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## Endoscopic sleeve Gastroplasty Efficacy (ENvISaGE): Endoscopic sleeve gastroplasty versus Laparoscopic sleeve gastrectomy

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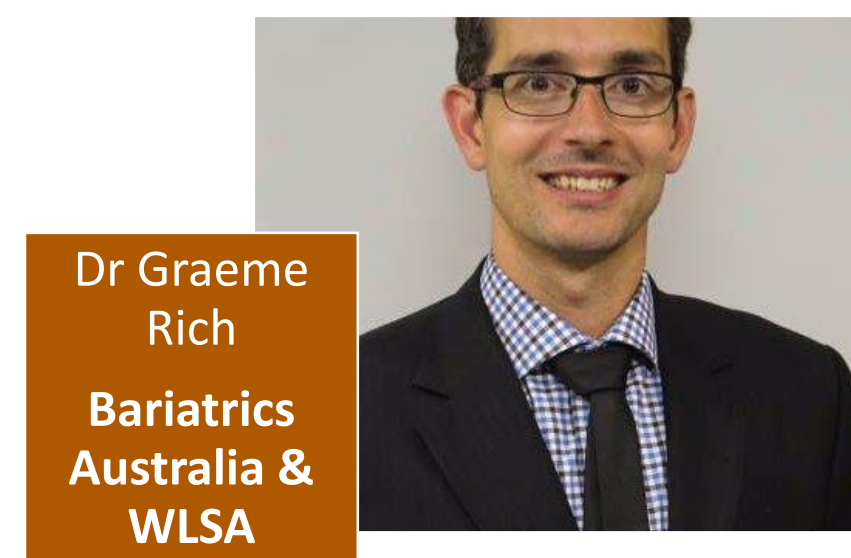
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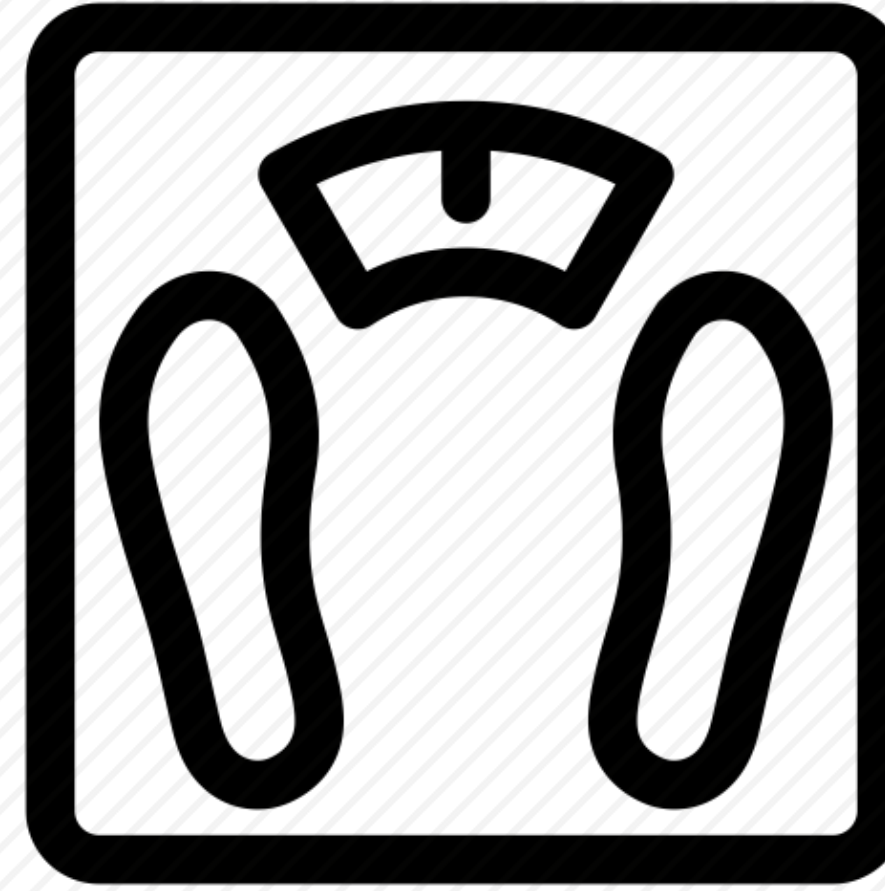


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## Background

Improvement in quality of life is an important patient-centred outcome of bariatric procedures.

