

SINGAPORE Health 新脉动

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的见解

Extreme makeover

Weight-loss surgery helps two patients battle diabetes, obesity and other illnesses



Dr Tham Kwang Wei (far left) and Dr Shanker Pasupathy (far right) with their gastric bypass patients Mr Shaun Lawrence and Ms Rozita Ramlee.

BY VALERIE LEE

MR SHAUN LAWRENCE, 32, AND MS ROZITA RAMLEE, 36, USED TO TIP THE SCALES AT OVER 100KG.

Meet them today and you probably won't be able to tell that they used to be obese. That's because both of them underwent gastric bypass, a form of weight-loss or

bariatric surgery effective in reversing diabetes and other metabolic disorders. To help fight their obesity, diabetes and accompanying illnesses, Mr Lawrence and Ms Rozita underwent the operation at Singapore General Hospital (SGH) late last year.

"In the past, I couldn't walk long distances and didn't dare take the MRT and public buses. This operation has given me

a whole new life," said Mr Lawrence, who now runs, swims and goes to the gym regularly. "And, after more than 30 years, I can now say 'no' to food."

Mr Lawrence weighed 117kg and had a body mass index (BMI) of 35 when he went under the knife last November. He now weighs 85kg.

Ms Rozita, who was considered "super-obese" with a BMI of 50, went from 128kg to her current 93kg after her bariatric procedure in September last year.

Both are now off the medication they were previously taking for diabetes, high blood pressure, cholesterol and treatment for obstructive sleep apnoea (OSA).

Vast improvement

Mr Lawrence had terrible fasting blood sugar levels - 15.5mmol/L at their worst - two years ago, but they plummeted to a healthy 5.7mmol/L during a recent blood test. Ms Rozita's three-monthly sugar level, also known as glycated haemoglobin or HbA1c, was as high as 8.6 per cent last year. Six months after surgery, it was well in the normal range at 5.7 per cent. Considering that they no longer take diabetes medication, the new levels were remarkable.

Plus, Mr Lawrence no longer snores and Ms Rozita no longer suffers from OSA - a condition in which a person stops breathing periodically as the breathing passage shuts during deep sleep.

But the road to gastric bypass was not easy. Both had to go through rigorous

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Plasma to the rescue

Patients with dry eyes who don't respond to commercial eye drops now have an effective new option

BY THAVA RANI

FOR ALMOST THREE YEARS, SHE STRUGGLED TO FIND WAYS TO DEAL WITH HER DRY EYES. Each time she blinked, Mrs Ng Guan Lee felt as if a knife was slicing a layer off the surface of her eye.

Sometimes, the pain got so bad, it kept her up at night. Then, relief came in the form of eye drops made from her own blood.

"The plasma eye drops are really soothing to my eyes. They take away the dryness and don't irritate my eyes as they are made of my own protein," said Mrs Ng.

Her condition was brought on by multiple operations to treat a retinal problem in her eye. Besides using over-the-counter lubricating eye drops to relieve the symptoms, she tried to avoid air-conditioned areas where possible, and even installed a humidifier in her bedroom so her eyes would not become dry. However, the frequent use of eye drops brought on other problems.

"The commercial eye drops relieved my symptoms only temporarily, so I

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4. Go to the toilet before taking your blood pressure
5. Avoid eating a heavy meal before taking your blood pressure
6. Do not move while taking your blood pressure
7. Do not talk while taking your blood pressure
8. When taking a second reading, rest for one minute
9. Always record you blood pressure down
10. Blood pressure measurement should be done daily

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Extreme makeover

interviews and counselling at SGH Life-style Improvement and Fitness Enhancement (LIFE) Centre. Staffed by a multi-disciplinary team of doctors, dietitians, physiotherapists, psychologists, occupational therapists and medical social workers, the centre promotes integrated and holistic care for patients with lifestyle-related medical conditions, such as eating disorders and obesity.

