

This presentation
examines the
relationship between
high-potency
marijuana (THC) and
increased risks of
suicide and mental
health disorders



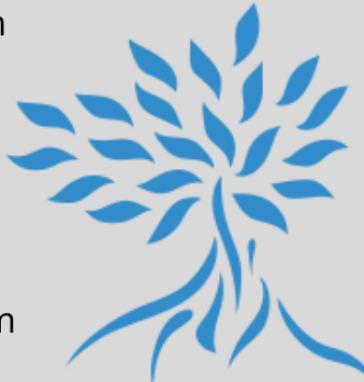
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Learning Objectives

- *Define high-potency marijuana and trends in THC concentration*
- *Examine evidence linking high-THC cannabis to mental health disorders*
- *Explore the association between cannabis use and suicide risk*
- *Identify populations at increased risk*
- *Discuss prevention, education, and reduction strategies*





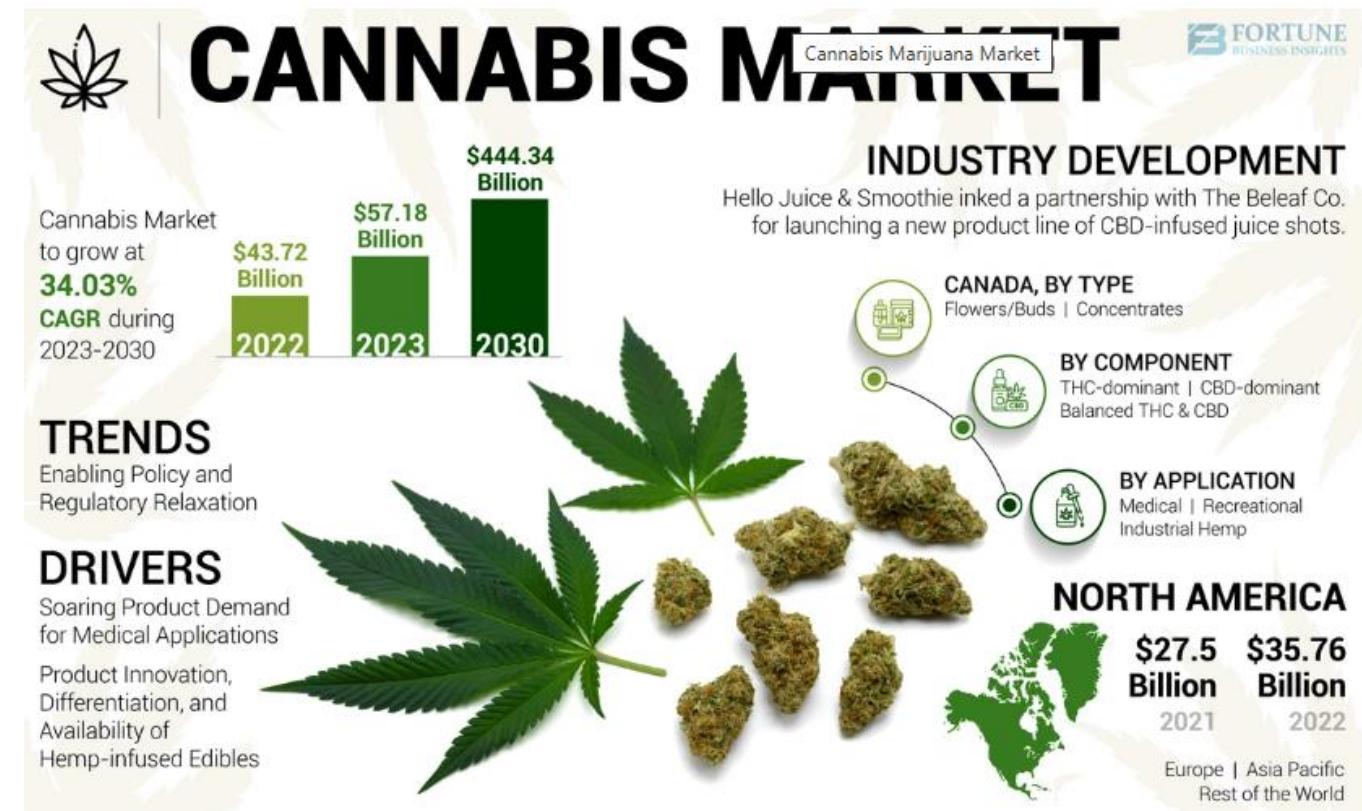
What Is High-Potency Marijuana?

