

Nutritional Concerns

by Barbara Wakeen, MA, RD, LD

Nutritional Concerns Related to Chemical Dependency and Drug Addiction—Specifically Methamphetamines

At the 2008 Michigan ACFSA Conference, I had the opportunity to present this topic for the first time. In preparing this, I learned about medical nutrition therapy beyond what one might consider a simple dentition problems and some of the physiology behind what we often hear about sugar cravings associated with chemical dependency. This article may help you understand or increase awareness of the behavior and/or characteristics some of the inmates display in your kitchens and elsewhere in your facilities—that is, the impact of methamphetamine (Meth) directly and indirectly as related to nutrition and food intake.

Meth is a stimulant with side effects that include a significant reduction in appetite which results in weight loss and eventual malnutrition. Other familiar terms for this drug are Ecstasy, methylenedioxymethamphetamine and MDMA. Abusers of this drug may stay up for days at a time and as a result suffer dehydration and electrolyte imbalances thus displaying atypical behavior.

In our facilities, most often we aren't aware of the background of the inmates, but do experience their varying behaviors and sometimes wonder why some perform and appear (physically) the way they do. These behaviors may be a result of chemical dependency and addiction.

There are 3 signs associated with chemical dependency and addiction—physical, chemical and withdrawal which may help one understand some of these behaviors.

How Does Meth Cause Addiction?

Meth is considered the most destructive drug of addiction. Socially, Meth users like company to share the experience. In college, students may get hooked by trying Meth at a party, to stay up cramming for a test or to complete a term paper. This 'high' starts out as a good thing and is desirable.

Without Meth to provide brain stimulation, gradually over time, things change and the user may suffer from depression, exhaustion and/or body aches. Users become dependent and thus, will do 'whatever it takes' to get another hit and avoid withdrawal symptoms. Further usage then results in poor nutrition and teeth beginning to decay. Extensive use of this drug can ultimately result in irreversible brain damage.

Over time and repeated use, the brain changes physically, the user becomes indifferent to normal things that usually makes one happy. Upon quitting, there is a period of exhaustion and the user tends to sleep a lot. Other symptoms of this phase include depression, lack of energy and moodiness which can last for varying amounts of time, even for years.

Relapse is common with the majority of users relapse as a result of stress or social pressure. Success rates for stopping Meth may be as low as 5-15 %.

Medical Nutrition Therapy

The ideal nutrition prescription for drug addiction requires the elimination of drug use (except as prescribed by a physician), a healthy eating plan according to the MyPyramid Food Guidance System and well spaced, balanced meals with healthy snacks.

As addressed previously, drug addiction affects nutritional status and as a result, metabolism. The spacing of meals is important as it contributes to more stable blood sugars that impact mood stability and reduced the potential for drug relapse. Multivitamins such as Vitamins A, C, B-complex and zinc may be recommended.

Dietary Recommendations

Sugar

Sugar intake should be controlled. If sugar is consumed, it should be combined with a meal or snack containing a protein source. Sugar is often a craving as it releases dopamine which is the same substance released from the use of some abusive drugs. This contributes to mood fluctuations and a tendency to gain weight. Reduced sugar intake and stable blood glucose levels contribute to reduced drug cravings and reduced potential for relapse.

Caffeine

Caffeine intake should be limited or discontinued. Caffeine is another addictive substance and contributes to mood instability. Often caffeine containing items are not served or decaffeinated coffee is offered to reduce these symptoms. Some addicts may have a difficult time tolerating any caffeine.

Balanced, Well-spaced Meals and Snacks

Balanced meals high in complex carbohydrates, protein and fiber, and low in fat, with adequate calories for a healthy body weight are commended. Ideally, a personalized food plan, incorporating healthy eating with food preferences is recommended. This is usually not an option in most of our facilities, but may

be a consideration in drug treatment facilities or where drug treatment programs are offered. Calorie recommendations are 30-35 kcal with 1-2 g protein/kg of normal body weight.

Meals are not only balanced in terms of nutrition, but also with regard to the spacing of meals. Three well-spaced meals and 1-3 healthy snacks are recommended. Three small meals and three snacks may be more beneficial for those with a poor appetite. There should be less than 4-5 waking hours between periods of food intake. Within our environment, spacing of meals is usually not a concern; however, multiple snacks may create other potential security issues beyond the nutrition therapy.

In relation to the spacing of meals, limited sugars, complex carbohydrates and snacks for overall health and stabilization of blood sugar, recommendations resemble that of the consistent carbohydrate diet that is often used in the treatment of diabetes.

In recovery situations, there may be a tendency to overeat as addicts use food compensate for their emotional problems. (This concept can be applied to other addictions besides drugs too.) Contrary to this, for those with eating disorders or a fear of gaining weight, nutritional counseling and individualizing the meal plan to encourage the addict to buy-in and feel somewhat supported is ideal. Once again, these options may vary in our environment. Fad diets should be discouraged in all cases.

