The three things every surgeon should tell their obese patient

Chermside Medical Complex
Holy Spirit Northside Private Hospital
Red Hill Doctors Surgery
Obesity and Surgery

• A consequence of the increasing obesity epidemic is the increased number of patients undergoing surgeries related to the medical complications of obesity.

• Obesity related co-morbidities further increase surgical risk.
Benefits to the surgeon

- Reduced intra-abdominal or thoracic adiposity.
- Reduced liver size.
- Improved exposure and view of anatomical landmarks.
- Reduced conversion rate to open surgery.
- Improved safety of surgery.
Benefits to the patient

- Reduced risk of perioperative complications.
- Reduced length of operation.
- Reduced hospital stay.
- Improvement of co-morbid conditions e.g. diabetes, hypertension.
- Improved post-operative outcomes e.g. healing, rehabilitation, longevity of prosthetic devices.
We know diets fail
Pre-operative weight loss
Establish a weight loss goal
BMI = Weight (kg) / Height (m)²
Limitations of BMI

- Based on standards for people of European descent - use with caution for people of Asian and Indian descent.
- Not suitable for children and adolescents <18 yrs.
- Tells us nothing about the distribution of body fat.
# Waist Circumference and health risk

<table>
<thead>
<tr>
<th>Ethnic Group</th>
<th>Men</th>
<th>Women</th>
</tr>
</thead>
<tbody>
<tr>
<td>Europoids</td>
<td>≥94cm IR</td>
<td>≥80cm IR</td>
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<tr>
<td></td>
<td>≥102 GIR</td>
<td>≥88cm GIR</td>
</tr>
<tr>
<td>South Asians</td>
<td>≥90cm IR</td>
<td>≥80cm IR</td>
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<tr>
<td>(Chinese, Malay, Asian Indian populations)</td>
<td></td>
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<tr>
<td>Japanese</td>
<td></td>
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<tr>
<td>Ethnic South and Central Americans</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Maori and Pacific Islanders</td>
<td>≥102cm</td>
<td>≥88cm</td>
</tr>
</tbody>
</table>
How much should the patient lose?

There is no standardised approach or consensus within or between disciplines

- 10 to 15% of excess body weight.
- 9 to 12kg total loss (often rounded to 10kg):
  - ↓BP by 10+mmHg,
  - ↓FBG up to 50%,
  - ↓Tchol/TG/LDL 10-30%
- As much as possible (surgical access).

It is difficult to attach a figure but a clear goal is useful
Remember to consider …

- There are definite gender differences.

- Weight loss averages at best:
  - Women: 1 to 1½ kg per week
  - Men: 1½ to 2½ kg per week
Agree a clear dieting strategy and again define a timeframe.
Energy Balance

ENERGY INPUT

Food & Beverages 100%
- Protein 17kJ (4kcal)
- Carbohydrate 17kJ (4kcal)
- Fat 38kJ (9kcal)
- Alcohol 29kJ (7kcal)

ENERGY OUTPUT

BMR 75-80%
Thermogenesis 5-10%
Physical activity 15%

Net calories ARE the issue
Predictive Equations

To lose 1kg weight per week
= ↓1000kcal (or 4200kJ) per day

MEN
Average requirement is 2500kcal per day
So 1500kcal (or 6300kJ) eating plan.

WOMEN
Average requirement is 2000kcal per day
So 1000kcal (or 4200kJ) eating plan.
Common dietary intake themes

- Large portions
- High calorie snacks
- Erratic eating patterns
- Reliance on processed foods and takeaways
- Sugary drinks, juices, milk-based coffees, alcohol
- Little or no water intake
- Poor veg/salad intake
- Non-hungry eating
- Emotional eating
- Night-time eating
- Fast eating

Advice to cut intake by 25 - 50% may or may not be a useful instruction
Pre-operative
Very Low Calorie Diet (VLCD)

