

What you need to know about: Methamphetamine

aka

speed, crystal, ice, glass, shard, Tina



Meth is a form of amphetamine that is able to reach the brain faster and to a higher degree.



Two most common forms of administration are injection and inhalation (smoking).



Smoking and injection result in the fastest onset of effects leading to a feeling of euphoria in up to 20 minutes.



Meth has been replacing many other street drugs due to its **low cost and accessibility.**
#1 reason for use

Other reasons for use:

- euphoria
- feeling powerful
- weight loss
- self-medication
- increase in energy & productivity
- Party & Play (meth use and sexual activity)

How does meth work ?



1 Release of **dopamine** and activation of reward pathways

2 Increased release of **serotonin** and **norepinephrine**

3 Inhibition of **MAO enzymes** prolong the effects

How much meth is being consumed ?

Chronic use
0.7 g to 1 g
per day



"Binge" use
2 to 4 g per
binge

What are the adverse side effects of meth use ?



Hyperthermia



Mood Changes
Seizures/Coma
Stroke



Cavities
Dry Mouth



↑ Blood Pressure
Heart Rate
Cardiac failure



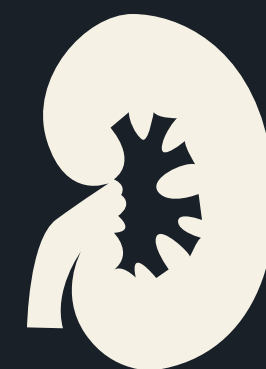
Reduced
wound
healing
Infections



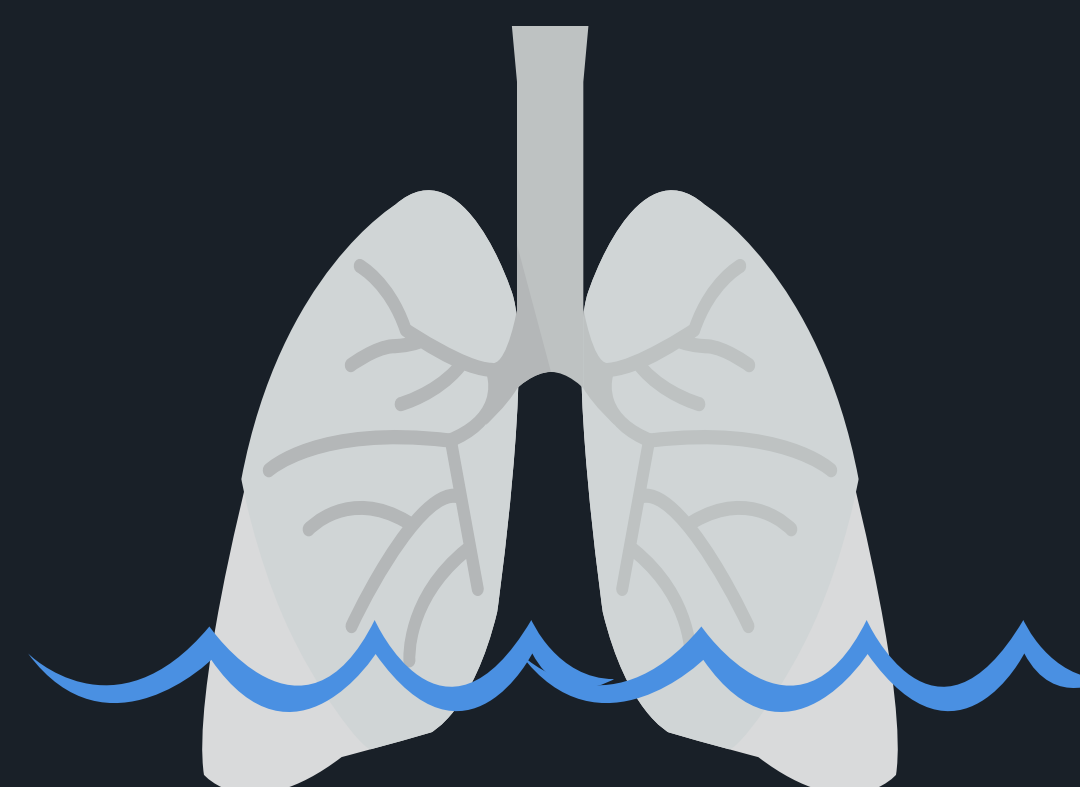
↓ Muscle Mass
Muscle Damage



Malnutrition
↓ Appetite



Kidney failure



Pulmonary edema is one of the most common causes of methamphetamine associated death!

