



**CALIFORNIA STATE SCIENCE FAIR
2006 PROJECT SUMMARY**

Name(s) Ashish B. Pamula	Project Number J1327
Project Title Herbs: Do They Prevent Periodontal Disease, or Do They Just Sound Healthy? Phase II	
Abstract Objectives/Goals The objective of the project is to understand the role of the herbal products clove oil and neem extract in the prevention of periodontal disease. The goal of this project is to prove the anti-bacterial properties of herbal products on oral bacteria. Methods/Materials Material: Neem toothpaste, Neem extract, Clove oil, Promise toothpaste, Colgate, Aquafresh, Nutrient agar plates, Pipettes, Cotton swabs, bacteria from teeth and gums, sterile water, and sterial disks. Procedure: Bacteria were collevted from teeth and gums and suspended in sterile water. 0.5mL of bacteria were spread on the plate. Toothpaste or herbal extracts were suspended in sterile water and disks soaked in the toothpastes or herbal products were put on the plate and observed for bacterial growth after 48 hours(2 days) Results In the control plates, there was no growth inhibition surrounding the disks. In contrast, disks suspended in the toothpastes and herbal products showed growth inhibition aropund the disks. Clove oil the best results of all. Conclusions/Discussion The herbal products Clove oil and Neem extract were shown to be better anti-bacterial agents than the chemical products found in Colgate, Aquafvrsh, and many other toothpastes.	
Summary Statement To understand the role of the herbal products clove oil and neem extract in the prevention of periodontal disease.	
Help Received Mother helped supervise expirement, RCC provided the materials	