Since his 20s, Mr Lawrence had been seeing Dr Tham Kwang Wei, Consultant, Department of Endocrinology, SGH, and Director, Obesity and Metabolic Unit. It was only late last year that he made up his mind that he was ready for the procedure and the commitment it entailed.

"He was first referred to the Diabetes Centre at SGH as a 19-year-old after he was diagnosed with type 2 diabetes during his national service pre-enlistment screening," said Dr Tham.

"He was a typical diabetic. He battled with his weight for a long time. He would lose 10kg and bounce back with a 15kg weight gain. He had been seeing us for a good seven years. Then he disappeared off the radar and came back about a year later with very poorly controlled diabetes. His blood pressure was high and his cholesterol levels were off the charts. I said, 'Look, you are young and you can't go on like that. You are a candidate for a heart attack at 40.' And that was when we discussed surgery."

For Ms Rozita, the turning point came a year later when she was in and out of the hospital four times for a host of medical problems which included diabetes, inflamed stomach ulcers, sleep apnoea and an ovarian cyst.

Fed up that her weight was causing her so many problems, she opted for gastric bypass. "I told my husband, 'I don't care if you allow me to or not, I am signing the consent form for the surgery.'"

Such determination and commitment is key when assessing patients for bariatric surgery, said Dr Shanker Pasupathy, Senior Consultant, General Surgery, and Director, LIFE Centre, SGH.

"There is a common misconception that the operation will fix everything and, after that, you will go on with your life. But that is not true. The surgery is a reset button and, after that, you embark on a new life, not just in terms of eating but your whole approach to life."

Patients who go to LIFE Centre learn to modify their eating habits. "We talk about eating, selecting food and being relaxed. They need to understand that these are important and they need to make changes. Undergoing surgery to lose weight will help them only 20 to 30 per cent of the way," Dr Shanker said.

Bariatric procedures – whether it is a gastric bypass, gastric lap band surgery or gastric sleeve surgery – are doomed to fail if patients do not make dietary and lifestyle changes, he added. They could regain all the weight they worked so hard to lose in the first place.

Post-surgery

After surgery, a patient's stomach is reduced to the size of a tiny pouch that is attached to the middle portion of the small intestine. Eat more than what the pouch can handle and the patient will throw up.

Mr Lawrence typically eats a slice of bread for breakfast, a small piece of fish for lunch and a small piece of chicken for dinner. "Less carbohydrates, no fried chicken, which I loved, and no rice. I no longer remember what rice tastes like."

Ms Rozita, who admitted she used to not know the word "full" when it came to food, has taught herself to say "no" to a lot of it.

She and Mr Lawrence are now committed to a life of careful eating, exercise, a regimen of daily supplements and regular visits to LIFE Centre to monitor their progress. They have become advocates of a healthy lifestyle as family members and friends follow their new habits. Mr Lawrence's family alone has collectively lost over 30kg since his surgery.

"That one person who has had surgery and has been taught about eating becomes a nucleus of change for the family," Dr Shanker said.

Patients are helped by the support of others in the same boat. Prospective patients and people going through the various post-operative phases attend support group meetings at LIFE Centre, held every other Wednesday evening.

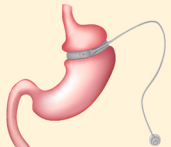




Obesity brings on other diseases

Obesity refers to abnormal or excessive fat accumulation that represents a risk to health. According to the National Health Survey 2010, the obesity rate increased to 10.8 per cent in 2010 from 6.9 per cent in 2004. The Health Promotion Board considers people with a BMI of 27.5 and more to be at high risk of developing a number of diseases, including the following:

- ⊙ Abnormal heart function
- ⊙ Asthma
- ⊙ Obstructive sleep apnoea
- ⊙ Gall bladder disease
- ⊙ Osteoarthritis
- ⊙ Joint pains
- ⊙ Leg swelling
- ⊙ Stroke
- ⊙ Cataract
- ⊙ Diabetes
- ⊙ Hypertension
- ⊙ Cancer
- ⊙ Abnormal periods
- ⊙ Infertility
- ⊙ Polycystic ovarian syndrome
- ⊙ Coronary artery disease

