

Dry Mouth

Dry Mouth (Xerostomia) is a medical condition caused by the lack of saliva to keep the mouth wet, making it difficult to chew, swallow or speak. Saliva, produced by the salivary glands, is important for a healthy mouth as it moistens and breaks down food, washes away food particles from the teeth and gums, and helps people with swallowing. Olivia Pabois, Michael Beverley Innovation Fellow at the University of Leeds, research focussed on the development of a saliva replacement product to improve the symptoms of dry mouth and improve the lives of patients suffering with the condition.



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ACTION & APPROACH

1 in 10 adults suffer from Dry Mouth due to reduced saliva. This can cause a detrimental impact on the ability to chew, swallow and speak and in some cases leads to interrupted sleep, malnutrition and therefore, a poor quality of life. The oral dryness can cause food or drink to taste bland and have a dry texture. Patients with this condition describe it as uncomfortable, frustrating and for some, torturous.

Typically, saliva substitutes that were available on the market did not provide long-lasting relief. The main cause of this suboptimal performance is that these products form a viscous fluid film that moistens and lubricates the mouth. This is because they lack efficient absorbency and do not stick efficiently onto biological surfaces such as the tongue and palate. Due to this type of formulation patients would need to repeatedly use these products, causing disruption and embarrassment.

Inspired by human saliva Olivia Pabois (Michael Beverley Innovation Fellow, University of Leeds) developed and patented an innovative highly lubricating formulation which offers 95% more effective lubrication and 50% longer relief period than both currently marketed saliva replacing products and the naturally lubricating human saliva.

Olivia Pabois was awarded the Michael Beverley Fellowship at the University of Leeds to develop the product. Using Knowledge gained through the fellowship Olivia and the team have developed a manufacturing prototype. Due to the success of the dry mouth research, Olivia has expanded her research into new areas such as dry eyes, joint lubrication and as a fat replacer for food, with the aim of creating wider societal health benefits.

QUOTES

“Learning from people in business made me realise I could be more than a scientist. They helped me to identify the right pathway to make an impact.” - Olivia Pabois, Michael Beverley Innovation Fellow at the University of Leeds.

SOURCES

[University of Leeds Case Study - Dry Mouth](#)

[The Academic Innovators : Relief from Dry Mouth Syndrome](#)

