【4.15】

**4.15每日一篇 | 外刊精读**

Well **informed**：How to keep your teeth healthy  
   
Tooth-**brushing** reigns **supreme**. But **fluoride** in tap water is a good safety-net  
   
【1】Tap water across America has, for decades, been **fortified** with **fluoride**, a **negatively** **charged** ion of the **chemical** element fluorine, in order to **strengthen** the public’s teeth. But a scientific review **published** in 2024 by America’s National Toxicology Programme, an arm of the country’s health department, suggested that high levels of **fluoride** are **associated** with lower IQ in children.Panda Foreign Magazine Intensive Reading:Respect for Originality, Piracy Must Be Punished  
   
【2】Even though no **conclusive** **causal** link has been found, a growing number of cities are planning to end fluoridation, and **specialised** water **filters**, which remove any **fluoride** present, are flying off the shelves. Public - health **experts** caution that the evidence of harm is thin, and fluoridated tap water keeps teeth healthy. But is it really necessary?  
   
【3】One of **fluoride**’s main functions is to **strengthen** and restore **enamel**, the top layer of teeth. This is vital to help them resist the acids that form in the mouth when **bacteria** **ferment** the sugars in food and drink. Coating or **bathing** the teeth in **fluoride** - rich **substances** can thus directly protect the teeth while also introducing **fluoride** into the **saliva**. This has additional health **benefits**, as **fluoride** in **saliva** inhibits **bacterial** **metabolism**, reducing acid production and the growth of **plaque** on tooth **surfaces**. **fluoride** can also be effective when **swallowed**, making its way to the **saliva** via the **bloodstream**. (In children, **circulating** **fluoride** also enters the **enamel** of developing teeth.)  
   
【4】Trace amounts of **fluoride** are **naturally** present in a **variety** of foods, including vegetables and **shellfish**. Higher **quantities** can be found in tea and coffee, whose plants **readily** **absorb** **fluoride** from soil. A cup of tea made with **distilled** water **contains** as much **fluoride** as anywhere between 100ml and two litres of fluoridated water, depending on a range of factors including the **variety** of tea and **composition** of the soil where the leaves were grown; a cup of brewed coffee prepared in the same way **contains** as much as 300ml of fluoridated water. Toothpastes, mouth **washes** and **fluoride** **gels** are also rich in the stuff.  
   
【5】Of all the ways of getting **fluoride** to teeth, **brushing** reigns **supreme**. Effective tooth - **brushing** means some of the **fluoride** present in **toothpaste** gets deposited directly onto the **enamel**, some ends up in **saliva** and some is **swallowed**. The **resulting** boost in **fluoride** levels far **exceeds** that produced by drinking fluoridated water.Panda Foreign Magazine Intensive Reading:Respect for Originality, Piracy Must Be Punished  
   
【6】In a report **published** in 2006, America’s National Research Council **estimated** the typical amounts of **fluoride** ingested daily from tooth - **brushing** across different **segments** of the population. The Economist **calculates** that, for six - to 12 - year - olds, the figure is equivalent to somewhere between 300ml and 450ml of water fluoridated to the national standard. For **toddlers** and young children it is between 150ml and 300ml; for adults it is around 150ml.  
   
【7】**fluoride** mouth **washes**, as well as the **fluoride** - rich **gels** and varnishes that **dentists** apply to teeth, also offer big **fluoride** boosts, but are used less often. An evidence review **conducted** in Britain in 2004 found that they offer only **modest** additional protection to those already **regularly** **brushing** their teeth.  
   
【8】In this environment, fluoridated water still has a place. In a country the size of America, tooth - **brushing** and access to **dental** care differ widely even between **adjacent** neighbourhoods. For the sake of those without good **dental** **hygiene** and, therefore, who are most at risk of tooth **decay**, this safety - net should be **dismantled** with caution.

**①短语**

1. 原文：Tap water across America has, for decades, been fortified with fluoride, a negatively charged ion of the chemical element fluorine, in order to strengthen the public’s teeth.

词典：be fortified with 添加；强化；用…… 加强

例句：The breakfast cereal is fortified with vitamins and minerals.

这种早餐麦片添加了维生素和矿物质。

1. 原文：But a scientific review published in 2024 by America’s National Toxicology Programme, an arm of the country’s health department, suggested that high levels of fluoride are associated with lower IQ in children.

词典：be associated with 与…… 有关联；与…… 相关

例句：Smoking is associated with an increased risk of heart disease.

吸烟与心脏病风险增加有关。

1. 原文：Even though no conclusive causal link has been found, a growing number of cities are planning to end fluoridation, and specialised water filters, which remove any fluoride present, are flying off the shelves.

词典：fly off the shelves 畅销；一售而空

例句：The new edition of the best - seller flew off the shelves within a week.

这本畅销书的新版本一周内就售罄了。

1. 原文：Fluoride can also be effective when swallowed, making its way to the saliva via the bloodstream.

词典：make one's way to 前往；到达；进入

例句：The news made its way to every corner of the town.

这消息传遍了小镇的每个角落。

1. 原文：Trace amounts of fluoride are naturally present in a variety of foods, including vegetables and shellfish.