Banding and stapling

Procedure	What happens	Pros	Cons
 <p>Laparoscopic adjustable gastric banding</p>	<ul style="list-style-type: none"> ⊙ An adjustable silicone band is placed around the upper part of the stomach to reduce its size, so the person feels full faster and thus eats less and loses weight ⊙ A port implanted under the skin allows for fine adjustment of the outlet diameter 	<ul style="list-style-type: none"> ⊙ Relatively simple surgery ⊙ No cutting of stomach ⊙ Initially low complication rate post-surgery ⊙ Improves mild diabetes ⊙ Reversible (if band is removed before complications set in) 	<ul style="list-style-type: none"> ⊙ Foreign body inserted ⊙ Requires regular adjustments in clinic ⊙ About 10 per cent of patients do not achieve any weight loss ⊙ Significant late complications, including infection, band erosion or slippage, requiring repeat surgery
 <p>Laparoscopic sleeve gastrectomy</p>	<ul style="list-style-type: none"> ⊙ About 75 per cent of the stomach is removed ⊙ The early results of this relatively new procedure are promising 	<ul style="list-style-type: none"> ⊙ No foreign body is inserted as with banding ⊙ One-off surgery ⊙ Rapid initial weight loss ⊙ Reduces hunger pangs more than banding ⊙ Improves mild diabetes ⊙ Patients can eat better than after banding, but still experience good weight loss 	<ul style="list-style-type: none"> ⊙ Permanent and irreversible ⊙ Long-term (over five years) results are not known ⊙ Staple line on stomach can bleed or leak
 <p>Laparoscopic Roux-en-Y gastric bypass</p>	<ul style="list-style-type: none"> ⊙ A small gastric pouch is first created, then a bypass to the small intestine is performed ⊙ This reduces calorific intake and alters the way food is digested 	<ul style="list-style-type: none"> ⊙ Greater weight loss than other methods ⊙ Can reverse established type 2 diabetes ⊙ Well-understood procedure which has been performed for more than 40 years 	<ul style="list-style-type: none"> ⊙ Surgeon requires more training ⊙ Staple line and gastro-intestinal connections can bleed or leak ⊙ Late complications such as stomach ulcers and twisting of intestines can occur ⊙ Nutritional deficiencies can develop ⊙ Requires lifelong specialist care and nutritional supplements

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老年人需要更
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在同一药房买
全所需药品

极限改造

减肥手术使两名病患成功抵抗糖尿病、肥胖症及其他并发症



谭光慧医生（左一）和Shanker Pasupathy医生（右一）与接受胃旁路手术后的Shuan Lawrence先生和Rozita Ramlee女士。

◎原文 Valerie Lee

现年32岁的Shuan Lawrence先生和36岁的Rozita Ramlee女士的体重曾经超过100公斤。

如今遇到他们时，您无法想象他们曾经患有肥胖症。为了治疗肥胖症、糖尿病及其他并发症，两人不约而同地在新加坡中央医院接受胃旁路手术。这是一种减肥手术，对逆转糖尿病和其他代谢性疾病都有非常好的疗效。

“过去，我不能行走远程，不能搭乘公共巴士，也不敢乘坐捷运。这手术让我重获新生，”Lawrence先生说。现在定期跑步的他也开始游泳和健身。“活了30多年，我现在可以对食物说‘不’了”。

在手术前，Lawrence先生的体重是117公斤，身高体重指数（BMI）为35。去年11月动手术后，如今他的体重是85公斤。

Rozita女士在手术前是属于“超级肥胖”型，BMI为50，体重高达128公斤。于去年9月做了减肥手术后，她现在的体重已减至93公斤。

目前，两人都无需再服用治疗糖尿病、高血压和高胆固醇的药物，也不用继续接受睡眠呼吸暂停症的治疗。

巨大的改善

Lawrence先生的空腹血糖指数也曾在前两年攀升至15.5mmol/L，但最近的一次血液检测发现血糖已经降至5.7mmol/L的健康水平。去年Rozita女士每三个月测量的血糖水平（也称为糖化血红蛋白或HbA1c）高达8.6%。手术后的6个月，也降至5.7%的良好水平。可见已停止服用降血糖药的两人，新血糖水平也有着卓越的改善。

