Obesity in Woman's (Mental) Health

A psychiatric perspective

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25th October 2025

Radison Blu, PE

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Past 20 Female admissions to AKESO

- Age
  - Range 29-79 years
  - Mean 54 yr
- BMI
  - Normal 15%
  - Overweight 35%
  - Obese 50%
- Medical in OW & O group
  - Hpt 45%
  - T2D 40%
  - Dyslipidemia 35%
  - Metabolic Syndr 25%

Layout

- Introduction
- Obesity in Woman’s Health
- Obesity in Mental Health
- Obesity in Women’s Mental Health
- Weight Management
- Conclusion

Introduction

- It’s an illness?
- Definition
- Stats
- Classification
- Risk factors
- Impact

Introduction

- **An illness or disease**?

- **Definition of obesity**
  - Chronic, progressive, relapsing,
  - Multifactorial, neurobehavioral,
  - Require lifelong management

A disease is an objective, diagnosable medical condition with specific signs and symptoms that interfere with the body's normal function, while an illness is the subjective, personal experience of being unwell, including feelings and changes in role performance, that may or may not be linked to a recognized disease. In essence, a disease is what a physician diagnoses, whereas an illness is what a patient feels and experiences.

- **Stats**
- UK 36%/28%
- USA 31%/41.9% (9.2%)
- SA 68% women and 33% men
- WHO 13% of world population
  - 650 mil adults, 340 mil adolescents, 39 mil children
  - 2025 167 million less healthy because of overweight/obesity

www.worldobesity.org

Defining obesity

WHO guidelines for classifying obesity*

WHO classification	BMI cut-off points for definition (kg/m^2)	Cardiovascular disease risk	Asian BMI cut-off points for action (kg/m^2)
Underweight	<18.5		<18.5
Normal range	18.5–24.9	Low	18.5–22.9
Overweight	25.0–29.9	Moderate	≥23.0
Obesity class I	30.0–34.9	High	27.5–32.4
Obesity class II	35.0–39.9	Very high	32.5–37.4
Obesity class III	≥40.0	Very high	≥37.5

*Additional cut-off points for public health action and for reporting purposes to facilitate international comparisons.
BMI, body mass index; WHO, World Health Organization.
World Health Organisation. Obesity fact files. Available here. (Accessed March 2024).

