

Gastric bypass reduces blood pressure

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The kidneys play an important role in the regulation of blood pressure by adjusting the production of urine after eating or drinking. This process begins already in the upper digestive tract, which could explain why gastric bypass surgery for obesity also markedly reduce blood pressure, reveals a thesis from the Sahlgrenska Academy at the University of Gothenburg.

The kidneys can quickly adjust the production of [urine](#) after consumption of food or drink, which is important so that the composition of bodily fluids and the blood does not vary too much.

"My research shows that this elimination of urine starts already when salt and water reach the upper part of the digestive tract," says researcher Peter Hallersund from the Sahlgrenska Academy. "So there's a link between this part of the body and renal elimination."

The thesis includes a study of 1,750 patients who underwent one of two types of obesity operations – gastric bypass or gastric banding. The results show that the elimination of urine increases after gastric bypass surgery. This can be explained by the fact that food and drink no longer come into contact with the upper part of the digestive tract, thus breaking the link between this part of the digestive system and the kidneys.

"We saw a long-term reduction in [blood pressure](#) after gastric bypass surgery, which could also be directly linked to the increase in patient's daily amount of urine after the operation," says Hallersund. "The gastric

bypass probably reduces blood pressure in the same way as diuretic blood pressure medication."

After ten years the decreased blood pressure following a gastric bypass was not related to the reduced weight and was markedly larger than after gastric banding. Dr Hallersund believes that this could be important when deciding between surgical methods for people who are overweight and have high blood pressure.

"A more unexpected finding in this study was that consumption of salty food increased after [gastric bypass](#) surgery, even though blood pressure went down. We think that this is because the operation also bypasses a link between the upper [digestive tract](#) and the brain which is important for suppressing our appetite for salt."

Provided by University of Gothenburg

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