Lawrence先生曾经鼾声如雷，甚至会吵醒邻居，如今他晚上睡觉时再也不打鼾了。而Rozita女士曾经患有阻塞性睡眠呼吸暂停症。这种病症使患者在深度睡眠时由于气道闭塞而会周期性地停止呼吸，因此不得不使用连续气道正压通气（continuous positive airway pressure，简称CPAP）装置帮助睡眠。现在，她再也不需要它也能睡得安稳。

不过，接受胃旁路手术的过程并非一帆风顺。

他们都在新加坡中央医院康跃中心通过一连串严格面试和咨询。由多学科专业医疗人士组成，包括医生、营养师、心理治疗师、心理学家、职能治疗师和医学社会工作者，康跃中心是专为患有与生活方式相关病症，例如患有饮食障碍和肥胖症的病人提供综合式全面护理的治疗中心。

自20多岁开始，Lawrence先生已经是谭光慧医生的病人了。谭医生是新加坡中央医院内分泌科的顾问医生兼肥胖及代谢组的主任。直到去年下半年，Lawrence先生才下定决心接受手术。

谭医生说：“当时他在全国征兵体检时被诊断患有2型糖尿病，随后被转诊到新加坡中央医院糖尿病中心时才19岁。”

“他是个典型糖尿病患者，长久以来与他的体重交战。他的体重可以减少10公斤，随后又反弹增多15公斤。他来这里就诊前后有7年多然后消失了一年，再次找我时是因为他已难以控制糖尿病病况。他的血压高，胆固醇水平也远远超过正常范围。我对他说，‘你还年轻，不能这样下去，否则你在40岁时就已经患有心脏病。’就在这时候我们才开始谈论手术。”

Rozita女士患有多种疾病，包括糖尿病、炎症性胃溃疡、睡眠呼吸暂停症及卵巢囊肿。她在一年之内前后住院4次。正因如此让她改变了想法。

“许多人认为减肥手术可以解决所有问题，但关键在于手术，而是了解如何进食和如何面对生活。”

新加坡中央医院康跃中心主任兼普外科高级顾问医生Shanker Pasupathy

对肥胖问题而患上的疾病厌烦不堪，她便要求做胃旁路手术。“我告诉我丈夫说，不管你是否同意我做手术，我都要在手术知情同意书上签字。”

据新加坡中央医院康跃中心主任兼普外科高级顾问医生Shanker Pasupathy所说，

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血浆能起救援作用

普通润眼液无法起作用的干眼症患者能选择一种新的有效疗法

◎原文 THAVA RANI

王银花女士竭力寻找能治疗干眼症的方法有近三年了。她每眨眼一次就会感到眼睛表面好像被刀刮掉一样。甚至有时，疼痛剧烈到半夜都会被痛醒。于是，她将自己的血液制成润眼液缓解症状。

王女士说：“用血浆制成的润眼液对缓解干眼症真的很有效。因为它是我自己的蛋白质制成的，所以能缓解眼部干涩，不会刺激到眼睛。”

王女士的干眼症是因治疗视网膜疾病时而进行多次手术后所引起的。除了使用非处方的润眼液缓解症状外，她还尽量避免到有冷气的地方，甚至在卧室内也安装了加湿器，为的就是避免让眼睛干涩。尽管如此，频繁使用润眼液却带来其他问题。

现年55岁的王女士是电信行业采购经理，她说：“直接从药房购买的润眼液只能暂时缓解我的症状，所以我几乎是每半小时就得滴一次，尤其是在我长时间使用电脑时。过了一阵子，我开始感觉眼里好象有沙子。有时，我的眼睛会变得红肿且发炎，以致必须赶紧去急诊室求诊。”

