<table>
<thead>
<tr>
<th>Time</th>
<th>Session</th>
</tr>
</thead>
<tbody>
<tr>
<td>9:30-9:45</td>
<td>Introduction</td>
</tr>
<tr>
<td>9:45-10:30</td>
<td>Session 1:</td>
</tr>
<tr>
<td></td>
<td>Group 1 attends MH portion</td>
</tr>
<tr>
<td></td>
<td>Group 2 attends SU portion</td>
</tr>
<tr>
<td>10:30-11:15</td>
<td>Session 2: (groups swap)</td>
</tr>
<tr>
<td></td>
<td>Group 2 attends MH portion</td>
</tr>
<tr>
<td></td>
<td>Group 1 attends SU portion</td>
</tr>
<tr>
<td>11:15-11:30</td>
<td>Q &amp; A</td>
</tr>
</tbody>
</table>
Signs & Symptoms of Substance Use

Image source: Harm Reduction Coalition
There are no actual or potential conflicts of interest to disclose; this presentation was created without any commercial support.
Potential Signs of Use
Eyes: Pupil Size

- Normal pupil
- Dilated pupil
- Constricted pupil

This person has dilated pupils
Normal pupil size is 3.0 mm to 6.5 mm
Eyes: Pupil Size (cont)

<table>
<thead>
<tr>
<th>Constricted Pupils</th>
<th>Red Eyes</th>
<th>Dilated Pupils</th>
</tr>
</thead>
<tbody>
<tr>
<td>Heroin</td>
<td>Marijuana</td>
<td>Amphetamines</td>
</tr>
<tr>
<td>Morphine</td>
<td>Cocaine or Crack</td>
<td>Methamphetamines</td>
</tr>
<tr>
<td>Oxycodone</td>
<td>Benzodiazepines (i.e. Xanax)</td>
<td>Cocaine or Crack</td>
</tr>
<tr>
<td>Fentanyl</td>
<td>Depressants (i.e. Alcohol or Sedatives)</td>
<td>Hallucinogens (i.e. LSD or mushrooms)</td>
</tr>
<tr>
<td>Methadone</td>
<td></td>
<td>Opiates (prescription painkillers)</td>
</tr>
<tr>
<td>Codeine</td>
<td></td>
<td>Heroin</td>
</tr>
<tr>
<td>Hydrocodone</td>
<td></td>
<td>Marijuana</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Speed</td>
</tr>
</tbody>
</table>
Eyes: Nystagmus

Involuntary eye movements
- At rest
- When tracking
Eyes: Nystagmus (cont)

Can also be associated with:
- Alcohol
- Cannabis
- Opioids
- Benzodiazepines
- PCP
- And more...

Can also be caused by:
- Head injury
- Congenital (from birth)
- Diabetic neuropathy
- Brain tumor
- Light sensitivity
- Medication side effect
- And more...
Fingers

- Burnt fingers
- Burnt nails
- One nail much longer than others (often a pinky nail)
Skin

- Burn(s) on lips
- Burn(s) on fingers
- Skin infections
- Strategically hidden skin
- Track marks & bruising
- Reddened nose/face
- Skin discoloration
- Deep / dark under eye circles
The Nose Knows

Which substances might we be able to smell on someone?

- Alcohol
- Cannabis
- Tobacco
- Inhalants
Recognizing Paraphernalia

What might you notice?
Reactions to Questions about Substance Use

Sensitive reactions to being asked about substance use may indicate a history...

Or it may indicate trauma, or stigma related to substance use.
Signs of Use & Withdrawal by Substance
Disclaimer:
By definition, these signs are only diagnosable if someone has used a substance recently (or has recently stopped using) and the sign(s) cannot be explained by another health issue. Many signs can also be associated with mental and physical health conditions.
<table>
<thead>
<tr>
<th>Alcohol Use</th>
<th>Alcohol Withdrawal</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Inappropriate sexual or aggressive behavior</td>
<td>• Hand tremor</td>
</tr>
<tr>
<td>• Mood swings</td>
<td>• Sweating, increased pulse</td>
</tr>
<tr>
<td>• Impaired judgement</td>
<td>• Nausea, vomiting</td>
</tr>
<tr>
<td>• Smell of alcohol on breath</td>
<td>• Insomnia</td>
</tr>
<tr>
<td>• Slurred speech</td>
<td>• Tactile, auditory, visual hallucinations</td>
</tr>
<tr>
<td>• Clumsiness, unsteady gait</td>
<td>• Psychomotor agitation</td>
</tr>
<tr>
<td>• Nystagmus (shaky eyes)</td>
<td>• Anxiety</td>
</tr>
<tr>
<td>• Memory/attention impairment</td>
<td>• Light/sound sensitivity</td>
</tr>
<tr>
<td>• Stupor or coma</td>
<td></td>
</tr>
</tbody>
</table>
Opioid Use

- Initial euphoria followed by apathy,
- Depressed mood
- Agitated or slowed movements
- Constricted (small) pupils
- Nodding (drowsiness or coma)
- Slurred speech
- Memory/attention impairment
Opioid Withdrawal

- Early
  - anxiety
  - increased respiratory rate
  - sweating
  - tearing
  - yawning
  - runny nose
  - gooseflesh
  - irritability

- Advanced
  - insomnia
  - nausea/vomiting
  - diarrhea
  - abdominal cramps
  - hypertension
  - muscle spasms
  - muscle and bone pain
Stimulant Use (cocaine, methamphetamine, etc.)

- Euphoria or reduced emotional responsiveness
- Changes in sociability
- Hypervigilance
- Panic attacks
- Interpersonal sensitivity
- Anxiety, tension, or anger
- Stereotyped behaviors
- Impaired judgment
- Dilated pupils
- Talkative (speech may be rapid)
- Perspiration or chills
- Rapid or slow heart rate
- High or low blood pressure
- Weight loss
- Paranoia
- Scratching / skin picking
- Sleeplessness
- Increased oral health issues
Stimulant Withdrawal (cocaine, methamphetamine, etc.)

- Fatigue
- Vivid, unpleasant dreams
- Trouble sleeping, or sleeping too much
- Increased appetite
- Slowed or agitated movements

Acute withdrawal (“crash”) often seen after a period of intense use (“binge”). Suicidality may occur or increase during withdrawal periods.
Cannabis

Cannabis Use

- Red eyes
- Dry mouth
- Increased appetite
- Abnormally rapid heart rate
- Impaired motor coordination
- Euphoria
- Anxiety
- Sensation of slowed time
- Forgetfulness

Cannabis Withdrawal

- Irritability, anger
- Anxiety
- Sleep issues
- Decreased appetite or weight
- Restlessness
- Depressed mood
- Abdominal pain, shakiness, sweating, fever, chills, headache,
MDMA Use

- Touch sensitivity, increased touching of self (and other)
- Dilated pupils, light sensitivity
- Blurred vision
- Teeth clenching
- Empathogen response
- Incoordination

- Increased body temperature
- Tremors
- Fast heart rate
- Rapid breath
- Hypertension
- Abnormal heart rhythm
PCP Use

- Aggression, assaultiveness
- Impulsive, unpredictable behavior
- Paranoia, fearfulness
- Anxiety
- Acting withdrawn
- Perceptual disturbances
- Difficulty speaking
- Sound sensitivity
- Nystagmus (shaky eyes)
- Skin flushing
- Sweating
- Dizziness
- Numbness
- High blood pressure
- Rapid heart rate
- Muscle rigidity
- Reduced control of bodily movements
Thank you!

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(website coming soon)