

Illustration: Matt Mullin

California, U.S. Show No Improvement on Report Card

The nation's progress in improving oral health has stagnated, according to the latest national report card released by the advocacy group Oral Health America. The United States received lackluster grades in areas from oral health access and prevention to policies and infrastructure, contributing to an overall grade of C

on the report card. California also received an overall grade of C.

The nation's oral health affects everything from school attendance to combat readiness, Oral Health America noted. "The armed forces are spending a disproportionate share of medical resources to treat the dental problems of new recruits before they can be deployed," according to the report card.

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**ROBERT KLAUS
PRESIDENT,
ORAL HEALTH AMERICA**

Holding the nation back is access to care, which received a C-. In some states, dentist availability was a major concern. A toothache in Nevada — one of two states to receive an F for dentist availability — might need to be treated in neighboring California, one of only nine states to earn an A. Nevada is working to improve, having recently opened the state’s first dental college.

The report card also found that those in the greatest need are having the hardest time finding care, as 18 states received Fs for availability of dentists who provide significant services under Medicaid, contributing to an alarming D for the nation. The report notes that adults are three times as likely to be without dental insurance as medical insurance. In half of all states, Medicaid either provides only for emergency dental care or provides no coverage at all.

“We can treat the symptoms now or be stuck with a painful toothache for years to come,” said Robert Klaus, president of Oral Health America. “In the end, it is far less costly to provide access to routine

dental care than to allow easily treatable problems to balloon into major medical emergencies.”

The report found that basic preventive measures fall short of national goals. Several areas where significant progress can still be made were highlighted, including:

- Adequate fluoridation of public water supplies, the most cost-effective disease prevention strategy, is unavailable to more than 100 million Americans.

- Dental sealants are found in only 23 percent of youth younger than 8 and in less than 10 percent of low-income minority children.

- The nation received a D for policies to reduce the use of smokeless tobacco.

- Most older Americans, at high risk for oral health problems, have no dental insurance. Thirty-two states received Ds or Fs for having more than 70 percent of their elderly report having no dental insurance. Medicare provides no routine dental coverage.

The report did find some bright spots. States made inroads against oral and pharyngeal cancer, as the nation received a B for reducing mortality rates associated with the disease during the past 26 years. Also encouraging were the 27 A’s received by states for leadership, indicating that many of the right steps toward progress are in place.

Overall, the highest marks went to Connecticut, Ohio, Vermont, and Wisconsin at B-. Montana needed the most dental work, barely passing with a D. Four states — Kansas, Louisiana, Mississippi, and South Dakota — were not far ahead with a D+.

“The purpose of the report card is to highlight the critical need for improved oral health for many Americans,” Klaus said. “The reality is that each state and the nation can make the honor roll by focusing resources and utilizing effective disease prevention measures.”

The National Grading Report was funded in part by a generous grant from the Robert Wood Johnson Foundation. Full report card results are available by visiting www.oralhealthamerica.org.

California’s 2003 Report Card

Prevention	C
Access (dentist availability) ...	B
Access (Medicaid providers) ...	B
Health status	B-
Policies	C
Final grade	C

Note: The categories for grading have changed since the first Oral Health Report Card was issued in 2000, so no direct comparison is available. California’s overall grades in 2000 and 2002 were also C.

Brushing Right After Drinking Soda May Harm Teeth

The best defense against the effects of soda on the teeth is to brush, but not for at least 30 minutes after finishing the drink, according to new research.

Dentists at Goettingen University, Germany, conducted a study to determine the best time to brush after drinking carbonated beverages. They found that later — rather than immediate — brushing is three to five times more effective at protecting enamel from the erosive effects of carbonated drinks.