所以当受邀参与一项使用自己的血浆制成新型润眼液的研究时，王女士是非常乐意参加的。血浆是呈黄色的液体在血液中运载所有不同种类血细胞。

因为人们体内所产生的泪水中涵盖多种蛋白质，所以市售上的润眼液不能完全复制泪水。新加坡眼科研究所和新加坡全国眼科中心的研究人员相信最接近泪水的替代物是血浆。

新加坡全国眼科中心角膜及眼表疾病科顾问医生童学天说：“虽然血浆成份与泪水并不完全相同，但是血浆含有泪水中所有的多种蛋白质。蛋白质为眼表面营造了一个正常、抗炎的环境，因此血浆可以是很好的泪水代替物。”童医生也是这项研究的第一负责人。

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新闻

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血浆能起救援作用

轻松多了!

干眼症是一种能影响患者生活质量常见的疾病。造成干眼症的因素包括老化、眼睛创伤或某些疾病,也可能是由于某些药物或治疗的副作用。例如,61岁的Hartono Hoesny先生就是因患有癌症而在骨髓移植后而患上了干眼症。

这位食品配送公司的主管说:“我在10年前做了骨髓移植后出现了各种排斥反应影响了口腔、皮肤和指甲。但是,给我带来最大困扰的还是眼睛,因为总感觉眼睛里有沙粒。”

“

研究小组很乐观地认为,未来以这原理为基础的疗法将会成为较难治疗的干眼症病例的“黄金标准”。

新加坡全国眼科中心角膜及眼表疾病科顾问医生童学天

”

Hoesny先生也试用了几种非处方润眼液和眼用凝胶,不过全都不管用,直到他参加此项研究,开始使用自己的血浆所制作的润眼液后,症状才有了好转。

参加研究的患者得接受一小时类似捐血且无痛的程序,以便从其血液中提取



王银花女士是试用血浆润眼液的一位研究参与者。她将装有血浆润眼液的细管存放在冰箱中,然后依日常所需把部分解冻使用。为了从她的血液中提取血浆,她接受了长达一小时类似捐血且无痛的程序。

血浆。之后将血浆装入相间隔离约一英寸的细管中。

存放在冰箱中

患者将这些细管存放在冰箱中,然后依日常所需把部分细管折断使用。有些患者如Hoesny先生,甚至用双层袋子包装细管才放入冰箱,以确保细管不受污染。虽然王女士和Hoesny先生都必须确保他们使用的部分血浆整天都处于阴凉的环境中,但是他们都不嫌它麻烦。

王女士说:“我根本不觉得有任何的不方便。事实上,那样大费周章还是值得的,因为我的干眼症真的得到了改善。”王女士将她的润眼液存放在一个婴儿食物容器中,然后再放入一个保温袋里。

研究人员对前景感到乐观

对于干眼症患者所得到的改善,也得到



了研究小组观察结果的证实。

“我们观察到,经过六周治疗后,上皮细胞既眼表面的细胞的损伤减轻了。这些研究结果非常鼓舞人心。我们最近在一次国际会议上宣布这些研究结果时,在场的医疗同行也同样感到兴致勃勃。”童医生说道。

研究小组很乐观地认为,未来以这原理为基础的疗法将会成为较难治疗的干眼症病例的“黄金标准”。与此同时,小组必须继续进行一至两年的研究,以观察它的长期疗效。

血浆润眼液将由新加坡卫生科学局血液服务处生产,该部门也会帮助患者储存其血浆润眼液。

“由于血液服务处的冷藏设施更为可靠、也更为宽敞,患者可以将其一半的血浆润眼液存放在那里。当患者用完存放在家中的血浆润眼液后,他们可以从血液服务处拿取其余的存货,而不必再

为什么眼睛会变得干燥?

