

Other journals in brief

A selection of abstracts of clinically relevant papers from other journals.
The abstracts on this page have been chosen and edited by Reena Wadia

Impact of free sugars on gingival inflammation

Waelber J P, Gebhardt D, Hujuel P P. Free sugars and gingival inflammation: A systematic review and meta-analysis. *J Clin Periodontol* 2023; DOI: 10.1111/jcpe.13831. Online ahead of print.

Restriction of free sugars was associated with statistically significantly improved gingival health scores and a trend towards lower dental plaque scores.

This study investigated the effect of free sugar consumption on gingival inflammation using a systematic review and meta-analysis based on the PICO question ‘What impact does the restriction of free sugars have on the inflammation of gingival tissue?’ Literature review and analyses included controlled clinical studies reporting on free sugar interventions and gingival inflammation. Of the 1,777 primarily identified studies, 1,768 were excluded, and nine studies with 209 participants with gingival inflammation measures were included. Six of these studies reported on the dental plaque scores of 113 participants. Restriction of free sugars, when compared with no such restriction, was associated with statistically significantly improved gingival health scores and a trend towards lower dental plaque scores. The observed improvement of gingival inflammation scores with restricted consumption of free sugar was robust against various statistical imputations.

<https://doi.org/10.1038/s41415-023-6109-x>

Impact of artificial sweeteners on caries

Patil S, Jalal R A S, Albar D H *et al.* Intake of Artificial Sweeteners by Children: Boon or Bane? *J Contemp Dent Pract* 2023; **24**: 137–145.

Artificial sweeteners’ effect on lowering dental caries will help to reduce the caries index in general.

This review examined the current evidence for the need for artificial sweeteners and outlined its implications for the health of children. Artificial sweeteners are a widely used food additive. Six main artificial sweeteners are approved by the Food and Drug Administration (FDA). The conflicting results and divergent regulatory norms of each sweetener are a constant cause of debate. However, most studies have spotlighted the beneficial effects of artificial sweeteners. Dental caries diminishes with the increase in sweetener intake. An increase in appetite and eventually weight gain is observed in individuals consuming artificial sweeteners. Artificial sweeteners are indeed a bane according to present studies, although more research on recently discovered non-nutritive artificial sweeteners is required. It also has a positive effect on overall health disorders. If one curbs the onset of dental caries, then the eventual rise is highly unlikely. Artificial sweeteners’ effect on lowering dental caries will help to reduce the caries index in general. Research on novel sweeteners will help to compare efficacy.

<https://doi.org/10.1038/s41415-023-6124-y>

Key guideline on peri-implant diseases

Herrera D, Berglund T, Schwarz F *et al.* Prevention and treatment of peri-implant diseases-The EFP S3 level clinical practice guideline. *J Clin Periodontol* 2023; **50 Suppl 26**: 4–76.

The guideline provides S3 level CPG for the prevention and treatment of peri-implant diseases.

The aim was to develop an S3 level Clinical Practice Guideline (CPG) for the prevention and treatment of peri-implant diseases, focusing on the implementation of interdisciplinary approaches required to prevent the development of peri-implant diseases or their recurrence, and to rehabilitate patients with dental implants following the development of peri-implant diseases. Developed by the European Federation of Periodontology, a rigorous and transparent process included synthesis of relevant research in 13 specifically commissioned systematic reviews and a structured consensus process involving leading experts and a broad base of stakeholders.

The S3 level CPG for the prevention and treatment of peri-implant diseases culminated in the recommendation for implementation of various interventions before, during and after implant placement/loading. Prevention of peri-implant diseases should commence when dental implants are planned, surgically placed and prosthetically loaded. Once the implants are loaded and in function, a supportive peri-implant care programme should be structured, including periodical assessment of peri-implant tissue health. If peri-implant mucositis or peri-implantitis are detected, appropriate treatments for their management must be rendered.

<https://doi.org/10.1038/s41415-023-6123-z>

Complete dentures – head and walking stability

Shimizu K, Suzuki H, Isoyama N, Yanagihara Y, Minakuchi S. Influence of wearing complete dentures on control of head position during walking in edentulous older adults. *J Oral Rehabil* 2023; DOI: 10.1111/joor.13516. Online ahead of print.

Wearing complete dentures while walking might improve head stability and contribute to walking stability in edentulous older adults.

This study aimed to clarify the effect of complete dentures on head stability during walking in edentulous older adults. Twenty edentulous older adults (11 men and 9 women; mean age 78.6 ± 5.8 years) who used complete dentures were included. Acceleration and angle rate sensors were placed on the participants’ brow, chin, and waist, and they were asked to walk a 20m passage under two conditions: with and without dentures. Acceleration without dentures, the variance values of the chin and the peak-to-peak values of the brow and chin were significantly larger than with dentures. Angle rate without dentures, the variance values and the peak-to-peak values of the brow and chin were also significantly larger than with dentures.

<https://doi.org/10.1038/s41415-023-6125-x>