



Matters of Note

Underdiagnosed food allergies in children on Medicaid

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An estimated 6 million children in the United States have food allergies, 40% of them having more than one. Recent studies show that poor and certain minority children not only have a higher incidence of food allergies than white kids, but their families also have more difficulty accessing safe food, appropriate childcare, medical care, and lifesaving medicine for them.

Food allergies pose a significant emotional and financial burden on affected families. Previous research reveals that 40% of children with food allergies report a severe life-threatening reaction in their lifetime, and one in five reports at least one food allergy related emergency department visit each year. The total estimated costs associated with food allergy, which includes direct medical, out-of-pocket payments, and loss of labor productivity, are nearly \$25 billion annually, equaling over \$4,000 per child.

A study published in *Academic Pediatrics* on January 1, 2021 analyzed the Medicaid claims data of more than 23 million children to determine why the prevalence of food allergies among Medicaid-enrolled children (0.6%) is substantially lower than parent-reported estimates (7.6%) and physician-diagnosed food allergies in the general population (4.7%).

The study's senior author, Ruchi Gupta, MD, MPH, a pediatrician and food allergy researcher at Ann & Robert H. Lurie Children's Hospital of Chicago and Professor of Pediatrics and Medicine at Northwestern University Feinberg School of Medicine was surprised by the large discrepancy in the estimate of children on Medicaid compared to those in the general population. "Our findings suggest potential under-diagnosis of food allergy among Medicaid-enrolled children. Families in the Medicaid program may be encountering barriers to accessing and affording specialists and potentially life-saving epinephrine prescription."

Black and Hispanic children are disproportionately more likely to live in poor communities, to have asthma, and to suffer from systemic racism in the delivery of medical care. Study findings suggest the need to better understand the reasons for these differences so access to care can be improved.

To read the results, see: [10.1016/j.acap.2020.03.005](https://doi.org/10.1016/j.acap.2020.03.005).

Higher risk of depression may be linked to insulin resistance

Findings appearing online in *The American Journal of Psychiatry* on September 23, 2021, seem to show that participants with insulin resistance had a higher risk of developing depression than those who did not.

The study collected data from 601 participants who were part of the Netherlands Study of Depression and Anxiety, and who had no lifetime history of depression or anxiety disorders. Three surrogate factors of insulin resistance were measured: high triglyceride-HDL [high-density lipoprotein] ratio; prediabetes, as indicated by fasting plasma glucose level; and high central adiposity, as measured by waist circumference.

The study concludes that the three surrogate indicators positively predicted incident major depressive disorder. The study also found that developing prediabetes within 2 years of enrollment in the study was positively associated with incident major depressive disorder.

Study findings may be useful in evaluating the risk for the development of major depression in patients with insulin resistance and may offer important clues into the links between the complex conditions of diabetes and depression and the impact of factors like cholesterol and blood sugar.

To read the study, see: <https://doi.org/10.1176/appi.ajp.2021.20101479>.

How tea may lower blood pressure

Drinking tea has had significant cultural and historical impacts on the world and, for as long as tea has been around, it has been considered to have medicinal properties. There is growing evidence that drinking tea, especially green tea, can help with cardiovascular health, however, the mechanism behind the health benefits is still unclear.

In a report published online in *Cellular Physiology & Biochemistry* on March 6, 2021, scientists at the University of California, Irvine and the University of Copenhagen found that certain compounds in both black and green tea help relax blood vessels by activating ion channel proteins in the walls of blood vessels.

The leaves of tea contain polyphenols belonging to the catechin family which are known for their antioxidant properties and are thought to convey the therapeutic benefits of tea. The study shows that the catechins activate a particular type of potassium ion channel and suggest that this protein channel may underlie the antihypertensive effects of several plants which have been used as folk medicines for millennia and can relax the muscles that line blood vessels which may lead to lower blood pressure.

