的研究者们，对大约70人的纤维蛋白分解能力，在他们进行十周的体育锻炼项目的前后均进行了测定。研究者们发现，锻炼项目完成以后，每个人的血块溶解物质大为增加。即使是那些继续保持着诸如抽烟之类会增加心脏病突发危险的嗜好的人，情况也是如此。

——克里斯·约翰逊 1982.2.10

2. Noise and Medical Problems

Too much noise may be dangerous to your health. A number of studies have shown that living or working where there is a great deal of noise can cause hearing loss.¹ But there also is a growing amount of scientific evidence showing that continued loud noise may cause other medical problems. These include high blood pressure, nervous disorders, learning problems, difficulty in sleeping and, possibly, even birth defects and some kinds of heart disease.

One test showed the dangers facing people who spend a lot of time listening to loud music. A New York City doctor studied 70 young persons who work in popular dancing and drinking places where music is played loudly.² She found that more than 30 percent of them had suffered severe and permanent hearing loss. Normally, she said, less than one percent of people that age³ suffer such loss.

The doctor, Jane Madell, also studied a group of 40 New York City firemen. All had worked near loud warning sirens on fire trucks for ten years or more. Doctor Madell found that 75 per cent of them had suffered a severe hearing loss.

Doctors said some persons are more likely than others to suffer hearing loss from continued loud noise⁴. But they said they can not learn which persons face the most

danger until permanent hearing damage has been done.

A loss of hearing is not the only problem. In West Germany, researchers at the Max Plank Institute found that continued loud noise caused blood vessels to constrict or shrink. This reduces the amount of blood flowing to organs and other parts of the body. Such a condition could be dangerous if arteries serving the heart already were partly blocked by atherosclerosis. And one New York doctor, Thomas Faye, said that constricted blood vessels could cause a woman to give birth to an underweight baby.

Other tests have shown that several weeks of loud noise caused atherosclerosis and increased amounts of cholesterol in the blood of laboratory animals. But doctors said it is not clear if noise produces the same effect in humans⁶.

Researchers at the University of Miami, Florida found there also may be dangers in just the normal noise people hear every day. They found that three weeks of the usual noise of city living raised the blood pressure of laboratory monkeys by 43 percent.

Another scientist discovered that loud noise appears to limit a child's ability to learn. The scientist Arlene Brunzapt studied students at a New York City school near a busy railroad. Students in rooms near the railroad had difficulty in learning to read. This was not true of the students in quieter parts of the school. After steps were taken to reduce the train noise, a new study found that the reading problem had dissappeared.

— Jack Huizenga

1980.7.3.

New Words and Phrases

noise [noiz] <i>n.</i>	噪音	atheroclerosis	
nervous disorder	神经错乱	[,æθərəuskliə'rousis] <i>n.</i>	
heart disease	心脏病		动脉粥样硬化
fireman <i>n.</i>	消防队员	give birth to	生养, 分娩
siren ['saɪərɪn] <i>n.</i>		cholesterol [kə'lestərol] <i>n.</i>	
	警报器, 汽笛		胆固醇
fire truck	救火车, 消防车	be true of ...	
organ ['ɔ:gən] <i>n.</i>	器官		符合于..., 对...适用
artery ['ɑ:təri] <i>n.</i>	动脉	take steps	采取措施

Notes

1. A number of studies have shown that living or working where there is a great deal of noise can cause hearing loss.
多项研究已表明在有大量噪音的地方居住或工作会引起听觉失灵。
that 开始的句子作 have shown 的宾语, where there is a great deal of noise 说明该宾语从句中的主语: living or working, 作状语, 宾语从句中的谓语动词为 can cause.
2. A New York City doctor studied 70 young persons who work in popular dancing and drinking places where music is played loudly.
纽约一位大夫研究了七十位在高奏音乐的公共舞厅和酒馆工作的年青人。
who 开始的定语从句说明 young persons; where 引起的定语从句说明 places.
3. ... people that age ...
那个年龄的人
that age 可理解为省略 of 的介词短语, 作 people 的定语。
4. ... some persons are more likely than others to suffer hearing loss

from continued loud noise.

……有些人要比另一些人容易因巨大而连续的噪音造成听觉失灵。

1) be likely + to 不定式构成复合谓语, 表示: 容易……。

句中谓语动词为 “are more likely ... to suffer”;

2) suffer from ...: 因…而遭受…, 患…病, 受痛苦

5. ... it is not clear if the noise produces the same effect in humans.

……并不清楚, 噪音对人是否也会产生同样的影响。

it 为形式主语, if (是否)引起主语从句。

Comprehension

1. What kind of medical problems can noise cause?
2. Tell us something about a New York City doctor's two tests with 70 young persons and with 40 New York City firemen.
3. Besides hearing loss, what other problems can noise cause?
4. Is there any danger in just the normal noise people hear everyday?
5. Describe the danger to a child's ability to learn caused by loud noise.

参考译文

噪音与疾病

噪音太大可能危害身体健康。多项研究已经表明, 在有大量噪音的地方居住或工作会引起听觉失灵。但是, 还有不断增多的科学证据表明, 连续不断的巨大噪音可能引起其他疾病。这些疾病包括高血压、神经紊乱、学习困难、不易入

睡，甚至可能是先天性胎儿缺陷，或者某几种心脏疾病。

一项试验证明了那些把大量时间花在倾听喧闹的乐声的人所面临的危险。纽约一位医生研究了七十位在高奏音乐的舞厅和酒馆中工作的青年人。她发现，其中百分之三十以上患有严重而永久性的听觉失灵。她说，在一般情况下，只有不到百分之一个这个年龄的人才患有这种听觉失灵。

这位医生——简·马德尔还研究了一组四十名纽约消防队员。这些人都在消防车警报器的巨大噪音下工作了十年或十年以上。马德尔医生发现，其中百分之七十五患有严重的听觉失灵。

医生们说，有些人要比另一些人容易因巨大而连续的噪音造成听觉失灵。但是，他们说，他们无法知道，在永久性听觉损伤出现之前，哪些人面临的危险最大。

听觉丧失还不是唯一的问题。西德 Max Plank 学院的研究人员发现，巨大而连续不断的噪声会引起血管收缩。这就减少了器官和人体其他部位的血流量。假如心脏动脉已因动脉粥样硬化而部分堵塞的话，这种情况是危险的。一位纽约医生托马斯·费伊说，收缩了的血管可使妇女分娩出重量不足的婴孩。

另外的一些试验已经表明，连续几周的巨大噪音引起了实验室动物的动脉粥样硬化，增加了其血液中的胆固醇含量。但是，医生们并不清楚，噪音对人是否也会产生同样的影响。

佛罗里达州迈阿密大学的研究员们发现，就在人们每天听到的一般噪音中也可能存在着危险。他们发现，三星期城市生活的一般噪音使实验室猴子的血压升高百分之四十三。

另外一名科学家发现，巨大的噪音似乎限制儿童的学习

能力。科学家阿琳·布朗什普特研究了纽约一所繁忙铁路线附近的学校中的学生。靠近铁路的教室中的学生在学习阅读中遇到了困难，而该校比较安静地方的学生并不这样。一项新的研究发现，采取措施减低了火车的噪音后，这种阅读问题已经消失了。

杰克·哈辛格

1980.7.3