

Taming toddlers' tantrums

Most children resist going to bed once in a while, but one out of four toddlers regularly turns bedtime into a screaming ordeal. Physicians and advice books often tell parents to ignore the crying for longer and longer periods, but many find they can't resist the onslaught long enough for this technique to work.

Psychologists from the University of Arkansas for Medical Sciences in Little Rock find another method reduces bedtime tantrums just as well and is easier on the parents.

Lisa A. Adams and Vaughn I. Rickert sorted 36 tantrum-torn families into three groups. In the first group, parents ignored the tantrum for a short time, then comforted the child briefly. Gradually, the parents ignored the crying for longer times. In the second group, parents moved the bedtime later and set up a pleasant, shared bedtime routine such as helping the child into pajamas, reading a story together and rubbing the child's back. Over six weeks, they nudged the bedtime back to its original time. Parents in the third group simply treated the tantrums as they had before.

The first two types of treatment over six weeks resulted in shorter and fewer tantrums; tantrums in the third group showed no change. Parents using the positive-routine method also reported that their marriages improved, possibly because the couples had more peaceful time together, the researchers report in the November *PEDIATRICS*. These parents liked the positive-routine method so well that they still used it six weeks after the study, Rickert says. Tantrums are "a difficult problem, so when you show [parents] something that works they tend to stick with it," he says.

The study demonstrates that parents have different options in dealing with behavior problems, says Lewis P. Lipsitt, director of the Child Study Center of Brown University in Providence, R.I. In addition, it represents a change from earlier pediatric studies, which described difficult behaviors but didn't tests ways for parents to deal with their children.

Rickert suggests pediatricians explain both of the tantrum-reducing methods to parents so they can choose what suits their family. For instance, a single parent might prefer the positive routine as a way to spend more time with the child, while an at-home parent might want to use the ignoring regimen. "We need to be able to take what we know and tailor it to the parents," Rickert says.

Marijuana mangles memory

Teenagers who abuse marijuana can suffer problems with their short-term memory up to six weeks after they stop smoking the drug, researchers have found.

Richard H. Schwartz of the Georgetown University School of Medicine in Washington, D.C., and his colleagues began the study after Schwartz noticed that marijuana-abusing teenagers in a drug treatment program often had trouble remembering rules and following conversations.

Memory loss poses "one of the main problems with kids who smoke pot," Schwartz says. "They think they're losing their minds for good."

Nine teenage boys and girls who abused marijuana did much worse on short-term memory tasks than a group that abused drugs other than marijuana or a group that abused no drugs at all, the researchers report in the October *AMERICAN JOURNAL OF DISEASES OF CHILDREN*. Six weeks later, the researchers found to their surprise that marijuana abusers, although their memories had improved slightly, still did worse than the other two groups, Schwartz says.

Marijuana abuse hits hardest those teenagers who do poorly in school, Schwartz says. "The bright compensate for it, the average get by, and the low IQs are devastated by it," he says.

Richard Monastersky reports from Austin, Tex., at the annual meeting of the Society of Vertebrate Paleontology

Call that bird 'Sir'

Imagine a 7-foot-tall flightless bird with a head larger than the one atop a polar bear. Over 50 million years ago, such an animal actually walked the Earth. Called *Diatryma*, this fowl has long puzzled paleontologists, who wonder in particular what such a large, heavy bird ate for dinner. While one new study supports the mainstream view that *Diatryma* consumed animal flesh, a different analysis suggests it dined mostly on plants.

Lawrence M. Witmer and Kenneth D. Rose of Johns Hopkins University School of Medicine in Baltimore, along with Thomas M. Bown of the U.S. Geological Survey in Denver, performed a biomechanical analysis of the *Diatryma* jaw, focusing on a recently discovered lower jaw found in the Bighorn Basin of northwest Wyoming. The fused junction between the right and left bones of the lower jaw was especially strong for a bird, notes Witmer. He and his colleagues conclude that the strong bones could have withstood large biting forces generated by well-developed jaw muscles—which are evident from marks on the bone where the muscle attached.

The researchers think the *Diatryma* could cut through flesh and even possibly crush bone. They suggest the bird either scavenged carcasses or caught live prey. "This thing was huge. It had a head a foot and a half long. It could eat anything it wanted," says Witmer. Its possible meal choices included tiny horses the size of house cats and primitive lemurs and tapirs that have been found in the same deposits as *Diatryma*.

Allison V. Andors of the American Museum of Natural History in New York City reaches the opposite conclusion in his study. Although he thinks *Diatryma* may have occasionally supped on animal flesh, Andors says several pieces of evidence suggest the huge bird primarily ate leafy plant matter—a particularly rare diet among birds.

Andors notes *Diatryma* shares several features in common with existing herbivorous birds, many of which are also large and flightless. The plant-eating Takahe in New Zealand, for instance, has a stout neck and legs as well as an oversized beak, features all present in *Diatryma*. Moreover, the upper jaw of *Diatryma* does not hook downward to a sharp point as do the jaws of many birds that tear flesh. Andors, who could not attend the meeting, published an abstract in the Sept. 28 *JOURNAL OF VERTEBRATE PALEONTOLOGY*.

Mistakes in museum mountings

Many museums display incorrectly mounted skeletons of dinosaurs and mammals, reports Kenneth Carpenter, a paleontologist at the Denver Museum of Natural History.

In one common mistake, preparators often place the ribs perpendicular to the spine instead of angled back toward the pelvic region, which is their position in living animals. Because this problem makes the rib cage look much larger than it should, it has caused researchers to overestimate the weight of certain dinosaurs, Carpenter says.

Many mounts also show the legs too far apart, making the animal appear too slow and ungainly. Fossilized footprints, even for the larger sauropods such as *Apatosaurus*, demonstrate the animals placed their feet under their bodies. Another problem area is tails, says Carpenter. Almost all tracks of dinosaur footprints show no signs that the animal dragged its tail, yet many mounts place the tail on the ground instead of sticking out behind the animal.

Carpenter says most mounts display some mistake. "Even my early work, now that I look back on it, I do so with great embarrassment because I've made the same mistakes," he says. According to Carpenter, preparators often try to make the bones fit a preconceived pose, rather than letting the bones themselves determine the most natural pose.