Fluid Intake

Adequate fluid intake is encouraged; especially water, as dehydration, as a result of diarrhea and vomiting may be of concern during detoxification. High calorie, sugar-sweetened beverages should be discouraged. Fluids are not restricted unless edema or other specific medical conditions are present.

Food Intake and Dentition

Poor nutrient intake has a direct relation to addiction. This may be a result of reduced appetite and/or difficulty chewing as a result of the drugs or poor dentition. Small, frequent meals and snacks, as addressed previously, may be desirable. Liquid meal replacements may be needed as well. Foods may need to be mechanically altered, such as ground meats, to a desirable consistency for tolerable consumption. Refeeding may have to be introduced to gradually build-up food intake levels.

Dental Concerns Associated with Methamphetamines

Dry mouth or "xerostomia" is a result of methamphetamine usage that ultimately results in dental caries or tooth decay. The visual signs of this are highly noticeable, with gum inflammation, discolored and possibly broken teeth also known as "Meth Mouth."

The cycle leading to Meth Mouth is as follows:

- Meth (and some treatment drugs) causes xerostomia also known as "cotton mouth" or "desert mouth."

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Physical Signs

- Decrease desire to work and/or socialize
- Extreme drowsiness
- Frequent mood swings
- Restlessness
- Personality changes
- Depression
- Suicidal behavior
- Poor appetite
- Psychotic illness
- Poor medication adherence

Clinical Signs—Dental and Gastrointestinal

- Inflammation of the mouth
- Spongy or bleeding gums
- Sore tongue
- Steatorrhea (excess of fat in stool)
- Diarrhea
- Vomiting

Specific to Meth

- Blood pressure
- Pulse rate
- Seizures
- Kidney damage

Withdrawal

- Headache
- Insomnia
- Sensitivity to light and noise
- Sensory perception to smell, taste, touch
- Diarrhea
- Hot and cold flashes
- Irritability
- Irrational thinking
- Disorientation
- Visible anxiety/depression
- Dizziness
- Vomiting
- Nausea
- Appetite
- Muscle twitching

- Addicts use or “tweak” for days at a time, which results in suppressed appetite and poor intake.
- As usage stops or the addict “comes down,” this results in xerostomia and hypoglycemia.
- Xerostomia creates caries-prone environment with dental plaque, as reduced saliva contributes to tooth decay.
- The combination of xerostomia and hypoglycemia increases the desire/cravings for sugar (soft drinks and snacks).
- Cravings are satisfied with high sugar food and beverages.
- Bacteria in the mouth thrive with added sugar.
- The combination of xerostomia with dental plaque, a high sugar diet and poor oral hygiene results in dental caries or tooth decay.
- The end result—“Meth Mouth.”

Other Notable Points Associated with Methamphetamines

- The first report of Meth induced tooth decay was by Australian dentists treating children who were prescribed Meth for ADD.
- Neither Meth nor its constituent chemicals contribute directly to tooth decay.
- Meth induced grinding (bruxism) contributes to tooth destruction and breakage. This is not a typical grinding as some may be familiar with, but severe as a result of intense tweaking muscular movement.

Conclusion

Methamphetamine abusers are at risk for malnutrition and severe dental disease directly as a result of usage, and again as a result of tooth decay, ending in “Meth Mouth.” In treatment, balanced meals and intake help to improve blood sugar levels, mood and overall health. This enables one to feel better so one is less likely to relapse.

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Resources

http://www.nutritioncaremanual.org/index.cfm?Page=Nutritional_Therapy&topic=12478&headingid=12480#12480 Accessed 6/28/08.

Clare, J. DDS. *Methamphetamine Abuse and Health Implications in Corrections.*

American Jails, July August 2007.

Morton, A.N. DDS. *Meth Mouth, presentation National Commission on Correctional Health Care. Nashville, Tennessee, 2007.*

<http://www.gracermadicalgroup.com/bhs/meth-addiction.php> Accessed 6/26/08.

Meetings and Announcements

NCCHC National Conference

October 18-22, 2008
Chicago, Illinois
www.ncchc.org

ADA Food and Nutrition Conference and Exhibition

October 25-28, 2008
Chicago, Illinois
www.eatright.org

Congratulations to Diane Benfield, RD of the Washington Department of Corrections in her position as the new Chairperson of CD-HCF Corrections Sub-unit.

Membership Information

If you would like to be added to the Dietitians in Corrections networking EML (electronic mailing list), please email me directly at bwakeen@neo.rr.com. You *do not* have to be a dietitian; however ACFSA membership is recommended. This is an informal discussion group and your name/email address will be listed in each email sent to the group.