

RECURRENT WEIGHT GAIN AFTER SLEEVE

For: it is the patient's fault

Giovanni Casella
Dept. of Surgery
«Sapienza» University of Rome
ITALY

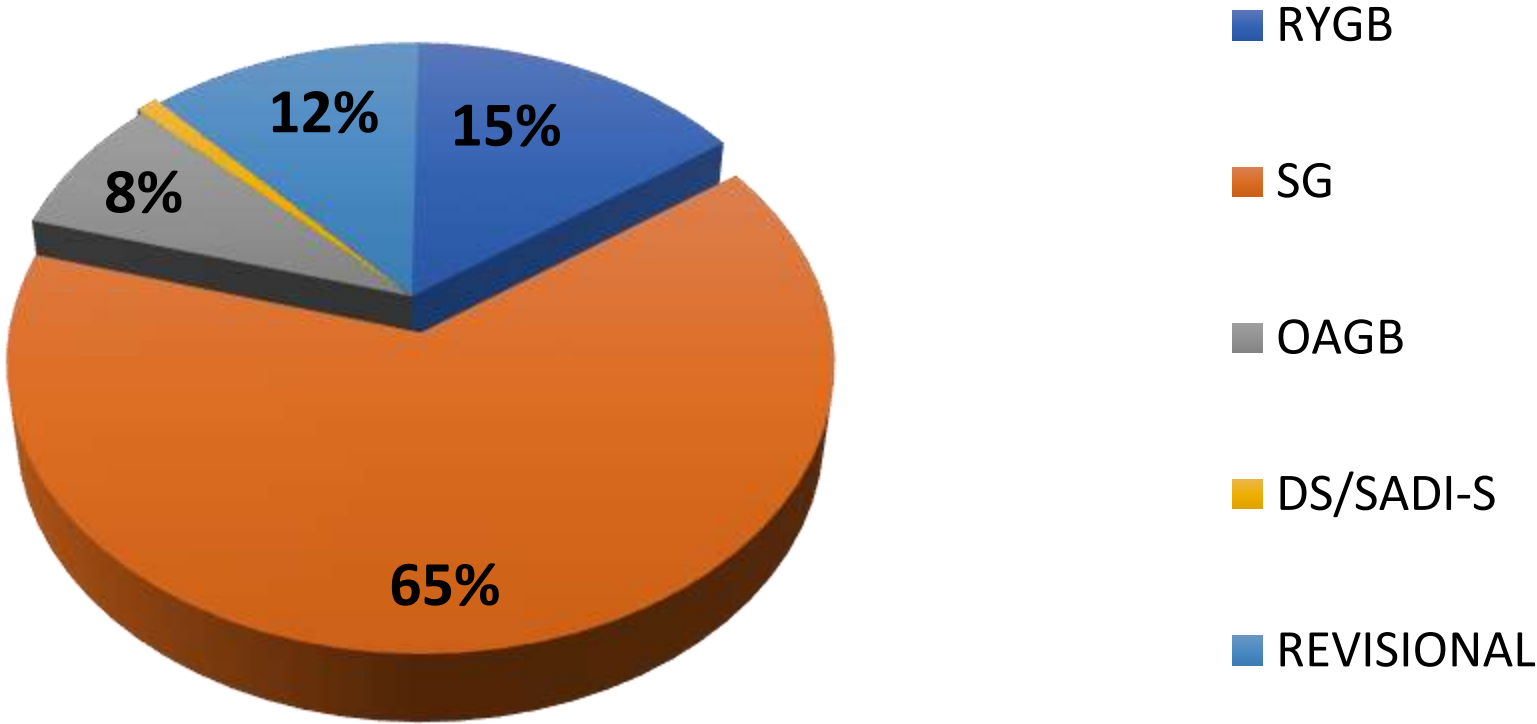


SAPIENZA
UNIVERSITÀ DI ROMA



I have no potential conflict of interest to report

CASE MIX DISCLOSURE



Question: is it the patient's fault ?

THE ANSWER IS QUITE EASY...



