

An Inside Look at the Teen Brain

Did your teenager lock himself out -- again? A peek at his neurons helps explain why.

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Eva-Marie Fredric thought her then-14-year-old son, Dylan, could handle the task of packing for their trip to the mountains. But when the two arrived at the campsite, she found the tent -- but no tent poles. "We slept outside on an inflated air mattress, freezing our bums off, with the dog huddled between us," recalls the L.A.-based writer and producer.

Teens often frustrate their parents with their inability to remember key information and keep track of their stuff. Part of the problem is that their brains are not developed enough to do these things consistently and well, says Doris Trauner, MD, professor of neurosciences and chief of pediatric neurology at the University of California, San Diego School of Medicine.

Teen Brain Development

According to Trauner, the brain doesn't complete its development until a person reaches his or her mid-to-late 20s, although it continues changing throughout life. During the initial development phase, nerve cells, or neurons, are busy making connections with each other.

The frontal lobe and parietal cortex are two areas of the brain that don't complete development until the late teens or early 20s, and both are involved in what's known as executive functioning -- the ability to perform tasks such as planning, paying attention, and reasoning. This is part of the reason teen drivers aged 16 to 19 are four times more likely than older drivers to crash.

A child's brain has many more nerve cells and connections than an adult's. Before the frontal lobe and parietal cortex mature, children and teenagers can make use of some of these "extra" neurons to remember, plan, and reason. "Yes, a child or teenager can plan and remember, but not as well as you would like them to," Trauner says. "It doesn't mean you shouldn't have expectations. But if they make mistakes, cut them a little slack."

Since the tent fiasco, Fredric learned to remind herself when Dylan makes a gaffe that the situation could be worse. She adds, "To this day, he'll tell you it was his favorite camping night ever."

Helping Your Teen Learn

How can you help your kid avoid brain glitches without coming across as a nagging parent? Trauner has some pointers:

Set limits. Because your teen's brain is still developing in response to experience, you can actually help shape it by setting clear limits and providing precise guidelines for what is and is not acceptable.

Model behavior. As important as setting limits is showing your kid how to behave. "If you model reasoning or considering the consequences of your actions, your child is going to pick that up and incorporate that into the learning of executive functioning," she says.

Teach cause and effect. Thinking about possible consequences of our actions before we do them is an important executive function. A good way to teach your teen this, Trauner says, is to simply list some possible consequences to an action.