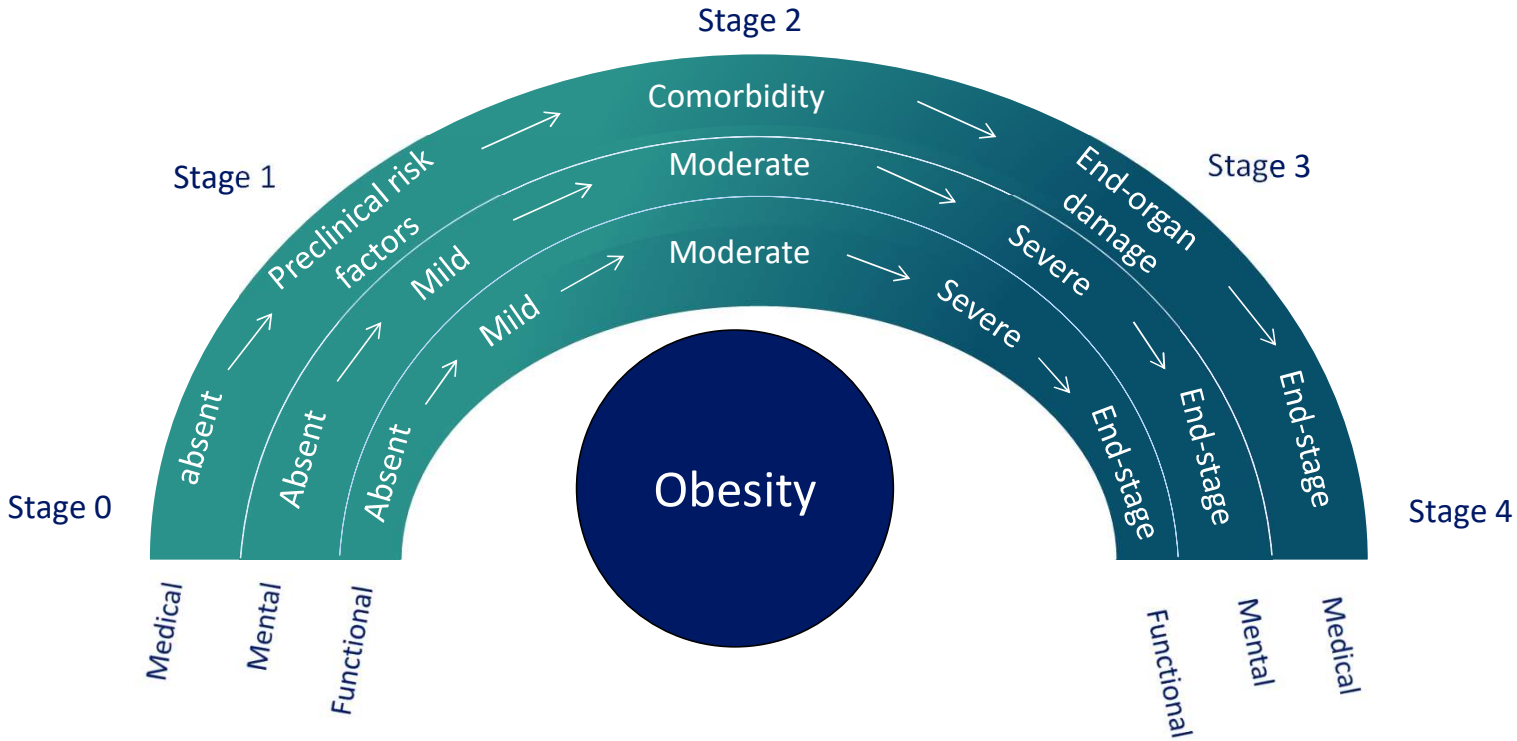
Defining obesity

Table 1. Diagnosis of obesity in women

Index	Cut-off points
Body mass index (BMI), kg/m^2	• Underweight: <18.5 • Normal weight: 18.5–24.9 • Overweight: 25–29.9 • Obesity class I: ≥30 • Obesity class II: ≥35–39.9 • Obesity class III: ≥40 [12] These classifications for BMI have been adopted for White, Hispanic, and Black individuals. For Asian individuals: • Underweight: <17.5 • Normal weight: 17.5–22.9 • Overweight: 23–27.9 • Obesity: ≥28 [7, 12, 13]
Waist circumference (WC), cm	Abdominal obesity according to ethnicity [14, 15]: • European woman: ≥80 cm • Caucasian woman: ≥80 cm • American woman: ≥88 cm • Canada woman: ≥88 cm • Asians and Japanese women: ≥80 cm • Chinese women: ≥80 cm • Middle East, Mediterranean women: ≥80 cm • Sub-Saharan African: ≥80 cm
Waist-to-height ratio (WHtR)	≥0.5: increased risk of obesity-related diseases [6] ≥0.6: severe risk of obesity-related disease
Waist-to-hip ratio (WHR)	≥0.85: increased risk of obesity-related diseases [1, 13]
Body fat percentage (PBF)	Underweight: <20 Normal: 20–29.9 Overweight: 30–35 Obesity: ≥35% [7]

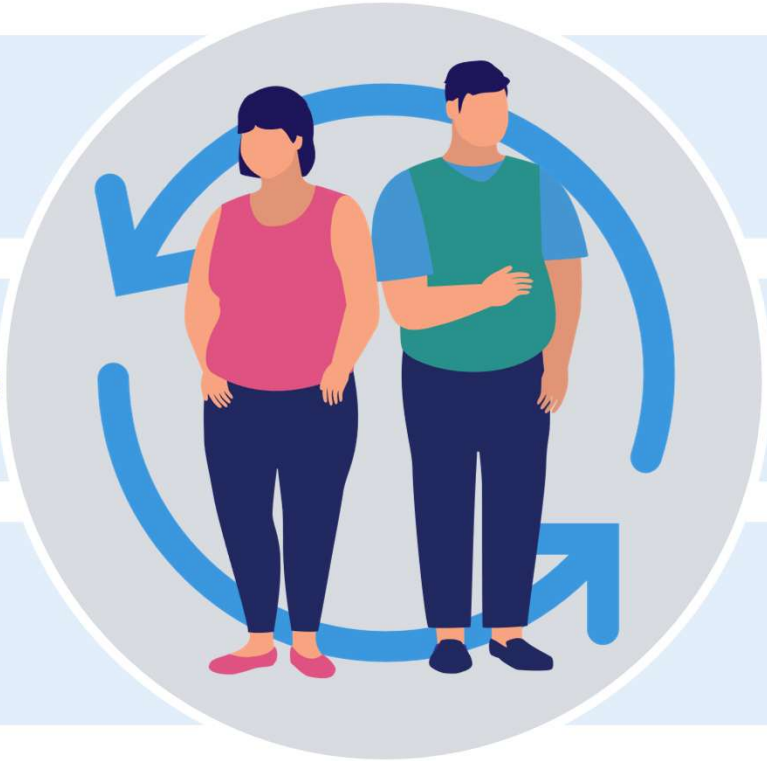
Pedersen SD, Manjoo P, Dash S et al. Pharmacotherapy for Obesity Medicine in Adults. https://obesitycanada.ca/guidelines

Edmonton Obesity Staging System – Staging Tool



Atlantis E et al. Obes Rev. 2020;21(11):e13120. doi:10.1111/obr.13120.
Adapted with permission from: Atlantis E et al. Obes Rev. 2020;21(11):e13120. doi:10.1111/obr.13120. Published by John Wiley and Sons © 2020 World Obesity Federation
Canning KL. Edmonton Obesity Staging System prevalence and association with weight Loss. J of Obesity. Http://dx.doi.org/10.1155/2015/619734.

