

Obesity management: from lifestyle changes to medication and surgery

Obesity and overweight are a growing health issue. In 2022, 2.5 billion adults (18 years and older) were overweight, of these, 890 million were living with obesity,¹ and these values are expected to continue rising in the following years.² The consequences of obesity are vast, ranging from increased risk for cardiovascular diseases (CVDs)³ and type 2 diabetes, to impaired quality of life.^{4,5}



Lifestyle modifications: the cornerstone of obesity management

Lifestyle interventions are generally considered to be the first-line and most cost-effective approaches for managing overweight and obesity. They include dietary modifications, increased physical activity, and behavioural therapy. International guidelines strongly recommend multidisciplinary and individualised lifestyle modifications as the cornerstone of obesity management.^{3,5-10}

- **Dietary approaches.** A balanced, restricted-calorie meal plan is the main component of weight-loss interventions. The objective is to successfully maintain total energy intake below energy expenditure to promote a gradual and sustainable effect. All nutritional interventions should be tailored for maximise adherence and should consider individual dietary habits, cultural context and previous dieting attempts.^{5,8-10}

- **Physical activity.** Regular physical activity, defined as at least 150-300 min of moderate-intensity or at least 75-150 min of vigorous-intensity aerobic activity per week,¹¹ is crucial for reducing fat mass and increasing lean mass. Patients should also be encouraged to incorporate more physical activity in their daily routine shifting from a sedentary to a more active lifestyle. Recommendations on exercise must be tailored to the patients' health status, abilities and preferences (strength-, resistance-, vigorous-training...).^{5,8-10}

- **Behavioural interventions** are essential for modifying eating behaviours, developing healthier lifestyle habits and enhancing adherence. Cognitive-behavioural therapy, self-monitoring, goal setting or structured lifestyle education programmes can enhance patient implication and maximise outcomes.^{5,8,9}

Pharmacological options: when lifestyle changes are not enough

For patients who struggle or are unable to achieve or maintain weight loss solely through lifestyle interventions, pharmacological treatments may be considered. These medications should always be prescribed in conjunction with dietary and lifestyle modifications, namely exercise and are generally recommended for individuals with BMI of ≥ 30 kg/m² or those with a BMI ≥ 27 kg/m² in the presence of obesity-related comorbidities.^{3,8-10}

Pharmacological approaches to obesity target different aspects of energy balance: lipase inhibitors reduce fat absorption, centrally acting agents suppress appetite, and fixed-dose combinations address multiple pathways at once. More recently,

hormone-based therapies that mimic gut-derived signals (particularly the GLP-1 receptor agonists (RA) liraglutide and semaglutide or the GLP-1 RA and a glucose-dependent insulinotropic polypeptide (GIP) receptor agonist tirzepatide) have emerged as highly effective options, providing complementary tools to lifestyle interventions tailored to patient profile and treatment goals.¹² These treatments can result in up to 10-20% of weight reduction, substantially improving obesity-related comorbidities (e.g. cardiovascular events, obstructive sleep apnoea, type 2 diabetes...),^{3,4,13} These medications, however, are not free of associated risks, and their use requires careful patient selection and monitoring.

Surgical interventions: a last resort

When both lifestyle and pharmacological approaches are not successful in addressing weight reduction, bariatric surgery may be considered for selected patients (BMI ≥ 40 kg/m² or with a BMI ≥ 35 kg/m² and suffering from other co-morbidities). In these patients surgical interventions is expected to improve outcomes achieving weight reduction of up to

25% initial weight.^{3,5,8,9} However, they are not exempt from health risks and their implementation should be based on the assessment of a multidisciplinary medical team to ensure overall safety and increase the chances of long-term success in weight management.⁴

Conclusion

Obesity is a complex chronic disease with severe impact on overall health which requires a comprehensive, patient-centred management approach. Healthcare professionals have access to a variety of treatment modalities, including structured lifestyle modifications, pharmacological options, and surgical interventions for most severe cases. By recognising obesity as a multifactorial condition and tailoring treatment to match individual needs, healthcare providers can help optimise obesity treatment outcomes and improve patients' overall health and quality of life.

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