Why the Teenage Brain Pushes Young People to Ignore Virus Restrictions

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Monica Sager didn't see her boyfriend for four months after she moved back into her childhood home in Pottstown, Pa., in March. She also didn't go to any friends' houses or social events.

Now, her parameters have started to shift. Her boyfriend visited from New York over the Fourth of July weekend, and in August she will move into an apartment with roommates in Worcester, Mass., when she returns for her senior year at Clark University.

Ms. Sager, 21, knows that social distancing is key to keeping Covid-19 from spreading. And she's been talking with her roommates about how they can entertain responsibly. But she can't ignore her need to be around friends.

"I'm getting antsy. I really want to see people," she says.

Covid-19 cases among the 18-to-29-year-old age group are rising, according to the Centers for Disease Control and Prevention. They accounted for <u>27.1% of U.S. cases</u> in July. The group's share in cases has been climbing every month since April.

As a result, young adults are getting tagged as irresponsible. But many scientists argue that scolding won't help. They say the impulse among adolescents and emerging adults to break away from family and interact more with peers is part of normal development. Socializing and seeking new experiences is how they forge their identities.

"Exploring is a neurobiological mandate," says Judith G. Edersheim, founding co-director of the Massachusetts General Hospital Center for Law, Brain & Behavior and an assistant professor in psychiatry at Harvard Medical School. She says the questionable behavior that correspondingly occurs is a necessary part of growing up. "In most instances, they don't set out to do risky things. It's that they're programmed to do these things."

Research shows that adolescents, loosely defined as those in the developmental period ranging from age 14 to 26 years (depending on the function being measured) are biologically driven to seek new experiences. When children are born, their brains aren't fully formed. The brain creates a large amount of synapses, or neural links, between cells. During adolescence these synapses get cut back, or pruned: The brain eliminates the connections that aren't important. One way the brain determines what's important and what's not is through real-world experiences and how frequently synapses are used, which is why independence is crucial for development.

At the same time, dopamine levels reach a lifetime peak in adolescents. Dopamine supports motivation and reward-driven learning, which drives them to value immediate gratification over future gains, which

can lead to risky decisions. Motivation is influenced by rewards like novelty, thrills and the presence of peers. As a result, something that hits multiple rewards buttons can be particularly enticing—such as the opportunity to attend a party that will be viewed by friends on social media, Dr. Edersheim says.

Studies show that adolescence is a period in young people's lives when their social environment and interactions with peers are important for brain development, mental health and developing a sense of self. Lack of peer contact may interrupt this and might have long-term detrimental effects, says Livia Tomova, a postdoctoral researcher at Massachusetts Institute of Technology who co-wrote a paper called "The Effects of Social Deprivation on Adolescent Development and Mental Health," published in The Lancet in June. She says young adults crave social interaction like a starving person craves food. "Social rewards are a strong motivator," she says.

The Covid-19 pandemic is exacerbating these biological cravings, says Hannah Schacter, an assistant psychology professor at Wayne State University in Detroit. Adolescents normally fulfill their need for peer contacts at school. Schools also provide behavioral guidance and a place for discussing emotional distress. "Suddenly they have to find other ways to get their needs met," she says.

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