Research gaps on 'rare' sugars that show promise as alternative sweeteners

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Research suggests that 'rare' sugars from common foods like honey, maple syrup and fruit show potential as alternative sweeteners to help manage weight and diabetes.

Studies on the human health benefits of rare sugars—including allulose, arabinose, tagatose, isomaltulose and trehalose—are limited but promising. Robust randomized controlled trials evaluating the health effects of these uniquely metabolized sweeteners are needed before they are used extensively in food production.

The call for quality human efficacy research stems from a new paper, Rare Sugars and Their Health Effects in Humans: A Systematic Narrative Synthesis of the Evidence from Human Trials published in the journal *Nutrition Reviews*.

In the paper, the experts systematically searched the literature for studies on rare sugars and their possible physical and metabolic health effects. These include weight impact, improved blood glucose response, as well as possible gastrointestinal side effects associated with reduced sugar absorption. The authors then synthesize the evidence, providing a snapshot of the state-of-the-science on health effects of each rare sugar.

According to the authors, "these rare sugars offer both short- and long-term benefits for glycemic control and weight loss," making them high potential for commercial use as alternative sweeteners. But they also note that "most studies are of small size and there is a lack of large randomized controlled trails that can confirm the beneficial effects of these rare sugars." Widespread use of potentially beneficial rare sugars in food applications should be informed by conducting and publishing quality human research on each of these unique rare sugars.

More information: Amna Ahmed et al, Rare sugars and their health effects in humans: a systematic review and narrative synthesis of the evidence from human trials, *Nutrition Reviews* (2021). DOI: 10.1093/nutrit/nuab012

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