3 meal replacement products per day
(1906kJ or 456kcal, 52g protein, 45g carbohydrate, 7g fat
+- lean meat/ skinless chicken/ white fish serving
+ 2 cups non-starchy veg/ salad
+ at least 2 litres water and diet/ low joule beverages
+- diet jelly
+- 1 tsp oil
Using real food instead

Cap caloric intake to a maximal 800kcal (or 3360kJ):

45g carbohydrate (3 x 15g serves) per day

+ 200g lean meat/ chicken breast/ white fish

+ 2 cups non-starchy veg/ salad

+ at least 2 litres water and diet/ low joule beverages

+/- diet jelly

+ no fat additions (2g-7g-11g fat from protein allowance)
The optimal duration of a VLCD program is **6 weeks**

**2 weeks** is the minimum duration for liver reduction benefits

**12 weeks** is the absolute maximal duration
Reverse model prior to surgery

450 to 800 calories

800 to 1000 calories

1200 to 1500 calories

1000 to 1200 calories

www.optifast.com.au
<table>
<thead>
<tr>
<th>Use with caution</th>
<th>Unsuitable</th>
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</thead>
<tbody>
<tr>
<td>Acute cerebrovascular or cardiovascular disease</td>
<td>Pregnant or lactating women</td>
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<td>Renal, hepatic or gall bladder disease</td>
<td>Children</td>
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<td>Porphyria</td>
<td>Adolescents (under 18)</td>
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<tr>
<td>Type 1 diabetes</td>
<td>Elderly (over 65)</td>
</tr>
<tr>
<td>Overt psychosis</td>
<td></td>
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<td>Gout</td>
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VLCD co-morbidity guidelines

INFORMATION FOR HEALTH CARE PROFESSIONALS

With almost 61% of adult Australians currently overweight or obese, the recent decision by the Australian Health Minister to make obesity a National Health Priority Area (NHFA) will now hopefully ensure that obesity receives the attention it deserves as a matter of urgency.  

Research demonstrates that achieving just 5-10 per cent weight loss can result in significant health benefits for obese people. However, the reality is that Australians are losing the war on weight, and the associated health risks of obesity are immense.

With the numbers of obese Australians increasing, how can health care professionals make a difference? 

The Optifast VLCD™ Program is a safe and effective way for obese patients to achieve significant weight loss, particularly those at medical risk.

On this site you will find resources, guidelines and interactive tools which can assist you in assessing and managing patients using Optifast VLCD™.

Clinical Treatment Protocol

This protocol provides detailed information about the Optifast VLCD™ Program, who it is suitable for, and how it should be implemented. It also contains guidelines for monitoring and chronic disease management.

Download Clinical Treatment Protocol (1.8Mb)

Co-Morbidity Guidelines

These guidelines provide guidance on managing obesity for those with co-morbid conditions, such as heart failure, renal disease, and Type 1 & 2 diabetes, as well as information on pharmacological interactions.

Download Co-Morbidity Guidelines (2.3Mb)

Pre-Operative Weight Loss Protocol

This protocol is a guide to the use of Optifast VLCD™ pre-bariatric surgery.
<table>
<thead>
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<th>Kicstart</th>
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<td>I (ug)</td>
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<td>409.1</td>
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<td>Zn (mg)</td>
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<td>8.7</td>
<td>9.1</td>
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<td>Cu(mg)</td>
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<td>B7 (µg)</td>
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<td>Vit K (µg)</td>
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<td>100</td>
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<td>Cl (mg)</td>
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<td>Mn (mg)</td>
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<td>Se(µg)</td>
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<td>36.3</td>
<td>16.4</td>
<td>27.3</td>
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<td>Cr (µg)</td>
<td>83</td>
<td>85.8</td>
<td>61.8</td>
<td>91</td>
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<td>Mo (ug)</td>
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The effects of weight-loss strategies