Typical beach lunch in *desert island*



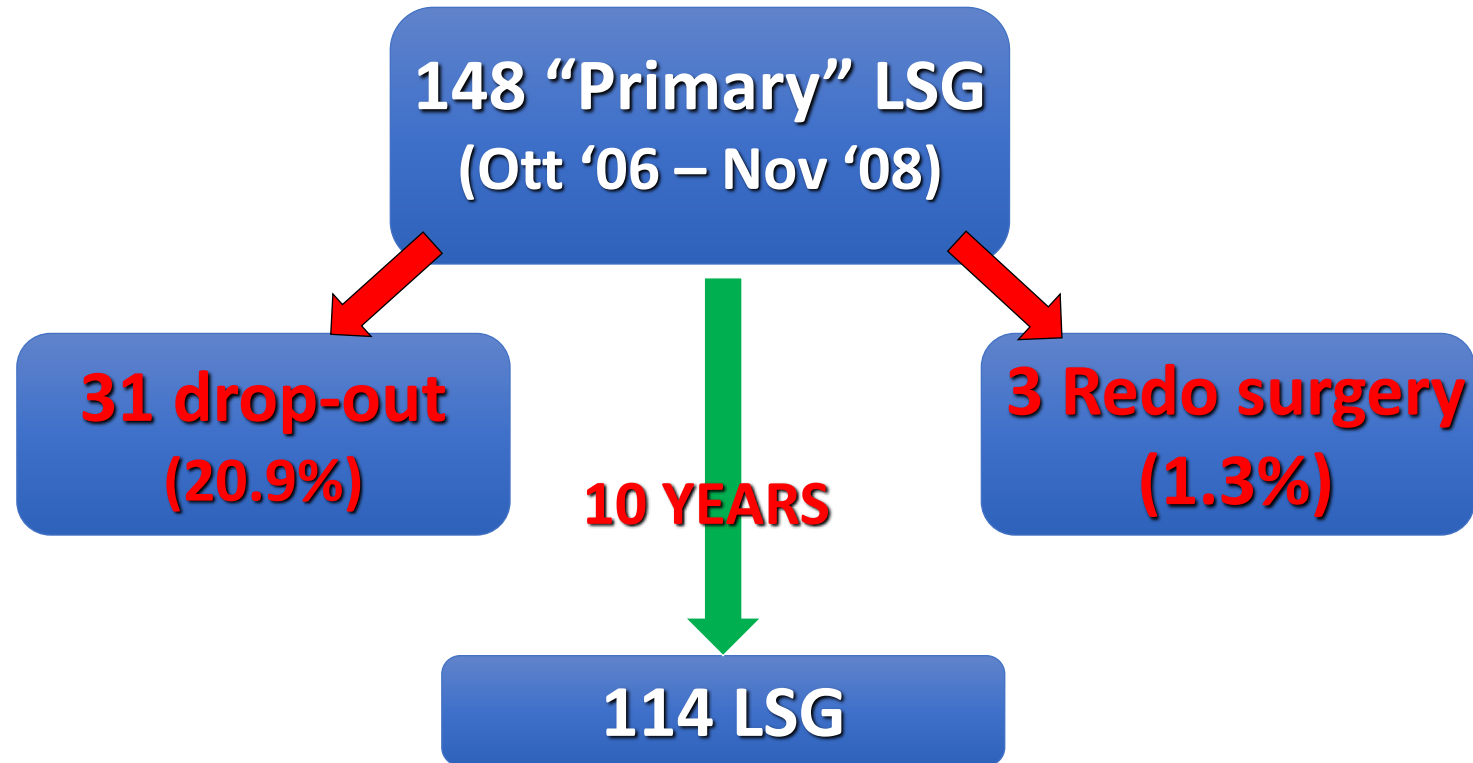
Typical beach lunch in *South Italy*



10-year follow-up after laparoscopic sleeve gastrectomy: Outcomes in a monocentric series

Lidia Castagneto Gissey, M.D.^a, James R. Casella Mariolo, M.D.^a, Alfredo Genco, M.D.^a, Alfonso Troisi, M.D.^b, Nicola Basso, M.D.^a, Giovanni Casella, M.D., Ph.D.^{a,*}