The Endoscopic sleeve gastroplasty (ESG), new to Australia is an endobariatric procedure which reduces the gastric lumen to a size comparable with the laparoscopic sleeve gastroplasty (LSG).



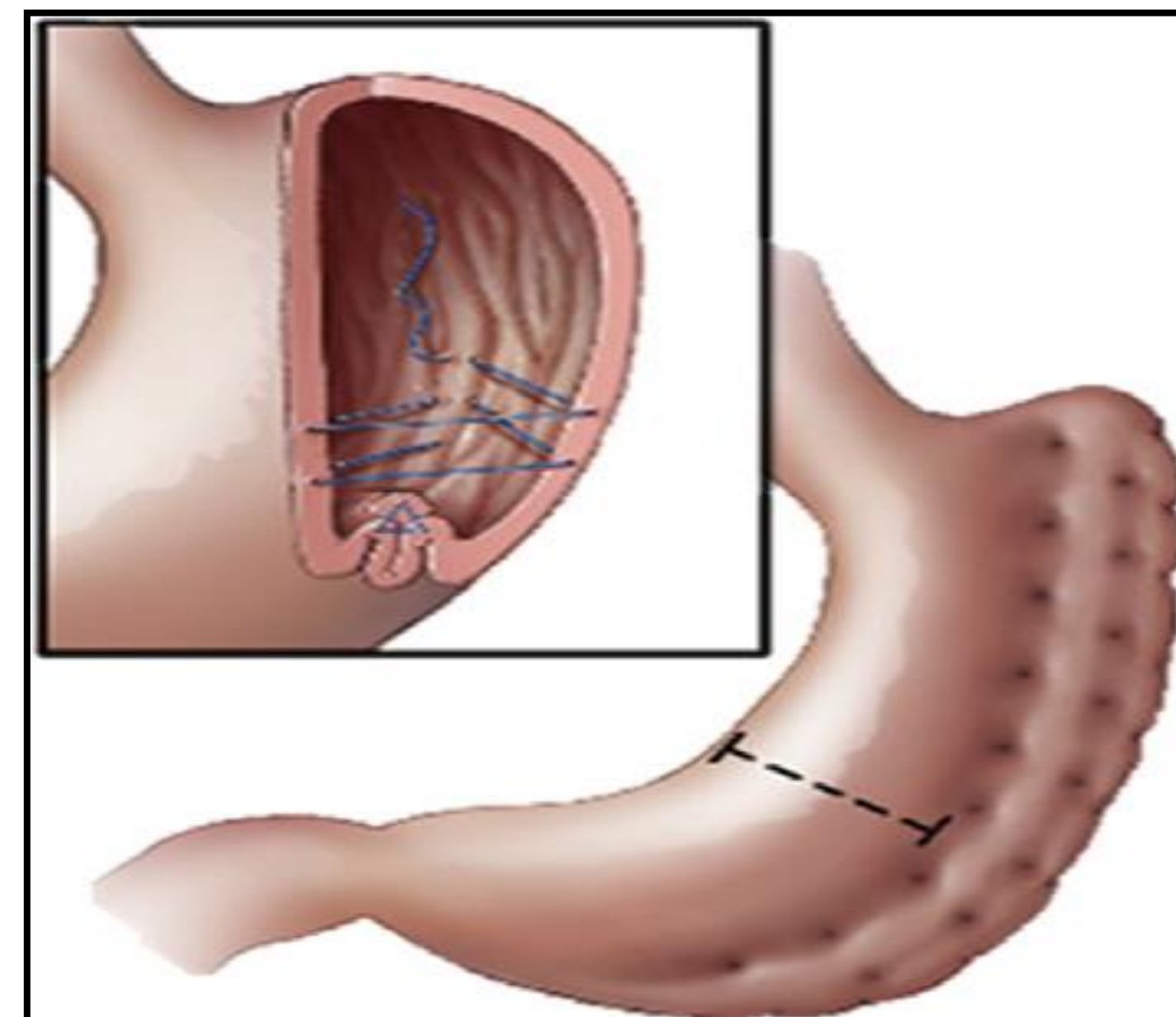
