

# Methamphetamine

## History

**1887**– Amphetamine was originally synthesized in Germany.

**1919**– Methamphetamine, a more potent form of amphetamine, was discovered in Japan. It is still produced in the U.S. under the name Desoxyn.

**1920s**– Medical research into amphetamine was begun. Testing included everything from cure for depression to use as a decongestant.

**1930s**– First marketed in the '30s as a decongestant. The over-the-counter nasal inhaler was soon followed by a tablet in 1937.

**WWII**– Methamphetamine was widely used by both the Japanese and Americans to keep combat troops alert and motivated.

**1950s**– Dexedrine and Methedrine gain wide acceptance as a treatment for weight loss and mild depression.

**1970**– Increasing abuse of methamphetamine brought about the Controlled Substance Act and a temporary decline in illegal use.

## Facts

*More amphetamines were used by U.S. troops during the Vietnam conflict than the world consumed during WWII.*

*Methamphetamine trafficking and abuse have been on the rise in recent years in the U.S. having greatest impact in the western part of the country.*

*4.9 million (2.3% of the U.S. population) have tried methamphetamine.*

## Effects

### SNORTING METH

*Meth is inhaled through the nose. Meth travels from the lungs into the bloodstream and to the brain.*

Drug effect takes 3-5 minutes. User experiences a long-term euphoria that can last from 8-24 hours.

### SMOKING METH

*Odorless vapor inhaled through a glass pipe. Meth travels from the lungs into the bloodstream and to the brain.*

User experiences an intense rush or flash that lasts for a few minutes (extremely pleasurable).

### INJECTING METH

*A solution of water and meth is injected directly into the bloodstream and to the brain.*

User experiences an intense rush or flash that lasts for a few minutes, similar to smoking.

### INGESTING METH

*Meth enters the bloodstream through digestive system.*

Drug effect takes 15-20 minutes. User experiences a long term euphoria that can last from 8-24 hours.

*User may buffer coming down (crash) with cocaine or heroin.*

## Meth high

### 5-30 minutes

- Initial rush
- Racing heart rate and elevated blood pressure

### 4-24 hours

- Sense of well being
- Feeling of intelligence
- Aggressive state may lead to violent behavior
- Loss of appetite

### 3-15 days

- Hyperactivity
- Can remain awake for days

### Tweaking

User may become violent, delusional or paranoid as high wears off. Eventually higher doses of meth are required to achieve desired high. User may inject a gram of meth every 2 to 3 hours for several days (tweaking).

## How it works

### Normal brain function

The brain transmits chemical messages (neurotransmitter) from one brain cell to another.

Brain cells

Enlarged area

## Meth production

*Methamphetamine is a white odorless powder that dissolves in water*

Methamphetamine can easily be produced by an amateur chemist in makeshift laboratories set up in a home, motel room or van.

The most common method of production uses ephedrine and pseudoephedrine in a reduction process to concentrate its potency.

Ephedrine and pseudoephedrine are common substances found in over-the-counter drugs.

Chemicals used to produce methamphetamine are extremely volatile and toxic.

*Large scale production is centered in California and Mexico.*

## The going rate

*The cost of methamphetamine varies greatly according to the area of the country.*

### U.S. AVERAGE – 1997

\$3,000 to \$30,000 per pound  
\$400 to \$2,800 per ounce

### SOUTHERN CALIFORNIA

\$3,000 per pound

## Combinations

*Meth speedball: Combines heroin and methamphetamine*

*Biker coffee: Combines coffee and methamphetamine*

## Names

*Speed, meth, chalk, ice, crystal, crank, glass, crystal tea*

Dopamine (a neurotransmitter associated with feelings of pleasure) travels across the synapse (the gap between cells) to a nearby brain cell.

Receptors bind the dopamine to the receiving cell.

### The brain using meth

Methamphetamine causes the brain cells to release high levels of dopamine.

Methamphetamine blocks the reabsorption process and creates a dopamine buildup.

Receptors become desensitized.

Dopamine eventually breaks down and is reabsorbed by transmitting cell.

Dopamine levels gradually decrease, and the user experiences feelings of depression.

## Side effects

- Rapid heart beat
- Increased blood pressure
- Hyperthermia
- Inflammation of heart lining
- Skin abscesses
- Methamphetamine reduces serotonin (neurotransmitter) levels creating radical mood swings
- Long term use can result in permanent depression and feelings of guilt.
- Convulsions
- Lead poisoning- Lead acetate can be used in meth production and cause poisoning
- Damages dopamine-producing cells in the brain
- Prenatal complications
- Premature delivery congenital deformities

## Meth vs. cocaine

	METHAMPHETAMINE	COCAINE
Origin	Man-made	Organic
High lasts:	8-24 hours	20-30 minutes
50% is purged from the body in:	12 hours	1 hour
Medical uses	Limited	Local anesthesia and surgical procedures

SOURCES: Methamphetamine addiction.com; National Household Survey on Drug Abuse; National Institute on Drug Abuse