

# 通信科技英语

## 文选

南京大学大学外语部 主编



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# 通俗科技英语文选

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## How to Cope with Altitude Sickness

If you're headed for the ski slopes this year, remember: Exercising in the mountains is different from exercising at sea level. The air is thinner; there's less oxygen than you are accustomed to. You can't expect to fly all day, drink all night and then ski the next day without feeling the effects. Not only will you have a headache, you'll poop out faster on the slopes, placing you and those around you at greater risk for injury①.

Here's what you can do to prevent, and treat, the symptoms of altitude sickness:

— Everyone's at risk. There seems to be no rhyme or reason for who will suffer from altitude sickness. Being in shape isn't enough to guarantee you won't be affected②. Young people, seniors and people with significant heart or lung disease are more prone to altitude sickness but, in fact, everyone's at risk. Some folks will feel it at 5,000 feet, most at 7,500 feet and all at 10,000 feet.

— Know the symptoms. The common effects of altitude sickness include headache, insomnia, fatigue, loss of a appetite and thirst. In more severe cases, people feel shortness of breath. In the most severe cases, highaltitude pulmonary edema occurs. This seldom happens in people with normal heart and lungs below 14,000 to 15,000 feet.

— Prevention is possible. Your body will naturally

adapt to the diminished oxygen content at higher altitudes, but you have to give it a chance before you really exert yourself. A day or two or three should be enough. Also, make a special effort to drink lots of water — more than you think you need. The moisture content of air at higher elevations is less than at sea level, so you lose more body water through respiration than you do at sea level. Drink water, not alcohol. One drink at 10,000 feet is about the same as two at sea level. Plus booze will dehydrate you, making the water-loss situation even worse.

— Treatment calls for patience. If you feel the effects of altitude sickness, don't panic. Just slow down your pace for a while. Take aspirin or some other analgesic for your headache and drink lots of water. Some people will have difficulty sleeping at high altitude. A hot bath, relaxation exercises, a cup of warm milk, and a good book may help you cope. If the problem is severe, you can opt for a mild sedative, but it's not recommended.

If your symptoms persist and really debilitate you, the only solution may be to head down the mountain to a lower altitude. This seldom is necessary for people in normal health at less than 14,000 feet elevation. People who have significant recurrences of altitude sickness every time they go to the mountains should talk to their personal physicians about taking a mild diuretic before they leave home. That can minimize the symptoms.

## 词 汇

altitude ['æltɪtju:d] *n* 高空; 海拔  
(高度)

altitude sickness 高空病; 高山病  
cope with 妥善处理; 对付

head for 向...方向前进  
poop [pu:p] vt 筋疲力尽  
rhyme [raim] n 韵;同韵语  
(cf. without rhyme or reason 毫  
无理由,毫无道理)  
in shape 处于良好状态  
be prone to 易于  
insomnia [in'sɒmniə] n 失眠(症)  
pulmonary edema ['pʌlmənəri  
i(:)'di:mə] n 肺水肿

booze [bu:z] vi 痛饮  
dehydrate [di:'haɪdreɪt] vt 使脱  
水  
analgesic [,ænæl'dʒesɪk] n 止痛  
片  
opt for 选择  
sedative ['sedətɪv] n 镇静剂  
debilitate [di'bɪlɪteɪt] vt 使虚弱  
diuretic [,daɪjuə'retɪk] n 利尿剂

### 注 释

- ① Not only will you have..., you'll ..., placing... 本句为倒装句。Not only 放在句首,句中主谓须倒装; placing ... 为现在分词短语作结果状语。下文中的 ... making the water-loss situation even worse 也有同样的语法功能。
- ② Being ... isn't enough to guarantee you won't ... 句中, Being ... 为动名词短语作主语; you won't ... 为省略关系代词 that 的宾语从句,修饰 guarantee。

## 参考译文

### 如何医治高山病

假如你今年准备去滑雪,请记住:山上运动和地上运动是大不相同的。高山空气稀薄,含氧量比你所习惯的要少。你别指望在一天飞行后,喝一夜酒,次日便开始滑雪而毫无不适之感。相反,这样的安排不仅会使你第二天头痛难忍,而且会使你筋疲力尽很快倒在雪坡上,给自己和周围的人带来更大受伤的危险。

为了预防和医治高山病,你不妨遵照以下建议去做:

——人人都有患病危险。似乎说不出究竟谁将会患高山病。体质好并不足以保证你将不患此病。老幼及患有严重心肺疾病的人患此病



的可能性较大。不过，实际上每个人都有患病的危险。有些人在海拔五千英尺处便有不适之感，而更多的人到了海拔七千五百英尺才开始不舒服，而到了海拔一万英尺处所有的人都会有所反应。