- *Cannabis products with THC concentrations significantly higher than historical norms*
- *Modern products may contain 15–30% THC or higher*
- *Concentrates (e.g., dabs, wax, shatter) may exceed 60-90%, and recently up to 110% THC*
- *Higher THC = stronger psychoactive effects and increased risk of adverse outcomes*

Potency Defined

A 90% THC level signifies an extremely potent cannabis concentrate, found in products like [shatter](#), [wax](#), [rosin](#), [dabs](#), and [vape oils](#), offering intense psychoactive effects far beyond typical flower (which averages ~15-20% THC).

While offering purity, these high concentrations carry increased risks, including [addiction](#), [psychosis](#), and significant effects on the developing adolescent brain, demanding caution for experienced users and posing greater risks for new or young users.





What 90% THC Means

- **Extreme Potency:** Indicates nearly pure THC, the main intoxicating compound in cannabis, by weight.
- **Concentrates:** This level is typical for extracts like shatter (glass-like), wax (waxy), [live resin](#), [diamonds](#), and vape cartridges, not dried flower.
- **Intense Effects:** Produces very strong euphoria, sensory changes, and potential for anxiety or paranoia, especially for inexperienced users.

Examples of Ultra-High THC Products

- **Shatter**: Brittle, glass-like extract with 90%+ THC.
- **Wax/Budder**: Soft, waxy extracts >60% THC.
- **THC Diamonds/Isolate**: Crystalline forms approaching 99%+ purity.
- **Vape Cartridges**: Often 50-95% THC.



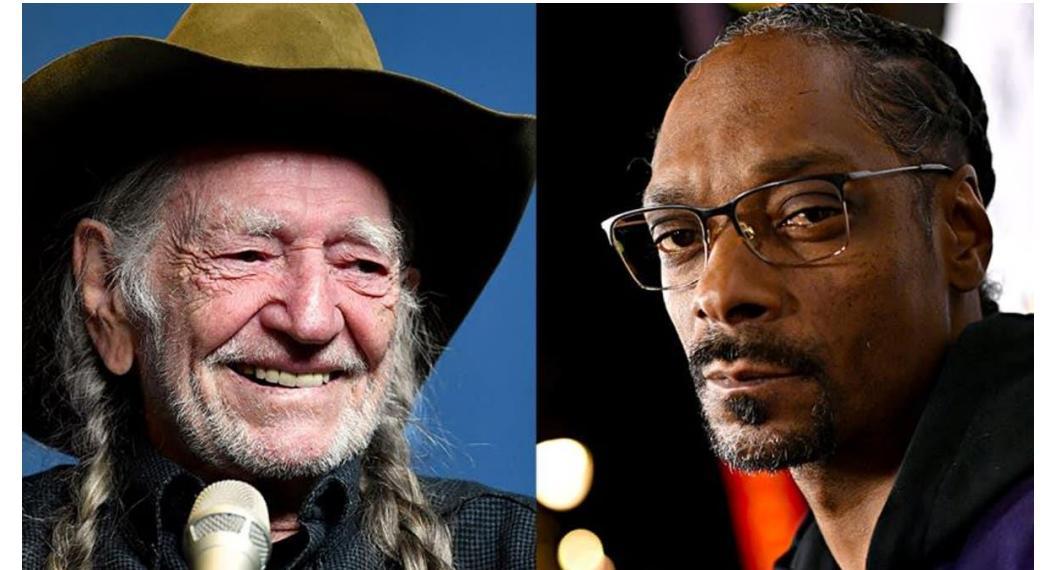
Associated Risks & Concerns



- **Cannabis Use Disorder (CUD):** Higher potency increases risk of developing dependency.
- **Psychosis:** Increased frequency of psychotic episodes, especially with daily use.
- **Adolescent Brain:** Significant, lasting negative effects on brain development and function.
- **Overwhelming Effects:** Higher doses can lead to intense, overwhelming mental and physical shifts.