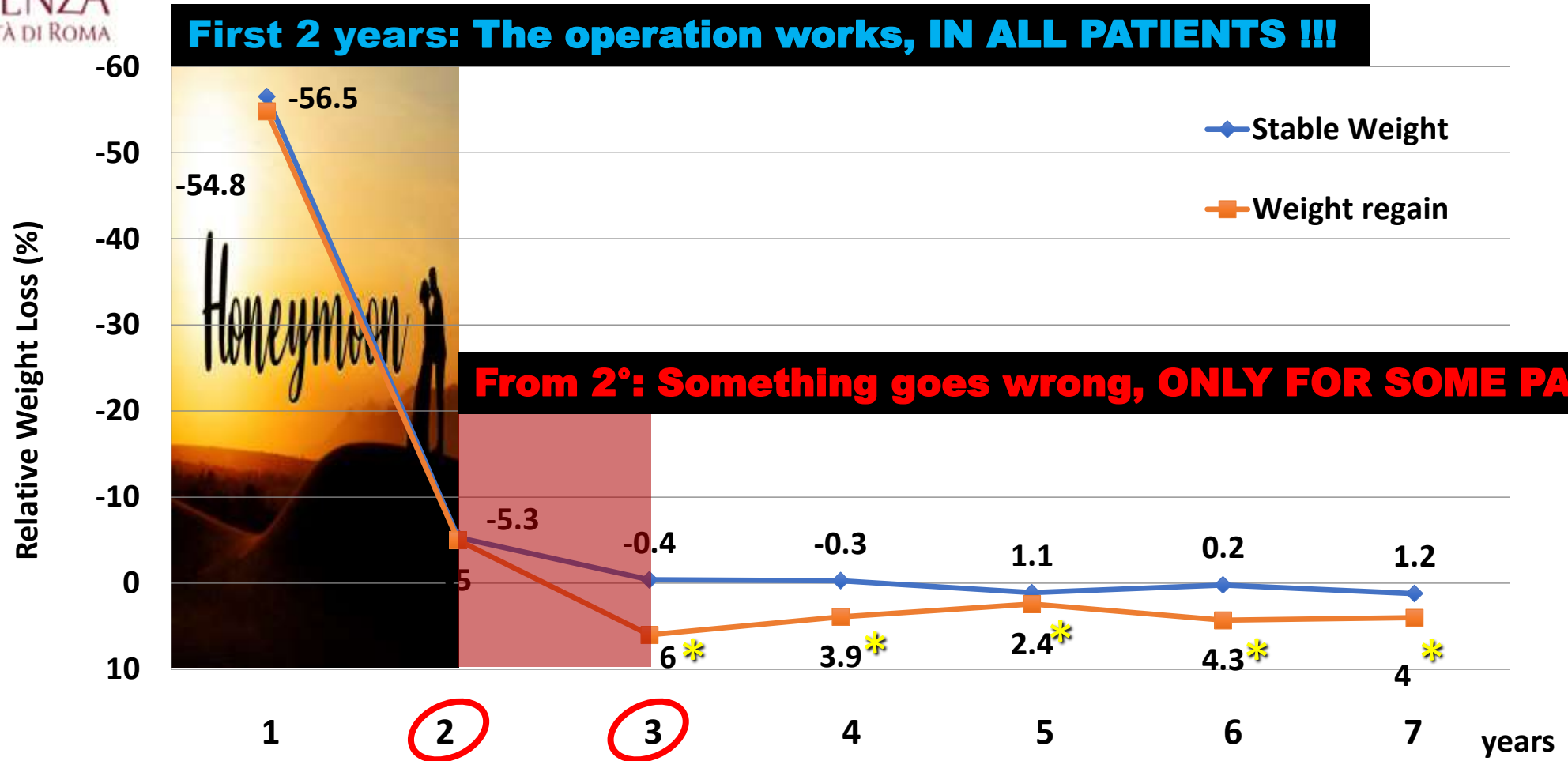
2018



OUR EXPERIENCE



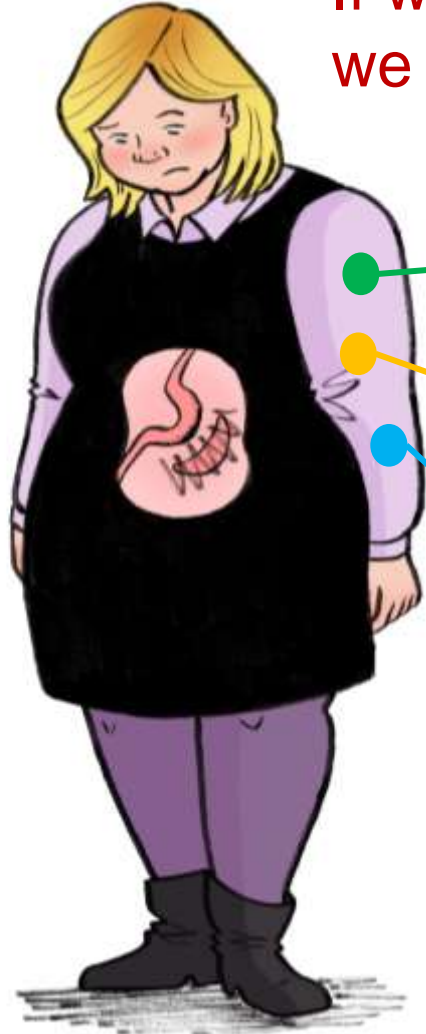
SAPIENZA
UNIVERSITÀ DI ROMA



Castagneto-Gissey, Casella et Al. SOARD 2018

What does 'patient's fault' mean?

If we mean everything that is different from the surgical technique, we have to consider:



**GENETICS &
METABOLISM**



BEHAVIOUR



SOCIAL CIRCUMSTANCES



**NAPOLI
2023**



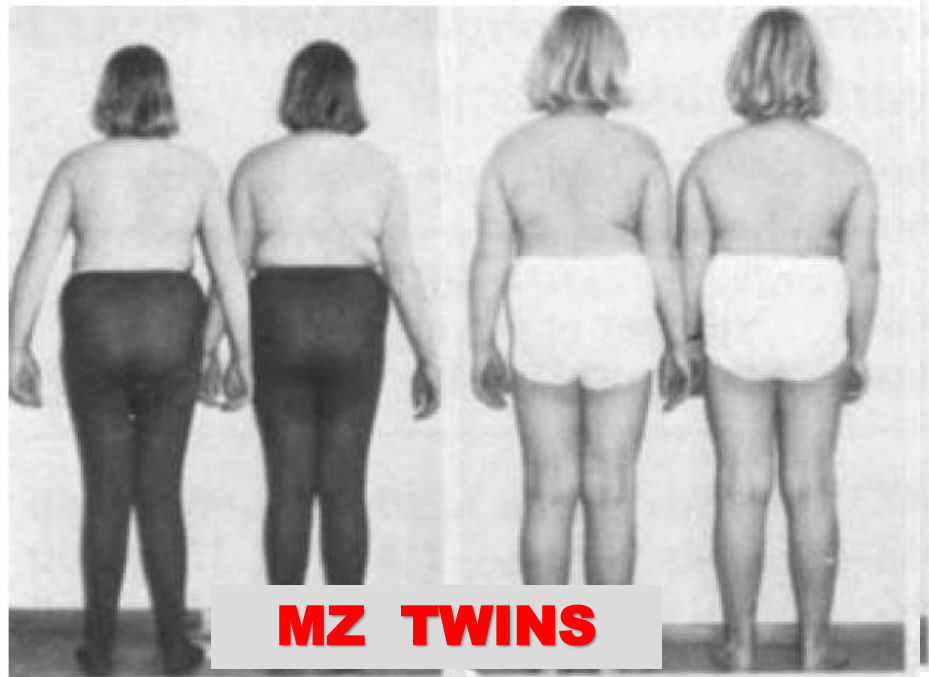
GENETICS & METABOLISM

Acta Pædiatr Scand 65: 279-287, 1976

THE AETIOLOGY OF OBESITY IN CHILDREN

A Study of 101 Twin Pairs

M. BÖRJESON



DIFFERENCE IN OVERWEIGHT

Twin type	No. of pairs	Tw F S.D. (M)	Intra-pair difference S.D. (M)
MZ	39 ^a	2.64	0.75
DZ	61	2.86	2.36

