



# ANZMOSS

Australian & New Zealand  
Metabolic and Obesity Surgery Society

**Recommendations for bariatric surgery in adolescents  
in Australia and New Zealand**

**May 2022**

## Introduction

The prevalence of obesity and obesity related comorbidities continues to increase in the adolescent population. Primary prevention will always remain the preferred strategy. Effective and durable treatment options however are needed for the morbidly obese adolescent.

For the most severely obese adolescent the option of bariatric surgery needs to be considered. It should only be considered once all other treatments have been attempted and have not resulted in meaningful and sustained weight loss. Treatments can include behavioural change, dietary modification and increased physical activity. It also includes the expanding use of pharmacotherapy agents that have been approved for the treatment of adolescents.

When considering adolescents for bariatric surgery there are barriers to success which are specific to the adolescent population. Each adolescent should be considered a unique case with multidisciplinary team meetings to assess the adolescent's progress, insight, and readiness to undergo surgery.

The purpose of this document is to reinforce and update guidelines that were written in 2010 by ANZMOSS. They draw from the ASMBS guidelines published in 2018 and the policy statement from the American Academy of Paediatrics (2019).

## Adolescent patient criteria for selection of bariatric surgery

- BMI > 35 kg/m<sup>2</sup> or 120% of the 95<sup>th</sup> percentile with a comorbidity
  - Comorbidities can include type 2 diabetes, hypertension, nonalcoholic steatohepatitis, benign intracranial hypertension and obstructive sleep apnoea. It can also include comorbidities that may be unique to the adolescent including the psychosocial burden of obesity and orthopaedic diseases specific to children.
- BMI > 40 kg/m<sup>2</sup> or 140% of the 95<sup>th</sup> percentile without a comorbidity
- Consider age 14 in certain circumstances
- Tanner stage 4 or 5 pubertal development
- Attainment of final or near final adult height
- Persistence of obesity despite lifestyle modification and pharmacotherapy for a minimum of 6 months
- Able to provide informed consent

## Adolescent criteria where bariatric surgery not indicated

- Medically correctable cause of obesity
- Under the age of 14
- Medical, psychiatric or cognitive condition that prevents adherence to postoperative regime
- Pregnant or breast feeding

## Informed consent

It is recommended that surgery as a treatment option be considered from 14 years in certain circumstances. Consent must adhere to local legislation regarding the capacity for children to consent to a medical procedure. This will usually involve full consent from the parent or legal guardian. The consent process however should be a team-based process with the patient, parents or guardians and other caregivers all involved. It is important that all alternatives to surgery are presented and discussed.

Adolescents below the age of 14 should be engaged with a multidisciplinary team for medical weight management with weight stability or maintenance as an acceptable outcome until they reach 14 years of age.

## Preoperative assessment

When considering an adolescent patient for bariatric surgery there are barriers to success which are specific to this population. A multidisciplinary team approach to assess each adolescent's suitability to undergo surgery should be considered mandatory. The team should include a dietitian, clinical psychologist, exercise physiologist and a nurse coordinator. A paediatrician is also considered important due to their unique family focused lens.

The adolescent needs to understand the key pillars of long-term weight management which includes good nutrition, physical activity and good sleeping habits. Prehabilitation of this cohort is essential as many adolescents presenting for bariatric surgery have poor food literacy and baseline eating patterns, reversed wake/sleep cycles, limited physical activity and current psychology that impact on their daily life.

The adolescent patient needs to understand their planned surgery, its permanent nature and all possible complications. They also need to appreciate the long-term benefits of bariatric surgery and the potential implications for nutrition, fertility, and psychology. The patient needs education regarding the need for long term multivitamin supplementation. This information is part of the consent process.

## Social support

Social support is a key component of the assessment of the adolescent for surgery as they have not reached physical or financial independence from their family or caregiver. Engagement from the family members or caregivers is key to successful reinforcement of educational messages from the multidisciplinary team and for adherence to follow up. As family dynamics are varied, the recommendation is that the family or caregivers are cohesive with their approach to the adolescent in terms of willingness for the adolescent to have surgery and engagement with the process and the long-term requirements. Where a family is separated and shared custody arrangements exist, it is recommended that both parents and caregivers are involved in the process. Unstable family environments are not necessarily a contraindication to adolescent bariatric surgery as long as the adolescent is supported.

## Psychological support

The incidence of mental health issues including eating disorders is significant within this population. These conditions need to be treated and optimised before any bariatric surgery is considered and this should involve a specialist adolescent psychiatrist. Mental health issues are not a contraindication to bariatric surgery just as they aren't in the adult population. Beside the patient with mental health issues routine psychological assessment is necessary

for all adolescents considering bariatric surgery. Their mental capacity to make an informed decision regarding surgery independent of family or a caregiver needs to be established.

## Surgical expertise and facilities

Adolescent bariatric surgery is potentially performed by two different specialties. ANZMOSS recommends that surgery is performed in high volume bariatric surgery centres by experienced bariatric surgeons. This usually means the surgery is performed in adult hospitals that may not necessarily be optimised for the care of an adolescent or child post-surgery. This is however considered necessary to make sure the surgery is performed safely. The adolescent bariatric surgery patient is technically equivalent to an adult bariatric patient for the experienced bariatric surgeon. The surgeon needs to be proficient in the full spectrum of bariatric procedures. They need to also be able to manage effectively all potential complications.

## Type of surgical procedure

The laparoscopic adjustable gastric band, sleeve gastrectomy and Roux en Y gastric bypass are the recommended options for adolescent bariatric surgery. Sleeve gastrectomy is currently the most favoured operation for adolescents due to less reoperations, reduced nutritional deficiencies and similar weight loss outcomes to Roux en Y gastric bypass. It also allows consideration of a revisional procedure in instances of weight regain when the patient is an adult.

## Postoperative management

Follow up post-surgery should be more frequent for the adolescent to assist transition through the dietary, physiological, and psychological changes. It is recommended that follow up occur every two weeks for the first month, monthly until four months and then two monthly until one year post surgery. Beyond the first year it is recommended that connection with the multidisciplinary team remains as the adolescent's increasing autonomy can impact on eating patterns and food choices. It is therefore recommended that follow up is three monthly in the second year and six monthly each year after that until they reach adulthood (21 years) at which point follow up is recommended annually. Vitamin deficiencies can be more common in the adolescent population so regular screening tests are required long term. The adolescent bariatric surgery team needs to assist with transition to an adult programme for ongoing care.

## Conclusion

Bariatric surgery is an effective treatment that needs to remain an option for the morbidly obese adolescent. It remains the treatment with the best and most sustained weight loss with the greatest impact on obesity related illnesses. These modified guidelines are designed to ensure that this surgery is performed in a safe and effective manner without unnecessarily denying access to what can be a life changing operation.