词典：be present in 存在于…… 中

例句：Certain chemicals are present in the soil in small quantities.

土壤中存在少量特定化学物质。

1. 原文：Toothpastes, mouth washes and fluoride gels are also rich in the stuff.

词典：be rich in 富含；有大量的……

例句：Nuts are rich in protein and healthy fats.

坚果富含蛋白质和健康脂肪。

1. 原文：Effective tooth - brushing means some of the fluoride present in toothpaste gets deposited directly onto the enamel, some ends up in saliva and some is swallowed.

词典：end up in 最终处于；以…… 告终

例句：If you continue like this, you'll end up in prison.

如果你继续这样下去，最终会进监狱。

1. 原文：In this environment, fluoridated water still has a place.

词典：have a place 有一席之地；有存在价值

例句：Traditional handicrafts still have a place in modern society.

传统手工艺品在现代社会仍有一席之地

②长难句

原文：Even though no conclusive causal link has been found, a growing number of cities are planning to end fluoridation, and specialised water filters, which remove any fluoride present, are flying off the shelves.

分析：“Even though no conclusive causal link has been found”为让步状语从句，表明尽管尚未找到确凿因果关系这一情况。句子主干部分包含两个并列句，“a growing number of cities are planning to end fluoridation”和“specialised water filters...are flying off the shelves”。“which remove any fluoride present”为定语从句，修饰先行词“specialised water filters”，解释这类滤水器的功能。在从句中，“which”做主语，“remove”做谓语，“any fluoride present”做宾语。

译文：尽管尚未发现确凿的因果关系，但越来越多的城市正计划停止自来水氟化处理，能过滤氟化物的专用滤水器也因此热销。

原文：Effective tooth - brushing means some of the fluoride present in toothpaste gets deposited directly onto the enamel, some ends up in saliva and some is swallowed.

分析：“Effective tooth - brushing”是句子主语，“means” 为谓语，其后 “some of the fluoride present in toothpaste gets deposited directly onto the enamel, some ends up in saliva and some is swallowed”为宾语从句，在宾语从句中包含三个并列分句，描述牙膏中氟化物的不同去向。

译文：有效刷牙时，牙膏中的氟化物一部分直接附着在牙釉质表面，一部分融入唾液，还有一部分被吞咽下肚。

**③写作技巧**

原文：Even though no conclusive causal link has been found, a growing number of cities are planning to end fluoridation, and specialised water filters, which remove any fluoride present, are flying off the shelves.

尽管尚未发现确凿的因果关系，但越来越多的城市正计划停止自来水氟化处理，能过滤氟化物的专用滤水器也因此热销。

“fly off the shelves” 意思是 “畅销；一售而空”，该短语通过生动的形象，描绘出商品销售速度之快，如同从货架上快速飞落一般，让读者直观感受到商品受欢迎的程度。在写作描述商品销售情况时，相较于简单的“sell well”，“fly off the shelves” 使表达更加鲜活，富有画面感。类似的替换表达有“sell like hot cakes”“be in great demand”“sell out quickly”等。

例句：

The newly released smartphone is selling like hot cakes.

新发布的智能手机十分畅销。

These limited-edition sneakers are in great demand.

这些限量版运动鞋需求量极大。

The popular book sold out quickly after its launch.

这本畅销书一经推出就迅速售罄。

**④背景知识**

氟化物（Fluoride）：氟元素的阴离子形式，在牙齿健康领域应用广泛。长期以来，美国在自来水中添加氟化物，旨在强化公众牙齿健康。氟化物能强化并修复牙釉质，帮助牙齿抵御口腔内细菌分解食物糖分所产生的酸性物质，还能抑制细菌代谢，减少酸性物质生成和牙菌斑滋生。除自来水外，多种食物如蔬菜、贝类，以及茶、咖啡中都天然含有氟化物，牙膏、漱口水等口腔护理产品也富含氟化物。

牙釉质（Enamel）：牙齿最外层的组织，对牙齿健康至关重要。它不仅是牙齿的第一道防线，能抵御咀嚼过程中的物理磨损，还能隔绝口腔内的酸性物质和细菌，防止牙齿受到腐蚀。氟化物可以通过与牙釉质发生反应，增强其结构稳定性，从而起到预防龋齿的作用。在牙釉质发育阶段，摄入适量氟化物，有助于形成更坚固的牙釉质；对于已形成的牙釉质，氟化物能修复其早期损伤。

**⑤段落大意**

【1】加氟争议：美国自来水长期加氟护牙，新研究却暗示高氟可能降低儿童智商

【2】行动分歧：因果关系未定论，部分城市计划停加氟，除氟滤水器热销

【3】护牙机制：氟化物能强化和修复牙釉质，通过多种方式助力牙齿健康

【4】自然摄取：不少食物天然含氟，茶和咖啡因植物特性氟含量相对较高

【5】效果优势：刷牙时氟化物多途径作用，护牙效果优于饮用含氟水

【6】摄入数据：不同年龄段人群，通过刷牙摄入氟化物的量有所不同

【7】辅助方式：含氟漱口水等能提升氟摄入量，但对常刷牙者额外效果欠佳

【8】价值考量：含氟自来水对口腔卫生欠佳人群仍有重要的护牙价值