

Meth Mouth Detection and Prevention

Methamphetamine is a powerful and extremely dangerous stimulant. Its primary ingredient is pseudoephedrine, but it can also include drain cleaner, engine starter fluid, hydrogen peroxide, battery acid, and other toxic chemicals.

SYMPTOMS AND CAUSES

Poor Oral Hygiene: Binge meth users can be awake for days at a time and often ignore sound oral hygiene practices such as brushing, flossing and other forms of plaque removal. Binges can be followed by long periods of sleep, where plaque accumulates and salivary flow is lessened. With meth mouth, dental plaque often appears gray. The reason is not known at this time.

Diet: Meth is a potent appetite suppressant. Soft drinks containing high amounts of sugar, caffeine and citric acids are sometimes used to prolong the high. These drinks, paired with other factors, contribute to the decay of teeth.

Bruxism: Due to the stimulant nature of the drug, the user becomes tense and anxious. Users can go days without sleep. These factors lead to extreme clenching and grinding of the teeth. This can contribute to tooth fracture and TMJ pain.

Loss of Tooth Structure: Interviews with correctional system dentists reveal that cuspids and premolars fracture easily after continued meth use. Clinical crowns of all affected teeth fracture at the cemento-enamel junction. Anterior teeth, which are more susceptible to fracture, are often devastated by meth use.

Xerostomia: Meth causes dry mouth, which results in a change of both the quality and quantity of saliva. Saliva's buffering effects are altered along with an increase in virulence and quantity of oral bacteria.

Vasoconstriction: Meth use causes vasoconstriction, the narrowing of blood vessels, which is partially attributed to pseudoephedrine, one of the primary ingredients in meth. Vasoconstriction interferes with the body's ability to fight infection and heal itself, which contributes to periodontal diseases.

THE ROLE OF THE ORAL HEALTH TEAM

Prevention and Education: Dental offices and clinics should augment what children and adolescents are taught through schools and campaigns like **Meth Destroys**. The oral health team can seize an educational opportunity by providing information related to meth mouth.

Screening and Detection: Dental caries develop on the cervical margin, other smooth surfaces and interproximal surfaces of anterior teeth. One case study revealed that caries first develop on the buccal smooth surfaces of molars prior to appearing in anterior teeth. Spotting the early symptoms of meth use is critical to preventing serious damage.

Providing Help: Should patients admit to using meth, direct them to the Tennessee Association of Alcohol, Drug and Other Addiction Services' (TAADAS) REDLINE at **(800) 889-9789**. If you suspect someone is making or selling meth, you can call the Tennessee Bureau of Investigation (TBI) at **(877) TNN-METH**.

MORE ABOUT METH

Meth can come in the form of a powder, pill, or rocklike chunks. It can be **smoked, snorted, eaten or injected** into the bloodstream. Physical and mental health problems associated with meth: **seizures, heart attack, stroke, paranoia, dry, gray skin, devastated oral health.**

Methamphetamine is a major problem in Tennessee. In 2005, law enforcement authorities seized 1,201 methamphetamine labs in Tennessee (South/East Tennessee Methamphetamine Task Force). In Tennessee, 5.6 percent of high school students say they have tried meth (2005 Youth Risk Behavior Survey).

Additional educational resources are available at www.MethFreeTN.org.

Contributing Expert: Dr. Nancy J. Williams
Professor, University of Tennessee Department of Dental Hygiene
Associate Professor, UT College of Dentistry



Above: The highly acidic nature of meth paired with poor dental hygiene leads to accelerated decay.

Photos courtesy of Robert D. Thomas, D.D.S. Savannah, Tenn.

METH DESTROYS