CLINICAL HIGHLIGHTS

# Managing Obesity: A Clinician's Aid

*Agency for Healthcare Research and Quality*

**Incorporating evidence-based approaches to reducing obesity—including screening; counseling; medication; and surgery, when appropriate—may be effective in managing obesity.**

This clinician's aid highlights research from AHRQ's evidence-based practice program. This research informs many science-based recommendations in the public and private sectors, including the U.S. Preventive Services Task Force (USPSTF).

The mission of AHRQ is to improve the quality, safety, efficiency, and effectiveness of health care by:

- Using evidence to improve health care.
- Improving health care outcomes through research.
- Transforming research into practice.

## Health Consequences of Obesity

Obesity is a risk factor for heart disease, type II diabetes, hypertension and stroke, hyperlipidemia, osteoarthritis, sleep apnea, and cancer. Even modest weight loss can reduce the risk of these diseases.

## Screen

- Screen all adult patients for obesity using body mass index (BMI): weight in kilograms divided by height in meters squared.
- A BMI calculator is available at www.nhlbisupport.com/bmi.
- If BMI is $\geq 30$ kg/m$^2$, your patient is obese.
- Central adiposity increases the risk of cardiovascular disease. Those at increased risk are:
  - Men with waist circumferences > 40 inches.
  - Women with waist circumferences > 35 inches.

## Counsel Intensively, or Refer

- The most effective interventions to help patients change their eating patterns and become physically active combine:
  - Nutrition education.
  - Diet and exercise counseling.
  - Behavioral strategies.
- High-frequency interventions—i.e., more than one person-to-person (individual or group) session per month for at least 3 months—can lead to a 3-6 kg weight loss maintained for more than 2 years.
- Maintenance interventions help patients sustain weight loss over time.

## Medications to Treat Obesity

- Medications promote modest weight loss (usually less than 5 kg in 1 year) when given along with recommendations for diet. Nevertheless, this weight loss may be clinically significant.

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**Weight Loss Medications: Effectiveness and Side Effects**

| Medication Dosage | Weight Loss[1] By Time | Side Effects | Relative Risk Compared with Placebo |
|---|---|---|---|
| Bupropion 400 mg/day | 1-5 kg, 6-12 mo | Dry mouth<br>Diarrhea<br>Constipation<br>Upper respiratory problems | 2.3<br>1.3<br>1.3<br>1.1 |
| Diethylpropion 75 mg/day | 2-12 kg, 6-12 mo | NR | NR |
| Fluoxetine 60 mg/day | 3-7 kg, 6 mo<br>1-6 kg, 12 mo | Nervousness/sweating/tremors<br>Nausea/vomiting/fatigue/asthenia<br>Hypersomnia/somnolence<br>Insomnia<br>Diarrhea | 6.4<br>2.7<br>2.4<br>2.0<br>1.7 |
| Orlistat (Dosage NR) | 2-3 kg, 6 mo<br>2-3 kg, 12 mo | Diarrhea<br>Flatulence<br>Bloating/abdominal pain/dyspepsia | 3.4<br>3.1<br>1.5 |
| Phentermine 15-30 mg/day | 1-6 kg, 6 mo | NR, but can expect:<br>Palpitations<br>Tachycardia<br>Elevated blood pressure<br>Central nervous system effects<br>Gastrointestinal effects<br>Case reports of stroke reported but causality cannot be assumed | NR |
| Sibutramine 10 or 20 mg/day | 4-6 kg, 4-6 mo<br>4-5 kg, 12 mo | Modest increases in heart rate and blood pressure | NR |
| Topiramate 96-192 mg/day | 5-8 kg, 6 mo | Taste perversion<br>Paraesthesia<br>Constipation<br>Dry mouth<br>Central nervous system effects<br>Upper abdominal symptoms<br>Fatigue<br>Upper respiratory problems<br>Diarrhea | 9.2<br>4.9<br>3.5<br>2.9<br>2.0<br>1.6<br>1.3<br>1.2<br>1.0 |
| Zonisamide 100-600 mg/day | 6% of baseline body weight, 4 mo | Fatigue | NR |

[1]Weight loss estimates based on a 95% confidence interval.
BMI = body mass index; mo = month; NR = not reported.

- There is no evidence that one medication promotes more sustained weight loss than another.
- The choice of medication may depend on the individual patient's tolerance to its side effects.
- There is insufficient data on the pharmacological treatment of obesity in children and adolescents.
- Medications to promote weight loss have not been studied sufficiently to evaluate the risks of rare (less than 1 in 1,000) side effects.

## Surgery

- Surgery can result in a 20-30 kg weight loss, maintained up to 8 years, in obese patients with a BMI of $\geq 40$ kg/m$^2$.
- For patients with a BMI of 35-40 kg/m$^2$, the data support the superiority of surgery but is inconclusive.
- More than 20 percent of patients who undergo bariatric surgery experience some complications, although most complications are minor.
- Postoperative mortality rates of less than 1 percent have been achieved by a number of surgeons and bariatric surgical centers. The postoperative mortality rate in other settings may be higher.
- There are almost no data on surgery for the treatment of obesity in adolescents or children.

## Resources and Tools

This clinician's aid is based on the following work supported by the Agency for Healthcare Research and Quality (AHRQ):

Shekelle PG, Morton SC, Maglione M, et al. *Pharmacological and Surgical Treatment of Obesity*. Evidence Report/Technology Assessment No. 103. Rockville, MD: Agency for Healthcare Research and Quality, 2004.

U.S. Preventive Services Task Force. Screening for Obesity in Adults: Recommendation Statement. *Ann Intern Med* 2003; 139(11):930-2.

## More Information

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