



The Journal of Nutrition
May 2019 Media Summaries

The following articles are being published in the May 2019 issue of *The Journal of Nutrition*, a publication of the American Society for Nutrition. Summaries of the selected articles appear below; the full text of each article is available by clicking on the links listed. Manuscripts published in *The Journal of Nutrition* are embargoed until the article appears online either as in press (Articles in Press) or as a final version. The embargoes for the following articles have expired.

Soothing infants with food may inadvertently teach children to associate food with emotions

Jansen PW, Derks IPM, Batenburg A, Jaddoe VWV, Franco OH, Verhulst FC, Tiemeier H. Using Food to Soothe in Infancy is Prospectively Associated with Childhood BMI in a Population-Based Cohort. *The Journal of Nutrition*. 2019;149(5):788-94
Ferraro AA. Anxious Mothers Need Support to Avoid Emotional Feeding of Infants. *The Journal of Nutrition*. 2019;149(5):703-4

Reducing inflammation improves vitamin B-6 status in rheumatoid arthritis patients

Sande JS, Ulvik A, Midttun Ø, Ueland PM, Hammer HB, Valen M, Apalset EM, Gjesdal CG. Vitamin B-6 Status Correlates with Disease Activity in Rheumatoid Arthritis Patients During Treatment with TNF α inhibitors. *The Journal of Nutrition*. 2019;149(5):770-75

Frequent consumption of sugar-sweetened soda increases diabetes risk in Mexican women

Stern D, Mazariegos M, Ortiz-Panozo E, Campos H, Malik VS, Lajous M, López-Ridaura R. Sugar-Sweetened Soda Consumption Increases Diabetes Risk Among Mexican Women. *The Journal of Nutrition*. 2019;149(5):795-803
Balcazar H and Lizaur ABP. Sugar-Sweetened Soda Consumption in Mexico: The Translation of Accumulating Evidence for an Increasing Diabetes Risk in Mexican Women. *The Journal of Nutrition*. 2019;149(5):705-7

Soothing infants with food may inadvertently teach children to associate food with emotions

Understanding the needs of infants and coping with infant irritability are challenges that most parents face. While it is tempting to comfort and console distressed infants by offering food, little is known about the long-term effects of emotional feeding. Although it has long been postulated that emotional feeding could be a risk factor for obesity, new research findings by Dr. Pauline Jansen (Erasmus Medical Centre and Erasmus University Rotterdam) and colleagues provides evidence that the use of food to comfort distressed infants may contribute to unhealthy eating behaviors and body composition throughout middle and late childhood. The study results, published in the May 2019 issue of *The Journal of Nutrition*, suggest that the practice of offering infants food to soothe distress, may teach children to associate food with emotions and to cope with negative emotions by eating.

In this large, population-based birth cohort study, parents of 3960 children reported on the use of food to soothe their 6 mo. old infants, and on child eating behavior at age 4 and 10 y. Emotional feeding was assessed by asking mothers if they had comforted their child by providing food or drink in the last 2 wk. Three answering options were provided: never, sometimes, and often. Body composition, which included measurements of body fat mass, bone mass, and lean mass, was measured at ages 6 and 10 y. Eating behaviors of children were assessed with an eating behavior questionnaire, which included two dimensions: emotional overeating and food responsiveness.

Children who were soothed by parents with food and drinks in infancy displayed more unhealthy eating behaviors and an unhealthier body composition when they were 10 y old. In particular, these children had a higher mean body mass index and a greater accumulation of fat mass. Thus, findings from this study suggest that the use of food to soothe distressed infants might contribute to the development of obesity. Study researchers hypothesized that the practice of offering food for non-nutrient purposes influences the weight development of children. The current study also suggests that parents' use of food to soothe distressed infants was associated with emotional eating in the future. Although there is a need to replicate these findings, this is the first longitudinal population-based study to suggest that the use of food to soothe infants can contribute to unhealthy weight development and emotional eating throughout childhood.