Obesity is caused by a complex interplay of factors



- Biological[1,2]
- Social and environme
- Medications[5]
- Neuro-psychological[6–8]
- Endocrine and hypothalmic[9–11]
- Genetics[3]

1. Hall KD et al. Am J Clin Nutr. 2022;115:1243–54; 2. Lau D et al. Canadian Adult Obesity Clinical Practice Guidelines: The Science of Obesity. Available from https://obesitycanada.ca/guidelines/science. Accessed July 2024; 3. Herrera BM and Lindgren CM. Curr Diab Rep. 2010;10:498–505; 4. Loring & Robertson. 2014. The Regional Office for Europe of the World Health Organization, pp.4; 5. Janssen LK & Juk JL. Canadian Adult Obesity. Available from https://obesitycanada.ca/guidelines/epidemiology. Accessed July 2024; 6. Sominsky L and Spencer SJ. Front Psychol. 2014;5:434; 7. Sargénius HL et al. BMC Obesity 2017;4:6; 8. Luppino FS et al. Arch Gen Psychiatry. 2010;67:220–9; 9. Roth CL, Zenno A. Front Endocrinol 2023;14:1256514; 10. Park HK, Ahima RS. Best Practice & Research Clinical Obstetrics & Gynaecology 2023;90:102394; 11. Álvarez-Castro P et al. Endocrinología y Nutrición (English Edition) 2011;58(8):422-32.

Introduction

Risk Factors

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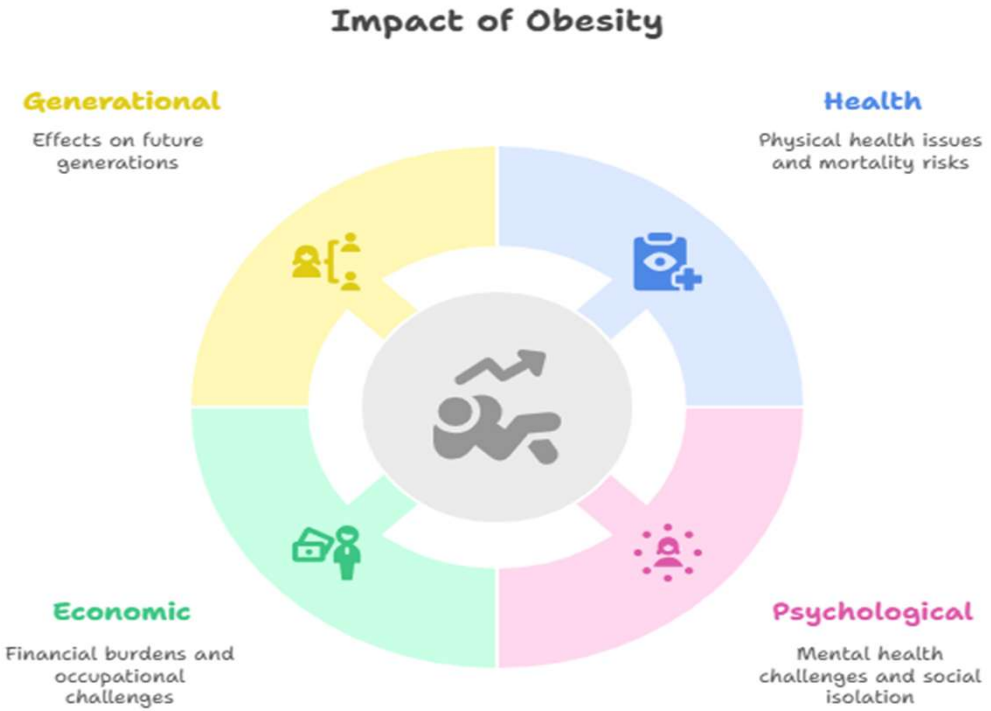
Source: Deutsche Adipositas-Gesellschaft et al.: S3-Leitlinie Adipositas - Prävention und Therapie. Version 5.0. 2024