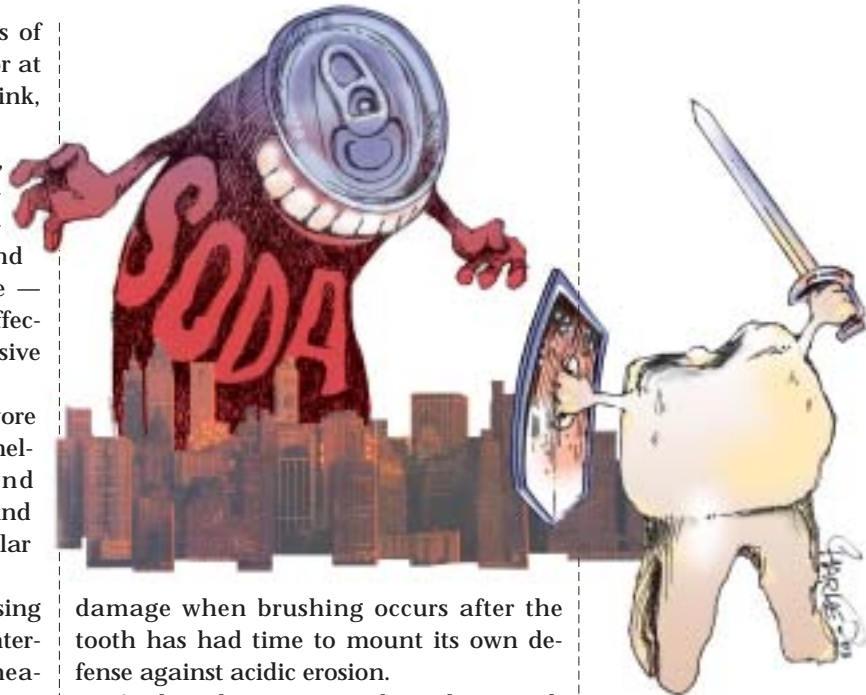
For three weeks, eleven volunteers wore removable prostheses made of an enamel-like substance. Each morning and evening, the prostheses were removed and soaked for 90 seconds in a liquid similar in acidity to soda.

The prosthesis was then brushed using an electric toothbrush after different intervals. After three weeks, researchers measured the thickness of the enamel.

Professor Thomas Attin, director of the university's department for tooth protection, preventive dentistry, and periodontology, said, "The loss of material was less when the participants waited with cleaning for between 30 and 60 minutes."

Attin presented the research at the annual meeting of the German Association for Tooth Protection.

He said enamel appears to suffer less



damage when brushing occurs after the tooth has had time to mount its own defense against acidic erosion.

Acidic substances attack tooth enamel, he said, and upper layers of the tooth can even be dissolved in some acidic drinks. However, protective agents in saliva may help repair and rebuild damaged tooth enamel.

Waiting before brushing seems to give the teeth a chance to rebuild, the researchers said, while immediate cleaning of such teeth can increase the damage by brushing off the affected layers.



Smoking and Stress: Which Begets Which?

The connection between stress and smoking is a bit like the chicken and the egg. Some research suggests that people begin and continue smoking because of the stress in their lives. In fact, smokers often say that stress makes them smoke more and that smoking calms them. Other research, however, suggests people may be stressed because they smoke. Studies showing decreased stress among people who've stopped smoking help bolster this claim. There's also the role of nicotine to consider. Does smoking a cigarette really reduce stress, as many smokers claim? Or does it just provide temporary relief from the symptoms of nicotine withdrawal, such as feelings of stress, anger and irritability? Many scientists argue the latter.

From the May 2003 issue of HealthQuest, newsletter of the Mayo Clinic.



Few Depressed Americans Receive Adequate Treatment

Millions of Americans suffer from major depression each year, and most are not getting proper treatment for this debilitating disorder, according to a two-year nationwide study reported in the June 18 *Journal of the American Medical Association*.

The study, led by researchers from Harvard Medical School, found high rates of major depressive episodes in all segments of the U.S. population. The researchers measured the severity and duration of depression in more than 9,000 Americans 18 years or older and looked at the effect major depressive episodes had on daily activities and treatment received, if any.

"This is the first study to assess clinical severity of depression in a community sample," said survey leader Ronald Kessler, Harvard professor of health care policy.

"Critics have suggested that depression was overestimated in earlier studies because of many people with mild depression being included even though they really don't need treatment," Kessler said. "But we built in a state-of-the-art clinical severity assessment; and we found that the majority of people with major depressive episodes are severe cases, and only a small minority are mild cases. The average person with major depressive episodes in the past year reported an av-

erage of 35 days when they were unable to work or carry out other normal activities because of their depression.

"These findings confirm that depression is an enormous societal problem, both in terms of the number of people involved and in terms of clinical severity," Kessler said.

Although most people reporting depression in the past 12 months received some kind of treatment — an improvement over earlier findings — only one in five received treatment that met minimum standards of adequacy established by the Agency for Health Care Policy and Research.

