Fructose malabsorption is associated with early signs of mental depression.

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Fructose malabsorption is characterized by the inability to absorb fructose efficiently. As a consequence fructose reaches the colon were it is broken down by bacteria to short fatty acids, CO2 and H2. Bloating, cramps, osmotic diarrhea and other symptoms of irritable bowel syndrome are the consequence and can be seen in about 50% of fructose malabsorbers. Having made the observation that persons with fructose malabsorption very often seem to present not only with signs of irritable bowel syndrome but also with signs of pre-menstrual syndrome and mental depression, it was of interest to establish whether such an association could be demonstrated in patients. Fifty-five adults with gastrointestinal complaints of unknown origin (12 males, 43 females) were analyzed by measuring breath hydrogen concentrations after an oral dose of 50 g fructose and were classified as normals or fructose malabsorbers according to their breath H2 concentrations. All patients filled out a Beck's depression inventory - questionnaire. Fructose malabsorption was detected in 36 of 55 individuals (65.5%). Subjects with fructose malabsorption (DeltaH2 concentrations >10 p.p.m. after fructose load) showed a significantly higher score in the Beck's depression inventory than normal fructose absorbers. This was true especially for females. Fructose malabsorption may play a role in the development of depressed mood. Fructose malabsorption should be considered in patients with symptoms of major depression or pre-menstrual syndrome. Further studies are needed to clarify the background of this association.

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