——弄清症状。一般高山病的症状包括头痛、失眠、疲乏、无食欲和口渴现象。严重的会感到呼吸困难。更有甚者便是出现肺水肿。但这对心肺正常的人来说，在低于海拔一千四百到一千五百英尺的高处是极少发生的。

——预防是可能的。你的身体可以自然地适应海拔高处空气缺氧的环境，不过，事先你得有个适应环境的过程。一、二天或三天便足矣。另外，要尽量多喝水，超过自身感觉的需要量。海拔高处空气湿度比在海平面的要低些。所以人体内水份通过呼吸所消耗的量也就要大些。要多喝水，不喝酒。海拔一万英尺高处一杯酒所产生的效果相当于海平面两杯的量。而且饮酒过量会引起身体脱水，这使失水的情况变得更为糟糕。

——治疗需要耐心。假如你感到了高山病症状，不要恐慌。放慢一段时间步伐。服用阿士匹林或其它止痛药医治头痛。同时大量喝水。有些人在高山入睡困难。洗个热水澡，做些放松的活动，甚至一杯热牛奶，一本有趣的书都可以帮助你入睡。倘若情况严重，可以选用效果缓和的镇静剂，但通常不要这么做。

如果症状持续不退，的确使身体虚弱无力，唯一的解决办法只得下山到海拔较低的地方去。但在海拔一万四千英尺以下的地方，身体状况正常的人通常无需这么做。那些每去高山必有明显病症复发情况的人，在临行前应去看医生，要些效果缓和的利尿剂，可以帮助减轻症状。

孔丽平 译注 一青 校

## Do Aborted Fetal Brain Cells Suffer?

As treatments using fetal cells move from the lab to

trials on human beings, doctors must face the wrenching question: It is right to use cells from aborted human fetuses to treat someone suffering from a severe, incurable disease?

Some are for it, but the others are against it. However the medical use of most fetal tissues — liver cells or pancreatic tissue, for instance — poses no conflict. Fetal nerve cells are something else. The fetus and its brain are technically dead, but the brain cells are by definition alive. This could raise fears — unfounded, in the opinion of scientists — concerning fetal suffering.

Many of the scientists using fetal tissue are acutely uncomfortable about it. “I personally believe that unwanted babies should be put up for adoption,” says a biology professor. “But if society condones abortion, and if tissues from the destroyed fetus could help someone dying from Parkinson’s or some other terrible disease, then I think it is immoral to throw that tissue down the drain.”

Tissue from spontaneous miscarriages may provide a partial alternative. Half of the thousands of fetuses miscarried in the U.S. each year are unusable, but the half could supply more than enough tissue for people.

## 词 汇

fetal [ˈfi:tl] *a* 胎儿的  
abort [əˈbɔ:t] *vi* 流产; 早产  
fetus [ˈfi:təs] *n* 胎儿; 胚胎  
pose [pəʊz] *vt* 造成, 成为; 提出  
spontaneous [spɒnˈteɪnjəs] *a* 自

然的; 自发的  
miscarriage [mɪsˈkærɪdʒ] *n* 流产  
neurosurgeon [ˈnjuərəʊˈsɜ:dʒən]  
*n* 神经外科医生

## 参考译文

### 堕胎儿脑细胞会有痛苦吗？

当应用胎儿细胞进行治疗的工作由实验室转向人体试验时，医生就得面临这样一个棘手的问题：用人的堕胎儿的细胞去治疗某些身患重病、无法医治的人，这是正当的吗？

有些人同意，但也有些人反对。不过，大家对大部分堕胎儿的组织——例如，肝细胞或胰细胞——在医学用途上并无异议。而堕胎儿的神经细胞若用于医学治疗上则是另一码事了。堕胎儿的大脑在技术上来说是死亡的，可根据定义，其脑细胞却是活着的。这可能会使人担忧堕胎儿脑细胞会承受痛苦，可是按照科学家的观点，这种忧虑是毫无根据的。

许多科学家在医用胎儿组织时极为不自在。一位生物学教授说：“我个人认为弃婴应有人收养。但倘若社会宽容堕胎，而且堕胎儿的组织可能有助于治愈帕金森氏疾病或其他可怕的疾病的话，那么，我认为将那些组织扔进下水道将是不道德的。”

取自自然流产的胎儿组织可以部分地取代堕胎胎儿组织。美国每年有数以千计流产的胎儿，其中，一半是不能用的，可另一半则能为人们提供足够的胎儿组织供治愈患者所使用。

阙茜 译注 正之 校

## Common Sense 常识

### The Human Brain

The human brain is the most complex and highly developed of all brains. It commands the body's hundreds different muscles, so that we can run, talk, and hold things. The brain also commands the thousands of glands

that produce vital substances. For example, sweat, tears, and saliva are all under the brain's control.

