

Researchers improve diabetes remission predictors in bariatric surgery

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Ben-Gurion University of the Negev (BGU) researchers have improved a standard bariatric surgery clinical scoring system (DiaRem) to extend the prediction time for diabetic remission following bariatric (weight-loss) surgery.

The DiaRem score, which includes a patient's age, body mass index (BMI), diabetes indicators, and treatments, is used to predict the probability of remission of type 2 diabetes after Roux-en-Y gastric bypass (RYGB) [surgery](#).

In the study published in *Obesity Surgery*, the researchers improved the DiaRem scoring system to include additional indicators, which extended the prediction time for diabetes remission from one to five years and included three types of bariatric procedures instead of just the standard bypass surgery.

"We know weight-loss surgery has the potential to put diabetes in remission," says Dr. Rachel Golan, a lecturer in the BGU School of Public Health, Faculty of Health Sciences. "The previous DiaRem model was limited to projecting outcomes for only one year after only one type of procedure. Our 'Advanced-DiaRem' was able to predict the longer-term probability of achieving remission from diabetes out to five years following three different surgical procedures."

In the study, the researchers used a computerized database of nearly 1,500 patients with type 2 [diabetes](#) and a BMI of more than 30 who had

RYGB, sleeve gastrectomy or gastric banding surgery to determine their diabetic [remission](#) status after two and five years. Using this data, they were able to develop an Advanced-DiaRem.

This breakthrough could impact public health debates as obesity rates, which are considered the most prevalent preventable risk factor for morbidity and mortality in Western countries, continue to soar to epidemic levels.

According to the World Health Organization, worldwide obesity has nearly tripled since 1975. In 2016, more than 1.9 billion adults, 18 years and older, were overweight. Of these over 650 million were obese.

"The ability to predict an individual's reaction to weight loss surgery gives both doctors and patients the clarity they need to make informed medical decisions," says Dr. Golan.

"More importantly, it will enable health care officials to address a public health crisis that is one of the major contributors to the spiraling cost of health care, and direct resources where they can be most effective."

More information: Dror Dicker et al, Prediction of Long-Term Diabetes Remission After RYGB, Sleeve Gastrectomy, and Adjustable Gastric Banding Using DiaRem and Advanced-DiaRem Scores, *Obesity Surgery* (2018). [DOI: 10.1007/s11695-018-3583-3](https://doi.org/10.1007/s11695-018-3583-3)

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