

# How to execute dietary management in eating disorder patients

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Substances that provoke gastrointestinal symptoms in patients with eating disorders (ED) can impact negatively on their nutritional rehabilitation. An Australian research group has found that ingestion of fructose-sorbitol (F-S) provoked gastrointestinal symptoms in more than half of a group of female ED patients, and symptoms were more marked in the most underweight patients. These findings indicate that F-S provocative testing could play a valuable role in the clinical management of ED patients.

Eating disorders (ED) patients display a high prevalence of gastrointestinal symptoms and functional gastrointestinal disorders such as irritable bowel syndrome. These symptoms may interfere with their nutritional management. Ingestion of fructose-sorbitol (F-S) is an established means of gastrointestinal symptom provocation in [irritable bowel syndrome](#) patients. Surprisingly, although ED patients are known to consume "diet" products containing fructose and sorbitol, their gastrointestinal symptom responses to F-S provocation have not been studied.

A research article published on November 14, 2009 in the *World Journal of Gastroenterology* describes the responses of 26 ED patients to F-S provocation. The research team, including Professors Kellow, Abraham and Hansen from the University of Sydney, Australia, monitored gastrointestinal symptoms and breath hydrogen concentration (a marker of small bowel absorption) for 3 h following ingestion of 50 g glucose on one day, and 25 g fructose/5 g sorbitol on the next day. Responses to F-S

were compared to those of 20 asymptomatic healthy females.

F-S provoked gastrointestinal symptoms in 15 ED patients but only in one healthy control. In contrast, only one ED patient displayed symptom provocation to glucose, which does not usually provoke gastrointestinal symptoms; this shows specificity of the F-S response. A greater symptom response was observed in the most underweight ED patients (BMI  $\leq 17.5$  kg/m<sup>2</sup>) compared to those with a BMI  $>17.5$  kg/m<sup>2</sup>. There were no differences in psychological scores, prevalence of functional gastrointestinal disorders or breath hydrogen responses between patients with and without an F-S response.

The key findings of this study are that F-S provoked gastrointestinal symptoms in more than half of the female ED patients, a significantly greater proportion than that found in healthy individuals; the response was specific for F-S ingestion; and there was a greater symptom response in patients at lower BMI values. Consistent with this last finding, symptom provocation was more common in anorexia nervosa patients. Hence negative energy balance appears to play a role in F-S sensitivity in these patients. As [fructose](#) and sorbitol are likely to be commonly ingested by ED patients, representing a potential source of gastrointestinal distress that would impact negatively on their nutritional management, F-S provocative testing could prove valuable in identifying those patients with symptom sensitivity to these substances.

More information: Friesen N, Hansen RD, Abraham SF, Kellow JE. Fructosesorbitol ingestion provokes gastrointestinal symptoms in patients with eating disorders. World J Gastroenterol 2009; 15(42): 5295-5299, [www.wjgnet.com/1007-9327/15/5295.asp](http://www.wjgnet.com/1007-9327/15/5295.asp)

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