



The Baltimore Sun  
Circulation: 243,738  
June 30, 2006



## **ADHD is inheritable, can also affect adults**

JUDY FOREMAN  
30 June 2006  
The Baltimore Sun

### 2. HOW ADHA IS DIAGNOSED

Like many young mothers, Sophie Currier is a busy woman. There's all the family stuff at the Brookline, Mass., home she shares with her partner, Jeremie Gallien, and their 7-month-old son, Theo. There's work - a teaching assistantship for a biochemistry course at Harvard University.

And there's school. After majoring in biology at the Massachusetts Institute of Technology, Currier got a doctorate in neuroscience from Harvard and is on track to get her medical degree in a year.

The striking thing is that Currier does all this not only with severe dyslexia - she couldn't read until she was 8 - but with ADHD, or attention deficit hyperactivity disorder, as well.

The impulsiveness, inattentiveness and hyperactivity of people with ADHD can limit the quality of their work, get in the way of their relationships and severely damage their self-esteem.

Researchers used to think that ADHD, which is often accompanied by dyslexia, was primarily a problem in children - about 8 percent of American children, roughly 4.5 million, have been diagnosed with ADHD.

Researchers also used to think that children would grow out of it.

But it's clear now, as more of those children become adults, that many, perhaps more than half of children with ADHD, do not grow out of it. This explains why so many adults - about 8 million in the United States - have the condition.

Another thing research has made clear: ADHD is a biological, inherited disorder. It is not, as had once been thought, "caused by bad parenting or weak character," said Dr. David W. Goodman, a psychiatrist who specializes in adult ADHD at the Johns Hopkins University School of Medicine and consults for companies that make medications to treat ADHD. "It is a neurological condition validated by medical research whose impairments can be reduced by effective treatment."

The sad part is that, unlike children whose teachers often spot the symptoms, many adults do not acknowledge the symptoms in themselves - even when spouses, friends and co-workers tell them. That means that they often do not get diagnosed until their child is diagnosed, Goodman said.

Dr. Ned Hallowell, a psychiatrist in Sudbury, Mass., who has ADHD, said drug companies have been marketing their products aggressively to adults as well as children. "And there are people who are taking the medications who don't need them, but there are also others who take medication and say it changes their lives for the better."

There's no objective screening procedure, such as a blood test, for ADHD, but psychiatrists have developed clear-cut criteria for deciding when a person may have it.

Adults with ADHD live lives characterized by "unexplained underachievement," said Hallowell, who says he does not consult for drug companies and is the author, with Dr. John J. Ratey, of several books on ADHD including *Driven to Distraction* and *Delivered from Distraction*.

People with ADHD are chronically late, Hallowell said. They're disorganized. They lose things. They can't pay attention. They manage money poorly. They can't understand why everybody's always angry at them.

"These people are a pain in the butt," Hallowell said. "But what I've learned in 25 years of treating them is that when you reframe this in a medical context, a life can turn around. They go on to become the kind of person they are meant to be."

Currier seems like a high achiever from the outside, but her days are punctuated by the things - small and big - that she does to overcome her ADHD. She keeps lists of everything. She sets her clocks ahead so she'll have a prayer of making it anywhere on time. She uses her hand-held computer constantly to remind her of where she needs to be and what she needs to be doing.

"I'm very disorganized. ... I am not a fact holder," she said. "The biggest thing is distraction. ... I have trouble starting a project, then I have a hard time stopping it."

Like many people with ADHD, Currier has family members with the same disorder. Her father, Richard, a Cambridge, Mass., real estate broker, has it. The family thinks his father had it, too, as does her brother, Blake, a construction project manager. Richard's wife, Barbara, puts up with it all.

"I print out a list of what he has to do every day," she said one Sunday afternoon in their kitchen. They both laugh. "Then he loses it."

Family studies suggest that about three-quarters of the risk of developing ADHD is genetic, said Susan Smalley, a behavioral geneticist at the Semel Institute for Neuroscience and Human Behavior at the University of California, Los Angeles.

Smalley's lab is searching among families with ADHD worldwide for the genes that predispose to ADHD. She estimated that at least 20 to 30 genes are probably linked to ADHD, some of which are involved in the regulation of dopamine, a natural brain chemical that plays a role in attention.

Many studies suggest that people with ADHD have a wide variety of cognitive and behavioral difficulties. Some have trouble with "working memory," the ability to remember a phone number they were just told or where they just put their glasses. Brain imaging studies suggest that people with ADHD also have less electrical activity in the pre-frontal cortex, the area of the brain responsible for planning, organizing and prioritizing tasks.

Studies also suggest that people with ADHD perceive the passage of time differently, perhaps accounting for their chronic lateness.

Some people with ADHD also have atypical patterns of brain activity as measured on EEGs, or electroencephalographs, said UCLA's Smalley. These abnormal patterns correspond with the trouble many people with ADHD have suppressing distracting information.

For example, people with ADHD often do poorly on the Stroop test, in which a person has to name the color used to print the word - such as blue - rather than the word itself - as in "green."

If you are an adult and think you may have ADHD, there's a lot you can do.

First, don't resist the diagnosis. "People with ADHD are not good self-observers," Hallowell said. If your child has been diagnosed with ADHD and your spouse, friends or co-workers suggest that you might also have the condition, too, take that seriously.

Then consider medication. An estimated 80 percent of people with ADHD improve with medications, said Hallowell, who does not receive any money from drug companies.

The Food and Drug Administration is debating whether to put its most serious, "black box" warnings on prescription ADHD drugs because of possible but rare cardiovascular and psychiatric side effects. But an advisory panel recently recommended against such a warning.

One group of drugs most often used for ADHD is a class of stimulants called methylphenidates such as Ritalin and Concerta that boost dopamine levels. A skin patch containing methylphenidates was approved in April. Another is the group of stimulants commonly known as amphetamines such as Adderall and Dexedrine that boost dopamine and another brain hormone, norepinephrine.

A different kind of drug called Strattera also works by boosting norepinephrine, but the medication carries a "black box" warning saying that suicidal thinking may increase on the drug. A pine-bark extract called Pycnogenol also may help, according to a study in this month's European Child and Adolescent Psychiatry.

But there are nondrug solutions, too. Most important: Get help when you need it.

Currier made it through MIT - brilliantly - in part because the school paid other students to read books to her and share their class notes.

By the time she was in graduate school, MIT provided computers that scanned books and read them aloud to Currier; she was also allowed extra time on exams.

"MIT is a haven for someone like me," said Currier, who plans to put her education to use by studying the genetics of ADHD among other neurological disorders. "It was very easy because I was in an environment that supported me."

You can also get "a life coach," Hallowell said - not necessarily a trained mental health professional, but someone who can help you get organized, make lists and check to make sure you get things done.

Do the little things right - such as always putting your keys in a basket by the door. Find a good accountant to help with money matters. Post reminder signs around your house.

And, as her father, Richard Currier, put it, "Marry someone without ADHD."