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 those 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.

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 associated with methamphetamine abuse.
Methamphetamine and the Mouth

When a person inhales or smokes meth, the caustic ingredients in meth have a direct effect on the salivary gland tissue. Be aware of possible drug interactions when prescribing narcotics, anesthesia, nitrous oxide or the use of contralateral nerve blocks. 

Saliva is crucial to the maintenance of a healthy oral cavity. The process of mastication and digestion is dependent upon adequate salivary flows. Saliva protects teeth from dental caries by delivering antibacterial components in saliva help to prevent both caries and periodontal disease. There is also an increase in yeast/fungal infections when salivary flow is reduced. During meth use, the production of saliva is decreased. As a result, the oral cavity remains dry and vulnerable to the corrosive materials in meth.

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. 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."

Methamphetamine is a stimulant drug that can cause dry mouth/xerostomia, oral infections, and accelerated and/or unaccounted for caries. 

Meth users may have skin lesions from "formication", a feeling of insects creeping on the skin, Parkinsonian-like tremors, anxiety, or delusions of insects creeping on the skin, Parkinsonian-like tremors, anxiety, or delusions of insects creeping on the skin. Meth users may grind or clench their teeth. This, coupled with poor hygiene and diet, may lead to the following symptoms, along with other signs, may indicate methamphetamine use:

- Appearance of malnourishment and poor oral hygiene
- Systemic Signs/Symptoms – Anxiety, paranoia
- Periodontal Disease – Accelerated and/or unaccounted for caries
- Oral Health – Oral lesions, ulcers, and oral infections
- Malnutrition – Appearance of malnourishment and poor oral hygiene
- Weight Loss – 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. 

Drug Side Effects

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

Drug Side Effects

When a person inhales or snorts meth, the caustic ingredients in meth have a direct effect on the salivary gland tissue in the mouth and cause irritation, which can lead to infection.

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.