DIFFERENCE x 3 in DZ GROUP

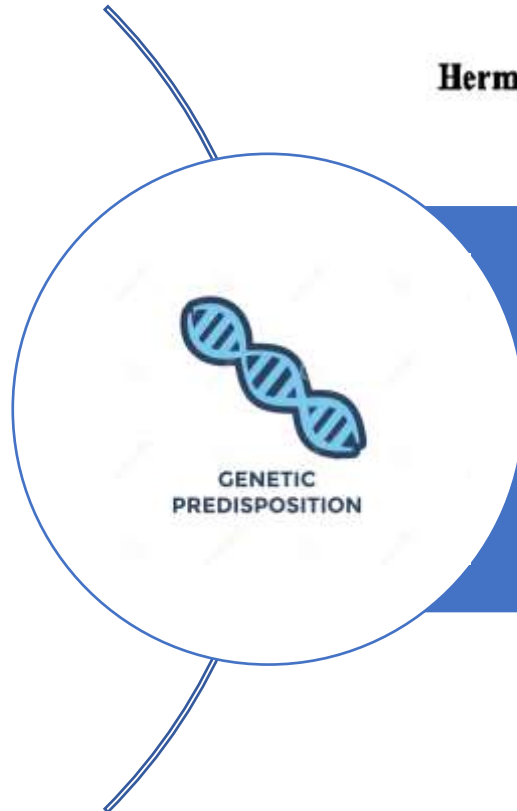


GENETICS & METABOLISM

Genetic and Environmental Factors in Relative Body Weight and Human Adiposity

1997

Hermine H. M. Maes,^{1,2} Michael C. Neale,¹ and Lindon J. Eaves¹



Genetic factors account for 20 to 60% of the variation in BMI

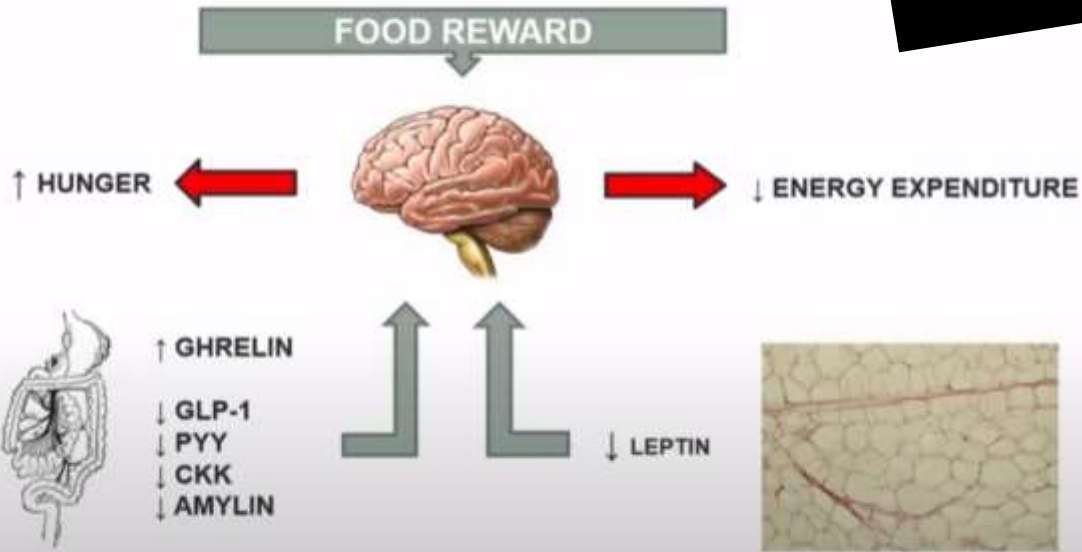
Genetic factors explain 67% of the variance in males and females



GENETICS & METABOLISM

FOR SURE GENETIC IS THE PATIENT'S FAULT !!!

Mechanisms of weight regain



Busetto L. et al. Eur J Int Med 2021 Jan 16

**The weight is genetically determined
After the weight loss induced by SG, Neuro-endocrine mechanisms are activated to restore the initial weight**



Lifestyle Modification Parallels to Sleeve Success

Dean Keren • Ibrahim Matter • Alexandra Lavy

114 LSG

5Y FU

Bariatric Analysis and Reporting Outcome System (BAROS) and Food Tolerance Scores (FTS) were assessed

Follow-up period	Mean %EWL \pm SD	Mean %EBMIL \pm SD	Patients with %EWL > 50 %
12	65.5 \pm 12.2	71.1 (\pm 22.5)	85 (74.56 %)
24	72 \pm 14.5	78.0 (\pm 15.3)	78 (68.42 %)
30	76.8 \pm 11.2	78.9 (\pm 14.2)	80 (70.17 %)
36	68.3 \pm 15.4	72.2 (\pm 16.4)	65 (57.01 %)
48	52 \pm 17.2	59.5 (\pm 24.5)	51 (44.73 %)
60	45.3 \pm 19.5	49.1 (\pm 19.6)	32 (28.07 %)

