

METH IN THE MOUTH

for Oral Health Care Providers

Dramatic increases in methamphetamine use make it important for health care professionals to be aware of the signs and symptoms of methamphetamine use in order to most effectively educate and care for their patients.

Methamphetamine is commonly referred to as “meth.” Meth has other slang terms such as crystal meth, speed, ice, crank, tweak/tweak, glass, tina, uppers, and yaba. Meth users are often at an increased risk for HIV and hepatitis B and C, through shared drug using equipment. Some of the side effects of meth, such as decreased inhibition and increased libido, can lead to unprotected sex with multiple partners, also increasing the risk for these and other sexually transmitted diseases (STDs). Recognizing meth use and providing appropriate education, treatment, and referral resources is a critical role for health care providers.

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Cervical caries and heavy plaque associated with xerostomia. It is important to assess the reason(s) behind xerostomia. Xerostomia can be caused by a number of factors including medications, poor oral hygiene, HIV disease, and methamphetamine use.



Infected burn from glass methamphetamine pipe.



Missing posterior teeth, generalized heavy plaque, deep decay at gingival line, depicting oral disease associate with methamphetamine abuse.



Methamphetamine abuse associated wide-spread dental decay.

Methamphetamine and the Mouth

One of the first places methamphetamine use can be identified is in the oral cavity. Meth users may have specific oral health issues due to the ingredients in the drug, the method of use, and side effects of the drug. This devastating effect on the oral cavity is sometimes referred to as “meth mouth.”

Ingredients

Individual ingredients involved in the making of methamphetamine are toxic and can be corrosive, even when used appropriately. Key ingredients in the manufacturing process include, but are not limited to: iodine, red phosphorous, hydrochloric acid, ether, pseudoephedrine, and anhydrous ammonia.

Method of Use

Smoking/Inhaling: When a person inhales or smokes meth, the caustic ingredients can burn and irritate mucosal tissues in the mouth and cause sores, which can lead to infection.

Snorting: When snorting meth, the user draws agents into the nasal cavity and down the back of the throat, exposing the oral cavity and throat to the same caustic ingredients. Although the oral effects are not as prominent with smoking/inhaling, snorting can cause significant oral disease.

Injecting: While injecting meth has no direct impact on the oral cavity, the side effects of prolonged use are still a factor for injection users' oral health.

Drug Side Effects

Methamphetamine can cause decreased appetite, dry mouth and insomnia. In addition, the long duration of the drug (up to 12 hours, and users may binge for several days) can lead to extended periods of time when users are not likely to take appropriate care of their teeth nor have adequate nutrition or hydration. This combination of neglect and exposure to harmful chemicals can be damaging to the oral cavity.

What to Look For

The following symptoms, along with other signs, may indicate methamphetamine use:

Appearance of malnourishment and poor oral hygiene – meth is an appetite suppressant and users tend to lose weight. Users also may neglect personal and oral hygiene, especially over binge periods (called “on a run”), sometimes lasting days. Such binges may be followed by extended periods of sleep allowing debris to sit on the teeth without timely removal.

Dry mouth/xerostomia – meth has a direct effect on the salivary gland tissue affecting both the quantity and quality of saliva produced. Saliva is crucial to the maintenance of a healthy oral cavity. The processes of swallowing and digestion depend upon adequate salivary flows. Saliva protects teeth from dental caries by helping maintain proper pH and providing mechanical cleansing properties. Natural antibacterial components in saliva help to prevent both caries and periodontal diseases. There is also an increase in yeast/fungal infections when salivary flow is compromised. During meth use, the protective nature of saliva is lost making the oral cavity more susceptible to the corrosive materials in meth.

Accelerated and/or unaccounted for caries – caries may be rampant, typically seen on the buccal, smooth surface of the teeth and interproximal surfaces of the anterior teeth. Users also may consume sugar-loaded, high calorie beverages while using, which also contributes to decay.

Periodontal Disease – meth reduces blood flow to the teeth and periodontal structures thereby creating low oxygen tension which can lead to increased risk of infection and slow healing. This, coupled with poor hygiene and diet, may lead to very poor periodontal health in meth users and loss of teeth over time. The periodontal tissues can also be affected by xerostomic changes that occur.

Cracks or fractures in the teeth –meth users may grind or clench their teeth because of the high anxiety typically caused by meth use.

Systemic Signs/Symptoms – meth users may have skin lesions from “formication” or delusions of insects creeping on the skin, Parkinsonian-like tremors, anxiety, paranoia, and irregular and rapid heart rates. Violent and excitable behaviors may also occur when high doses are ingested.

What to Do:

If methamphetamine use is suspected, it is recommended that all oral health care providers*:

Assess and Treat

- ◆ Complete a comprehensive oral exam
- ◆ Obtain a thorough dental and medical history
- ◆ Convey concern for oral health and dental findings
- ◆ Use preventative measures such as topical fluorides (rinses, varnish, pastes and gels)
- ◆ Consider use of products for the management of xerostomic conditions
- ◆ Use occlusal guards for the dual purpose of fluoride application and minimizing the deleterious effects of bruxism
- ◆ Provide or refer for nutrition counseling

Educate

- ◆ Encourage oral health measures such as drinking water rather than sugary sodas
- ◆ Educate patients about risks of meth use; use verbal communication as well as written information
- ◆ Be aware of possible drug interactions when administering local anesthetics, sedatives or general anesthesia, nitrous oxide or prescribing narcotics
- ◆ Discuss risk reduction methods, including reducing or stopping meth use, cleaning drug works and/or obtaining clean works, getting into drug treatment, etc.
- ◆ Educate patients regarding risks for infection acquisition (including hepatitis B, C, and HIV) and how to best prevent or reduce risk of contracting these

Consult and Refer

- ◆ Know medical referral and consultative resources
- ◆ Be familiar with substance abuse treatment facilities and their protocols (in order to encourage drug cessation and to explain what patients can expect should they choose treatment)
- ◆ Test and/or refer for potential infections (including hepatitis B, C, HIV, and other STDs)

**Adapted from the American Dental Association:
www.ada.org/prof/resources/topics/methmouth.asp*

Resources

Mountain Plains
AIDS Education and Training Center
www.mpaetc.org

AIDS Education and Training Centers
(Regional and Local offices)
www.aidsetc.org

HIVDENT
www.hivdent.org

Methamphetamine and the Mouth
(ADA)
www.ada.org/prof/resources/topics/methmouth.asp

Meth Awareness and Prevention
Project
www.mapps.org

MethResources.gov
www.methresources.gov

National Clinician’s Consultation
Center
1-800-933-3413
www.ucsf.edu/hivcntr

Office of National Drug Control Policy
www.whitehousedrugpolicy.gov

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