The brain weighs less than 1.5 kilograms in adults. Like most part of the body, it is mainly water. To the touch, a brain feels very much like a balloon filled with water. Because the brain is delicate in structure, it must have extra protection from bumps and injury. The protection is provided by tough membranes that surround it and by a special fluid that supports it and buoys it up in the skull.

## 人的大脑

人的大脑是所有大脑中最复杂、最发达的，它指挥着人体几百块肌肉，因此，我们可以跑，可以说话，还可以拿东西。人脑也指挥着几千个能产生维持生命所必需物质的腺体。例如，汗腺、泪腺及唾液腺等都是由大脑控制的。

成年人的大脑不超过一千五百克重。像人体大部分部位一样，大脑主要也是由水组成的。大脑摸起来就象一个装满水的气球。大脑结构娇嫩，它需要额外的保护，以免冲撞和受伤。围包大脑的坚韧脑膜和支撑并使之浮动在颅脑腔内的一种特别的流体就起着这种保护作用。

## Enzyme: Baby Killer

A scientific breakthrough that promises to take the mystery out of many cot deaths and to save the lives of babies has been announced by British doctors.

Researchers have discovered that a proportion of the babies who die have an inherited defect which prevents

them from making full use of the body's reserves of energy at the times they need it most — such as when fighting off an infection or getting their strength back when they are very tired.①

Without treatment, the deficiency can kill an infant whose vital functions are not yet firmly established. The brain is particularly susceptible to an energy shortage: if the amount of sugar in the blood falls below a critical level, a possible consequence of the enzyme defect, the brain's activity ceases and death can strike suddenly.

The enzyme breaks down fatty acids. A lack of it also causes fat to build up in the tissues, disrupting the activity of organs including the liver, kidneys and heart, which can also be contributory causes of death.

Not all babies with the defect die, but out of the 1,500 cot deaths in Britain each year, the enzyme deficiency is thought to be the direct cause in at least 100 cases. If those at risk can be identified, their lives could be saved. And with the first chemical cause for cot deaths firmly established, the doctors are now looking for other similar mechanisms at work in other cases.

A prenatal test for the condition, based on a sample of amniotic fluid from the womb, is already being offered to women who are at risk because of a previous cot death in which the enzyme deficiency has been established. Such women face a one in four chance of having another baby with the same problem.

The researchers say that eventually all newborn babies should be screened using blood or urine tests already available. They would also like to see immediate investiga-

tions of babies who suffer a “near-miss cot death”, a breathing crisis in which the child has gone blue and seems to have narrowly escaped death.

Treatment for the condition consists of making good the energy deficiency. Fats are only a back-up source of energy; sugars are the frontline source and if adequately maintained the toxic build-up of fats can be prevented.

Doctors are teaching parents of babies known to be at risk to give more regular feeds than usual, to test the babies' blood sugar levels morning and night with a chemical device developed for diabetics, and to give them a glucose drink if necessary. If the children develop a bad infection that could over-tax their resources, they can be admitted to hospital and put on a glucose drip.

The breakthrough was a chance discovery for the researchers. “There were isolated case reports of the enzyme defect and we started off ourselves by finding just one of these cases. At that point it just seemed to be a very rare disease. We had a gut feeling that it might be more common, but we had no figures,” says Mike Bennett, a biochemist.

The researchers checked 200 liver samples from previous cot deaths and started looking for the condition in all new cases. To their astonishment, the results showed that up to 10% of the babies were victims of the enzyme defect.

## 词 汇

enzyme ['enzaim] *n* 酶

cot death [kot deθ] *n* (原因不

明的) 婴儿猝死(症)

defect [di'fekt] *n* 缺陷; 缺点

**mechanism** ['mekənizəm] *n* 机能  
**prenatal** ['pri:'neɪtl] *a* 胎儿期的; 产前的  
**amniotic** ['æmniəʊtɪk] *a* 羊膜的  
**screen** [skri:n] *vt* 审查  
**available** [ə'veɪləbl] *a* 有效的; 可得到的

**immediate** [i'mɪdɪjət] *a* 直接的; 立即的  
**adequate** ['ædɪkwɪt] *a* 充分的; 适当的  
**toxic** ['tɒksɪk] *a* 有毒的; 中毒的  
**diabetic** [ˌdaɪə'betɪk, -'bɪtɪk] *n* 糖尿病患者  
**glucose** ['glu:kəʊs] *n* 葡萄糖  
**gut** [gʌt] *a* 直觉的

### 注 释

- ① Researchers ... that a proportion.. the babies who die have ... defect which ... the times they need ... — such at when fighting ... or getting ... when ... tired. 本句为主从复合句。其中, that ... 为宾语从句; a proportion ... 为主语, have 为谓语; 该从句中有两个定语从句: who die 和 which ... 分别修饰 the babies 和 ... defect; 在第二个定语从句中, they need ... 为省略 when 的定语从句, 修饰前面的 ... the times; 而 such as when fighting ... or getting ... 则为省略 they need ... 的并列同位语从句, 在第二个省略句中, 还有一个状语从句: when they are very tired.

