The prevalence of caries is affected by the frequency and timing of sugar consumption, rather than the type of sugar that is involved; the cariogenic level of non-milk extrinsic dietary sugars (NMES) is higher when they are consumed frequently.\(^1\) Increasing the number of times we eat per day, combined with eating a high amount of NMES at these times, puts us at high risk of developing tooth decay.\(^2\) Frequent consumption of NMES prevents the pH in the saliva from recovering between meals, which leads to a highly acidic oral environment.\(^3\) By altering the times when sugary foods are eaten, we can decrease the risk of tooth decay, as well as that of erosion. So, how do we convey this important message to patients?

**Self-empowerment is the key**

The first International Conference on Health Promotion was held in Ottawa in 1986. The Ottawa Charter employs empowerment as an integral component of health promotion. Self-empowerment is essential to developing personal skills, confidence and control.\(^4\) The Health Strategy drawn up by the Department of Health and Children in 2001 stated that patient empowerment should be an integral part of any health strategy. The Strategy envisaged a health system that encouraged people to have their say, and to have their opinions heard and considered.\(^5\)

Through working with the patient to develop oral health skills, we can enable the patient’s own empowerment. Self-empowerment can be utilised as a health promotion tool through client-centred education in order to alter what patients believe they can and cannot change.\(^4\)

**Taking control with a diet diary**

The issues of oral hygiene and dietary habits are closely linked and should be addressed in conjunction with one another. A useful tool with which a patient can take control of his or her oral health is to use a diet diary. Through mapping the course of the patient’s diet, it may become evident where their nutrition is having on effect on their oral health.

The aim of the dietary assessment is to collect the information most relevant to dental health: frequency of meals; how many of these were snacks; how many contained NMES; and, the times of the meals during the day.\(^6\)

Watt et al.\(^6\) recommends that diet interventions should be designed from a behavioural theory point of view and suggests this six-step systematic approach to diet diary application:

1. Identify high-risk patients requiring a higher level of support.
2. Take a detailed dietary history to ascertain relevant information.
3. Set clear, realistic goals that the patient agrees with.
4. Tailor a plan of action for the patient and encourage support from family and friends to aid motivation and maintenance.
5. Monitor, review and support, with repeated contact over a period of time to promote sustained changes.
6. Flag individuals with medical conditions, special diets or extreme dietary patterns.

Facilitation of change requires evidence-based instruction, practice and feedback.\(^7\) The long-term solution to behaviour modification depends on the patient’s readiness to change and can be a time-consuming road requiring dedication from both dental professionals and patient.

**References**


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Jennifer Carmody is a dental nurse at a practice in Dublin and represents dental nurses on the Editorial Board of the Journal of the Irish Dental Association.
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Sleeping vs. loaded implants: long-term observations via a retrospective analysis

Marcelis, K., Vercruyssen, M., Nicu, E., Naert, I., Quirynen, M.

Objective
Several theories have been presented to explain initial and secondary marginal bone loss around dental implants (e.g., microbial load, adverse loading, microbial leakage, and compromised healing/adaptation of host–implant interface).

Material and methods
This study compared the long-term outcome (up to 12 years) of sleeping with loaded implants in the mandible via a split-mouth concept. Fourteen patients with overdentures were enrolled (10 women; mean age at implant insertion: 56 years [range: 33-71]). They presented with 28 loaded (position 33/43) and 14 sleeping implants (mostly position 31/41). At several follow-up visits, intra-oral radiographs (long-cone principle) were taken to observe marginal bone level changes.

Results
At each observation, compared with abutment connection, the submerged non-loaded implants showed less bone loss (P values: 1st year – 0.007; three years – 0.000; five years – 0.002; eight years – 0.007; 12 years – 0.000) than their neighbouring functional implants. This difference was primarily due to a more significant bone loss during the first year of loading (0.8 vs. 0.1mm, respectively), since afterwards the bone level changes remained quite similar for both implant types.

Conclusions
Our data suggest that the first months of loading have a significant impact on the bone level (initial difference sleeping vs. loaded implants), followed by a more physiological bone level change afterwards. This initial difference might be explained by the adaptation of the surrounding bone to the loaded implant.

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The combination of amoxicillin and metronidazole improves clinical and microbiologic results of one-stage, full-mouth, ultrasonic debridement in aggressive periodontitis treatment


Background
The aim of the present study is to assess clinical, microbiologic and immunologic benefits of amoxicillin/metronidazole (AM) when performing full-mouth ultrasonic debridement (FMUD) in generalised aggressive periodontitis (GAgP) treatment.

Methods
Twenty-four GAgP patients were divided into two groups: the FMUD group (n=12), which received FMUD plus placebo, and the FMUD+AM group (n=12), which received FMUD and 375mg amoxicillin plus 250mg metronidazole for seven days. The following clinical outcomes were tested: plaque and bleeding on probing indices; pocket probing depth (PD); relative gingival margin position (GMP); and, relative clinical attachment level (CAL). Total amount of Porphyromonas gingivalis (Pg), Aggregatibacter actinomycetemcomitans (Aa), Tannerella forsythia (Tf), and gingival crevicular fluid (GCF) concentration of interleukin (IL)-10 and IL-1β were also determined. All clinical, microbiologic and immunologic parameters were assessed at baseline, and at three and six months post therapy. The ANOVA/Tukey test was used for statistical analysis (α=5%).

Results
Amoxicillin/metronidazole used as an adjunct to the FMUD protocol added clinical and microbiologic benefits to GAgP treatment (P<0.05). FMUD+AM groups presented an additional PD reduction in initially deep PDs at the three-month follow-up (3.99±1.16mm and 3.09±0.78mm for FMUD+AM and FMUD, respectively; P<0.05), a lower number of residual pockets at the three- and six-month follow-ups, and a statistical reduction in amounts of Aa (P<0.05). Analysis of Tf and Pg amounts, as well as IL-10 and IL-1β GCF concentrations, failed to demonstrate a difference between the groups (P>0.05).

Conclusion
It may be concluded that amoxicillin/metronidazole improves the clinical and microbiologic results of FMUD in GAgP treatment.


Is fracture resistance of endodontically treated mandibular molars restored with indirect onlay composite restorations influenced by fibre post insertion?

Scotti, N., Borga, F.A.C., Alovisi, M., Rota, P., Pasqualini, D., Berutti, E.

Objectives
The aim of this study was to investigate the influence of post placement on fracture resistance of endodontically treated mandibular molars restored with adhesive overlay restorations.

Methods
Endodontically treated human molars with two- and one-wall cavities either underwent or did not undergo fibre post insertion within...