Meth comes in 3 forms:

Powder

(lowest purity, 10%)

- white or yellow granules
- cutting agents often used

Base

(20 % purity)

- white or yellow or brown paste
- dissolved with an acid & water

Crystal

(up to 80% purity)

- white or translucent crystal
- aka crystal meth or "ice"

Pharmacokinetics

Drug Interactions:

CYP2D6 inhibitors

may lead to higher levels of meth and potential for overdose.

E.g. celecoxib, citalopram, codeine, fluoxetine, methadone, paroxetine, ritonavir, valproic acid

CYP2D6 inducers

may result in lower levels of meth.

E.g. dexamethasone

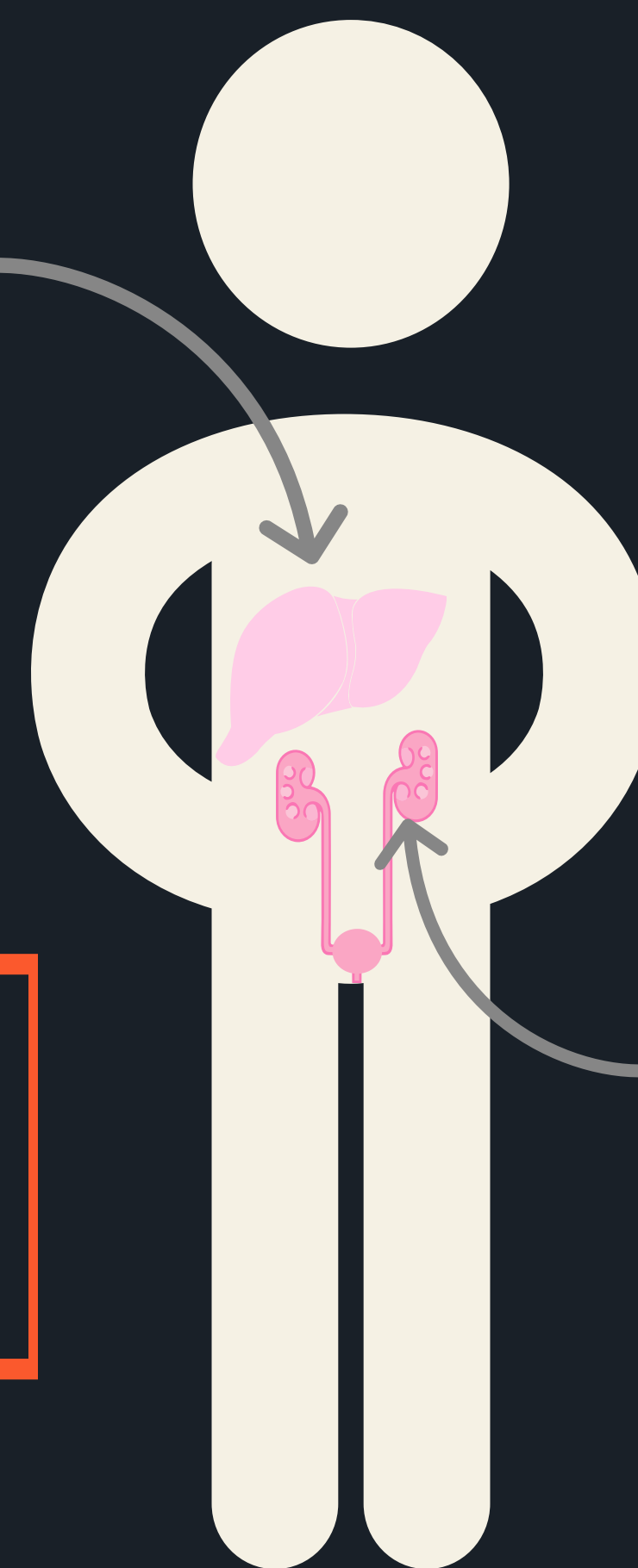
Metabolism

through CYP450 2D6 liver enzymes

MAOIs (e.g. moclobemide and phenelzine) can increase the duration of action and intensity of meth!

Excretion

70% via kidney which may lead to accumulation in kidney damage



Stages of Intoxication



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Integrated Drugs Strategy

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