Introduction to Comprehensive Obesity Care

The worldwide prevalence of obesity nearly **tripled** between 1975 and 2016.[1]

- In 2016[1]:
  - 650 million people ≥18 years of age had obesity
 - >340 million people 5-19 years of age had obesity or overweight

Measuring and Diagnosing Obesity

BMI is a screening tool used to assist in the diagnosis of obesity that is interpreted using categories of weight status (in kg/m^2)[2]:

- Overweight: ≥25.0 to <30.0
- Class 1 obesity: ≥30.0 to <35.0
- Class 2 obesity: ≥35.0 to <40.0
- Class 3 obesity: ≥40.0

Additional adiposity measures may be used:

- Waist circumference[3]
- Waist-to-height ratio[3]
- Waist-to-hip ratio[3]
- Body composition technologies (eg, BIA)[4]
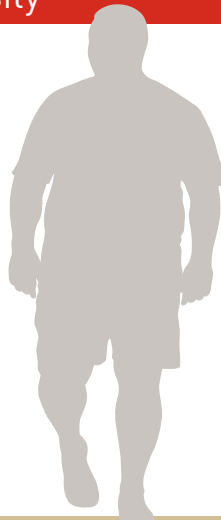
Factors to Consider in Obesity Diagnosis[3-5]

- BMI and other indicators of obesity, such as waist circumference
- Individual differences in body composition
  - Associated with age, sex, ethnicity, and physical activity
  - Lean mass vs fat mass
- Weight management journey
- Presence of adiposity-related complications
- Individualized goals

Accepted Screening and Staging Systems

- BMI[2]
- AACE/ACE stages of obesity[4]
- Edmonton Obesity Severity Scale[5]

Discussing Obesity With Patients

The **5 As** Model is an evidence-based strategy that can provide a framework for weight management and facilitate obesity counseling.[5,6]

ASK
ASK for permission to discuss weight and explore readiness to change

ASSESS
ASSESS obesity-related risk and root causes of weight gain

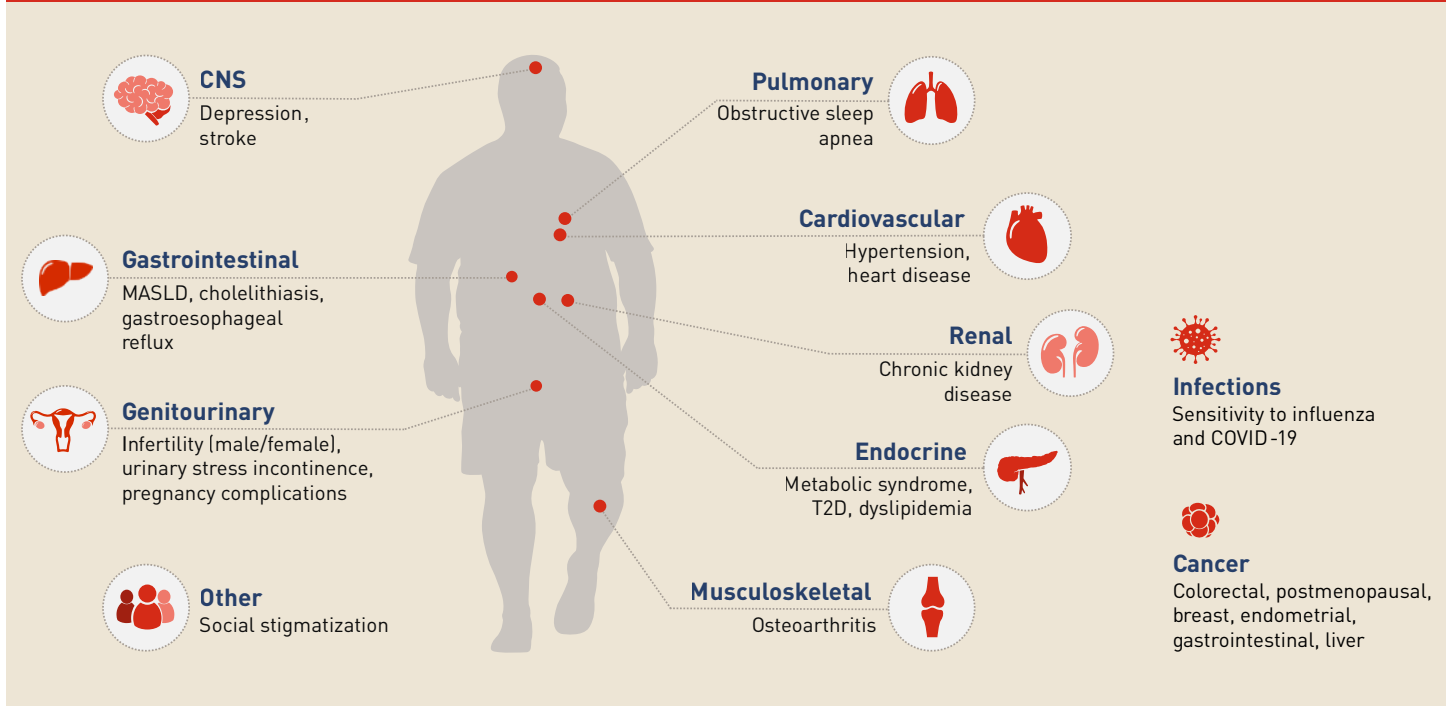**ADVISE**
ADVISE on health risks and treatment options

