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## CAMBRA Is Minimally Invasive Dentistry

*CAMBRA stands for "Caries Management By Risk Assessment" and should be your standard for treating patients. In simple terms, here's why.*

**By Drs. Douglas A. Young, Philip Buchanan, Richard G. Lubman, and Alan Budenz**

*The following are excerpts from the March 2006 Dental Products Report article.*

Dental caries is a transmissible bacterial infection that should be curable and preventable. Yet clinical treatment of this infection in the United States has been, and still is, largely based on the restorative model. Scientifically and ethically, simply restoring teeth does not in the long haul halt the disease process. This article will briefly summarize the scientific basis for CAMBRA.

With CAMBRA, detection and treatment is focused not only on cavitated stages but also on the pre-cavitated stages, where chemical, rather than surgical, treatments are appropriate. It is important to treat lesions as early as possible in the pre-cavitated stages using strategies that reduce pathogens, inhibit demineralization, and enhance remineralization. Thus, CAMBRA,

with its preventive and chemical strategies, is truly the cornerstone of minimally invasive dentistry (MID).

The Caries Risk Assessment (CRA) measures the caries balance of a patient at a point in time, and information that is gathered drives the decision-making process in clinical treatment. Treatment is evidence-based and individual patients are treated according to their oral environment rather than treating all patients similarly. Treatment involves strategies that put the patient into a healthy balance.

For documentation purposes, it makes sense to use written or computerized forms consisting of a questionnaire that collects as much information as possible on the existing pathogenic and protective factors present.

Proof CAMBRA works; a National Institute of Health-funded, university-based, multi-year, blinded, randomized clinical trial was recently completed by Featherstone et al. testing the validity of CAMBRA.7 In short, this study tested high-risk caries patients with simple interventions such as fluoride and chlorhexidine as needed based on the results of the CRA. The control group got conventional restorative care only. Results showed that the CAMBRA group reduced caries

incidence in this high-risk population and merely restoring teeth did not. Our premise is that traditional restorative procedures alone do not effectively treat dental caries. It is time to change how we think about and treat this most common disease.

CAMBRA: How can you say "no"? So basic is the scientific premise that dental caries is a bacterial infection that it would be hard to find a reason not to embrace the CAMBRA paradigm. Science has proven that treating the symptoms by restoring teeth alone will not eliminate dental caries. Why then the reluctance to implement CAMBRA into clinical practice? Is it because third party payers do not currently cover CAMBRA fees? Is it because of simple ignorance of CAMBRA? Is it because dental schools place so much emphasis on the technical hand skills necessary to restore the dentition that students graduate with little appreciation for CAMBRA? The truth may hurt—the commonly accepted bio-ethical principles (see "Ethical principles," in related links below) make CAMBRA difficult to ignore.

Conclusion scientifically and ethically, CAMBRA provides the best possible and the most minimally invasive dental care for your patients. This is the standard our profession must promote.

## Current CariFree Research Results By Dr. V. Kim Kutsch

In 2006 CariFree launched a major study at Oregon Health & Science University to examine the correlation of the CariScreen Testing Meter to several other caries indices. The research is being lead by Professor Curt Machida and Microbiologist Tom Maier. The study is a year long and has several components.

It involves 32 pediatric patients, with all four quadrants and their saliva being examined. Data being collected includes: total cell count, *Mutans streptococci* levels, *Lactobacillus* levels, CRT culture, CariScreen Meter score, plaque index, and caries risk. The CariScreen Meter score has demonstrated a strong positive correlation with

very high significance levels to total bacteria cell count.

This data combined with Dr. John Featherstone's studies at UCSF demonstrating a very strong odds ratio between visible plaque levels and caries risk, provide a compelling basis for using the CariScreen Meter metric as a screening tool. This research has also demonstrated a moderate positive correlation with very high significance levels to *Mutans streptococci* cell counts and also the patient's individual caries risks.

**This exciting research has won a 2007 Award for Innovation from OHSU.**

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## "I Don't Do Windows."