The researchers found that this problem of inadequate treatment was due to a mix of inappropriate dosing of antidepressant medications on the part of physicians, patient discontinuation of treatment, and the use of unproven treatments outside the medical and mental health system.

"While recently increased treatment is encouraging, inadequate treatment is a serious concern," Kessler and his co-authors wrote. "Emphasis on screening and expansion of treatment need to be accompanied by a parallel emphasis on treatment quality improvement."

The researchers found that major depressive episodes affect 13 million to 14 million American adults each year.



Top 10 health risks for men

Each year millions of men die of conditions that are by and large preventable. The current leading causes of death in American men are:

1. Heart disease
2. Cancer
3. Stroke
4. Accidents
5. Chronic lower respiratory diseases
6. Diabetes
7. Influenza
8. Suicide
9. Kidney disease
10. Chronic liver disease and cirrhosis.

From the May 2003 issue of HealthQuest, newsletter of the Mayo Clinic.

Mouse Model Mimics Human Dental Disorder

A team led by scientists at the National Institute of Dental and Craniofacial Research has created a mouse model with tooth defects similar to those of people with dentinogenesis imperfecta III. The model will allow scientists to learn more about how the hereditary disorder arises and provides a tool for developing and testing treatments. The researchers reported their findings in the July 4 issue of the *Journal of Biological Chemistry*.

Dr. Ashok Kulkarni and his colleagues created the mouse model by deleting the dentin sialophosphoprotein gene, which is thought to be responsible for coordinating the mineralization of a tooth's dentin. The animals' teeth showed discoloration, large pulp cavities, and pulp exposure. Detailed studies of the teeth revealed abnormalities in the dentin.

"Our study shows that (the gene) plays a key role in orchestrating the process of dentin mineralization, or maturation," said senior author Kulkarni, from the NIDCR Functional Genomics Unit and Gene Targeting Facility. "This mouse model shows for the first time some of the molecular events regulated by (the gene) that are involved in dentin mineralization."

Dentin formation requires several steps: First, dentin-forming cells secrete the proteins that make up dentin's scaffolding. Mineralization occurs as dentin hardens when calcium is deposited onto this framework. The areas that are first to mineralize grow and then fuse to create one calcified mass that is the mature dentin.

Dentinogenesis imperfecta, classified into three subtypes, occurs in about 1 in 8,000 newborns in the United States. The teeth can be bluish or brownish with a somewhat translucent appearance. On X-ray, the teeth appear as "shell teeth," with a layer of enamel, a thin layer of dentin, and very large pulp chambers. Because of

the unstable dentin, the enamel can shear off and expose the dentin, which could then wear down to the pulp. Most people severely affected with dentinogenesis imperfecta III are candidates for dentures or implants by age 30 despite dental intervention.



Upcoming Meetings

2003

- Oct. 23-26 ADA Annual Session, San Francisco, (800) 232-1432.
- Nov. 2-7 U.S. Dental Tennis Association Annual Meeting, Palm Desert, Calif., (800) 445-2524.
- Nov. 8-9 International Conference on Evidence-Based Dentistry, Chicago, j.ryley@elsevier.com.
- Nov. 16-22 Annual Meeting of the United States Dental Golf Association, Scottsdale, Ariz, (631) 361-7127, usdga@optonline.net.
- Dec. 5-7 California Academy of General Dentistry Annual Meeting, San Diego, (877) 408-0738, www.cagd.org.

2004

- March 3-6 Academy of Laser Dentistry 11th Annual Conference, Palm Springs, Calif., (954) 346-3776, www.laserdentistry.org.
- April 15-18 CDA Spring Scientific Session, Anaheim, (916) 443-3382, Ext., 4470.
- Sept. 8-11 International Federation of Endodontic Associations Sixth Endodontic World Congress, Brisbane, Queensland, Australia, www.ifea2004.im.com.au.
- Sept. 10-12 CDA Fall Scientific Session, San Francisco, (916) 443-3382, Ext. 4470.
- Sept. 30-Oct. 3 ADA Annual Session, Orlando, Fla., (312) 440-2500.

To have an event included on this list of nonprofit association meetings, please send the information to Upcoming Meetings, *CDA Journal*, P.O. Box 13749, Sacramento, CA 95853 or fax the information to (916) 443-2943.