Impact



The role of the brain in regulating appetite

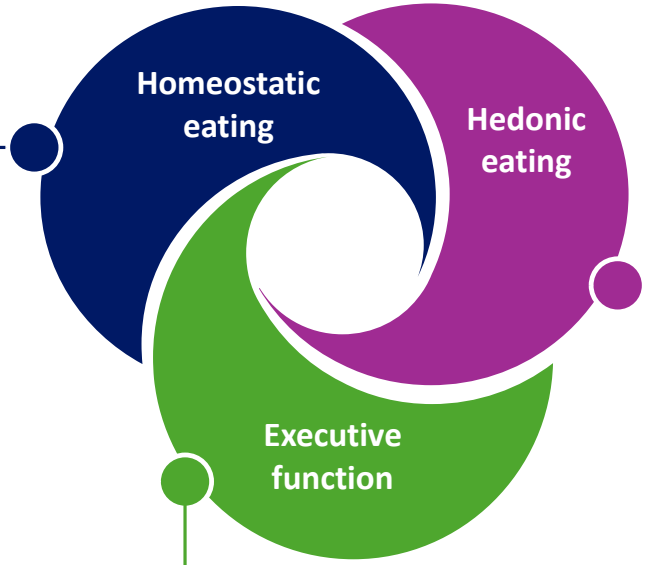
Satiety

- GLP-1
- Peptide YY
- Oxyntomodulin
- Pancreatic polypeptide
- Amylin

Eating in response to hunger

Hunger

- Ghrelin



Eating for pleasure

Dopamine controls WANTING the motivation to eat

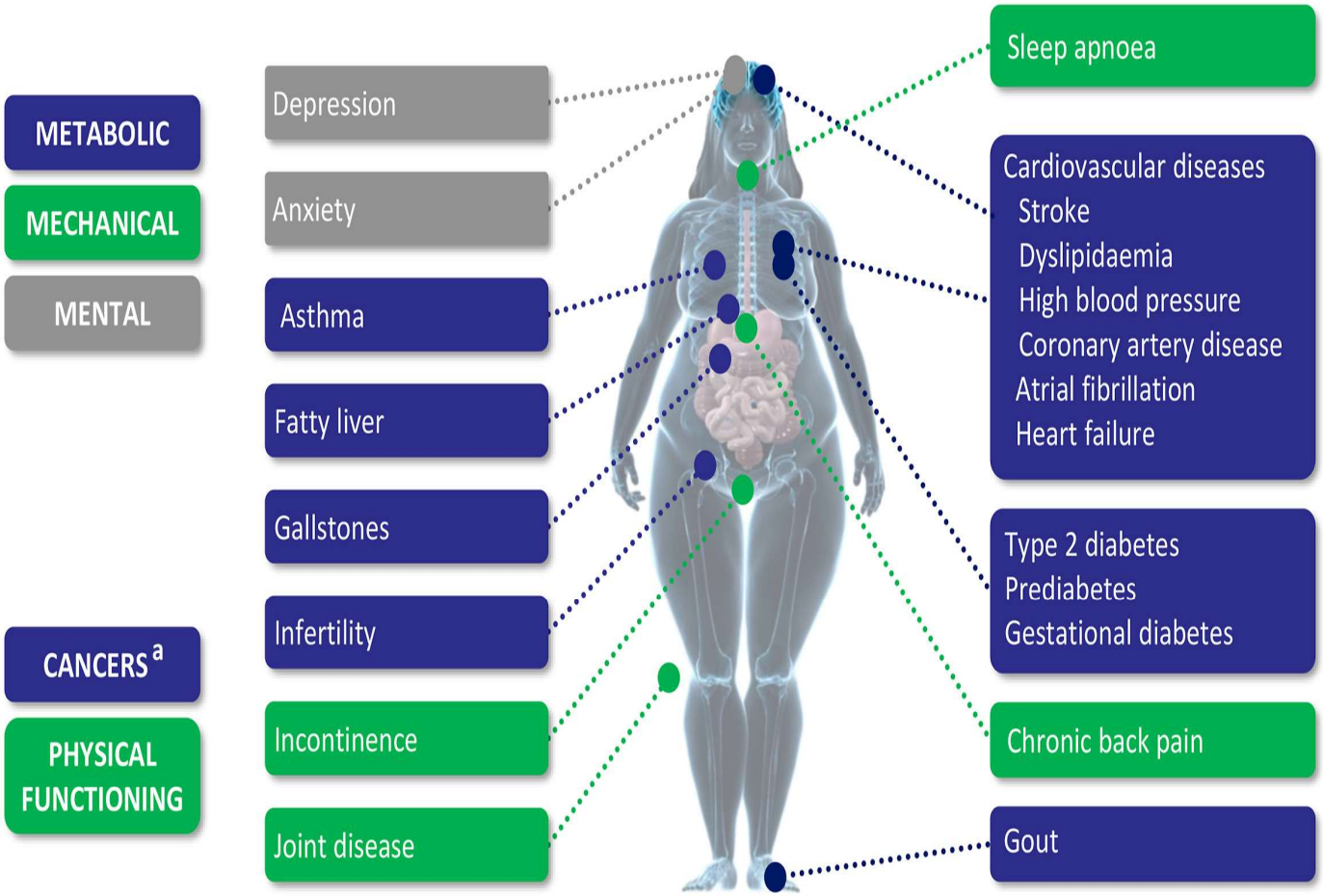
Opioid and **cannabinoid** receptors control LIKING the pleasure associated with food

