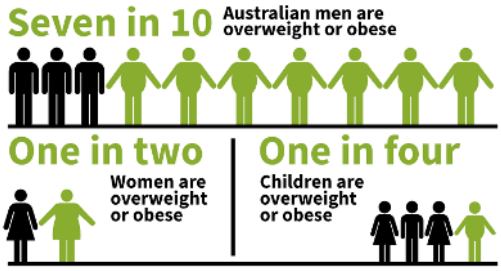
Four Myths of Adolescent Obesity

Leon Cohen Bariatric Surgeon Mercy Bariatrics Perth WA



In Australia currently it is estimated that 1 in 4 children and adolescents are overweight or obese[i].

This is the feedstock which flows into Adult obesity and represents a huge potential burden of disease. Societal initiatives to halt this progression such as school and after school exercise and healthy eating initiatives are laudable but as yet unproven in efficacy. Yet Bariatric surgery for under 18 yr olds, arguably the most powerful approach in the individual patient, is only 1% of the total bariatric cases done yearly in Australia[ii]. There are several powerful myths that have coloured our enthusiasm for offering this solution to the adolescent population.

Myth 1. They will grow out of it.

The relative contributions of genetic to environmental factors to the development of obesity is thought to be 50:50[iii]. We can't yet do much about the former and the later is just getting worse. The probability that a child who is obese at age 10 will be obese at age 35 is 0.8. if morbidly obese at age 10 it is closer to 1.0 .[iv]

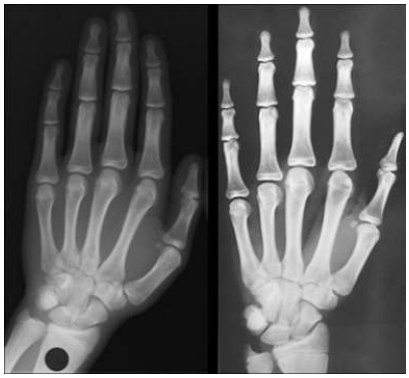
It can be very hard for GPs to have this conversation with obese teenagers who may not attend much for review or are hyper sensitive to this issue.

Myth 2. Obesity in teenagers is a benign condition.

We are used to searching for and managing comorbidities in our adult patients but adolescents can have a range of physical and mental problems as a result of their obesity that can be very damaging. The burden of PCOs, Asthma, Sleep apnoea and specific orthopaedic events like slipped femoral epiphysis and Blount's disease should not be underestimated. Type 11 diabetes occurring first in childhood and adolescents can have a very aggressive evolution requiring early intervention with Insulin and associated with end organ damage in the medium term[v].

Psychological issues can be devastating with 50% of obese adolescents reporting bullying at school within the last school term and the rate of depression 18X that of the age matched non obese cohort. Quality of life scores are lower than in patients afflicted with severe chronic disease. School refusal and poor grades from sleep apnoea can have long term implications to their educational achievement and further study and employment prospects.

Myth 3. Surgery should be delayed until after puberty/ Bone growth cessation.

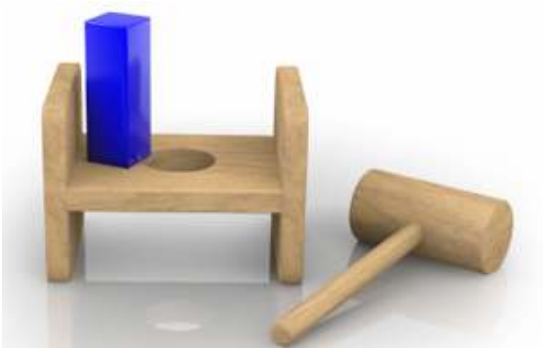


There is no evidence that Bariatric surgery either impedes or abbreviates growth in the young adolescent. In fact severe obesity in childhood is often associated with premature puberty and loss of potential prepubertal height. In 1 study by Alqahtani showed improved linear growth in children after VSG compared with matched controls.[vi].

The Current ASMBS guidelines published in 2018 state[vii]:

" *Tanner stage and linear growth should not be used to determine readiness for adolescent MBS."*

Myth 4. Adolescent Bariatrics is just Adult Bariatrics in a younger age.



Although the recommended operations favoured for Bariatric surgery, sleeve gastrectomy and Gastric Bypass ,are technically the same in adolescents (apart from some sizing issues) . The assessment, preparation, education and postoperative support demands a teen centric approach with programs delivered in a measured and age appropriate format. Adolescents need to earn their place on a program by demonstrating engagement and knowledge attainment rather than just "Pay their way" into surgery.

Issues of consent are not always straightforward, particularly in the syndromic obesities where cognitive impairment may be present and in cases of blended families where a unified parental concordance may be lacking. The hospital's Ethics boards can help and objective confirmation of their Gillick competency can usefully be obtained by having an external Paediatric specialist acting as a gatekeeper prior to surgery.

The only publicly funded adolescent Bariatric program in Australia is "Danny Place" linked to Flinders hospital in Adelaide. It is inevitable that as the success of adolescent bariatrics is recognized, that a strong case will be made to role this out in our own PCH to compliment their existing "Healthy Weight Service" for children and adolescents. In the meantime, with most of the expertise and capacity in this area concentrated in the private sector it remains an option for only the most committed and resourced families.

Dr Leon Cohen is a General and Bariatric Surgeon at SJOGML. He has developed the states first credentialled Adolescent Bariatric Surgery program (Teen Time Bariatrics) at SJOGML.

References

[i] National Health Survey: First Results, 2017-18 Ausralian Bureau of Statistcs, 2018)

[ii] Bariatric Surgery registry Annual report 2017-2018

[iii] Quantifying the impact of genes on body mass index during the obesity epidemic: longitudinal findings from the HUNT Study *BMJ* 2019; 366 doi: https://doi.org/10.1136/bmj.l4067 3 July 2019)

[iv] Will Overweight Children Be Overweight Adults? Published online NEJM Nov 30, 2017 - Written by Karen Sokal-Gutierrez, MD, MPH, FAAP

[v] Complications and comorbidities of T2 DM in adolescents: findings from the TODAY clinicalt rial. Tryggestad JB,WilliS M J DiabetesComplications2015;29(2):307–12.

[vi]..Laparoscopic sleeve gastrectomy in children younger than 14years: refuting the concerns. Alqahtani A,Elahmedi M, Qahtani AR AnnSurg2016;263(2):312–9.

[vii] ASMBS Paediatric Metabolic and Bariatric Surgery Guidelines, 2018. Surg Obes Related Disease. 2018 Jul;14(7):882-901. doi: 10.1016/j.soard.2018.03.019. E.pub 2018 Mar 23