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Priority will be given to letters less than 500 words long. Authors must sign the letter, which may be edited for reasons of space.



## Misfit Crown

Sir,— I enjoyed reading about P. Budden and his uncemented crown that stayed on for a year. (*BDJ* 2001; 192: 648). It reminded me of a similar instance of an UL6 (26) gold crown, (that will show it was a little while ago!), which stayed on over three years and maybe even longer as the patient moved away. It was tried on and never came off! Maybe I should have only claimed 95% of the fee!

That incident also reminded me of similar ones; a patient who it seemed had never taken his full dentures out to clean, though come to think of it, I have seen quite a few like this; the fixed brace that I put on but never saw the patient to take it off; the plaque which had been left undisturbed round UR7 (17) for over a year; the paper point that I placed soaked in CMCP that acted as a root filling as the patient failed to return; the temporary crown that was so good, I presume, that the patient never came to have the permanent one cemented; the unpaid account of mine that has laid in that patient's waste paper bin undisturbed for many months; the temporary filling I placed late one Sunday evening to get a non registered patient out of pain that I presume is still in place.

**P. Williams**  
**Lowestoft**

## Light cure units

Sir,— The paper by Mitton and Wilson (*BDJ* 2001; 191; 82-86) usefully highlighted the fact that output from light curing units deteriorate over time and that maintenance of the units would be worthwhile.

I am aware of the importance when devising any study of not being over ambitious and of focusing on a specific topic. However, I feel it is a great pity that the authors chose to avoid the one question that I, for one, as a clinician found myself asking throughout the paper, namely, were the light units concerned actually curing the composites over the period each GDP claimed to use,

be it 10 seconds or 60?

In view of the fact that actual practice visits and inspections of the light cure units took place, it would not have been difficult to have added this extremely relevant data to the survey.

I am also concerned that in this age of governance and the increasing likelihood for protocols, once devised, to later be imposed with corresponding increases in non productive work load and costs for practitioners, that the authors are recommending that we throw our light curing units away after five years use.

The light output and effectiveness apparently not being of importance, or that we should routinely replace the bulb with a perfectly satisfactory output after 3-6 months, when they have not actually established if there is a problem with composite restorations not being cured sufficiently. I am afraid that simply referring to the recommended minimum light output from a previous paper is not good enough.

By all means develop protocols, however, do not make them overly rigid and unnecessarily prescriptive and most importantly, make sure you have sufficient evidence to justify them in the first place.

If a protocol is to gain credibility with practitioners, then it should not be recommending the replacement of perfectly functional pieces of equipment simply because they are of a certain age, especially when there would appear to be no real world evidence to justify it.

It may have been worthwhile to simply replace the bulb in the low output units and see what effects that had, if this was frequently found to provide a return to acceptable output, then 'try replacing the bulb' would be better than 'throw unit away and buy a new one' as the protocol currently seems to suggest for units over five years old.

As a foot note, I must agree wholeheartedly with the recommendations relating to cross infection.

**R. Jones**  
**Manchester**

*Co-author Nairn Wilson responds:*

*The comments in respect of my paper are greatly appreciated.*

*In concurring with Mr Jones' views on the importance in the planning of a study in not being over ambitious and on focussing on a specific topic, it can only be said that this was the approach adopted in the study in question.*

*The aim of the study, as set out in the abstract and the concluding paragraph of the introduction, was not extended to include what could reasonably be considered to be a secondary study to investigate the sufficiency of the curing of composites in patients in the selected practices.*

*It would not have been a simple task to extend the study in this way. On the contrary, given the many, varied factors, other than the time of curing, which would have had to have been investigated, notwithstanding the complexity of determining the depth and quality of cure of composites in patients, the proposed additional work would have been substantial.*

*Such further research, it is suggested, would constitute a most valuable follow-up investigation of at least a size similar to the one reported. In the meantime, it is apparent from the investigation undertaken that 28% of the light curing units surveyed were found to have had a light output less than the minimum output necessary to cure light cured materials.*

*Regarding the guidance in respect of the replacement of light units, it should be noted that this is given under the subheading 'Frequent problems?' In addition, the guidance refers to light units which have outlived their reasonable light expectancy.*

*This guidance does not suggest 'throwing away all light units after five years'. The guidance on the replacement of the bulb in light units is long-established and, it is suggested, widely accepted as good practice.*

*The whole-hearted support of the recommendations in respect of cross infection control when using light curing units is warmly welcomed. Light curing*

*has undoubtedly transformed the placement of composites and other tooth-coloured materials, but poses certain important problems in contemporary clinical practice.*

## Occlusal misconceptions

Sir,— I am disappointed at the editorial board's tacit endorsement of 'Occlusal considerations in periodontics' (BDJ 2001; 191: 597) and thereby perpetuation of the traditional misconceptions about occlusion to the detriment of the patient.