Deciding to eat

Behavioural interventions empower sustainable behaviours in controlling eating

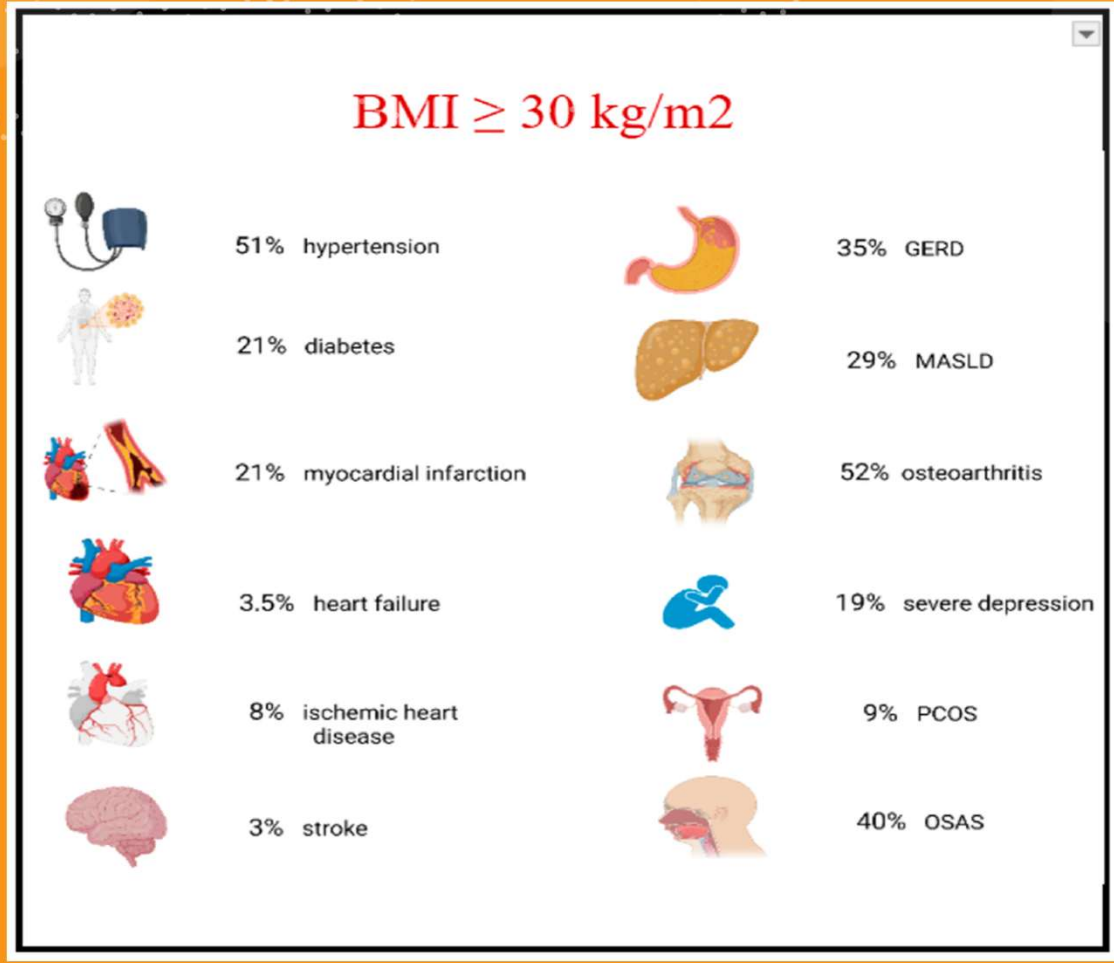
Vallis M. Clin Obes 2019;9:e12299.

Obesity in Women's Health



Slattengren A. Obesity and women's health: An evidence-based review. The journal of the American board of Family Medicine. 2011:24(1):75-85.
Van Der Merwe MT. Obesity in women- a life cycle of medical risk. JEMDSA. 2009;14(3):139-142.
Guglielmi V. Female obesity: clinical and psychological assessment toward the best treatment. Frontiers in Endocrinology. May 2024:1-21.

