

## July 2013

Each month we highlight a recent publication, recent study results, or other important information from the nation's network.

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### National Dental PBRN Article of the Month

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### **A 24-month evaluation of amalgam and resin-based composite restorations: findings from The National Dental Practice-Based Research Network**

The June 2013 issue of the *Journal of the American Dental Association* featured an article entitled "A 24-month evaluation of amalgam and resin-based composite restorations: findings from The National Dental Practice-Based Research Network".

In this publication, the authors analyzed data from The National Dental Practice-Based Research Network to identify predictors of early failures of amalgam and resin-based composite (RBC) restorations.

The authors gathered information from clinicians and offices participating in the network. Clinicians completed a baseline data collection form at the time of restoration placement and annually thereafter. Data collected included patient factors, practice factors and dentist factors, and the authors analyzed them by using mixed-model logistic regression.

A total of 226 practitioners followed up 6,218 direct restorations in 3,855 patients; 6.2% of restorations failed during the follow-up of 24 months. The number of tooth surfaces restored at baseline helped predict subsequent restoration failure; restorations with four or more restored surfaces were more than four times more likely to fail. Older

patient age was associated highly with failure. The failure rate for children was 4 percent, compared with 10 percent for people 65 years or older. Dentist's sex and practice workload were associated significantly with restoration longevity.

In this study, these factors were significantly predictive of failure for amalgam and RBC restorations: patient's age, a higher number of surfaces restored at baseline, the dentist's sex and the practice workload. Material choice was not significantly predictive in these early results.

Click [here](#) to view the PubMed abstract.