Effects of ice on the brain and body.

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Cracks in the ice webinar November 2017
METH

BEFORE

AFTER
Amphetamines

- Methamphetamine (Meth)
  - 'Speed'
  - 'Base'
  - 'Ice'
- Amphetamine
- Dexamphetamine
- Other pharmaceuticals...
<table>
<thead>
<tr>
<th>Percentage</th>
<th>User Type</th>
<th>Health Issues</th>
</tr>
</thead>
<tbody>
<tr>
<td>70%</td>
<td>Irregular users (&lt; once a month)</td>
<td>Not dependent, Mild health issues, Mild sleep problems, Acute harms</td>
</tr>
<tr>
<td>10%</td>
<td>Occasional users (Once a month+)</td>
<td>Unlikely dependent, Moderate health issues, Moderate sleep, nutrition issues, Acute harms</td>
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<tr>
<td>20%</td>
<td>Regular users (Once a week+)</td>
<td>Probably dependent, Smoking or injecting, Severe health issues, Severe sleep, nutrition issues, Acute and long term harms</td>
</tr>
</tbody>
</table>

NDSHS, 2014
Immediate effects.
Mild intoxication  Moderate intoxication  Toxicity
Euphoria and wellbeing
Energy
Attention, alertness and memory
Sex drive
Appetite
Nervousness, anxiety, panic
Agitation
Psychotic symptoms
Jaw clenching, teeth grinding
Nausea, vomiting
Headache
Hot and sweaty, racing pulse
Chest pain
Aggressiveness
Tremor, seizure
Severe headache
Unsteady walking
Difficulty breathing
Hot flushed sweaty skin
Confusion, disorientation
Muscle rigidity, spasm, jerking
Severe agitation, panic, psychosis
People who use methamphetamine
General population

Cannabis: 72.7%
Ecstasy: 53.0%
Cocaine: 39.5%
Hallucinogens: 26.4%
Inhalants: 13.9%
Heroin: 2.2%
Synthetic Cannabinoids: 22.2%
NEPS: 11.7%
Pharmaceuticals: 34.7%
Daily smoker: 51.2%
Risky drinker: 79.3%

NDSHS, 2014
Dangerous mixes

Antidepressants

Alcohol

Opiates

Other stimulants

Benzodiazepines

Cannabis
Effects of long term use.
Heart, liver & kidney
Teeth & skin
Sleeping problems
Enduring mental health problems
Decreased motivation
Weight loss, malnutrition
Poor concentration and memory
Meth mouth.

- Reduces saliva
- Poor oral hygiene
- Teeth grinding (bruxism)
- Direct caustic effects
Skin picking.

Psychosis
Body effects
Obsessive-compulsive
Sleep and nutrition.
Anxiety
Impulse
Irritability
Obsessions & compulsions
Memory

Alertness
Concentration
Energy
Mood
Cognitive function
Attention

Reward
Pleasure
Motivation
Appetite
Sex
Aggression

Dopamine
Noradrenaline
Serotonin
Frontal lobe
(thinking, planning, decision making)

Limbic system
(emotional, social and memory)
Frontal lobe
(thinking, planning, decision making)

Limbic system
(emotional, social and memory)
Focus, attention and concentration
Memory
Planning ability
Decision making
Emotion regulation
Flexible thinking
Impulse control
Mood
Threat sensitivity
Getting to appointments
Completing tasks
Taking on new information
Thinking about consequences
Goal setting and working towards goal
Stopping inappropriate behaviour
Switching from one topic to another
Unexpected outbursts
Larger impairments than.

Cocaine (20x)
Marijuana (4x)
Alzheimers disease (6x)
After 6 mo abstinence cognition worse than current users
No significant improvement 9-12 months
McKetin et al., 2012; Baker et al., 2005; Lubman et al. 2014
25%
80%
Anger and aggression.
Frontline worker ice training

Do you work in one of these sectors?
Want to know how to better respond to people affected by ice?

Health  Community and social services  Police and emergency services
Justice services  Education settings  Local government  Transport, hospitality, real estate and other services

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