



# Necrotising gingivitis and the dental team

## Author information

<sup>1</sup>Clinical Lecturer, Division of Dentistry, School of Medical Sciences, Faculty of Biology, Medicine and Health, the University of Manchester, Manchester, UK; <sup>2</sup>NHS Specialist in Oral Surgery, Oral & Maxillofacial Surgery Unit, The Countess of Chester Hospital NHS Foundation Trust, Chester, UK; <sup>3</sup>Consultant Orthodontist, Department of Orthodontics, The Countess of Chester Hospital NHS Foundation Trust, Chester, UK

By **Sandeep Acharya,<sup>1</sup> Kevin O' Grady<sup>2</sup> and Stephen Chadwick<sup>3</sup>**

## Introduction

The management of periodontal diseases can be challenging, with roles for all members of the clinical dental team in treatment and prevention. Necrotising periodontal diseases, including necrotising gingivitis (NG) can occur in children and adults, and can cause a variety of symptoms. In this article, we will provide an overview of NG and outline the different ways dental care professionals (DCPs) can help in the management of the condition.

## What is necrotising gingivitis?

Under the 2017 World Workshop Classification of Periodontal and Peri-Implant Diseases and Conditions, necrotising gingivitis is recognised as a form of necrotising periodontal disease, with features that include necrosis of the interdental papillae, pain and bleeding.<sup>1</sup>

The condition was previously known as 'necrotising ulcerative gingivitis', however the ulceration is thought to be a secondary to necrosis, and the terminology has changed.<sup>2,3</sup>

With NG, inflammation is confined to the gingival tissues. Necrotising periodontitis and necrotising stomatitis are other forms of necrotising periodontal disease. Diagnosis is based on the extent of the tissues affected.<sup>1,3</sup>

The management of the condition is often with removal of plaque and calculus, addressing the risk factors, for instance with tailored oral hygiene and dietary advice, and consideration of antimicrobial therapies.<sup>2,3</sup> Patients must be reviewed following treatment, to ensure resolution of the disease.<sup>4,5</sup>

## Risk factors for the condition

Necrotising periodontal diseases can often occur in patients with systemic conditions, such as those with HIV infection, and in malnourished patients.<sup>1,2,3</sup> For patients presenting with necrotising periodontal diseases, consideration must be given to other potential causes of immunosuppression, and one must consider liaising with the general medical practitioner or physician for appropriate investigations.<sup>3</sup>

In 2021, the British Society of

Periodontology and Implant Dentistry and British Society of Paediatric Dentistry published updated guidelines related to the management of periodontal conditions in children and young people. The guidelines advise that NG may manifest in teenagers, and further risk factors for the condition include stress, smoking and poor diet. Patients may also present with systemic symptoms including pyrexia and lymphadenopathy.<sup>6</sup>

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Children and young people are at increased risk of periodontal diseases during orthodontic treatment.<sup>5,7</sup> Teenage patients can present with NG, particularly those experiencing stresses, for instance related to examinations at school or who take up smoking or vaping during their orthodontic treatment. Psychosocial stresses can result in a reduction in oral hygiene. Orthodontic appliances may be plaque retentive, and therefore can increase the risk of patients developing NG.<sup>6</sup> Smoking habits often begin during teenage years, and smoking is a known risk factor for NG, and for periodontal diseases in general. The British Orthodontic Society produces patient information leaflets that include advice about oral hygiene during orthodontic care and smoking cessation.<sup>8</sup>

### The role of the DCP in managing the condition

DCPs have a crucial role in the prevention and management of periodontal conditions, including NG. The General Dental Council outlines the different roles of members of the dental team, as well as additional skills that can be developed, in their Scope of practice guidance.<sup>9</sup>

Dental nurses can develop skills in oral health education, and nurse-led oral hygiene clinics targeted at orthodontic patients could

be effective in the prevention of NG. In some orthodontic services, nurse-led oral hygiene clinics are mandatory for all patients undergoing fixed appliance treatment. Thorough oral hygiene in combination with plaque and calculus debridement can reduce recurrence of NG.<sup>5</sup>

Orthodontic therapists can advise patients on how to care for their orthodontic appliances, and provide tailored oral hygiene to patients

undergoing orthodontic treatment. Orthodontic therapists can also develop skills in measuring plaque indices; this could be especially useful in patients with NG. Plaque indices could provide a visual demonstration to the patient on areas they may need to improve upon with their plaque control.

Dental hygienists and dental therapists have a crucial role in the prevention and management of periodontal diseases, including NG. Dental hygienists and dental therapists can perform periodontal indices, provide preventative advice and perform scaling and root surface debridement to manage the disease. Smoking cessation advice can also be given, if indicated. This could be highly beneficial in teenage orthodontic patients, who may have several risk factors for NG development.

### Conclusion

Though rare, NG can present in children and adults. Although typically seen in immunosuppressed or malnourished people, the condition can occur in times of temporary stress, and may be seen in teenage patients, or those undergoing orthodontic treatment. The management of the condition is often with debridement, tailored oral hygiene and antimicrobials, and risk factor modification. Dental care professionals are essential in the management of this condition.

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<https://doi.org/10.1038/s41407-024-2623-1>