As many as one third of the world's adult population have hypertension, a condition considered to be the number one risk factor for worldwide cardiovascular disease and premature mortality. This new discovery could help in developing more effective blood pressure-lowering medications.

The report can be found: [//DOI.ORG/10.33594/000000337](https://doi.org/10.33594/000000337).

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What is responsible for yoga's mood-boosting effect?

Insufficiency in the amino acid neurotransmitter called gamma-aminobutyric acid (GABA) system has been linked to depressive symptoms and people with Major Depressive Disorder (MDD) have been found to have low GABA levels.

A study published in the *Journal of Alternative and Complementary Medicine* on March 11, 2020, found tentative evidence to suggest that yoga provides its mood-increasing effect by increasing GABA activity among individuals with depression and that these beneficial effects on mood are time-limited.

The study followed 32 adults with MDD during a 12-week yoga intervention and found increases in GABA levels with no differences due to the amount of yoga practice. Researchers did find that the number of days since a subject's latest yoga class appeared to be important.

The findings suggest that the GABA system may be a mechanism through which yoga improves mood and provides evidence that yoga is a low cost, low side effect way to improve mood and decrease anxiety with regular practice.

The study can be found at: <https://www.liebertpub.com/doi/10.1089/acm.2019.0234>.

How diet impacts tumor growth

Studies have suggested that a calorically restricted diet may slow tumor growth in certain contexts and such diets have been shown to extend lifespan in mice and other animal species. To investigate the potential mechanism, researchers at MIT analyzed tumor growth and nutrient concentration in mice with pancreatic tumors.

The resulting study, published in *Nature* on October 20, 2021, examined the effects of a calorically restricted diet and a ketogenic diet. Both diets reduced the amount of sugar available to pancreatic tumors in mice, but researchers found that only the calorically restricted diet reduced the availability of fatty acids, and this was linked to a slowdown in tumor growth.

Despite the results, researchers do not recommend that cancer patients follow a calorie-restricted diet as that can be difficult to maintain and can have harmful side effects. They do believe, however, that their results can lead to therapeutic strategies that might help slow tumor growth.

"There's a lot of evidence that diet can affect how fast your cancer progresses, but this is not a cure," says Matthew Vander Heiden, director of MIT's Koch Institute for Integrative Cancer Research and the senior author of the study. "While the findings are provocative,

further study is needed, and individual patients should talk to their doctor about the right dietary interventions for their cancer."

To read the details, see: <https://www.nature.com/articles/s41586-021-04049-2>.

University launches online master of health science in integrative care

Northwestern Health Sciences University, the premier evidence-based integrative health institution of higher education headquartered in Bloomington, MN, has announced a new, completely online, Master of Health Science in Integrative Care program. The program is designed for licensed practitioners, administrators, and other health care professionals and highlights the impact integrative, whole person care will have on the future of our health care system.

The fast-paced and flexible master's program aids health care leaders with knowledge to include integrative care approaches into patients' care plans and create a more holistic, sustainable health care system. With three specialization tracks, students can tailor their offerings to emphasize trauma informed integrative care, integrative health coaching and integrative health care administration to meet their patients' needs. Students can complete the program within one to two years.

"At Northwestern Health Sciences University, we educate the next generation of health care professionals to be collaborative leaders creating a healthier future," says Dr. Deb Bushway, president and CEO of NWHSU. "The Master of Health Science in Integrative Care program prepares health care leaders across professions to contribute to optimal patient-centered, whole person care and equitable community outcomes."

Through the Master of Health Science in Integrative Care program, practitioners, administrators, and other health care professionals can transform health care by placing the patient at the center of care and being a leader in their practice.

For more information on NWHSU's Master of Health Science in Integrative Care program visit: <https://online.nwhealth.edu/integrative-care/>.

Author bio

Matters of Note is written and compiled by **Susie Demarinis, MS** Managing Editor for *EXPLORE: The Journal of Science and Healing*.