Stimulant Medication Misuse

Stimulant Effects	• Stimulants are substances that increase activity in the central nervous system. The stimulant class includes amphetamines, cocaine, nicotine, and caffeine among others. • In low doses, all stimulants increase alertness and focus. • In high doses, stimulants have the opposite effect and can interfere with concentration and learning. • Stimulants cause dopamine firing in the brain, which is experienced as pleasurable. As with all substances that can cause a "high", stimulants can be addictive.
Stimulants and ADHD treatment	• ADHD is a *primary attention disorder* meaning: 1) there is no other problem (such as depression, anxiety or learning disabilities) that can entirely account for attention difficulties, and 2) difficulty with attention and focus negatively impact functioning. ADHD diagnostic criteria are listed in **DSM-5**. • Individuals with properly diagnosed ADHD can benefit from stimulant treatment. Although individuals with ADHD are at increased risk of addiction, there is no evidence that properly managed stimulant treatment increases the risk, and there is some evidence that stimulants may reduce the risk of developing a substance use disorder. • While stimulants can increase alertness and focus in all people, stimulant medications should not be prescribed to individuals who do not have ADHD as the risk outweigh the benefits.
The addictive potential of ADHD medications	• In general, amphetamine preparations have greater addiction potential than methylphenidate preparations. Non-stimulant medications such as clonidine, guanfacine and atomoxetine have minimal addiction potential. • As with all drugs, fast-acting stimulants have a greater addiction potential than long-acting formulations.

Medication Misuse	• Misuse of prescription stimulant medication includes:
	  ○ Taking a greater dose than prescribed
	  ○ Taking a medication via an alternate route (i.e. snorting)
	  ○ Taking someone else's medication (regardless of motivation)
	  ○ Taking a medication "to get high"
	• Stimulant medication misuse increases the risk of long and short term side effects, including addiction

Screen for medication misuse	• Both the S2BI and BSTAD substance use screens ask about prescription medication misuse. In one study 8% of adolescent primary care patients in Massachusetts reported prescription medication misuse. • Ask follow up questions of all teens who screen positive for prescription medication misuse. Some responses will be "false positives" from teens who did not understand the question, and this can present an opportunity for anticipatory guidance about prescription medications. • Many teens and young adults who do not have a diagnosis of ADHD report stimulant medication misuse to improve academic performance. Youth may not consider medication misuse to be "drug use". • Patients who misuse stimulant medications are at risk of stimulant side effects and accidental exposure to other substances, including fentanyl. • Primary care visits are an excellent opportunity to address prescription medication misuse.

Sources: Prescription Stimulants DrugFacts | National Institute on Drug Abuse (NIDA) (nih.gov)
Attention-Deficit/Hyperactivity Disorder and Substance Abuse | Pediatrics | American Academy of Pediatrics (aap.org)