## 参考译文

### 酶——杀死婴儿的凶手

英国的医生们已宣布了一项科学突破, 可望揭开许多婴儿猝死的秘密并拯救病婴的生命。

研究人员业已发现一部分死婴体内有一种遗传性缺陷。这种缺陷就是在婴儿最需要能量供应时——如婴儿在抵御某种传染病毒或过于疲劳之后需要恢复体力时——会阻止婴儿充分利用体内所贮存的能量。

倘不加治疗, 就可使一个尚未稳固形成生理功能的婴儿致死。大

脑对能量供给不足尤为敏感，当血液中的含糖量低于某一临界水平时，酶的缺乏就可能导致大脑停止活动，以至突然死亡。

酶可以分解脂肪酸。缺少酶就会在组织中造成脂肪堆积，破坏肝、肾和心脏等器官的活动，这可能是加速死亡的原因。

并非所有患有这种遗传性缺陷的婴儿都会死亡。但在英国每年一千五百个死婴中，至少有一百例死亡的原因可以认为是由于缺乏酶所引起的。倘能查出那些病危婴儿的病因，他们的生命就有可能得救。随着婴儿死亡的第一个化学起因的确认，现在医生们正在寻找其他病例中还另外有哪些类似的机制在起作用。

现已用从子宫内取出抽样羊水的方法为一些孕妇作产前化验，这些孕妇先前死去的婴儿确诊为缺乏酶所致，因而她们仍担有风险，那就是：她们即将诞生的新生儿有四分之一的可能会患同样的酶缺乏症。

研究人员认为：最终应该对所有新生儿都用现有的化验血和尿的方法进行甄别检验。他们也“濒于死亡”的婴儿进行直接观察，这种婴儿呼吸困难，皮肤发紫，似乎九死一生。

对待这种情况，其治疗办法是补给足够的婴儿体内所缺乏的能量。脂肪仅仅是一种辅助能源，糖才是最主要的能源。倘若使婴儿体内含有足够的糖份，就可防止有毒的脂肪堆积。

医生们告诫婴儿的父母，对已知有患此病危险的婴儿要比平常更有规律地进行哺育，要用为糖尿病患者作化验的化学仪器早晚不断地化验婴儿的血糖浓度。如果需要的话，可给婴儿喝葡萄糖水。倘若婴儿发生严重的感染，其体内能量消耗过多，那么，就得把婴儿送到医院输葡萄糖水。

这一突破，是研究人员一次偶然的发现。生物化学家麦克·本尼特说：“因为有几份互不相关的缺酶病例报告，我们仅调研其中一个病例，当时看来这好象只是一种很少见的疾病，然而我们又感觉到这或许是较常见的。但我们没有数据。研究工作就从这里开始了。”

研究人员抽样检查了两百起以前死婴的肝脏，并开始对所有新患病的婴儿作这方面的观察。使他们非常惊讶的是：百分之十的婴儿都是酶缺乏症的牺牲品。

查良范 译注 宁谟 校



## Don't Swallow Too Much MSG

Instant noodle lovers beware! The tasty treats contain extremely high amounts of monosodium glutamate (MSG).

The high content of MSG in some popular foods makes it easy, particularly for children, to exceed the World Health's Organisation's, (WHO) maximum recommended daily intake<sup>①</sup>. 104 food items, were tested including seasonings, instant noodles, tinned food, snacks, fast food, pizzas, cold storage foods and meat extracts.

Seasonings proved to be the highest in MSG content, with instant noodles showing 9.1 to 22 per cent MSG content (in the soup base) and chicken cubes recording a 10.01 to 18.67 per cent MSG content.

WHO says the accepted daily intake of MSG is a maximum of 120 mg/kg of body weight. So for someone weighing 50kg the maximum daily intake is six grams.<sup>②</sup> So four bowls of instant noodles a day could take you over the limit.

The limit is much lower for children and MSG can be dangerous to babies. Parents are warned to keep food for infants, especially those under three-months-old, free from MSG. Children under a year old should not be given food from restaurants, where MSG is often added in large quantity.

However, some doctors say the long-term effect of consuming MSG even in small quantities is not yet known.