Comparison to Traditional Cannabis

Past vs. Present: Cannabis from the 1960s (Woodstock) was around 1% THC; today's flower averages 15-20%, while concentrates reach 90%+



Trends in Use

- *Increased availability due to legalization and commercialization*
- *Greater access for adolescents and young adults*
- *Misperception that marijuana is “safe” or “natural”*
- *Edibles and vaping increase ease of use and overconsumption*





THC and the Brain

- *THC interacts with the endocannabinoid system*
- *Affects brain regions involved in: Mood Regulation, Decision-Making, Emotion and Stress Response and Memory and Learning*
- *Adolescent brains are especially vulnerable due to ongoing development*
- *Identify populations at increased risk*

Mental Health Impacts

High-potency THC has been associated with:

- *Anxiety and panic disorders*
- *Depression*
- *Psychosis and schizophrenia (especially in genetically vulnerable individuals)*
- *Worsening of bipolar disorder*
- *Increased paranoia and emotional dysregulation*



Depression, anxiety, and other disorders

STATISTICS

- High-potency use has been associated with **increased odds of depression** (OR=1.59) and other psychiatric symptoms compared with non-use
- Across research, **53% of non-therapeutic studies report unfavorable links with anxiety and 41% with depression** for high-THC cannabis.





THC and Psychosis

- *Strong association between high -THC cannabis and first-episode psychosis*
- *Earlier onset of psychotic disorders in frequent users*
- *Higher potency increases frequency and severity of symptoms*
- *Risk increases with earlier age of first use*

Mental Health and High-Potency THC

STATISTICS

- **Elevated risk of psychosis and schizophrenia**
- In first episode psychosis patients, **regular use of high-potency cannabis had stronger associations with suicide risk and psychotic symptoms** than lower-potency use — odds ratios for high-THC users reached around 3.1 for suicide risk in some analyses.
- High-potency cannabis (>10 % THC) is associated with **a much higher risk of developing psychotic experiences** in longitudinal studies (e.g., OR ~2.15).
- Broad systematic reviews of 99 studies ($\approx 221,000$ participants) show that high-concentration THC products are *consistently linked* with psychosis and schizophrenia outcomes.



Marijuana Use and Suicide Risk

Research shows association between cannabis use and:

- *Increased suicidal ideation*
- *Higher risk even when controlling for depression*
- *Increased risk even when controlling for depression*
- *Stronger association with frequent or high-potency use*

Suicide & Suicidality

STATISTICS

1. Increased suicide risk with cannabis use overall

- A recent integrative study found that **cannabis users had about an 83 % higher odds of suicide** compared with non-users, after accounting for multiple demographic and behavioral factors.
- Large survey data ($\approx 280,000$ young adults) showed **suicidal ideation increased with cannabis use frequency**:
 - $\sim 3\%$ (non-users) $\rightarrow \sim 7\%$ (non-daily users) $\rightarrow \sim 9\%$ (daily users) $\rightarrow \sim 14\%$ (cannabis use disorder).

2. Suicidal thoughts & attempts in adolescents and young adults

- Analyses indicate **cannabis use nearly doubles the likelihood of suicide attempts among adolescents**, independent of depression.
- Regular use is linked with **higher prevalence of suicidal ideation and planning** even when controlling for other risk factors.

Co-Occurring Risk Factors

- *History of trauma or adverse childhood experiences (ACEs)*
- *Family history of mental illness*
- *Polysubstance use*
- *Social isolation and stress*
- *Untreated mood or anxiety disorders*





Warning Signs of Harmful Use

- *Increased irritability or mood swings*
- *Withdrawal from family or friends*
- *Decline in academic/work performance*
- *Increased anxiety, paranoia, or depressive symptoms*
- *Talking about death, hopelessness, or self-harm*

Cannabis Use Disorder (CUD)

High-potency products raise the likelihood of cannabis dependence and addiction, which itself is associated with poorer mental health outcomes and increased suicide risk.



Key Takeaways (Stats & Trends)

<u>Outcome</u>	<u>High-Potency/Regular Use vs. Non-Use</u>
Suicidal ideation	Up to ~14 % in heavy users vs ~3 % in non-users in one large sample
Suicide risk odds increase	~83 % higher odds with cannabis use overall
Suicide risk (psychosis patients)	OR ~3.12 for high-THC users in some studies
Depression risk	OR ~1.59 associated with high-potency use
Psychotic experiences	~2× more likely with high-potency use in young adults
Anxiety & other disorders	Unfavorable associations in ~50 % of studies