Prevalence of complications in people with obesity

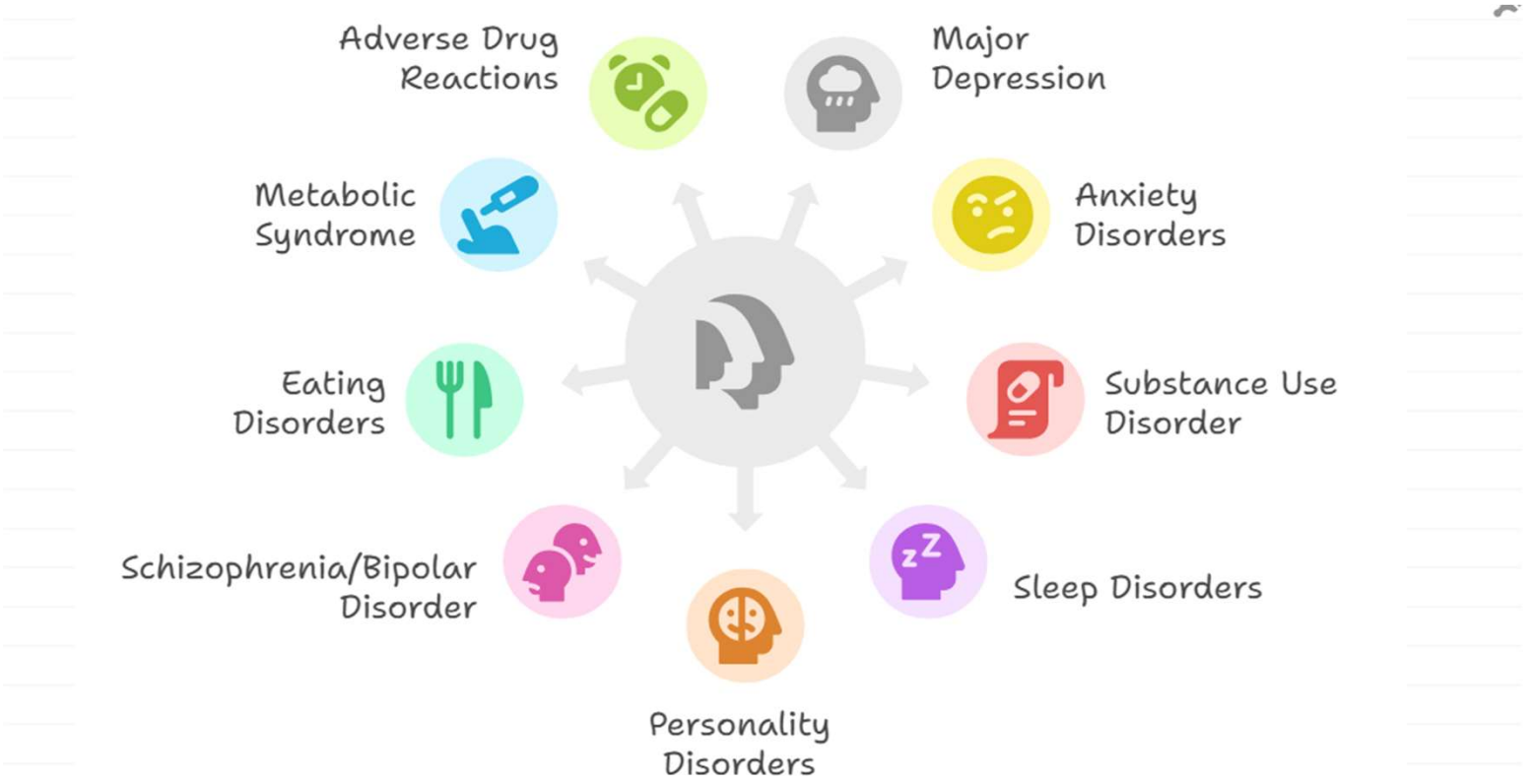


- Weekly heartburn and regurgitation.

GERD, gastro-oesophageal reflux disease; NAFLD, nonalcoholic fatty liver disease; OSAS, obstructive sleep apnoea syndrome; PCOS, polycystic ovary syndrome.

1. Simon GE et al. Arch Gen Psychiatry 2006;63:824–30; 2. Su W et al. J Med Economics 2015;18:886–97; 3. López-Velázquez JA et al. Ann Hepatol 2014;13:166–78; 4. Yildiz BO et al. J Clin Endocrinol Metab. 2008;93:162–68; 5. El-Serag HB et al. Am J Gastroenterol. 2005;100:1243–50; 6. Prieto-Alhambra D et al. Ann Rheum Dis 2014;73:1659–64; 7. Modena DAO et al. Rev Assoc Med Bras 1992;63:852–8.