## Purpose

To report the change in weight-related quality of life 6-months after a laparoscopic sleeve gastrectomy (LSG) or endoscopic sleeve gastroplasty (ESG).

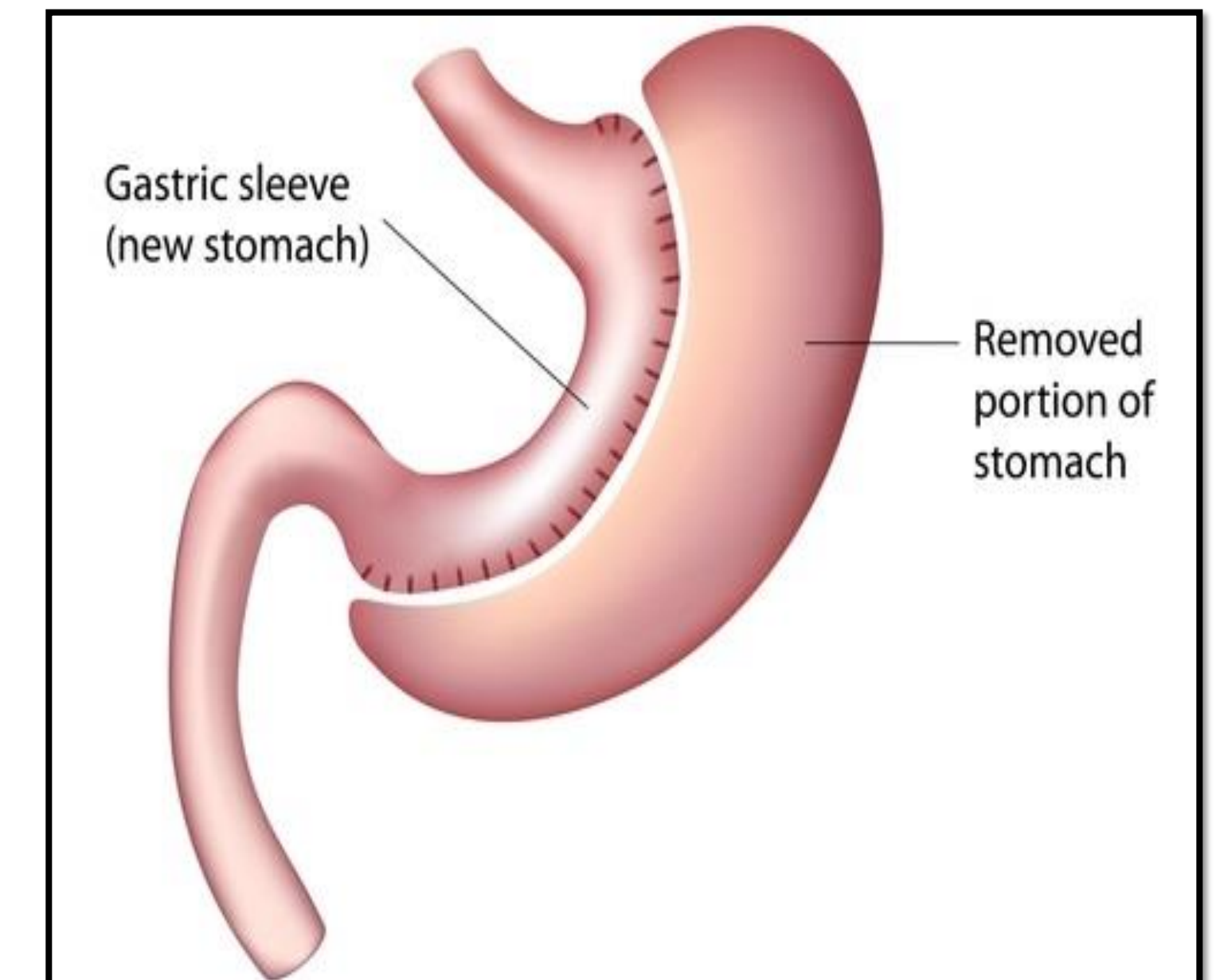
## Methods & Demographic Results:

- Prospectively recruited over 12 months from a private bariatric surgery practice (Weightloss Solutions Australia) on the Gold Coast
- 12 LSG participants were aged 37.5 (6.7) years, baseline BMI 41.9 (6.2)kg/m<sup>2</sup>, 92% female
- 6 ESG participants were aged age 35.0 (8.4) years, baseline BMI 37.1 (5.7)kg/m<sup>2</sup>, 83% female
- Quality of Life was measured by the Impact Weight on Quality of Life Assessment Tool (IWQOL-Lite). This tool assesses overall and 5 sub-categories of quality of life: physical function, self-esteem, sexual life, public distress, work (or daily activities).
- All IWQOL scores were normalised to a scale of 0-100 quality of life. 0 being worst and 100 being best quality of life.

## ESG



## LSG



## Quality of life of ESG and LSG patients in Queensland

At baseline, LSG ( $\mu$ 42.6 (11.6) and ESG ( $\mu$ 75.5)) patients reported severe weight-related impacts on QoL.

At baseline, LSG patients had a worse QoL compared to ESG patients ( $p=0.027$ ).

At 6-months post-procedure, LSG had a greater improvement in QoL compared to the ESG (mean change 38.8 (19.8)  $p<0.0001$  vs 15.6 (21.0)  $p=0.142$ ).

The greater improvement in LSG compared to ESG was driven by self esteem (mean difference 36.6 [95% CI: 10.8,62.5]  $p=0.008$ ) and sexual life (mean difference 45.7 [95%CI:17.8,73.5]  $p=0.003$ ) domains.

## Learnings

- ESG and LSG patients report severe weight-related impacts on their quality of life.
- LSG patients with BMI's had worse QoL
- Both LSG and ESG patients experienced improvements in QoL 6-months post-procedure
- LSG participants experienced a greater improvement compared to ESG to achieve similar levels of weight related QoL 6 months post procedure.

## Quality of life scores of recruited participants

Variable	ESG (n=6)			LSG (n=12)		
	Baseline	6-months	Change	Baseline <sup>a</sup>	6-months	Change
Physical function	54.2 (24.1)	84.5 (14.0)	<b>-30.3 (29)</b> $p=0.051$	47.8 (18.5)	86.2 (10.6)	<b>-38.5 (20.7)</b> $p<0.0001$
Self-esteem	41.7 (28.8)	58.9 (24.5)	-17.3 (25.1) $p=0.153$	17.6 (13.5)	71.4 (16.5)	<b>-53.9 (24.0)</b> $p<0.0001$
Sexual life	74.0 (27.5)	63.5 (25.7)	10.4 (12.3) $p=0.093$	49.9 (23.7)	79.2 (14.7)	<b>-35.2 (30.6)</b> $p=0.002$
Public distress	74.2 (17.4)	82.5 (16.0)	-8.3 (25.8) $p=0.465$	47.9 (27.3)	82.1 (22.4)	<b>-34.2 (28.0)</b> $p=0.001$
Work	76.0 (9.2)	83.3 (19.2)	-7.3 (24.2) $p=0.493$	64.6 (20.2)	87.0 (18.0)	<b>-22.4 (22.5)</b> $p=0.005$
Total weight-related quality of life	60.0 (18.8)	75.5 (15.1)	-15.6 $p=0.142$	42.6 (11.6)	81.4 (12.1)	<b>-38.8 (19.8)</b> $p<0.0001$