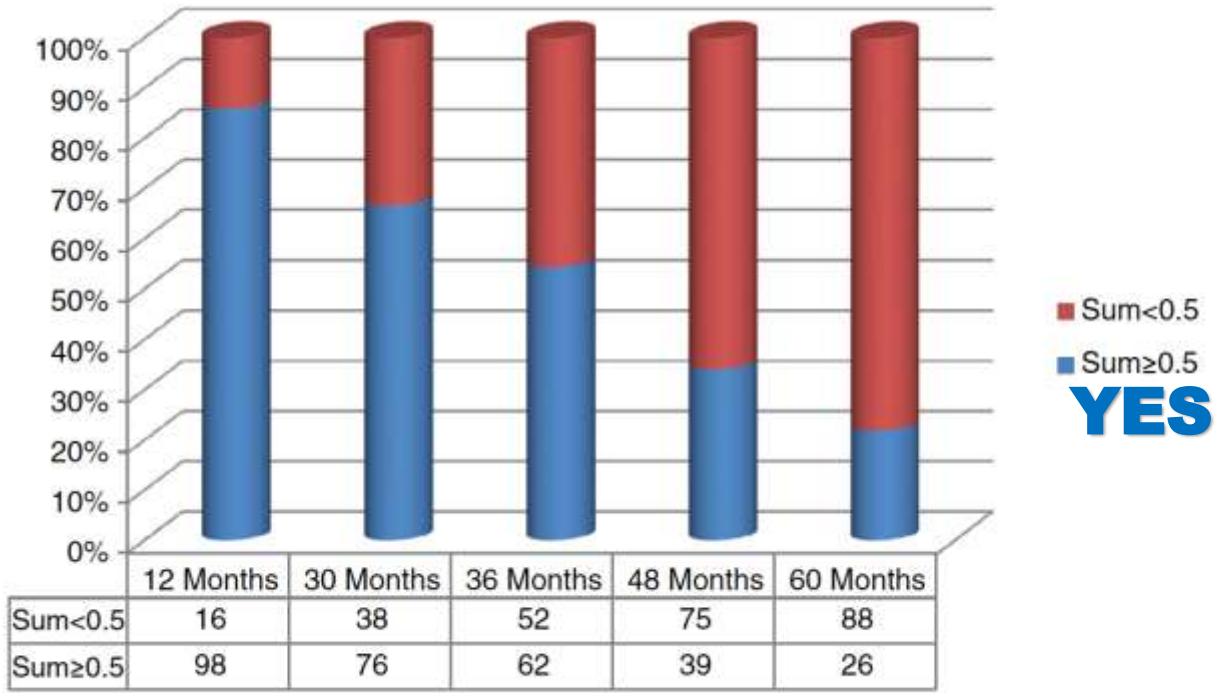


BEHAVIOUR

“Since performing surgery, solely regarding the fields of nutrition and physical fitness have you significantly changed your way of life?”

Fig. 1 Lifestyle modification score

**Weight regain was mainly attributed to:
bad nutrition habits
lack of exercise in later years
after the procedure**





BEHAVIOUR

OBES SURG
DOI 10.1007/s11695-016-2178-0



ORIGINAL CONTRIBUTIONS

Patient Perspectives About Follow-Up Care and Weight Regain Following Sleeve Gastrectomy

Melanie Lauti¹ • Samantha Stevenson¹ • Andrew G. Hill¹ • Andrew D. MacCormick¹

2016



- 38 pts submitted to SG with weight regain
- FU at least 2 yrs
- Focus group discussions, short demographic questionnaire

- **Pts recognised the importance of good behavioural patterns with diet and exercise as the cornerstone to keeping their weight loss sustained**
- **Pts 'taking responsibility' for their own behaviours was an important emergent theme**



