

## 科学家研发实验性口香糖，或可减少新冠病毒传播

### Could a Chewing Gum Reduce COVID-19 Spread? Researchers Believe It Can

美国宾夕法尼亚大学的一项新研究表明，含有高水平血管紧张素转换酶 2 (ACE2) 蛋白的口香糖可“捕获”新冠病毒，减少唾液中的病毒载量，并有可能抑制传播，成为一种低成本的抗疫“武器”。

按照研究人员的构想，患者咀嚼这种口香糖时，口香糖含有的 ACE2 蛋白能“捕获”唾液中的病毒，可以降低患者因说话、呼吸或咳嗽传播病毒的可能性。



[Photo/pexels]

Researchers at the University of Pennsylvania are working to create a special chewing gum that could help reduce the spread of COVID-19 by "trapping" the virus so a person can't transmit it to someone else.

宾夕法尼亚大学新冠病毒研究人员正在努力研制一种特殊口香糖，它可以通过“诱捕”新冠病毒阻止其感染他人，从而帮助抑制新冠疫情传播。

Experts agree that vaccinations are the best way to combat the COVID-19 pandemic, but it's also known that vaccinated people can still transmit the virus. The University of Pennsylvania researchers are hoping that their chewing gum will give people a low-cost way to further prevent COVID-19 from spreading.

专家们认为接种疫苗是抗击新冠的最佳手段,但众所周知,已经接种疫苗的人仍能传播病毒。宾夕法尼亚大学新冠研究者希望他们研发的口香糖能成为进一步控制疫情传播的低成本方法。

"This gum offers an opportunity to neutralize the virus in the saliva, giving us a simple way to possibly cut down on a source of disease transmission," Henry Daniell, a professor at the University of Pennsylvania School of Dental Medicine and leader of the research, told Penn Today.

宾大口腔医学学院教授亨利·丹尼尔是该研究的负责人,他告诉 Penn Today 网站:“这种口香糖可中和唾液中的病毒,为我们提供了一种可能减少疾病传播的简单方法。”

The gum contains plant-grown ACE2 proteins, which showed in laboratory studies to neutralize the SARS-CoV-2 virus. When researchers exposed saliva samples from COVID-19 patients to the modified chewing gum, they found the levels of viral RNA were "drastically reduced" to the point that the virus was almost undetectable.

口香糖含有植物产生的血管紧张素转换酶 2 (ACE2) 蛋白,实验室研究表明这种蛋白可以

中和新冠病毒。研究人员让新冠患者的唾液样本与 ACE2 蛋白口香糖接触，发现病毒 RNA 的含量“急剧下降”到几乎检测不到的程度。

"Henry's approach of making the proteins in plants and using them orally is inexpensive, hopefully scalable; it really is clever," Ronald Collman, a virologist at Penn Medicine who is working on the research, told Penn Today.

宾夕法尼亚大学医学院病毒学家罗纳德·科尔曼在接受 Penn Today 采访时表示：“亨利从植物中提取 ACE2 蛋白并口服使用，这种方法成本低，有希望广泛推广，非常巧妙。”

The research is still in its early stages, and the researchers are working on getting permission to conduct a clinical trial in humans to determine if the gum is safe and effective. Should the gum work, Penn Today reported it could be used in situations where people need to be in close proximity to each other—such as a dental cleaning, for example—to reduce the risk of passing the virus to others.

这项研究仍处于早期阶段，研究人员正在争取进行人体临床试验的许可，以确定这种口香糖是否安全有效。Penn Today 报道称，如果证实有效，该口香糖可以用于诸如洗牙等需要密切接触的情况，以降低病毒传播的风险。

"We are already using masks and other physical barriers to reduce the chance of transmission," Daniell said. "This gum could be used as an additional tool in that fight."

丹尼尔说：“我们已经在使用口罩和其他物理屏障来减少病毒传播的途径。这种口香糖可以作为我们额外的防疫武器。”

Before researchers can bring their chewing gum to market, they have to determine how much of it should be used per day, which will be based on how long it takes the virus to replicate. However, if it does prove to be an effective tool at combating coronavirus, Daniell told "hundreds of millions of chewing gum" could be produced within three months.

在研究人员将该口香糖推向市场之前，他们必须确定口香糖的每日用量，这取决于病毒复制所需的时间。丹尼尔表示，如果 ACE2 蛋白口香糖被证明确实能有效对抗新冠病毒，“数亿口香糖”可以在三个月内生产出来。