The misplaced prominence given to the 1989 World Workshops in Clinical Periodontics guidelines on occlusion highlights the intrinsic bias in therapy. Thus despite the reviewer of the literature at the time concluding that the influence of occlusion on periodontal therapy remained unresolved, the Consensus Report supported the continued use of occlusal adjustment.

The profession's apparent disinterest in clarification then prevailed and the reviewer's comment, in the next World Workshop in Clinical Periodontics (1996), that research efforts post 1988 had shifted away from dental occlusion to other areas is most instructive, for only nine possibly pertinent articles on occlusion could be located! A number of these should have been examined by Stephen Davies and colleagues.

Their sadly misleading trend is further manifested in the legends to the clearly presented clinical photographs (Figs 3, 6 and 7) and the lower radiograph in Fig 4. These make no reference to the obvious signs of periodontal disease and to which the occlusal changes portrayed can be so readily attributed.

This is surely an inappropriate message to those aspiring to good clinical practice?  
J. J. Kieser  
Lonson

### **Co-author Stephen Davies responds:**

*We welcome the correspondence from Dr Kieser and the opportunity to further debate the interpretations of studies which have investigated the role of occlusion.*

*We made it clear in our paper that periodontal treatment is the most important requirement for those with periodontal disease. We acknowledged that the role of occlusion is controversial and still not completely understood.*

*Several authorities have noted that it is a difficult area to study and this may be one explanation for the dearth of research in recent years.*

*We did review the work of Burgett et al which was one of the nine studies examined by World Workshop in*

*Periodontics.<sup>1,2</sup>*

*This randomised controlled trial showed that those who had occlusal adjustment as part of periodontal therapy had a statistically greater gain in attachment level (0.42mm) compared with those who had no adjustment (0.02 mm).<sup>1</sup>*

*The extent to which this is clinically meaningful is unclear, nevertheless the study does indicate a benefit. Gher stated that while this gain was statistically significant it may be of limited clinical importance.<sup>2</sup>*

*This was Gher's interpretation, however, if the figures were reversed and the group who received occlusal treatment had less attachment gain it is interesting to speculate on what comments would have been made.*

*The conclusion of Hallmon at the International Workshop for the Classification of Periodontal Diseases and Conditions was that studies suggested that tooth mobility may be clinically associated with adverse effects on the periodontium and affect long-term attachment response to therapy.<sup>3</sup>*

*Research published after our review was completed has reopened the debate on occlusion. Nunn and Harrel found some evidence that occlusal discrepancy is an independent risk factor contributing to periodontal disease.<sup>4</sup>*

*They commented that it was possible that previous studies could have underestimated the impact of occlusion on the periodontium because it was only recently that appropriate statistical tools became available to allow meaningful analysis at tooth level.*

*We await research which unequivocally establishes the extent of the association between occlusion and periodontitis and provides the evidence base for treatment.*

*In the meantime, we can only rely on published research which to date has indicated some, albeit marginal, benefit from occlusal treatment in conjunction with appropriate periodontal treatment.*

*In this context no studies have indicated a negative effect of occlusal treatment. We believe, therefore, that our paper does not indicate an approach which is to the detriment of patients.*

1. Burgett FG, Ramfjord SP, Niselle RR, Morrison EC, Charbeneau TD, Caffesse RG. A Randomized Trial of Occlusal Adjustment in the Treatment of Periodontitis Patients *Journal of Clinical Periodontology* 1992; **19**: 381-387.
2. Gher ME. Non-surgical pocket therapy; dental occlusion. *Ann Periodont* 1996; **1**: 567-580.
3. Hallmon WH. Occlusal trauma: Effect and impact on the periodontium. *Ann Periodont*, **4**:102-107.
4. Nunn ME, Harrel SK. The effect of occlusal discrepancies on periodontitis. Relationship of initial occlusal discrepancies to initial clinical parameters. *J Periodont*; **72**: 485-494.