

# 'Supersize me' mice research offers grim warning for America's fast food consumers

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It's research that may have you thinking twice before upgrading to the large size at your favorite fast food joint. Saint Louis University research presented this week in Washington, D.C., shows the dangers of high-fat food combined with high fructose corn syrup and a sedentary lifestyle – in other words, what may be becoming commonplace among Americans.

Brent Tetri, M.D., associate professor of internal medicine at Saint Louis University Liver Center, and colleagues studied the effects of a diet that was 40 percent fat and replete with high fructose corn syrup, a sweetener common in soda and some fruit juices. The research is being presented at the Digestive Diseases Week meeting.

"We wanted to mirror the kind of diet many Americans subsist on, so the high fat content is about the same you'd find in a typical McDonald's meal, and the high fructose corn syrup translates to about eight cans of soda a day in a human diet, which is not far off with what some people consume," says Tetri, a leading researcher in nonalcoholic fatty liver disease, which can lead to cirrhosis and, ultimately, death. "But we were also keeping the mice sedentary, with a very limited amount of activity."

The study, which lasted for 16 weeks, had some curious results, says Tetri.

"We had a feeling we'd see evidence of fatty liver disease by the end of the study," he says. "But we were surprised to find how severe the damage was and how quickly it occurred. It took only four weeks for

liver enzymes to increase and for glucose intolerance – the beginning of type II diabetes – to begin."

And unlike other studies, the mice were not forced to eat; rather, they were able to eat whenever they wanted – and eat they did. Tetri says there's evidence that suggests fructose actually suppresses your fullness, unlike fiber-rich foods, which make you feel full quickly.

The take-home message for humans is obvious, he says.

"A high-fat and sugar-sweetened diet compounded by a sedentary lifestyle will have severe repercussions for your liver and other vital organs," he says. "Fatty liver disease now affects about one of every eight children in this country. The good news is that it is somewhat reversible – but for some it will take major changes in diet and lifestyle."

Source: Saint Louis University

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