



How to Recognize and Reduce Substance Misuse Risk Factors

Substance Misuse Prevention Newsletter: A Collection of Readings

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Risk Factors:

Risk factors do not definitively indicate that someone will go on to develop a substance misuse disorder, but they do put individuals at higher risk (NIH, 2020).

Risk factors are both environmental and biological (Centers for Disease Control and Prevention [CDC], 2020; NIH, 2020):

Biological

- Having an existing mental health condition
- Genetics, including a history of family substance misuse or addiction
- Family disapproval of gender identity

Environmental:

- Little or no parental supervision
- People living in the home environment who misuse substances or break the law
- Social struggles at school and especially peer pressure
- Poverty

Other Factors:

- Accessibility to drugs at school
- Experimentation and early use
- Smoking and injecting a drug resulting in a more “intense high” that may increase one’s drive to keep using.

University Health and Counseling Services

A Brief Overview One’s risk of developing an addiction or issues with substance use, depends on biological and environmental factors, but initial onset and type of use also matter (National Institute on Drug Abuse [NIH], 2020). Essentially, these risk factors cause an individual to be more vulnerable to developing an addiction, but do not guarantee that someone will go on to develop a substance use disorder. **Addiction** is a “brain disorder”, which causes an individual to continually use a substance despite detrimental consequences related to their substance use (NIH, 2020). Individuals often use substance to induce feelings of euphoria, relaxation, and confidence (NIH, 2020). Those who struggle with social or generalized anxiety may use a substance as a maladaptive coping mechanism to ease these uncomfortable feelings (NIH, 2020). However, over time individuals may develop **tolerance**, resulting in them needing to use more and more of the substance to achieve the same effect (NIH, 2020). Increased tolerance consequently also increases one’s risk of physical and mental harm in relationship to substance misuse. Overtime, specific areas of the brain that control judgment, learning, decision making, behavior, and memory change, thus further contributing to these addiction related behaviors (NIH, 2020).

Articles

[NIH, Drugs, Brains, and Behavior: The Science of Addiction](#)

[Harvard, Dopamine: The Pathway to Pleasure](#)

[Natural Ways to Increase Dopamine](#)

[Regulation of Brain Function by Exercise](#)

[Risk Factors for Addiction Potential Among College Students](#)

[High Risk Substance Use Among Youth](#)

The Adolescent & Young Adult Brain

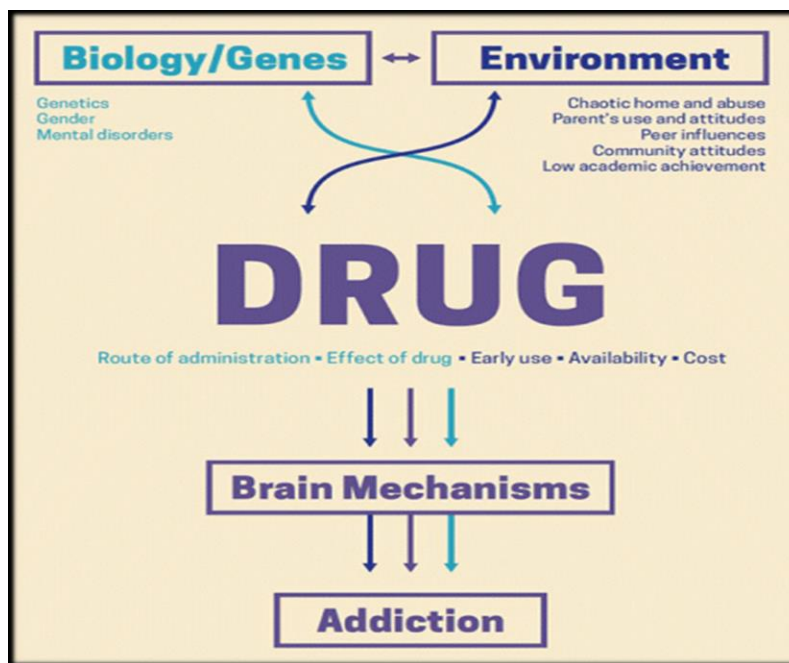
The prefrontal cortex continues to develop throughout young adulthood, which is the part of the brain that allows individuals to use good judgement/decision making and maintain emotional regulation (NIH, 2020). Using drugs during this time in which the brain is still developing can result in long term and significant brain changes (NIH, 2020). Specifically, if the prefrontal cortex is affected then the person is more likely to struggle with impulsivity (NIH, 2020). Other areas of the brain that are affected by drug use include the amygdala and the basal ganglia (NIH, 2020).

The sense of pleasure and euphoria that someone experiences when using a substance is thought to be an increase in endorphins and a neurotransmitter called dopamine (NIH, 2020).

Alternative Ways to Increase Dopamine

- Eating foods high in tyrosine, which include
 - Chicken
 - Dairy
 - Avocados
 - Bananas
 - Pumpkins seeds
 - Sesame seeds soy
- Meditating
- Adequate Sleep
- Healthy diet, devoid of processed sugars
- Reduction in life stressors

(Lakhan, 2021; Watson, 2021)



Protective Factors

Educating yourself about your potential risk factors allows you to mitigate these by reinforcing existing protective factors or incorporating new ones into your life. Some protective factors that may reduce your risk or vulnerability to developing a substance use disorder include the following (CDC, 2020; NIH, 2020):

- Academic Success
- Strong and Positive Relationships
- Access to Resources
- Self-Efficacy
- Family support and engagement
- Family disapproval of substance use

In addition to these factors seeking additional support through therapy and other outlets that allow you to cope with emotions, such as exercise and journaling are imperative in reducing stress and improving overall emotional and physical wellbeing. Taking a pause to self-reflect on your relationship with substances and if your use has resulted in negative consequences, is usually the first and most crucial step in working towards creating healthy changes.

For comments on this newsletter or suggestions for future articles please contact: Diane Geyer, LCPC, LADC, CCS, NCC~ Clinician and Coordinator of Clinical Substance Use Services at USM or Jillian Littlefield, RN and Graduate Assistant ~ Email: diane.geyer@maine.edu, jillian.littlefield@maine.edu