



## Children with autism dread the dentist, but USC research may help

Sharon Cermak wants to make the experience more kid-friendly

By Rob Russow  
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**Photo:** Taking a seat in the dentist's chair can be traumatic for children with autism. (USC Photo/Beth Newcomb)

Whirring drills may frighten even the most stoic dental patient, but for children with autism, the noises, bright lights and strong scents of a dental office visit can be a profound, if not traumatic, experience.

Now research by Sharon Cermak, professor in the [Division of Occupational Science and Occupational Therapy](#) at the Ostrow School of Dentistry of USC, is identifying ways to improve the dental experience for children with autism.

### Sights and sounds can be disturbing

Parents of children with autism attest to the challenge of dental care. “The first time we took [my son] to the dentist, when I heard him screaming from the front, I understood how bad it was,” said Peter, father of 10-year-old Tate (only first names are used to protect anonymity). “They had him in restraints, and my wife was in tears.”

Such distressing experiences are common. According to a 2010 survey of nearly 400 parents of children with autism, almost two-thirds reported “moderate to extreme” difficulty with oral cleaning at the dental office.



“As soon as we put him in the [dental] chair, he started freaking out,” said Andrea, mother of 4-year-old Evan. “It’s funny because he likes to touch other people, but he doesn’t let other people touch him.”

While a typically developing child can usually adapt to sensory stimuli, many children with autism process sensation atypically. That processing can manifest as behaviors ranging from physical withdrawal to self-stimulation, outbursts and tantrums.

Because many dentists simply aren’t equipped to deal with such challenging behaviors, they often use sedation or restraint. A 2012 study published in *Pediatric Dentistry* by a team of USC researchers found that 18 percent of parents of children with autism reported the use of restraint “often” or “almost always” during dental visits, while nearly 40 percent reported the use of pharmacological methods such as general anesthesia to complete routine cleaning.

### **Simple changes in the dental office can help**

Cermak’s study of “[Sensory Adapted Dental Environments](#),” funded by the National Institute of Dental and Craniofacial Research and conducted with the Ostrow School and Children’s Hospital Los Angeles, is studying how adaptations to the dental office can create a more manageable experience.

By replacing fluorescent lights with softer and colored lighting, playing soothing music and using butterfly wraps that provide calming deep pressure, Cermak’s research aims to decrease levels of anxiety and negative behaviors among children with autism.

Improving the experience and quality of oral care within this population is especially critical in light of recent statistics suggesting that the number of children with autism is rising. In March, the Centers for Disease Control and Prevention released a [new estimate](#) that 1 in 68 children in the United States are identified with autism spectrum disorder, roughly 30 percent higher than the previous estimate of 1 in 88 children.

Preliminary findings from Cermak’s study are positive. Children in the sensory adapted dental environment were less anxious, and fewer people were needed to help restrain children during cleanings compared to ordinary dental offices.

“As crucial as oral care is to overall health and wellness, finding a way to help both dentists and their patients has to be a priority,” Cermak said.

“Down the road, we hope this will lead to a better quality of life for children with autism and their families,” she said. “If occupational therapists can work together with dental practitioners on ways to make their offices more kid-friendly, we will be taking one important step in that direction.”