Obesity in Mental Health



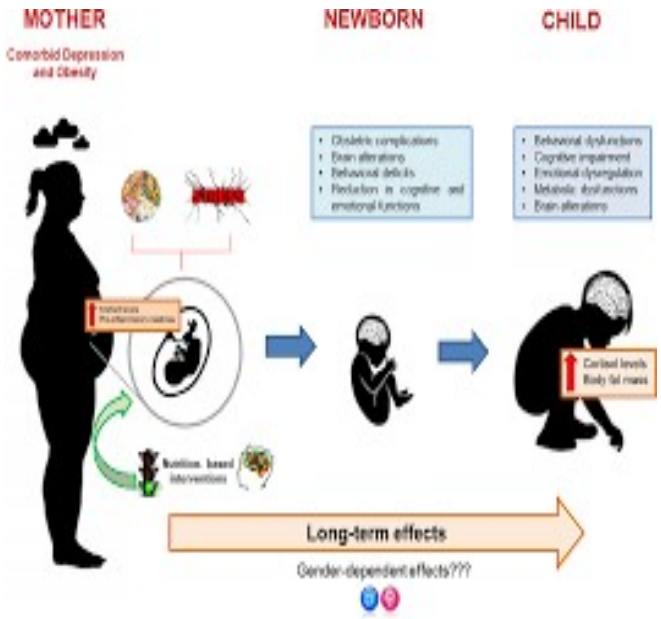
Endocrinol Metab Clin North Am. 2016 Sep;45(3):677–688. doi: 10.1016/j.ecl.2016.04.016

Obesity in Women's Mental Health

- **Puberty and adolescence (12-25yr)**
  - Anxiety DO 5-38%
  - Mood DO 30%
  - Eating DO 2xmore
  - Suicide/SH 30%
  - Trauma Related DO 43%
  - Addiction DO

Endocrinol Metab Clin North Am. 2016 Sep;45(3):677–688. doi: 10.1016/j.ecl.2016.04.016

Obesity in Women's Mental Health



- **Reproductive years**

• Anxiety DO	17-84%
• Mood disorders	14-18%
• Eating DO	2%
• PTSD	6%

Molecular Psychiatry **volume 26**, pages462–481 (2021)

Obesity in Women's Mental Health

GynecoloGical endocrinoloGy2024, Vol. 40, no. 1, 2312885

- Perimenopause (>45 yr)
  - Mood DO
    - Bipolar – Mood swings
    - Depression - Irritable
  - Anxiety DO
  - Sleep DO
    - OSA
  - Cognitive changes
    - Brain fog
    - Alzheimer's (8%)

Weight management

Assessment

Pillars of weight management

GLP-1 RA

Weight Management: Assessment

clinical obesity

doi: 10.1111/cob.12105

5As Team obesity intervention in primary care: development and evaluation of shared decision-making weight management tools

A. M. Osunlana[1], J. Asselin[1,2], R. Anderson[3], A. A. Ogunleye[1,2], A. Cave[2], A. M. Sharma[1] and D. L. Campbell-Scherer[2]

Weight Management

What are the pillars of weight management?

Lifestyle recommendations

- Medical nutrition therapy
- Physical activity

Behavioral interventions: ~5% weight loss

- Behavior modification
- Cognitive behavioral therapy
- Counselling

Pharmacotherapy: ~5–15% weight loss

- Naltrexone/bupropion
- Phentermine
- Orlistat
- **GLP-1RAs**

Endoscopic / Surgical interventions: ~12–30% weight loss

- Endoscopic procedures: ~12-20% weight loss
- Bariatric surgery: ~20-30% weight loss[8]

Adapted from Horn et al. Postgrad Med. 2022;134:359–75. 1. Horn et al. Postgrad Med. 2022;134:359–75; 2. Wadden TA et al. N Engl J Med. 2005;353:2111–20;
3. Wilding JPH et al. N Engl J Med. 2021;384:989–1002; 4. Torgerson JS et al. Diabetes Care. 2004;27:155–61; 5. Apovian C et al. Obesity. 2013;21:935–43; 6. Pi-Sunyer X et al. N Engl J Med. 2015;373:11–22; 7. Allison D.B et al. Obesity. 2012;20:330–42; 8. Wharton S et al. CMAJ. 2020;192:E875-91.