眼睛表面持续由具湿润作用的泪水保护着。眼泪的成份是:

- ◎ 水份以保持湿润
- ◎ 油脂以保持润滑
- ◎ 粘液以保持均匀涂布
- ◎ 抗体和特殊蛋白质以抗感染

眼睛周围的特殊腺体会分泌这些成份。这些成份的失衡则会引起干眼症。

如何知道眼干

当泪水无法有效润滑眼睛,你就会感到:

- ◎ 疼痛
- ◎ 畏光
- ◎ 沙粒感
- ◎ 眼睛含沙粒的感觉
- ◎ 眼睛发痒
- ◎ 眼睛发红
- ◎ 视力模糊

次进行血浆提取。”童医生解释道。

对于像Hoesny先生这样的患者而言,这确实是一个好消息。

他说:“血浆润眼液纯粹来自我们体内的血浆,因此非常安全有效。我很荣幸能参与这项试验。虽然现在研究期已结束而需要付费,不过相比于购买并不完全有效的非处方润眼液,还是便宜得多了。”

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极限改造

这样的决心和意志对评估病人是否适合减肥手术至关重要。

“许多人认为减肥手术可以解决所有问题,手术后就可以随心所欲。其实,事实并非如此。手术就象个‘复位’按钮,可以让你展开新生活,不仅仅是饮食上,而是面对整个生活方式的态度,”他说。

在康跃中心,病人学习如何改变饮食习惯。“我们讨论饮食、食物选择以及放松心情。他们需要了解这些事项的重要性以便作出调整。减肥手术只能帮助他们减轻20%至30%的体重。”

要是病人不调整饮食和生活方式,任何的减肥手术,不管是胃旁路手术、腹腔镜下胃束带术或胃囊袋切除术都将注定要失败Shanker医生补充道。这样辛辛苦苦削掉的体重也会因调整不当而复胖。

手术后

Lawrence先生和Rozita女士异口同声地表示他们手术后的复健过程也不是件易事。

手术后,病人的胃容量被减小成小

囊,与小肠中段直接相连。如果进食量超过小囊的容量,病人就会呕吐。

Lawrence先生早餐通常吃一片面包,午餐吃一小块鱼,晚餐吃一小块鸡肉。“我只吃少量的碳水化合物,不能吃我爱吃的炸鸡,也不能吃米饭。”

Rozita女士断言,对于食物她从来不曾有过‘吃饱了’的感觉,不过她已经学会克制自己,对很多食物说‘不’了。

现在他们两人终身都得坚守严谨的饮食习惯、锻炼和每日营养补充品的摄入,并且定期到康跃中心监测自己的进展情况。他们也当起健康生活方式的大使,因为他们的家人和朋友都以他们为榜样,从而为自己选择健康的生活方式。自从Lawrence先生接受手术后,其家人的总体重也削了超过30公斤!

Shanker医生说:“关键不在于手术,而是了解如何进食和如何面对生活。这样一来,手术后还学会如何正确饮食的人就会成为改变其家庭成员的饮食习惯的核心人物。”

拥有同样经历的病人之间也会互相扶持。在康跃中心,每隔周三傍晚都会举行支援小组聚会,让将要接受手术的人和已接受代谢手术或经历了各种术后阶段的人参与。

肥胖能带来其他疾病

肥胖症指的是能危害健康的异常或过量脂肪累积。根据2010年全国健康调查,肥胖率已从2004年的6.9%飙升到2010年的10.8%。保健促进局认为身高度重指数(BMI)超过27.5的人患上一些疾病的可能性会比较高,譬如:

- ◎ 心功能异常
- ◎ 哮喘
- ◎ 阻塞性睡眠呼吸暂停症
- ◎ 胆囊疾病
- ◎ 骨关节炎
- ◎ 关节疼痛
- ◎ 腿肿
- ◎ 中风
- ◎ 白内障
- ◎ 糖尿病
- ◎ 高血压
- ◎ 癌症
- ◎ 月经异常
- ◎ 不育症
- ◎ 多囊卵巢综合症
- ◎ 冠心病