References

- Jansen PW, Derks IPM, Batenburg A, Jaddoe VWV, Franco OH, Verhulst FC, Tiemeier H. Using Food to Soothe in Infancy is Prospectively Associated with Childhood BMI in a Population-Based Cohort. *The Journal of Nutrition*. 2019;149(5):788-94
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- Ferraro AA. Anxious Mothers Need Support to Avoid Emotional Feeding of Infants. *The Journal of Nutrition*. 2019;149(5):703-4
<https://academic.oup.com/jn/article/149/5/703/5440567>

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Reducing inflammation improves vitamin B-6 status in rheumatoid arthritis patients

Rheumatoid arthritis occurs when the immune system attacks membranes surrounding body joints. The resulting inflammation damages the cartilage and bone associated with joints, which causes pain and stiffness that worsens over time. A variety of drugs are available to treat rheumatoid arthritis. TNF α inhibitors are typically recommended for severe cases of rheumatoid arthritis, or when treatment with conventional therapies is not effective. It is not uncommon for people with rheumatoid arthritis to have low circulating levels of vitamin B-6. However, altered vitamin B-6 status is not associated with dietary inadequacy, suggesting that it is related to inflammatory processes. Previous trials of vitamin B-6 supplementation have not shown any clinical benefits for rheumatoid arthritis patients. Using a new functional biomarker of vitamin B-6, Jon Sigurd Sande (Institute of Medicine, University of Bergen,) and colleagues investigated vitamin B-6 status in patients with rheumatoid arthritis before and after established treatment with TNF α inhibitors. The study results, published in the May 2019 issue of *The Journal of Nutrition*, reveal that improved vitamin B-6 status may be related to reduction of inflammation by TNF α inhibitors.

A total of 106 patients participated in this longitudinal study. Eligible patients, aged between 18 and 75 y, were evaluated at baseline and after 3 mo. treatment with TNF α inhibitors. A total of 28 standard joints were assessed and used to calculate a disease activity score. Ultrasonography scores were calculated by adding the score from 32 joints, each rated between 0 and 3 according to severity of inflammation. Responses to treatment with TNF α inhibitors were classified as good responders, moderate responders, or non-responders. After 3 mo. treatment with TNF α inhibitors, clinical parameters improved for the majority of participants, and better clinical response to treatment was associated with a proportional improvement in vitamin B-6 status. These findings highlight the relevance of monitoring vitamin B-6 status during treatment with TNF α inhibitors.



Reference

Sande JS, Ulvik A, Midttun Ø, Ueland PM, Hammer HB, Valen M, Apalset EM, Gjesdal CG. Vitamin B-6 Status Correlates with Disease Activity in Rheumatoid Arthritis Patients During Treatment with TNF α inhibitors. *The Journal of Nutrition*. 2019;149(5):770-75 <https://academic.oup.com/jn/article/149/5/770/5485270>

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Frequent consumption of sugar-sweetened soda increases diabetes risk in Mexican women

Not only can frequent consumption of sugar-laden drinks increase risk of obesity, the risk of developing type 2 diabetes increases as well. With better awareness of these health concerns, U.S. consumption of sugary beverages has declined in recent years. Unfortunately, an opposite trend is taking place in other regions of the world, particularly in developing countries that have undergone widespread urbanization. Based on a cohort of Mexican women, Dr. López-Ridaura (Center for Research on Population Health, National Institute of Public Health) and colleagues estimated the association between sugar-sweetened soda consumption and diabetes risk. The study, published in the May 2019 issue of *The Journal of Nutrition*, also determined if the association between sugar-sweetened soda and diabetes differs as a result of early life factors and potential genetic susceptibility.

Data from the Mexican Teachers' Cohort, utilized for this study, capture a population of adult women already at high susceptibility for diabetes due to genetic or early life exposures to an obesogenic environment. A food frequency questionnaire assessed sugar-sweetened soda consumption among 72,667 women aged > 25 y. Diabetes was self-reported, and markers of early life over-nutrition such as birth weight, stature, age-at-menarche, and adiposity at age 18-20 y old were also assessed. Information pertaining to potential genetic predisposition such as a family history of diabetes and belonging to an indigenous group was also collected. Researchers hypothesized that greater consumption of sugar-sweetened soda would be associated with a greater incidence of type 2 diabetes, and that the association between sugar-sweetened soda consumption and diabetes would differ by markers of early lifestyle factors and potential genetic susceptibility.

Consumption of sugar-sweetened soda was associated with an increase in the occurrence of diabetes. With each additional serving per day of sugar-sweetened soda, the incidence of diabetes increased by 27%. The soda-diabetes association was stronger among women who experience intrauterine and childhood-over nutrition. These important findings provide further evidence that sugar-sweetened soda consumption is associated with increased risk of diabetes among Mexican women in a magnitude similar to that reported in other populations. Furthermore, the strong association among individuals with markers of early life over-nutrition reinforces the need for early interventions as one of the strategies to help decrease the burden of diabetes in Mexico.



References

Stern D, Mazariegos M, Ortiz-Panozo E, Campos H, Malik VS, Lajous M, López-Ridaura R. Sugar-Sweetened Soda Consumption Increases Diabetes Risk Among Mexican Women. *The Journal of Nutrition*. 2019;149(5):795-803

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