

# NIH News in Health

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## Risky Business Dealing With Your Teen's Behavior

Adolescence can be a bewildering time—for both teens and their parents. Yet it can also be thrilling to watch kids grow and change. Learning about teen-age development and behaviors can help parents nurture their children's strengths and shepherd them over the rough spots.

Why does adolescence feel so complicated and intense? It all begins with the brain. NIH-funded scientists have been using advanced imaging tools to take a good look at how the adolescent brain functions. They've found something they didn't expect. Although the 18th birthday means legal adulthood, important regions of the brain are still under construction until about age 25. These still-developing brain areas govern judgment, decision-making and impulse control.

The adolescent brain can be somewhat like a rider on a racehorse with no reins. "The problem is that the incentive/reward system matures earlier than the **cognitive control** system," explains Dr. Lisa Freund, a developmental psychologist and neuroscientist at NIH.



among young people who are 15 to 24 years old. This age group is also the fastest-growing group of people living with HIV in the U.S.

It's important for parents to take the lead in talking about sex. "Sex is a normal part of life," says Dr. Lynne Haverkos, an NIH pediatrician specializing in health risk behaviors, "but how do you prevent the STDs, pregnancy and negative emotional consequences that can hap-

pen in these relationships? Middle childhood is the time to start talking and listening... then, as they grow, adolescents can develop negotiation skills and learn how to recognize and handle risky situations involving sex. Start communicating early, keep going, don't ever give up." "Communication is absolutely key," agrees Dr. Bill G. Kapogiannis, an NIH infectious disease expert and scientific director of the Adolescent Trials

In other words, the brain's "that's so cool, I want it now" part develops well before the "stop and think twice" part. That's why adolescents are especially susceptible to the immediate rewards of addiction, sexual experience, risky driving and more. They have trouble controlling impulses and considering the possible long-term consequences of their actions. What worries parents so much is that kids don't seem to realize how vulnerable they are to the risks they face.

Take sex. Among U.S. high school students surveyed in 2009, almost half reported that they had engaged in sexual intercourse at least once, and over 400,000 15- to 19-year-old girls gave birth. Of the 19 million new sexually transmitted diseases (STDs) recorded each year, nearly half are

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### Definitions

#### Cognitive Control

The ability to use reason to control impulses and emotions.

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Network for HIV/AIDS Interventions. The network conducts research and provides information on community-based services for HIV-positive youth. "The earlier you initiate dis-



## Wise Choices Parenting a Teen

- Respect your teen's opinions. Nonjudgmental communication shows your love.
- Be honest and direct with your teen when talking about sensitive subjects such as drugs, drinking, smoking and sex.
- Help your teen make healthy choices and plan ahead for difficult situations.
- Meet and get to know your teen's friends.
- Compliment your teen and celebrate your child's efforts and accomplishments.
- Respect your teen's privacy.
- If your teen uses interactive social media—such as games and instant messaging—encourage caution and limit the time spent online.
- Have meals together. Teens who eat with the family are more likely to have better grades and less likely to smoke, drink, use drugs, think about suicide or engage in sexual activity.

cussion—including risk behavior, sex, mood disorders, drugs and academic performance—the better."

Talking about sex may feel uncomfortable to some, but parents don't have to go it alone. You can find helpful resources online and in community and school programs (See our links online). The most effective programs for HIV/STD prevention are taught by trained instructors, are age-appropriate, focus on skill-building and involve parents and health organizations.

You also need to talk to your teen about other behaviors such as drinking alcohol. Alcohol depresses cognitive control and increases the risk for substance abuse and sexual activity. Alcohol and drug use might also lead to situations where teens can be sexually abused.

Teens may not want limits, but they still need them. Throughout late adolescence and early adulthood, they still need guidance. Setting limits is important because it takes years for kids to master the art of making decisions. Adolescents are similar to preschoolers in that activation in various parts of the brain isn't yet mature and interconnected. "This makes adolescents more emotionally reactive, especially around peers," Freund says.

As the brain's complex architecture develops, teens do begin to learn from experience and adjust their behavior accordingly. They gain the ability to grasp the wider world in more complex and nuanced ways.



## Web Links

For more information about adolescent health and risk, see our links online:  
<http://newsinhealth.nih.gov/issue/Sep2011/Feature1>

This helps them develop their sense of right and wrong, as well as objectivity, empathy and judgment. They may become more motivated by self-esteem and personal achievement.

Parents can help by encouraging their teen's strengths. Talking, listening and channeling an adolescent's ongoing interests can have a powerful positive effect.

When talking with adolescents, "the tone has to be nonjudgmental," says Kapogiannis. "Talk it through, and reassure them that whatever happens, you still love them. As long as you have communication, you're gonna get there."

Freund suggests that parents use technologies—such as texting or mobile phone calls—to stay in contact with their teens. Even if you can't be there physically, they should know that you're available and that you care about them. "You're not hovering, but they need to know you're around," Freund says.

If you have concerns about your teen, and he or she seems unwilling to talk about it, consider making a call to your child's doctor—ideally, an adolescent medicine specialist. Make an appointment so your teen can talk privately with the care provider.

Adolescence is a stage that does have risks, and some kids may be more vulnerable than others. Yet there's a lot that parents can do to keep their kids safe, make them feel loved, and help them move through the changes. Adolescence is not a disease, but a journey towards independence. It's possible for both parents and their kids to enjoy this time—and even treasure it. ■

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# When a Bundle of Joy Brings Sorrow

## Recognizing Postpartum Depression

A baby's birth is usually a time of joy and celebration. For parents, though, the delight might be tempered with worries about the baby's safety, family finances and sleepless nights.

