Advise on health risks of obesity and treatment options

Session 7

Acknowledgements
Obesity Canada
5As of Obesity Management

- Ask for permission to discuss weight.
- Assess obesity-related risk and potential “root causes” of weight gain.
- Advise on obesity risks, discuss benefits and options.
- Agree on realistic weight management expectations and on a SMART plan to achieve behavioural goals.
- Assist in addressing drivers and barriers, offer education and resources, refer to provider, and arrange follow-up.

Source: Obesity Canada, 5As of Obesity Management
ASK for Permission to Discuss Weight

ASSIST in addressing drivers & barriers, offer education & resources, refer to provider, and arrange follow-up

ASSESS obesity related risk and potential ‘root causes’ of weight gain

AGREE on realistic weight-loss expectations and on a SMART plan to achieve behavioural goals

ADVISE on obesity risks, discuss benefits & options

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<table>
<thead>
<tr>
<th>Severe obesity-related comorbidities</th>
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<tr>
<td>Type 2 diabetes</td>
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<td>Pseudotumor cerebri</td>
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<td>Hypertension</td>
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<tr>
<td>Gastroesophageal reflux disease (GERD)</td>
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<tr>
<td>Hyperlipidaemia</td>
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<td>Venous stasis disease</td>
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<td>Obstructive sleep apnoea (OSA)</td>
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<td>Severe urinary incontinence</td>
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<td>Obesity hyperventilation syndrome (OHS)</td>
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<td>Debilitating arthritis</td>
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<td>Pickwickian syndrome (combination of OSA and OHS)</td>
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<td>Considerably impaired quality of life</td>
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<td>Non-alcoholic fatty liver disease (NAFLD)</td>
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<td>Non-alcoholic steatohepatitis (NASH)</td>
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Treatment modalities for obesity in adults

- **Bariatric surgery**: RYGB, VSG, BPD, LAGB; adjunct to behavioural modifications
- **Pharmacotherapy**: orlistat and liraglutide; adjunct to behavioural modifications
- **Behavioural modifications**: consists of nutrition, physical activity and cognitive behavioural therapy

Choice of treatment depends on evaluation of a patient’s level of obesity and their risk of obesity-associated disease.
Explain need for long-term strategy

• Relapse is virtually inevitable when any intervention stops.
• This means that all management strategies must be feasible and sustainable.
• The focus should be on stabilizing the situation and improving behaviours.
• Interventions involving “quick fixes” and unsustainable strategies will result in an inability to maintain health behaviours.
Treatment modalities for obesity in adults

Bariatric surgery: RYGB, VSG, BPD, LAGB; adjunct to behavioural modifications

Pharmacotherapy: orlistat and liraglutide; adjunct to behavioural modifications

Behavioural modifications: consists of nutrition, physical activity and cognitive behavioural therapy

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Pharmacotherapy

- Typically suitable for patients with a BMI ≥ 30 kg/m²; or for patients with a BMI ≥ 27 kg/m² who have concomitant obesity-related diseases and for whom dietary and physical activity has not been successful.
- Use of anti-obesity drugs has the potential to amplify adherence to behaviour change, specifically adhering to dietary interventions.
- Patients should also be actively engaged in a lifestyle programme that provides strategies and skills needed to effectively use the drug.
- Until recently, there were poor safety profiles of older medications (now withdrawn from the market).
- Pharmacotherapy is used in about 20% of cases.
- New obesity pharmacotherapies are now available and being developed.
Two classes of medications

- Appetite suppressant (altering monoamine neurotransmission)
- Reduced absorption of selective macronutrients from the GI tract
Herbal medications – a word of caution

- Use of alternative medications has increased dramatically over the last few decades.
- Supplement categories:
  - stimulants believed to increase fat metabolism;
  - supplements that claim to result in more muscle and not fat;
  - foods that attempt to influence food intake and satiety;
  - foods that attempt to induce gastric satiety by physical filling of the stomach.
- Herbal medications for weight management are not effective and use of these agents is discouraged.
Bariatric surgery

• The benefits of bariatric surgery are significant for patients with severe obesity. It is currently the best-established and most successful method for durable weight loss in such patients.
• Bariatric surgery has significant impact on many of the complications associated with obesity.
  o 80% of patients experience an early complete remission of type 2 diabetes mellitus; 75% experience a persistent remission more than two years after surgery. Mechanisms are unclear.
  o Patients experience improvement of dyslipidaemia, hypertension, and a decrease in coronary artery disease risk.
  o There are positive effects on OSA, GERD, NAFLD, and quality of life.
Bariatric surgery

• Bariatric surgery is a treatment option for people with obesity if all of the following criteria are fulfilled:
  o they have a BMI of 40 kg/m\(^2\) or more, or between 35 kg/m\(^2\) and 40 kg/m\(^2\) and other significant diseases (for example, type 2 diabetes or high blood pressure) that could be improved if they lost weight;
  o all appropriate non-surgical measures have been tried, but the person has not achieved or maintained adequate, clinically beneficial weight loss;
  o the person has been receiving or will receive intensive management in a tier 3 service;
  o the person is generally fit for anaesthesia and surgery;
  o the person commits to the need for long-term follow-up.
• Choice of procedure should be customized based on the patient, goals and surgical expertise in the area.

