How methamphetamines work in the body

Amphetamines replicate the stimulant the brain manufactures to respond to stress. Methamphetamine has an effect on the body similar to adrenaline, a survival hormone that allows people to function beyond normal limits.

**Straight to the brain**

1. Meth enters the brain cells from the bloodstream.
2. It produces a storm of neuro-chemical activity having the brain release chemical messengers, called neurotransmitters, to stimulate sections of the brain.
3. Meth affects the cerebral cortex and causes the experiencing of heightened energy, elevated euphoria and powers of reasoning and thinking.
4. The drug also targets the limbic area or pleasure center— which controls food, fight, flight and the sex drive.

**Cerebral cortex**

It is devoted to the senses. It enables an individual to see, hear, smell, taste and touch. It also facilitates speech and the understanding of words.

**Limbic system**

The limbic system influences instinctive behavior similar to animal responses that relate to survival.

**Brain stem**

It’s the brain’s lowest portion and controls basic functions such as heart rate, breathing, eating and sleeping.

**Triggering the pleasure centers**

1. Methamphetamine enters the nerve cell...
2. Releasing dopamine...
3. Which then fits into specialized receptors located on other nerve cells, creating a rush of pleasure.

**Smoking ice: From the lungs to the brain**

Smoking crystal methamphetamine sends the drug quickly to the brain. From the lungs, meth molecules immediately enter the bloodstream and travel to the left side of the heart, which pumps it into the brain, then through all the body.

**Damage and death: Effects of prolonged use**

- **Small doses:** euphoria, decreased appetite and increased blood pressure, pulse, respiration and alertness.
- **Increasing doses:** agitation, irritability, paranoia, hallucinations of sights and sounds, convulsions, coma, death.
- **Withdrawal:** depression, protracted sleep.

Sources: The National Institute on Drug Abuse, Reno Gazette-Journal

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A single dose of methamphetamine lasts for 6 to 8 hours.

A single dose of cocaine lasts only 8 to 20 minutes.