

# Metabolic Surgery - Doctor Q&A

HOSTED BY:



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Suffering from obesity and metabolic disorders such as diabetes, high blood pressure, high cholesterol or non-alcoholic fatty liver? You could find a solution in metabolic surgery, a surgical procedure in which the digestive system is modified to reduce the person's ability to eat. Beyond weight loss benefits, this procedure can improve metabolic disorders. However, it does have its risks.

If you have questions related to metabolic surgery, take this opportunity to ask our experts today.

**Q:** Hi Dr, Are there any side effects after metabolic surgery?

**A (DR. SHANKER):** The most important effect of metabolic surgery is the restriction of food intake. Once recovered from surgery, patients may eat about one-third to half of a normal main course portion, or a small appetiser portion in a restaurant. Sometimes it may be necessary to take nutritional supplements to avoid vitamin, iron and calcium deficiencies. If patients do not exercise regularly after going through metabolic surgery, they may feel weak and lethargic because of low metabolism and muscle loss. They may also be at risk for osteoporosis.

**Q:** Dear Dr, will non-obesity person get metabolic disorders too? What are the preventive measures for metabolic disorders?

**A (DR. THAM):** It is possible for a non-obese person to get metabolic disorders, which include type 2 diabetes mellitus, hypertension, high triglycerides, fatty liver, sleep apnea, as there are other factors other than being overweight and obese that affect these conditions. However the risk is much higher in people above the healthy body mass index/BMI range (of 18.5 – 22.9 kg/m<sup>2</sup> for Asians and 18.5 – 24.9 kg/m<sup>2</sup> for Caucasians) compared to those in the healthy range. People with excess abdominal fat are also at higher risk. A family history of such disorders also increases one's risk for these medical problems.

In general, the preventive measures are a healthy lifestyle to keep within the healthy

weight range as stated above. This encompasses a healthy, balanced diet that is high in fibre with reduced saturated fat, along with lots of physical activity (which may be structured exercise or daily physical activities or a combination of both).

**Q:** I'm a type 2 diabetic patient, standing at 1.7m and weighing 80kg. Would you suggest that I go for a metabolic surgery?

**A (DR. THAM):** Metabolic surgery is an emerging field in medicine whereby surgery (usually of the gut) improves metabolic conditions highly affected by weight such as type 2 diabetes mellitus, hypertension, high triglycerides, fatty liver, sleep apnea. At present, such surgery is approved as a treatment method in individuals who are obese (i.e. body mass index/BMI > 32.5 kg/m<sup>2</sup>) associated with a metabolic disorder, especially if the condition is not well controlled on medical treatment.

Your BMI is 27.7 kg/m<sup>2</sup>. For people with type 2 diabetes mellitus which is not well-controlled on medications and have a BMI less than 32.5 kg/m<sup>2</sup> but are overweight, metabolic surgery may be considered but should only be done under research / trial conditions and in highly specialized medical centres which have a multi-disciplinary team of healthcare professionals including diabetes experts (endocrinologists) experienced in assessing and treating such patients, as these healthcare professionals will have to monitor these patients carefully after surgery.

**Q:** I am 58 yrs old female with high blood pressure. Now doing 40 mins exercise in the gym 4 times a wk. I want to stay healthy and not reduce weight due to metabolism. But doc has recommended to reduce weight to lessen the pressure on my knee suffering from osteoarthritis. Will the op help with my condition? Edit UnPublish

**A (DR. THAM):** Osteoarthritis (OA) of the knees is related to being overweight and obesity and one of the key treatment approaches to OA is weight loss since the knees do bear all our weight. Any amount of weight loss even 1-2 kg, will help your symptoms of OA knees and may reduce the burden of further deterioration.

Bariatric surgery will result in significant weight loss in most people. This amount of weight loss will help relieve the symptoms of OA knees. However, whether you are considered a candidate suitable to undergo the op is the key issue here and will depend on what your weight (and hence your body mass index/BMI) is now.

In general, the standard criteria for bariatric surgery is BMI greater than 32.5 kg/m<sup>2</sup>, with concomitant obesity-related conditions such as diabetes, hypertension, fatty liver, or a BMI greater than 37.5 kg/m<sup>2</sup> without any medical problems. If you qualify under these criteria, then the op will help your condition.

**Q:** I am of acceptable weight but have a low metabolism. (I don't sweat much even after intense exercise). Thus, is this type of surgery suitable only for those with weight issues? May I also know how does the

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surgery works? Eg: Operating on which part? It is the first time I have ever heard of "Metabolic Surgery".

**A (DR. SHANKER):** Metabolic Surgery is the short version of "metabolic-bariatric surgery" the new term for weight-loss surgery. The reason why there is a new description is because of the tremendous impact of weight-loss surgery on obesity-related metabolic diseases, especially diabetes mellitus, hypertension and cholesterol disorders. At present the Singapore Obesity Clinical Practice Guidelines recommend this type of surgery as a medical treatment only for obesity. There is not enough scientific data to recommend this type of surgery for people who are not obese. The main mechanism by which the surgery works is restriction of caloric intake by restriction of the stomach – either using a silicone band or a stapling technique. A bypass of the intestine is sometimes performed to further enhance the weight-loss effect.

**Q:** What are the criteria for patient to undergo metabolic surgery? How long is the recovery period?

**A (DR. SHANKER):** The standard criteria for metabolic-bariatric surgery is body mass index (BMI) greater than 32.5 kg/m<sup>2</sup>, with concomitant obesity-related conditions such as diabetes, hypertension, fatty liver,

etc. The average hospital stay at our centre is 2 days, but patients are usually given 2-4 weeks medical (hospitalisation) leave in order to recover fully.

**Q:** Dear Doc, I am a 43 years old, Male. My weight is 97kg and has a BMI of 33.5. Can I go on metabolic surgery and what are the immediate and progressive risks associated to people of this age group who had undertaken such surgery. I would love to do travel photography in 10 years time. Is there any activities or hobbies that a patient must avoid? Thank you in advance for your kind advice. Best regards, Lim Yew Cheng

**A (DR. SHANKER):** Before undergoing metabolic surgery, it is necessary to be evaluated by a specialist team to make sure that clear and accurate guidance is provided in dietary and lifestyle intervention for weight loss. It is often necessary to customise the approach to each individual's specific needs.

Your weight and BMI are within the criteria for metabolic surgery but you must be prepared for a drastic reduction in your food intake. Complications at the time of surgery are low (<3% at our centre). After surgery, blood tests and checkups will be done frequently for the first year as the weight loss can be quite dramatic (on average 25% of your initial weight). You

must engage in regular exercise to maintain your muscle and bone strength and enhance weight loss. You should avoid smoking, excessive alcohol intake, and sedentary activities. You should pay a great deal of attention to your diet; eat more protein, fresh fruit and vegetables and avoid processed, fatty and carbohydrate-rich foods.