



**SCRUTINIZING DIET:** A new study finds that a gluten-free, casein-free diet does not benefit children with autism spectrum disorder.

## Diet Interventions for Autism Found Ineffective

Gluten-free, casein-free diets have become popular complementary treatments for children with autism spectrum disorder, but a rigorous Rochester study has found that following the diets had no effect on the behavior, sleep, or bowel patterns of children. Results of the study—the most tightly controlled research

on dietary intervention and autism to date—were published in the *Journal of Autism and Developmental Disorders*.

Following a group of children between ages two-and-a-half and five-and-a-half years old for 30 weeks, the researchers—led by Susan Hyman, chief of the Division of Neurodevelopmental and

Behavioral Pediatrics at the Medical Center—strictly implemented the gluten-free, casein-free diet with each child.

No significant changes were found when the children were given snack foods with gluten—a compound found in wheat, rye, and barley—or casein—found in milk—a combination of both,

or a placebo. Researchers also ensured that the children received the same level of other behavioral interventions and other treatments so that any observed changes could be safely attributed to diet. Such controls were not in place in previous diet studies.

—Sean Dobbin

## Choosing Relief for an Aching Back

A new study in the journal *Neurology* found that people with a common form of lower back pain called lumbar spinal stenosis overwhelmingly choose pain relief treatments over those that would help them stand or walk.

“There has long been a debate in the medical community over striking the right balance between pain relief and physical function,” says the lead author of the study, John Markman, professor of neurosurgery and director of the Translational Pain Research Program. And while physicians have favored increasing mobility, patients see things differently.

“Even the patients who could not stand long enough to pick up a letter from their mailbox or wash the dishes after dinner chose pain relief,” he says.

Lumbar spinal stenosis is brought about by a narrowing of the spinal canal caused by the

degeneration of the vertebrae, discs, joints, and ligaments that make up the spinal column, resulting in a compression of nerve roots. This narrowing of the spinal canal triggers pain, tingling, and numbness in the lower back, buttocks, and legs that is most commonly experienced when a person is upright or walking.

New standards for pain relief—which historically have been left to pharmaceutical company scientists and government officials to decide—are increasingly being created based on input from patients. Many experts argue that new pain relievers, especially those with greater risks like opioids, should relieve pain and improve function.

“This study convincingly demonstrates the need to prioritize pain relief because that is what patients want,” Markman says.

—Mark Michaud



**BETTER BACKS:** Back pain patients give pain relief higher priority than increasing mobility when choosing between treatments.

## Parents' Confidence Could Help Break Abuse Cycle

Women who were abused as children are more critical of their ability to parent successfully, Rochester researchers have found. Therefore, intervention programs for mothers at risk of maltreating their children should focus on bolstering self-confidence, not just on teaching parenting skills, they say.

Conducted at the Mt. Hope Family Center and published online in the journal *Child*

*Maltreatment*, the study found that mothers who had experienced more types of abuse as children—sexual abuse, physical or emotional abuse, and physical or emotional neglect—have higher levels of self-criticism and, as a result, greater doubt about their own ability to be effective parents.

That was true in both women with and without depression, says Louisa Michl, a doctoral student

in the Department of Clinical and Social Sciences in Psychology and the lead researcher for the study.

Self-doubt is related to “yelling, hitting, and other kinds of negative parenting behaviors,” she says.

Teaching parenting skills doesn't necessarily help a mother in a stressful situation.

Mothers who don't believe that they can be a good parent and act on the things they've learned

may treat their children the way they themselves were treated.

Previous research has shown such self-perceptions are changeable, though.

“If a mom who was maltreated as a child can sustain some strong beliefs in her competency as a mom, then it may help break the cycle of abuse and buffer her children against that kind of experience she had,” Michl says.

—Monique Patenaude



**TREATING THE SMALLEST:** Extremely premature infants fare much better today than they did just 20 years ago. Improvements in care for mothers at risk of early delivery may be why.

## Prospects Are Better for Extreme Premies Today

Extremely premature babies considered to be on the cusp of viability are much more likely to survive and evade illness today than they were 20 years ago, according to a study published in the *Journal of the American Medical Association* and cowritten by Carl D'Angio, professor of pediatrics and medical humanities and bioethics.

Carried out between 1993 and 2012, the study found increases in survival rates of infants born 23 or 24 weeks into a pregnancy.

While babies born at such an early stage of pregnancy still have many health problems after birth, babies born as little as one week later—between 25 and 28 weeks—experienced a decrease in several illnesses that typically occur in extremely premature infants.

The continuing improvement may be due to the significant increase in the use of corticosteroids to speed up lung development in the fetuses of mothers at risk of delivering early. In 1993,

less than a quarter of mothers who delivered extremely premature infants received the steroids; the number had jumped to 87 percent by 2012.

Mothers at risk of delivery by 22 to 24 weeks were also much more likely to have a cesarean delivery and to be treated with antibiotics during pregnancy in recent years than they were at the beginning of the study. Cesarean deliveries may minimize the trauma of birth, boosting a baby's chance of survival, while

prenatal antibiotics are meant to prevent transmission of infections between mother and baby. No changes in infection rates were found over the course of the study, however.

The findings suggest a progressive increase in physicians' ability to treat extremely premature infants. The decline of health problems in slightly more mature preemies may also be attributed to improved medical care after birth.

—Susanne Pallo