Name(s)	Project Number
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Project Title

The Effect of Tooth Whiteners on Denture Teeth

Abstract

Objectives/Goals
There are many different products and ingredients used to whiten teeth in different ways. Products containing carbamide peroxide, sold by dentists, use an oxidizing process to whiten, are known to be the most effective. The hypothesis was, products with carbamide peroxide as their active ingredient will be the most effective, then products with hydrogen peroxide as their active ingredient will be less effective, products with neither of these active ingredients will be the least effective.

Methods/Materials
To test which whitener is most effective, denture teeth were soaked for seven days in a mixture of coffee and tobacco that had been boiled. Then, whiteners were applied as directed on their package. The effectiveness of the whiteners was based on a tooth shade color chart. A stained control tooth was kept, which did not have whiteners applied. The manipulated variables were the various tooth whitening products. The responding variables were the number of tooth shade changes.

Results
After trial one, Rembrandt Plus toothpaste and Close Up toothpaste whitened most effectively. The retests of those two products whitened just as effectively. Overall, the toothpastes whitened more effectively than the gels. This might be because they contain abrasives, such as hydrated silica, which work like sand paper to scrub away the stain. Deeper stains, such as ones caused by the anti-biotic tetracycline, would whiten more effectively with products containing carbamide peroxide because they go deeper into the tooth to remove stains.

Conclusions/Discussion
I would like to thank my parents, James and Joy Brodfuehrer and my science class.

Summary Statement

The effect of tooth whiteners on denture teeth.

Help Received

father supplied denture teeth and Opalessence, mother supplied toothpastes, gels, coffee, and tobacco, science class supplied constructive criticism