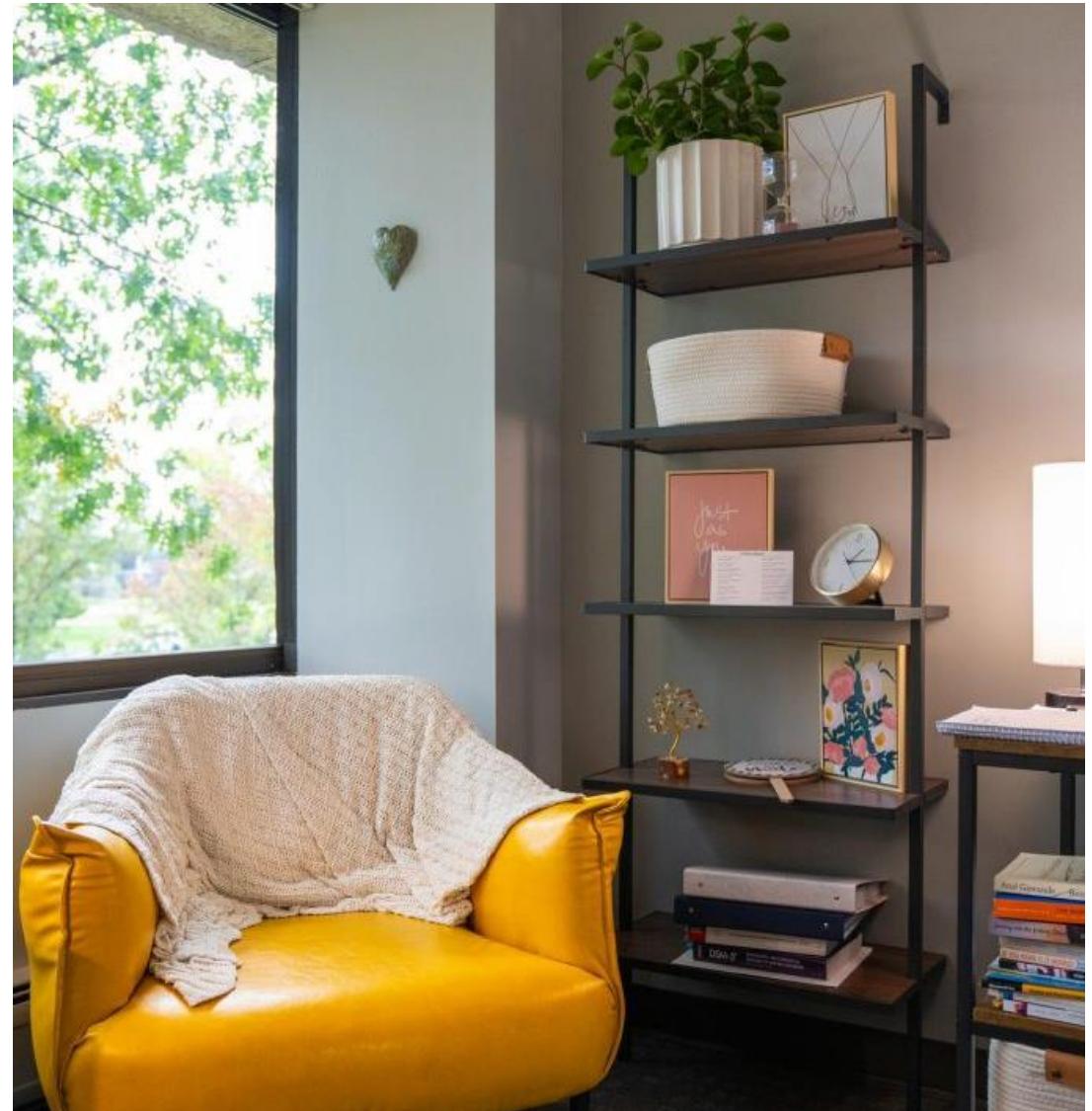
Prevention and Education

- *Honest, evidence-based education about risks*
- *Focus on potency, frequency, and age of use*
- *Normalize seeking mental health support*
- *Parent, school, and community engagement*



Roles of Healthcare and Mental Health Professionals

- *Screen for cannabis use routinely*
- *Access potency, frequency, and age of onset*
- *Educate patients on mental health risks*
- *Monitor for suicidality and mood changes*
- *Provide early intervention and referral*



Reduction Strategies



DELAYING AGE OF FIRST
USE



AVOIDING HIGH-
POTENCY PRODUCTS



LIMITING FREQUENCY
AND DOSE



AVOIDING USE DURING
PERIODS OF STRESS OR
POOR MENTAL HEALTH



NEVER MIXING WITH
OTHER SUBSTANCES

Key Takeaways

- *Modern marijuana is far more potent than in the past*
- *High-THC products are linked to increased mental health risks*
- *Evidence suggests a concerning association with suicide risk*
- *Adolescents and young adults are most vulnerable*
- *Prevention, education, and early intervention are critical*



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