Bariatric surgery

NICE guidelines

- Patients with a BMI of 30–34.9 with diabetes or metabolic syndrome can also be considered for surgery (improvements in glycaemic control with type 2 diabetes and improved biochemical markers of CVD risk).
- This recommendation is based on limited evidence.
### Considerations prior to recommending bariatric surgery

<table>
<thead>
<tr>
<th>Criteria</th>
<th>Details</th>
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<tbody>
<tr>
<td><strong>BMI</strong></td>
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<tr>
<td><strong>Acceptable operative risk</strong></td>
<td>Acceptable operative risk.</td>
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<tr>
<td><strong>Unable to achieve and maintain healthier body weight with non-surgical approaches</strong></td>
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<td><strong>Psychologically stable with realistic expectations.</strong></td>
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<td><strong>A well-informed and motivated patient who is willing to make a long-term commitment to follow-up, diet and physical activity recommendations.</strong></td>
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<td><strong>A patient who has a strong social support system.</strong></td>
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<tr>
<td><strong>No significant mental health problems that would preclude postoperative compliance or may worsen after surgery.</strong></td>
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**Contraindications to bariatric surgery**

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<td>Absence of a period of identifiable medical obesity management.</td>
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<td>Patient who is unable to participate in prolonged medical follow-up.</td>
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<td>Non-stabilized psychotic disorders, severe depression, personality and eating disorders, unless specifically advised by a psychiatrist experienced in obesity.</td>
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<td>Alcohol abuse and/or drug dependencies.</td>
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<td>Diseases threatening life in the short term.</td>
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<td>Patients who are unable to care for themselves and have no long-term family or social support that will warrant such care.</td>
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<td>Severe medical disease that makes anaesthesia or surgery prohibitively risky.</td>
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<td>Inability or unwillingness of the patient to change lifestyle postoperatively.</td>
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<td>Patient view of surgery as a “magic bullet”.</td>
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<td>Noncompliant behaviour.</td>
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<td>Untreated gastric ulcer, Crohn’s disease.</td>
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Roux-en-Y gastric bypass

- 30–35% weight loss
- 45–90 kg weight loss
- Neurohormonal mechanism of weight loss

Vertical sleeve gastrectomy

- 25–30% weight loss
- 45–90 kg weight loss
- Neurohormonal mechanism of weight loss


Decline in the use of gastric banding is due to limited long-term efficacy and the high removal rates of at least 25% at 5 years.
Follow-up after bariatric surgery

- Close follow-up in the first 2 years after surgery, involving the combined work of the hospital-based team and the tier 3 weight management team.
- After 2 years, follow-up consists of an annual check-up with GP.
- Patients need to take lifelong vitamin and mineral supplements.
- Regular blood tests are necessary to ensure there is no deficiency in a variety of vitamins and minerals.

Pregnancy and bariatric surgery

- Avoid pregnancy for at least 12 months after surgery.
- Effectiveness of the pill may be reduced after surgery.
- Vitamin and mineral supplements after gastric bypass/sleeve gastrectomy in pregnancy:
  - multivitamin and mineral supplements, iron, folic acid, calcium and vitamin D, vitamin B12.
- Patients who become pregnant following bariatric surgery should undergo nutritional screening every trimester (ferritin, folate, vitamin B12, calcium and fat soluble vitamins).

Complications of bariatric surgery

• Morbidity and mortality rates associated with bariatric surgery are generally low and comparable to other major abdominal operations such as cholecystectomy, appendectomy and hysterectomy.

• Mortality rate is directly influenced by the expertise of the surgeon and hospital facilities.

• Intraoperative complications include bleeding, injury to surrounding structures and staple misfire.

• Major complication rate following bariatric surgery is approximately 5% to 10%; the most common complications are venous thromboembolism and respiratory complications.
Follow-up

- After bariatric surgery, it is still important to view obesity as a chronic disease.
- Lifelong follow-up of patients is helpful to prevent weight regain and ensure they are meeting their goals.