

Gastrointestinal disorders involve both brain-to-gut and gut-to-brain pathways

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New research indicates that in patients with irritable bowel syndrome (IBS) or indigestion, there is a distinct brain-to-gut pathway, where psychological symptoms begin first, and separately a distinct gut-to-brain pathway, where gut symptoms start first.

In the study, higher levels of anxiety and depression were significant predictors of developing IBS or indigestion within 1 year. People who did not have elevated levels of anxiety and depression at the start of the study but had documented IBS or indigestion reported significantly higher levels of anxiety and depression after 1 year.

The researchers calculated that in one-third of individuals, a [mood disorder](#) precedes [gastrointestinal disorder](#), but in two-thirds a gastrointestinal disorder precedes the mood disorder.

"We believe these results are really a breakthrough in conceptualizing IBS. The data indicate some patients with IBS have a primary gut disease that may not only explain their gut symptoms but also their psychological distress," said Prof. Nicholas Talley, senior author of the *Alimentary Pharmacology & Therapeutics* study. "There are now three studies we have done that have all shown this new gut to brain pathway. Targeting the gut is much easier than the brain, and in doing so we may be in reach of relieving not only gut pain but also anxiety and depression that arises from gut disease."

More information: N. A. Koloski et al, Evidence that independent gut-

to-brain and brain-to-gut pathways operate in the irritable bowel syndrome and functional dyspepsia: a 1-year population-based prospective study, *Alimentary Pharmacology & Therapeutics* (2016).
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