BEHAVIOUR

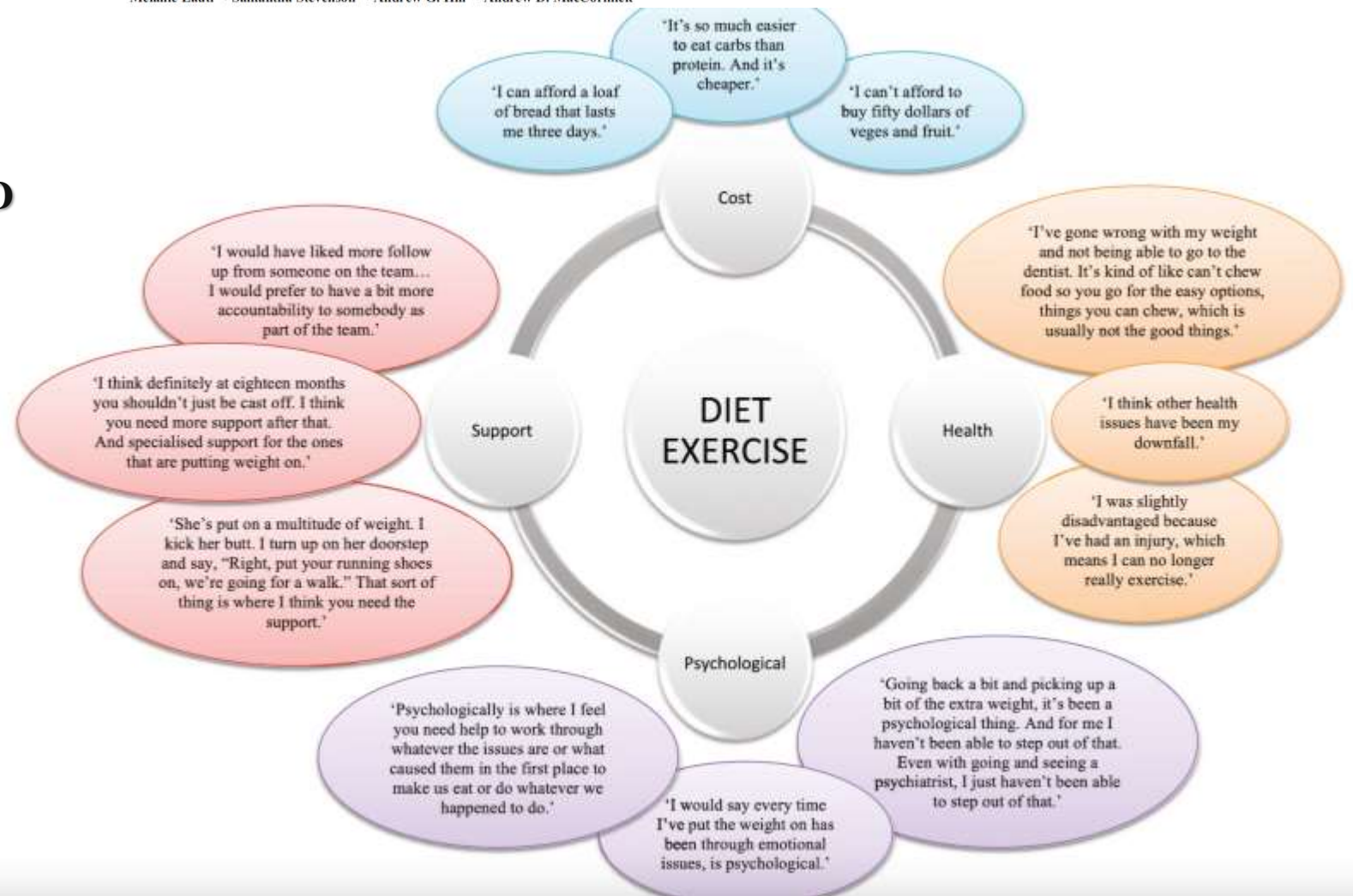
FACTORS WHICH INFLUENCED BEHAVIOURS OF GOOD EATING AND EXERCISE PATTERNS

1. **Psychological factors:** stress, eating disorders and emotional eating
2. **Health factors:** pregnancy, injuries, dentition and joint problems
3. **Financial burden** of good food and to a lesser extent access to exercise facilities
4. **Available support** to assist with ongoing information and motivation.



Patient Perspectives About Follow-Up Care and Weight Regain Following Sleeve Gastrectomy

Melanie Lauti¹ · Samantha Stevenson¹ · Andrew G. Hill¹ · Andrew D. MacCormick¹





Analysis of Medium-Term Weight Regain 5 Years After Laparoscopic Sleeve Gastrectomy

Ashraf A. Bakr¹ · Mohamed H. Fahmy¹ · Athar S. Elward¹ · Hany A. Balamoun¹ · Mohamed Y. Ibrahim¹ · Ramy M. Eldahdoh¹

100 LSG 5Y FU

Eating behavior was described using the Three-Factor Eating Questionnaire Revised 18-Items



	Weight regain (<i>n</i> = 14)	Stable weight (<i>n</i> = 86)	<i>p</i> value
Age (years)	44.8 ± 9.2	37.2 ± 9.5	0.006
Sex			
Female	11 (14.3%)	66 (85.7%)	0.880
Male	3 (13.0%)	20 (87.0%)	
Preoperative BMI (kg/m ²)	49.4 ± 6.4	52.1 ± 8.3	0.249
Maximum WL (kg)	46.9 ± 12.0	64.2 ± 24.0	0.010
Presence of comorbidity			
Yes	7 (18.4%)	31 (81.6%)	0.319
No	7 (11.3%)	55 (88.7%)	
TFEQ-R18			
Cognitive restraint (%)	45.4 ± 15.8	53.7 ± 13.5	0.094
Uncontrolled eating (%)	53.4 ± 9.1	35.2 ± 12.1	< 0.001
Emotional eating (%)	55.9 ± 15.0	39.8 ± 12.1	< 0.001



MALADAPTIVE EATING BEHAVIOUR

GERD SYMPTOMS AND DYSPHAGIA COULD INCREASE THESE HABITS



"I can only eat ½ slice of bread so I choose crackers instead because then I can eat 4 Cruskits™"

"I get full after the first 4 -5 mouthfuls but if I wait a few minutes and have a few sips of water, I can then finish my meal"

"I don't really have meals anymore because I get too full so I just have lots of snacks throughout the day"

"I worry that I will not have any energy because I eat so little so I make sure I have a big smoothie for breakfast and after dinner"



