



# Oral frictional hyperkeratosis (FK)

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**This leaflet has been designed to improve your understanding of your condition and available treatment, if necessary. If you have any other questions that the leaflet does not answer or would like further explanation, please ask.**

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## **What is oral frictional hyperkeratosis (FK)?**

Hyperkeratinisation – excessive growth of stubbornly attached keratin (a fibrous protein produced by the body) – may happen for a number of reasons, and may be genetic (runs in the family), physiological e.g. due to friction from a sharp tooth, pre-malignant (pre-cancerous) and malignant (cancerous). The change may result from chemical, heat or physical irritants.

Friction (the constant rubbing of two surfaces against each other) in the mouth may result in benign (non-cancerous) white patches.

Various names have been used to describe particular examples of FK, including those resulting from excessive tooth-brushing force (toothbrush keratosis), the constant rubbing of the tongue against the teeth (tongue thrust keratosis), and that produced by the habit of chronic cheek or lip biting (cheek or lip bite keratosis).

## **What are the signs and symptoms of FK?**

Most patients with FK are free of symptoms. A patient may notice a thickening of an area of skin in the mouth, or FK may be discovered by accident during a routine oral examination.

## **What are the causes of FK?**

The white patches of FK that develop in the mouth are formed in the same way that calluses form on the skin of hands and feet. The most common causes are long term tissue chewing (biting the inside of the cheek or lips), ill-fitting dentures, jagged teeth, poorly adapted dental fillings or caps, and constant chewing on jaws that have no teeth. The constant irritation encourages the growth of keratin, giving the skin involved a different thickness and colour.

In most patients with FK, the cause is easily identified. A habit of cheek-biting, chewing or tongue thrusting, a broken denture or a jagged tooth surface can cause FK. Occasionally, FK may develop as a result of the constant rubbing of a tobacco pipe, musical instrument, orthodontic brace, or perhaps a workman's tool, which is held in the mouth for convenience. These sorts of factors can be picked up by the doctor or dentist asking the right questions.

White patches associated with smoking can be difficult to distinguish from FK but it is important to identify the cause, as treatment is quite different for each condition.

## **What is the treatment of FK?**

FK can be successfully treated by removing the frictional element – correcting ill-fitting dentures, fillings, crowns, jagged teeth etc.

## **Contacting us**

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To find out more about our Trust visit [www.royalberkshire.nhs.uk](http://www.royalberkshire.nhs.uk)

**Please ask if you need this information in another language or format.**

RBFT Department of Oral & Maxillofacial Surgery, May 2026

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