

In This Issue

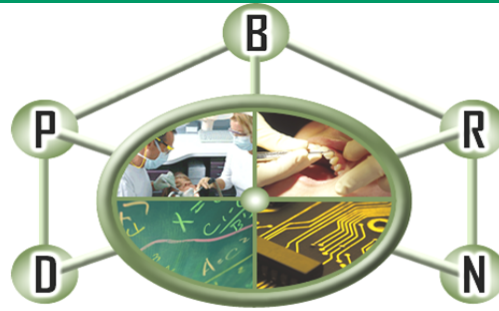
[Publication of the Month](#)

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Each month we highlight a recent DPBRN publication, recent study results, or other important DPBRN information.

Abstract of DPBRN Publication of the Month

[Concordance between preoperative and postoperative assessments of primary caries lesion depth: results from The Dental PBRN *Oper Dent* 2010;35\(4\): 389-396](#)

The July 2010 issue of *Operative Dentistry* features an article entitled "Concordance between preoperative and postoperative assessments of primary caries lesion depth: results from The Dental PBRN". The purpose of this article was to investigate the concordance between pre- and postoperative assessments of primary caries lesion depths by dentists from DPBRN. A total of 229 DPBRN dentists collected data on 8,351 consecutive restorations inserted due to primary caries in 5,810 patients. Dentists estimated the preoperative depth of caries lesions based on the diagnostic methods they typically used. The preoperativedepth was then compared to the postoperative depth, which dentists determined using actual clinical observation. Both estimated and observed depths were recorded as being in the outer half (E1) or inner half (E2) of enamel, or in the outer third (D1), middle third (D2) or inner third (D3) of dentin. Most restorations were placed to treat lesions that were preoperatively assessed as extending to the D1 (53%) and D2 (25%) depths. Of the restored caries lesions, 10% were preoperatively assessed as being limited to E2 depth and 3% to E1 depth. The majority of the restored enamel lesions were located on occlusal surfaces. Preoperative estimates of caries lesion depth were more concordant with postoperative depths when the lesion was at an advanced stage: 88% concordance at the D3 depth, compared to 54% concordance at the E1 depth. DPBRN dentists can discriminate caries lesions at different depths, but the accuracy of their depth assessments was higher for dentin than for enamel lesions. In general, DPBRN dentists were more likely to underestimate than overestimate the depth of caries lesions, and the extent of underestimation was greater for enamel than for dentin lesions. [Click here to read the article.](#)