SOCIAL CIRCUMSTANCES

PATIENT'S LIFE



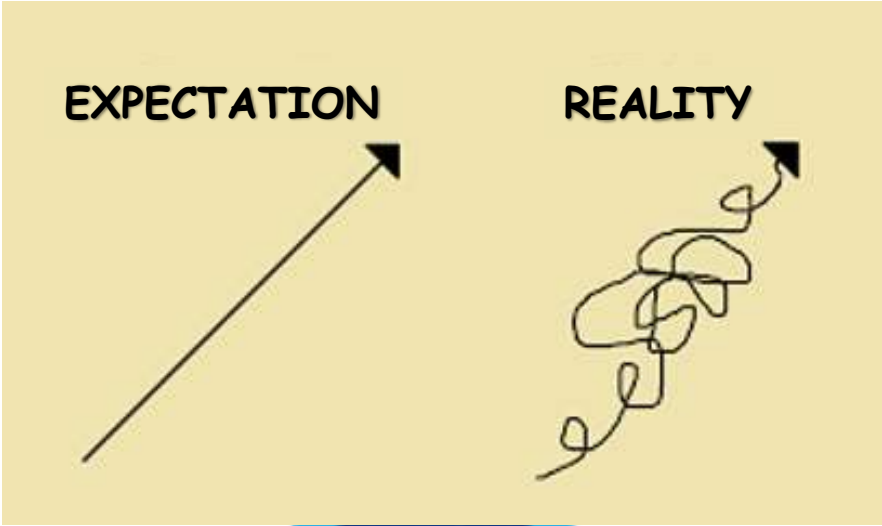
Marriage



Divorce



Pregnancy



Grief



SOCIAL CIRCUMSTANCES

Original Study

ANNALS OF SURGERY

OPEN

Changes in Marital Status Following Roux-en-Y Gastric Bypass and Sleeve Gastrectomy: A US Multicenter Prospective Cohort Study

Wendy C King, PhD,* Amanda S Hinerman, PhD,* and Gretchen E White, PhD,†

2022

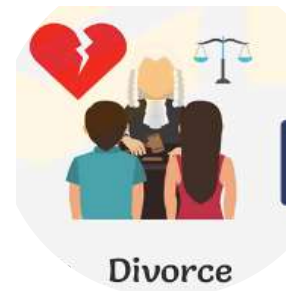
1441 SG or RYGB

Cumulative Risk of

	2Y FU	5Y FU
CHANGES IN MARITAL STATUS	17%	27%
MARRIAGE	8%	18%
SEPARATION/DIVORCE	9%	16%



Get married



Divorce



SOCIAL CIRCUMSTANCES

Open access

Original research

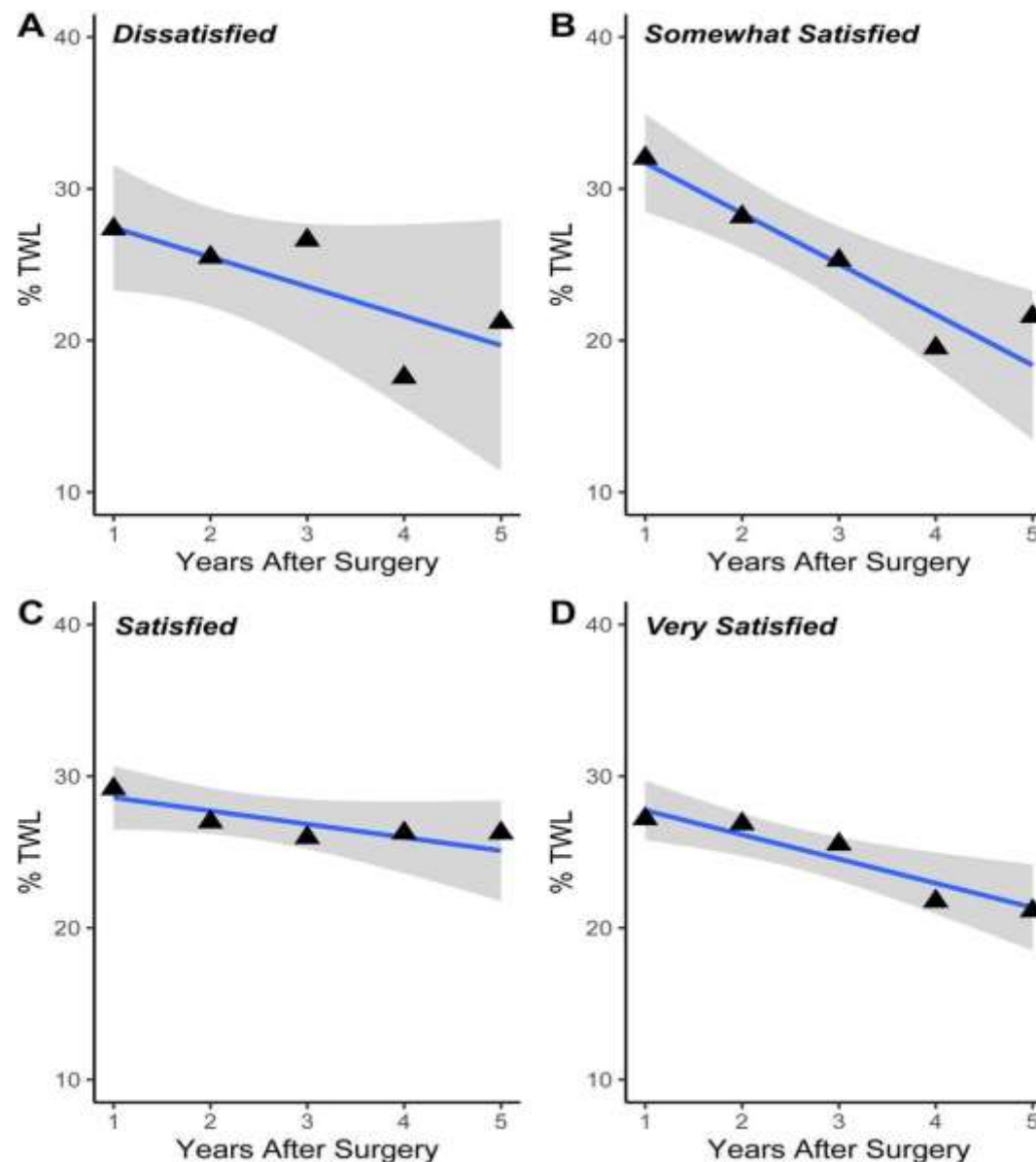
BMJ Open Examining spousal and family support as predictors of long-term weight loss and remission of type 2 diabetes following bariatric surgery in Singapore: a retrospective cohort study