Part One of Three.

By Carri Cady, RDH

Have you ever had a house keeper that said "I don't do windows?" Now you might be thinking, "What does that have to do with dental hygiene?" Let me tell you. I can remember in my early years of practice when I was struggling just to get a periodontal charting, cleaning, and an exam done in the hour. Then my dentist would come and ask me "Did you see anything concerning with Mrs. Jones' teeth today?" And I would think to myself, "Hey, I do gums, I don't DO teeth!" This may sound crazy, but if we are all honest I would be willing to bet that at one point or another, you shared a similar thought. Decay is the dentists' problem; gingivitis and periodontal disease are my problems. Right? Well, the fact of the matter is, none of it is our problem, these diseases belong to our patients. But it is our job. We did take that oath. So, whether it's a periodontal infection, or a caries infection, it's our job to be up on the most current research and treatment options, and to educate our patients and provide them with the best evidence based options for care.

We are entering a new age in dentistry; the age of risk assessment based diagnosis. This is to say, there is no one best treatment for any scenario for every patient. The end of the "one-size-fits-all" approach to treatments is now here. What will work best for each individual patient is most predictably based on addressing what risk factors

are associated with their current state of health or disease. For the patient that is high risk for dental caries and periodontal disease, it might turn out that saving a compromised tooth with root canal therapy and a crown while the available alveolar bone structure is decreasing may not be the best long term option. An argument can be made that extraction of the tooth before the bone structure is too compromised and placement of an implant and crown (reducing both caries and periodontal risk to that tooth) provides a more predictable outcome. We were educated to save every tooth at almost any cost. So this represents a paradigm shift in the way most of us were taught to think. But let's face it; has what we have been doing been working? Is the rate of decay or periodontal disease decreasing? By the continued surgical approach to bacterial diseases, have we successfully reduced our patients' caries or periodontal risks?

So, let's get back to my original question. As hygienists are you implementing risk assessment, not just for periodontal disease, but also for dental caries? There has been such a huge disconnect from what we learned in hygiene school. We were taught that decay is caused by a bacterial infection, and then we were taught to treat it by drilling and filling the teeth. What about the missing link, which would be addressing the bacterial infection? Recent scientific studies are clear that drilling and filling does restore the teeth, but does little or nothing to treat the disease. It is time for a paradigm shift in dental caries management from a surgical model, to a medical model. Caries Management by Risk Assessment

(CAMBRA) is now being taught at most dental schools nationwide and we need to be incorporating it into a comprehensive dental hygiene practice. As hygienists, we are the screening and preventive center of any practice. We do periodontal screening, intra-oral and extra-oral cancer screening, and hopefully caries risk screening.

Caries risk assessment can be as easy as a 1-2 minute questionnaire that brings into question, and allows us to assess our patients' caries balance.



What risk or pathologic factors does my patient present with, and how might these fare against protective factors that are occurring naturally or have been put in to practice? We know that our patients' diet and homecare greatly affect their risk for getting decay. But I also think we can all relate to those patients who brush and floss diligently and still experience new and recurrent decay. As hygienists that have worked hard to create trusting relationships with our patients, we have the perfect opportunity to educate our patients about their caries risk and then make preventive recommendations so they can reduce those risks and boost their protective factors.

Part Two coming next issue.

## Introducing New Patient Education Tools

Oral BioTech has created 2 new marketing pieces to help you educate your patients about CariFree. The first is a patient appointment reminder card; there are 2 different versions to choose from, you can view close-ups of both options on our website [www.carifree.com](http://www.carifree.com). The cards are custom printed with your practice address information on the back. Your cost is \$5 for each 50 pack.

The second marketing tool is a patient statement stuffer/mailer. This tri-fold brochure is a revision from our original patient brochure and has an area on the back for patients' address information so it can be used as a mailer. A free sample is enclosed. Your cost is \$10.50/50 pack.

To order, please call 866-928-4445.