<table>
<thead>
<tr>
<th>Weight Loss Method</th>
<th>Mean % Weight Loss (4 to 20 weeks)</th>
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<tbody>
<tr>
<td>Bariatric Surgery</td>
<td>24 to 38%</td>
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<tr>
<td>Optifast™ VLCD</td>
<td>14.7%</td>
</tr>
<tr>
<td>Diet + physical activity</td>
<td>8.1%</td>
</tr>
<tr>
<td>Diet alone</td>
<td>4.4%</td>
</tr>
<tr>
<td>Exercise alone</td>
<td>2.2%</td>
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</table>

Adapted from the NHMRC
Clinical Practice Guidelines for the Mx of Overweight & Obesity in Adults 2006
Embrace hunger …
You cannot lose weight without it!
Have monitoring or review mechanisms in place
Engage other professionals

• GP

• Endocrinologist and other specialists
  (medication and associated co-morbidities)

• Dietitian

• Exercise physiologist

• Psychologist
Weight loss must be supervised

• Weight (or weight difference)
• Neck, waist & hip measurements
• Regular review dates
• Self- monitoring - food diaries/ Apps/ websites (but be wary when interpreting)
• Blood tests – E/LFTs, blood glucose, iron studies etc
Welcome to Intensiv

Medically Supervised Pre-Operative Weight Loss

Intensiv pre-operative weight loss provides a medically supervised weight loss program designed to facilitate controlled, rapid weight loss in patients who need to lose weight before surgery or for other medical reasons.

Pre-operative weight loss has been shown to optimise the safety of surgery and reduce surgical risk factors and improve post-operative outcomes.

Our medical and allied health practitioners will provide close qualified supervision and evidenced based medical weight loss. Specialist Dietitians assist you with your individual circumstances, habits and medical requirements, as well as establishing your role as an active member of the weight loss team.

With three convenient locations, Cheltenham, Greensborough and Auchenflower, constant communication and our support will ensure compliance and outcomes are maximised.

A Fresh Approach

Intensiv is different to other weight loss programs because it offers patients with obesity related co-morbidities a safe solution to weight loss.

With its focus on a defined end point (i.e. your surgery date), Intensiv is also uniquely positioned to ensure patient compliance.

Improved Patient Outcomes

Visit us at www.intensivweightloss.com
intensiv staff
Accredited Practising Dietitian
Accredited Exercise Physiologist
Obesity Medical Practitioner

Assessment
weight loss; anthropometry; bioelectrical impedance (BIA) to analyse body composition; biochemistry.

Reports
sent to surgeon, anaesthetist and GP
## Results

Total: n= 305 (M:F 155:150)
Intensiv programme 1 (3 weeks): n=78
Intensiv Programme 2 (6-12 weeks) n=227
Median: 7 weeks

Mean Pre-programme BMI (kg/m²):
Intensiv 1: Intensiv 2- 42.1: 43.6

<table>
<thead>
<tr>
<th></th>
<th>Weight Loss (kg)</th>
<th>Excess Weight Loss (%)</th>
<th>Weight Loss (%)</th>
<th>Change in Neck Circumference (cm)</th>
<th>Change in Waist Circumference (cm)</th>
<th>Change in Hip Circumference (cm)</th>
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</thead>
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<tr>
<td><strong>Intensiv 1</strong></td>
<td></td>
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<td>3 weeks (n = 78)</td>
<td>7.2</td>
<td>17.6</td>
<td>5.6</td>
<td>-1.6</td>
<td>-6.1</td>
<td>-4.6</td>
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<tr>
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<tr>
<td>6-12 weeks (n = 227)</td>
<td>9.9</td>
<td>23.0</td>
<td>8.0</td>
<td>-2.2</td>
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<td>-6.1</td>
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weight loss goal

diet strategy

monitoring & review
Dietitian
Margaret Brooke

Chermside Medical Complex
(07) 3861 4677

Holy Spirit Northside Private Hospital
(07) 3350 2533

Red Hill Doctors Surgery
(07) 3369 2444

intensiv
1300 468 367