2022

Edina Yi-Qin Tan^{1,2}, Phong Ching Lee³, Kwang Wei Tham,³ Sonali Ganguly,³ Chin Hong Lim,⁴ Jean C J Liu^{1,2}

270 SG

Patients with higher levels of marriage satisfaction showed significantly more prolonged maintenance of weight loss compared with patients who reported lower marital satisfaction





Impact of Gestational Weight Gain on Maternal and Perinatal Outcomes After Laparoscopic Sleeve Gastrectomy

Seda Sancak¹ · Hasan Altun^{2,3} · Özgen Çeler¹ · Elif Çırak⁴ · Cansu Er⁴ · Aziz Bora Karip² · Nalan Okuroğlu⁴ · Nuriye Esen Bulut² · M. Mahir Fersahoğlu² · Yaşar Sertbaş⁴ · Kemal Memişoğlu²

119 pregnancies in women who had previously undergone LSG

Outcomes	Insufficient (n%)	Appropriate (n%)	Excessive (n%)	P value
EWL from operation until conception (%)	76.23 ± 33.14	77.90 ± 32.62	76.33 ± 20.11	0.963
TWL from operation until conception (%)	31.82 ± 13.71	31.92 ± 11.84	34.72 ± 8.69	0.371
Gestational Weight Gain	32 (26.9%)	28 (23.5%)	59 (49.6%)	
Weight gain during pregnancy (kg)	1 ± 9.21	9.41 ± 3.24	19.07 ± 5.89	0



**GENETICS &
METABOLISM**



BEHAVIOUR



SOCIAL CIRCUMSTANCES

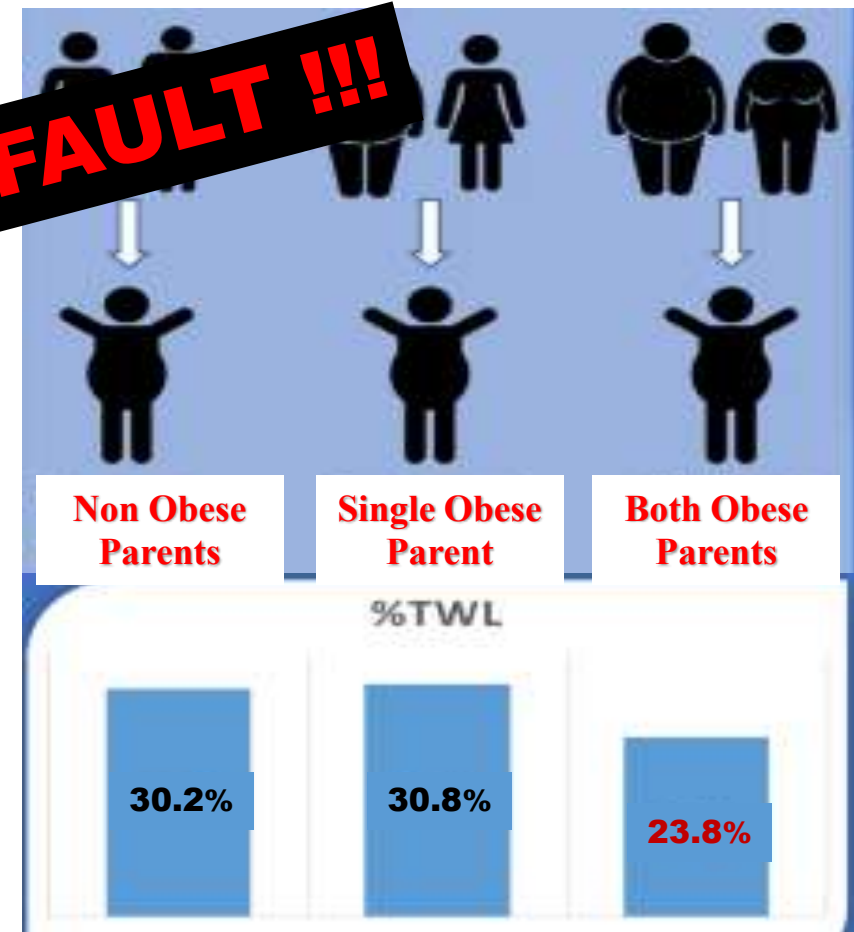
THE PATIENT'S (FAMILY) FAULT !!!

The patient's weight loss outcome after SG was significantly lower when both parents had obesity



Association Between the Parental Weight Status and the Weight Loss Outcome in Patients After Sleeve Gastrectomy

Jason Widjaja¹ · Wei Wu¹ · Libin Yao¹ · Jian Hong¹ · Yuxiao Chu¹ · Xiaocheng Zhu¹



RECURRENT WEIGHT GAIN AFTER SLEEVE

For: it is the patient's fault

CONCLUSIONS



- **WEIGHT REGAIN AFTER SLEEVE GASTRECTOMY IS MULTIFACTORIAL**
- **MOST FACTORS ARE RELATED TO THE PATIENT**
- **GENETIC, BEHAVIORAL, ENVIRONMENTAL ASPECTS SHOULD BE CONSIDERED**



**YES,
It is the patient's fault !!!**

Thank you for your attention

* 8 y after SG