THE SECRET TO RAISING SMART KIDS (page 36)

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Persisting toward an unreachable goal may raise a person's risk for chronic illness.

>> HEALTH

Who Said Quitters Never Win?

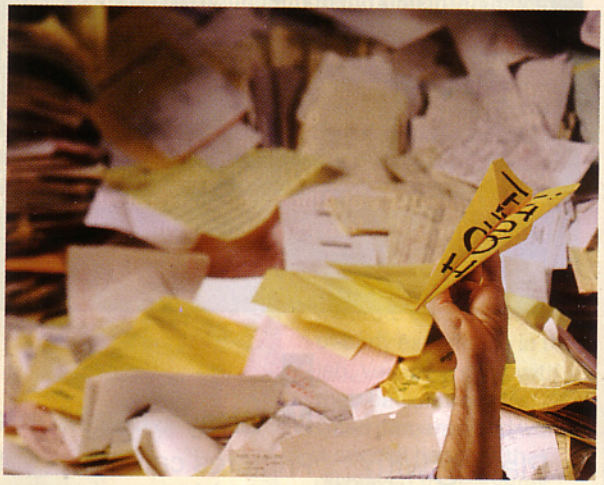
If at first you don't succeed, quit—for your future health

Some people stop at nothing to get what they want, persisting in the face of continual hardship. Often seen as a sign of strength, this behavior may also be indicative of future illness, according to a new study.

Psychologists asked 90 adolescent girls about their tendency to hold on to unattainable goals. Over the next year, they found that the girls who said they never gave up had more quickly increasing blood levels of C-reactive protein (CRP) as compared with the girls who were moderately good at letting go. High levels of CRP often precede the development of heart disease, cancer and diabetes. And although CRP levels are expected to rise over time, the faster rate of increase in people who persevere relentlessly could give them an elevated risk for illness later in life.

The researchers are not sure exactly how the rising CRP levels translate into future health problems, but they are confident that further investigation will tease out the connection. The more difficult part is figuring out when to give up on a goal, says study author Gregory Miller, a psychologist at the University of British Columbia. "It's like that Kenny Rogers song: you've got to know when to fold them," he says. "But it's really hard to know."

—*Melinda Wenner*



>> NEUROSCIENCE

One Size Fits All

Mouse brains may contain both male and female wiring

Behavior is controlled by the brain, so the brains of male mice must differ from those of female mice—right? Not necessarily, say biologists at Harvard University who have created female mice that exhibit classic male sexual behavior. "Mice have an organ in their nose called the vomeronasal organ, or VNO, that together with the brain detects the pheromones that male and female mice secrete," Catherine Dulac explains. "These pheromones control mating, aggression and gender identification." When Dulac and her collaborators disabled the females' VNO through surgery or genetic mutations, they were surprised to see the mice start behaving like males. "The mutant females were aggressive toward strange males, sniffed at their genitals and mounted them," Dulac says. The mice remained functionally female, however, and in fact mated and gave birth. Then came the second surprise: the mutant mothers quickly abandoned their nests and young and went off to explore their cages—much as males would. The experiment, Dulac adds, implies that the neuronal circuits for "male" behavior exist in the brains of female mice and that the animals' VNO, by sensing pheromones, controls which sexual behavior repertoire is expressed.

Although humans and other higher primates lack a functional VNO, the researchers think that different sensory controls (such as visual or auditory cues) may be involved in activating sexual behavior in these species. [*For more about pheromones in humans, see "Sex and the Secret Nerve," by R. Douglas Fields;* SCIENTIFIC AMERICAN MIND, *February/March 2007.*] The next step, Dulac says, will be to analyze male mice without a functioning VNO to see if they display femalelike behaviors.

—*Jonathan Beard*

GABE PALMER *Corbis (top)*; CORBIS *(bottom)*

JOHN RITTER