AGREE
AGREE on health outcomes and behavioral goals

ASSIST
ASSIST in accessing appropriate resources and providers

Lilly

Obesity Is Associated With Multisystem Complications[7-9]

CNS
Depression, stroke

Pulmonary
Obstructive sleep apnea

Gastrointestinal
MASLD, cholelithiasis, gastroesophageal reflux

Cardiovascular
Hypertension, heart disease

Renal
Chronic kidney disease

Infections
Sensitivity to influenza and COVID-19

Genitourinary
Infertility (male/female), urinary stress incontinence, pregnancy complications

Endocrine
Metabolic syndrome, T2D, dyslipidemia

Cancer
Colorectal, postmenopausal, breast, endometrial, gastrointestinal, liver

Other
Social stigmatization

Musculoskeletal
Osteoarthritis

Key Takeaways

- Obesity is a complex, multifactorial disease[10]
- The diagnosis of obesity can be made through the clinical interpretation of BMI, taking into consideration other indicators of adiposity, as well as the presence of obesity-related complications[4,5]
- Obesity is associated with multisystem complications[7-9]
- Identifying and diagnosing obesity can be an important step in a patient's health journey[10,11]

References

1. Obesity and overweight. World Health Organization. Accessed October 26, 2023. https://www.who.int/en/news-room/fact-sheets/detail/obesity-and-overweight
2. Defining adult overweight & obesity. Centers for Disease Control and Prevention. Accessed November 7, 2023. https://www.cdc.gov/obesity/basics/adult-defining.html
3. Bray GA, Heisel WE, Afshin A, et al. The science of obesity management: an Endocrine Society scientific statement. *Endocr Rev*. 2018;39(2):79-132.
4. Garvey WT, Mechanick JI, Brett EM, et al. American Association of Clinical Endocrinologists and American College of Endocrinology comprehensive clinical practice guidelines for medical care of patients with obesity. *Endocr Pract*. 2016;22(7):842-884.
5. Rueda-Clausen CF, Poddar M, Lear SA, Poirier P, Sharma AM. Canadian adult obesity clinical practice guidelines: assessment of people living with obesity. Obesity Canada. Accessed April 18, 2024. https://obesitycanada.ca/guidelines/assessment
6. Vallis M, Piccinini-Vallis H, Sharma AM, Freedhoff Y. Clinical review: modified 5 As: minimal intervention for obesity counseling in primary care. *Can Fam Physician*. 2013;59(1):27-31.
7. Tsai AG, Bessesen DH. Obesity. *Ann Intern Med*. 2019;170(5):ITC33-ITC48.
8. Sarma S, Sockalingam S, Dash S. Obesity as a multisystem disease: trends in obesity rates and obesity-related complications. *Diabetes Obes Metab*. 2021;23(suppl 1):3-16.
9. Chan W-K, Chuah K-H, Rajaram RB, Lim L-L, Ratnasingam J, Vethakkan SR. Metabolic dysfunction-associated steatotic liver disease (MASLD): a state-of-the-art review. *J Obes Metab Syndr*. 2023;32(3):197-213.
10. Bays H, Golden A, Tondt J. Thirty obesity myths, misunderstandings, and/or oversimplifications: an Obesity Medicine Association (OMA) clinical practice statement (CPS) 2022. *Obesity Pillars*. 2022;3:100034.
11. Ryan DH, Yockey SR. Weight loss and improvement in comorbidity: differences at 5%, 10%, 15%, and over. *Curr Obes Rep*. 2017;6(2):187-194.

CNS = central nervous system; MASLD = metabolic dysfunction-associated steatotic liver disease; T2D = type 2 diabetes.

Lilly