



Long-Term Cognitive and Emotional Effects of Marijuana Use

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DESCRIPTION

Marijuana is widely used across the globe, both recreationally and for medicinal purposes. Its primary psychoactive component, Tetrahydrocannabinol (THC), interacts with the brain's endocannabinoid system, affecting mood, cognition and perception. While occasional use may appear harmless in some adults, repeated or heavy use can produce long-term cognitive and emotional effects that influence daily functioning, mental health and social engagement. Understanding these consequences is important for individuals, caregivers and healthcare professionals. Frequent marijuana use is associated with cognitive impairments that can persist even after periods of abstinence. Memory difficulties are among the most commonly reported issues. Users often experience challenges in forming new memories, retaining information and recalling past events. Learning new skills can become slower and complex problem-solving tasks may require more effort. Attention and concentration are also affected, making it difficult to focus on academic, occupational or household responsibilities. Over time, these cognitive disruptions may reduce productivity, interfere with educational progress and affect overall decision-making.

Adolescents and young adults are particularly susceptible to these effects. The brain continues to develop well into the mid-twenties, particularly in regions responsible for executive functions, such as the prefrontal cortex. Early and sustained marijuana use during this critical developmental window can interfere with the maturation of neural pathways, affecting impulse control, risk assessment and planning. Studies indicate that individuals who begin using marijuana at a younger age are more likely to experience persistent cognitive deficits in adulthood compared to those who start later. These early exposures can create long-lasting patterns of reduced cognitive flexibility and decision-making ability. Emotional

consequences of marijuana use are equally significant. Regular users may experience mood disturbances, including heightened anxiety, irritability or depressive symptoms. Some individuals develop reliance on marijuana as a coping mechanism for stress, leading to cycles of avoidance and dependency. Emotional regulation can become increasingly difficult, particularly when external stressors arise. Paranoia and heightened social anxiety are reported in some chronic users, contributing to social withdrawal and isolation. These emotional changes can negatively affect relationships, work performance and overall life satisfaction.

Social functioning is also affected by long-term marijuana use. Habitual users may prioritize substance use over social or familial obligations, leading to conflicts or estrangement. Social circles may shift to include individuals who share similar usage patterns, reinforcing consumption and reducing exposure to non-using peers. Isolation can intensify emotional disturbances and limit opportunities for personal growth and skill development. In some cases, chronic use interferes with motivation, making it challenging to engage in meaningful work, pursue educational goals or participate in community activities. Physical health factors can indirectly influence cognitive and emotional outcomes. Smoking marijuana may irritate the lungs and respiratory system, while edible or concentrated forms can produce unpredictable effects, including overconsumption and acute anxiety episodes. Withdrawal symptoms such as sleep disturbances, irritability, decreased appetite and restlessness may arise in habitual users attempting to reduce consumption. These symptoms can exacerbate emotional distress, contributing to cycles of repeated use and persistent psychological effects.

Interventions to mitigate long-term cognitive and emotional effects often focus on structured therapy, education and skill development. Cognitive-behavioral therapy and similar

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approaches can help individuals recognize patterns of use, develop alternative coping strategies and rebuild problem-solving and memory skills. Structured routines, goal setting and engagement in meaningful activities help reinforce adaptive behaviors and reduce reliance on marijuana. Family support, peer encouragement and involvement in community programs provide accountability and social reinforcement, which can be essential for maintaining long-term improvement. Education and prevention are particularly important for adolescents and young adults. Providing accurate information about the potential long-term cognitive and emotional effects helps individuals make informed decisions about use. Early engagement in recreational, social and educational activities that do not involve substance use provides alternatives and supports skill development. Parents, educators and community leaders play critical roles in creating environments that reduce early exposure and support healthy development

CONCLUSION

In conclusion, long-term marijuana use can have significant cognitive and emotional consequences. Impairments in

memory, attention, learning and decision-making are common, while emotional disturbances such as anxiety, depression and reduced stress tolerance may persist. Adolescents and young adults are especially vulnerable, as early exposure can disrupt brain development and establish patterns of dependency. Social isolation, motivational decline and physical health challenges further complicate the impact of long-term use. Addressing these issues requires a combination of therapy, structured routines, education and supportive networks. Awareness and proactive intervention can help mitigate these effects, promote healthier decision-making and support individuals in achieving greater cognitive and emotional stability.