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Marshall, Skye; Cohen, Felicity ; Rich, Graeme; Soni, Asha; Isenring, Elisabeth

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# Endoscopic Sleeve Gastroplasty (ENvISaGE) Study

## Characteristics of ESG and matched LSG patients from the first Queensland ESG Clinic

An observational prospective cohort study 2018-2020



Presenter: Dr Skye Marshall  
BNutr&Diet, APD, PhD

[skye\\_marshall@bond.edu.au](mailto:skye_marshall@bond.edu.au), [@DrSkyeMarshall](https://www.instagram.com/DrSkyeMarshall)



## Background

The Endoscopic Sleeve Gastroplasty (ESG) is new to Australia.

It's minimally invasive procedure is designed to mimic the Laparoscopic Sleeve Gastropalsty (LSG).

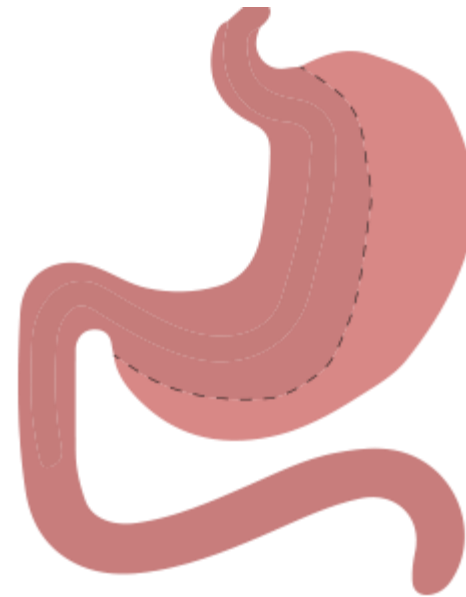
The ENvISaGE Study will observe procedural safety, change in body composition, comorbidities, and quality of life in adults undergoing the ESG and LSG.

## Objectives and methods

To compare pre-op characteristics of ESG and matched LSG patients to guide interpretation of post-op outcomes.

Participants were matched for BMI and gender.

Body composition by DXA, quality of life by Impact of Weight on Quality of Life Tool-Lite, GI symptoms by Gastrointestinal Symptom Rating Scale. Bloods, medical status, adverse events by medical record.



ESG

n=18 recruited



LSG

n=18 recruited

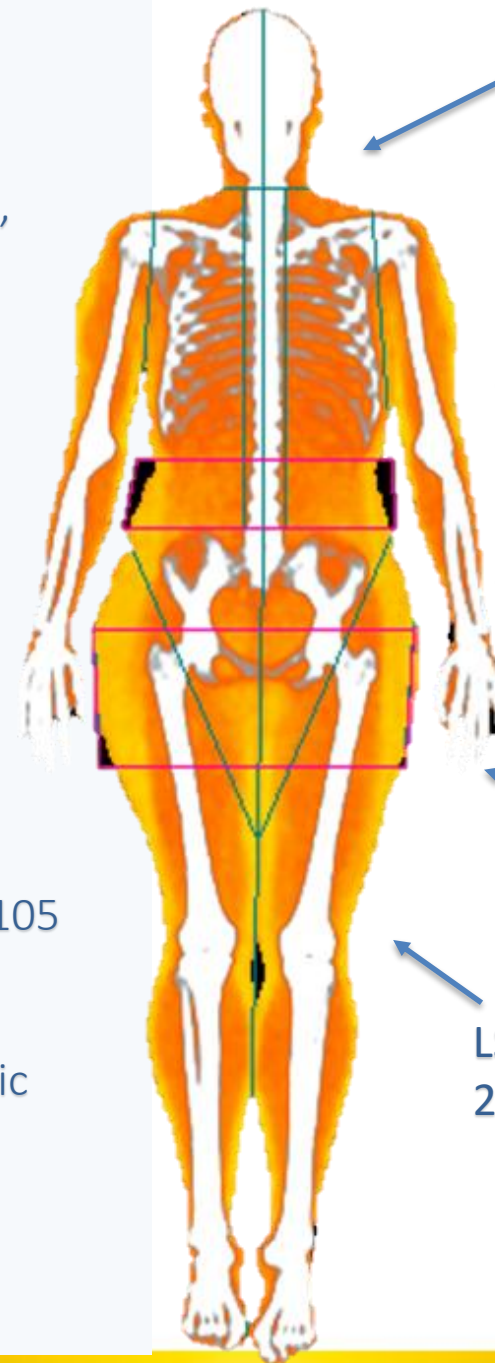
### Matched for:

- BMI: mean 35.7 (4.7) kg/m<sup>2</sup>
- Sex: 83% female
- Age: mean 41.0 (9.7) years



## No difference in:

- Pre-op adverse events (0%)
- GORD (35%), Sleep apnoea (31%), Arthritis (61%), Backpain (64%), PCOS (8%)
- T2DM (0%), Fasting blood glucose (5.0mmol/L)
- HTN (30%), diastolic blood pressure (82 mmHg),
- Dyslipidaemia (9%), T. Chol (5.3mmol/L), LDL (3.3mmol/L), HDL (1.4mmol/L), TG (1.5mmol/L)
- NAFLD (5%), ALT (33.3U/L), AST (25.4U/L)
- Gastrointestinal symptoms including reflux, constipation, diarrhoea, indigestion, GI pain (35/105 points)
- Weight-related physical function, sexual life, public distress, work, or total quality of life (51%)
- Android to gynoid fat mass ratio (0.57), fat mass (47.3%), lean mass (49%)



LSG had higher prevalence of anxiety and/or depression (56% vs 22%,  $p < 0.05$ )

ESG had higher systolic blood pressure (129 vs 120 mmHG,  $p < 0.05$ )

LSG had higher HbA1c (34 vs 30 mol/mmol,  $p < 0.01$ )

LSG had lower high-density lipoprotein (1.3 vs 1.6 mmol/L,  $p < 0.05$ )

LSG had worse weight-related self-esteem (11% vs 29%,  $p < 0.05$ )