It's normal to have anxieties while adjusting to parenthood. But after giving birth, some women develop a more extreme condition—a depression that persists for at least 2 weeks. This disorder, called postpartum depression, requires medical attention.

By most estimates, postpartum depression arises in more than

1 in 10 women up to a year after childbirth. Some don't realize they have an illness that can improve with treatment. They may suffer in silence and fail to mention their sadness or concerns to their doctor, spouse or friends. They may be reluctant to share their true feelings, since a baby is expected to bring happiness.

Postpartum depression differs from the "baby blues" that can last for a few days, arising within the first 2 weeks after delivery. Baby blues are believed to affect more than half of mothers after birth. They may feel tearful, emotional, anxious and overwhelmed. Baby blues are normal. But if depression symptoms last for more than 2 weeks or get more intense, it may be postpartum depression.

Scientists don't know what causes postpartum depression. Many believe that the dramatic hormone changes during and after pregnancy are to blame. Hormones are molecules sent through the bloodstream to signal another part of the body to grow or react a certain way.

"There are probably certain characteristics that increase vulnerability to the condition," says Dr. Peter J. Schmidt, an NIH investigator who studies how hormones affect women's moods. For example, women who've had postpartum depression with a previous child are at increased risk for another bout. "Other vulnerabilities may be related to events, like early-life trauma," says Schmidt.

Evidence suggests that postpartum depression can sometimes begin during pregnancy, rather than after. This condition is referred to as "perinatal depression," meaning it occurs shortly before or after the birth.



Treatments for postpartum depression are similar to those used for depression. Talking with a therapist or social worker can help you change how depression makes you think, feel and act. Antidepressant medicines—such as a class of drugs called SSRIs—can also help relieve symptoms.

"There's some evidence that estradiol—a form of the hormone estrogen—might be effective more rapidly than traditional SSRIs," says Schmidt. He and others are now conducting clinical trials to see how estradiol might affect postpartum depression.

Some researchers are looking for ways to prevent the condition, possibly by prescribing antidepressants during pregnancy.

Getting treatment is important for you and your baby. A mother's depression can affect her baby's health. If you or someone you care about has signs of postpartum depression, seek medical attention right away. ■



### Wise Choices Signs of Postpartum Depression

Call your doctor right away if you:

- have thoughts of hurting the baby or yourself
- lack interest in the baby

Call your doctor if you have any of these symptoms for over 2 weeks:

- feel restless or moody
- feel sad, overwhelmed and hopeless
- cry a lot
- lack energy or motivation
- eat too little or too much
- sleep too little or too much
- have trouble focusing or making decisions
- have memory problems
- feel worthless and guilty
- lose interest or pleasure in activities you used to enjoy
- withdraw from friends and family
- have headaches, aches and pains, or stomach problems that don't go away



### Web Links

For more about postpartum depression, see our links online:  
<http://newsinhealth.nih.gov/issue/Sep2011/Feature2>



## Health Capsules

For links to more information, see these stories online:  
<http://newsinhealth.nih.gov/issue/Sep2011/Capsule1>

### Being a Beta Male

In male baboons, higher social rank generally brings lower stress. But a new study shows that the highest-ranked (alpha) males have greater stress levels than the second-ranking (beta) males. The finding suggests that life at the very top can be more costly than previously thought.

A high social rank has advantages in many animal societies. Alpha males, for example, have first choice of food and father the most offspring. But a high rank also brings conflict and stress—and stress can take both a mental and a physical toll.

For 4 decades, a research team directed by Drs. Jeanne Altmann of Princeton and Susan Alberts of Duke has been studying a baboon

society. For their new report, the NIH-funded researchers examined stress hormone levels in fecal samples from 125 male baboons over a period of 9 years. They compared these hormone levels with the animals' social rank.

The team discovered that high-ranking males generally had lower stress hormone levels than other males. But there was one major exception: Alpha males had much higher stress levels than beta males.

The researchers looked for differences that might account for the finding. Alpha males, they noted, spent more energy guarding fertile females. They also spent more energy threatening other males in order to retain their alpha status.

In any given group, alpha and beta males do most of the mating and

father most of the offspring. But this study yielded a surprising downside that may affect health and wellness in alpha males.

"Baboons are not only genetically closely related to humans, but like humans they live in highly complex societies," says Dr. Laurence Gesquiere of Princeton, lead author of the new report. "An important insight from our study is that the top position in some animal—and possibly human—societies has unique costs and benefits associated with it." ■

### Learn About Frontotemporal Disorders

Few people have heard of frontotemporal disorders, but they are a common cause of **dementia** in people under age 65. These conditions gradually rob people of basic abilities—thinking, talking, walking and socializing—that most of us take for granted.

Frontotemporal disorders often strike people in the prime of life, when they are working and raising families. Families suffer as they

struggle to cope with the person's daily needs as well as changes in relationships and finances. Understanding these little-known conditions can help people affected by them know what to expect and how to cope with the challenges that arise.

*Frontotemporal Disorders: Information for Patients, Families, and Caregivers* is a booklet from NIH's National Institute on Aging that describes the types of frontotemporal disorders, their causes, diagnoses and common symptoms. Tips for caregivers and a list of resources are also included.

Go to <http://www.nia.nih.gov/Alzheimers/Publications/FTLD> to view the booklet online or to order a free print copy. You can also call 1-800-438-4380. ■



#### Definitions

#### Dementia

Loss of thinking, memory and reasoning skills that seriously affects your ability to carry out daily activities.



#### Featured Website LifeWorks

<http://science.education.nih.gov/lifeworks>

A site for students to explore health and medical science careers. Read interviews with successful professionals. Use the Career Finder to identify work that fits your life best. And a free online mentoring program pairs U.S. high school and college students with carefully screened professionals who can help them with career development.

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