The first international evidence-based treatment guidelines for gum disease—which affects 50% of all adults—are published today in the Journal of Clinical Periodontology, the official publication of the European Federation of Periodontology (EFP).

Periodontitis, often called gum disease, affects around half of all adults. Severe periodontitis is the sixth most common disease worldwide. Periodontitis causes inflammation of the gums, which become red, swollen, and may bleed during brushing—this is the body's immune response to bacteria that have been allowed to accumulate on the teeth. If left untreated, the inflammation spreads to the ligament and bone supporting the teeth, causing loosening and loss of teeth.

"Periodontitis is a devastating condition which leads not only to pain and soreness in the gums, but also to chewing problems, unpleasant changes to tooth length and position, poor self-esteem, withdrawal from social activities, and an increased risk of other inflammatory conditions including diabetes," said Prof Mariano Sanz, EFP Workshop Committee Chair. "These guidelines outline how to manage this disease, since in the early stages its treatment is straightforward, and the consequences are minor."

Four sequential steps to therapy are advised. One: good oral hygiene and a healthy lifestyle to reduce inflammation is the foundation for an optimal response to treatment and long-term control of the disease. This step also includes professional removal of bacteria (plaque and tartar) from the parts of the teeth visible above the gum lines. Two: thorough professional cleaning of root surfaces below the gum line, and additional therapies if needed. Three: more complex treatments, such as surgery, may be needed in some (not all) patients. Four: long-term supportive care to prevent relapse, with healthy lifestyles, good oral hygiene and check-ups with cleaning.

The steps overlap and good oral hygiene is essential throughout, noted Prof Sanz. "Professional cleaning is only effective if patients clean their teeth thoroughly, and surgery is not recommended in those with poor oral hygiene. A healthy lifestyle is crucial: periodontitis is a chronic inflammatory disease and conditions that raise inflammation in the body make it worse—for example obesity, smoking, and poorly controlled blood sugar in diabetes. Good nutrition and physical activity can combat inflammation."

Prof Iain Chapple, Guideline Chair, said: "Periodontitis is caused by a build-up of oral bacteria, which triggers a damaging immune response rather than a protective one, and one that destroys tooth-supporting bone as well as bacteria. The misdirected immune reaction is partly genetically inherited, but largely driven by habits..."
like smoking and high refined sugar intake, and it really takes hold when oral hygiene habits are poor. Long-term sustainable success requires improving oral hygiene and lifestyle habits and there is rarely a need for specific medications, such as antibiotics."

A powerful motivator to improve oral hygiene is showing patients visual evidence of their periodontitis (e.g. an X-ray of their teeth), explaining why they are susceptible, and what they can do. "After successful treatment, patients who take control of their oral health and lifestyle can halt periodontitis in its tracks and keep their teeth for life," said Prof Chapple.

The main objective of therapy is to prevent tooth loss. Quality of life is another goal, which means having teeth that are comfortable to use (i.e. not too wobbly), eating is pain free, and appearance is enhanced. "Successful treatment transforms people's lives: they become more confident, smile, and go out more," said Prof Chapple. "It also improves overall health by stopping oral bacteria from entering the blood and raising inflammation levels throughout the body which negatively affects other conditions like diabetes."

**What you can do to prevent gum disease**

- Brush your teeth carefully more than once a day using a manual or powered toothbrush.
- Clean between your teeth daily using an interdental brush (or floss if the gaps are too tight).
- Specific mouth rinses or toothpastes can be used on top of cleaning to reduce inflammation.
- Don't smoke, maintain a healthy weight, eat a balanced diet, exercise, reduce stress.
- If you have diabetes, control your blood sugar.