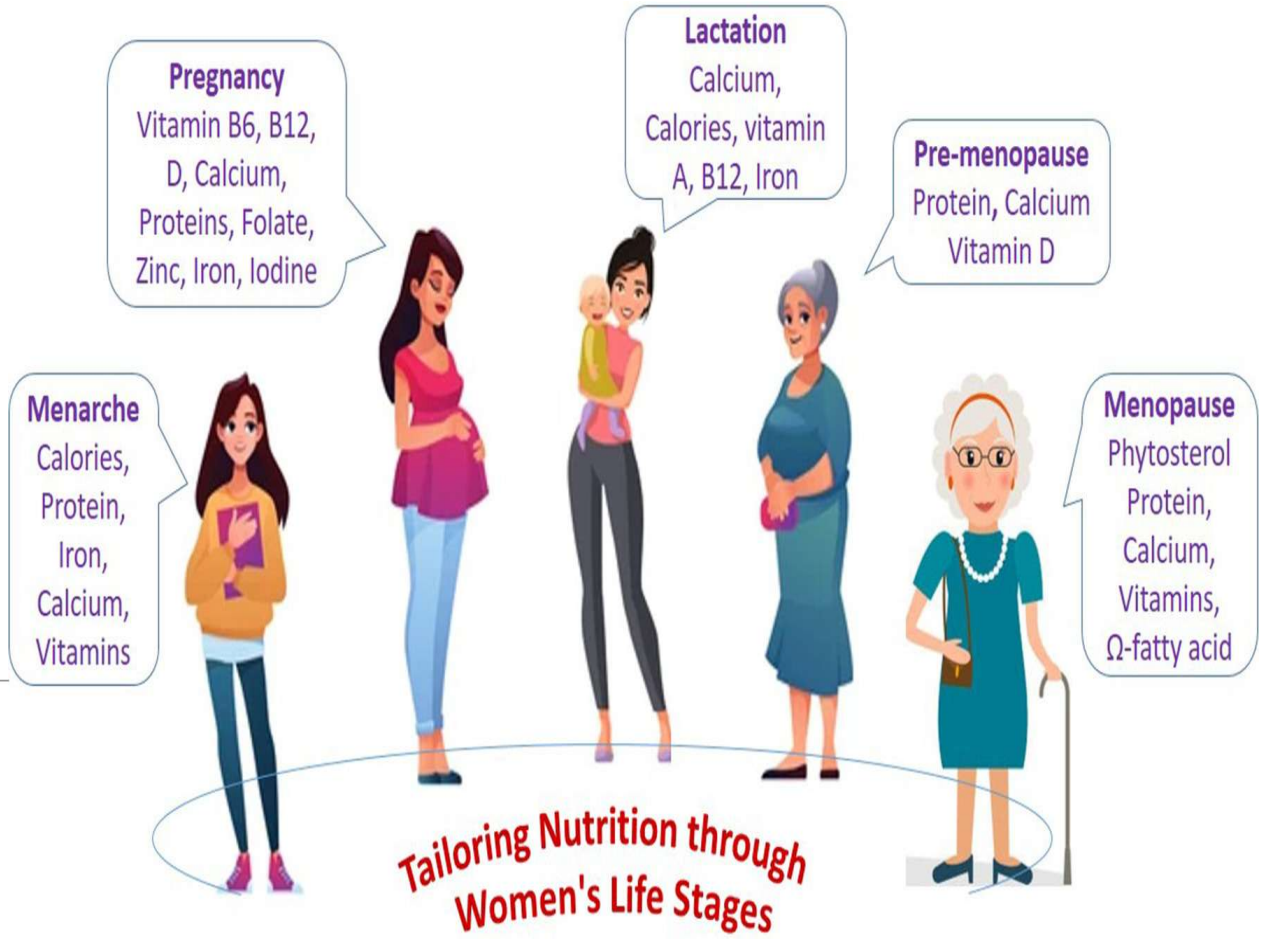
Lifestyle recommendations

Nutrition
Volume 135, July 2025, 112736

Review

Navigating nutrition through the decades: Tailoring dietary strategies to women's life stages

Shilpa Sudhakar Harak M. Pharm., Ph.D. [a], Smita Panditrao Shelke M. Pharm. [a], Dhanshri Revannath Mali M. Pharm., Ph.D. [a], Ayushi Atul Thakkar B. Pharm. [b]



Lifestyle recommendations

- Exercise Script (FITTVR)
- F Frequency
- I Intensity
- T Time
- T Type
- V Volume
- R Progression

Pharmacological interventions

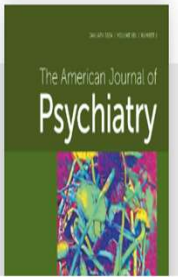
- Naltrexone/Bupropion
  - Pooled analysis (5 trials) 2019
  - Depressive symptoms occur less frequently
- Orlistat
  - Minimal data
- Metformin
  - Preventative treatment with CBT
  - Management of AP-induced weight gain
- GLP1 Analogs
  - Long-term management in MI
  - Usefulness in AP-induced weight gain
  - Social chatter vs pharmacovigilance

Name	Mechanism of Action	Route of Administration	Recommended Dose	Expected Weight Loss, kg
Liraglutide	GLP-1 agonist	Subcutaneous	3mg once a day	5.7–8
Semaglutide	GLP-1 agonist	Subcutaneous	2.4mg once a week	9.7–15.3
Tirzepatide*	GLP-1/GIP agonist	Subcutaneous	15mg once a week	9.5–23.6
Orlistat	Lipase inhibitor	Oral	120mg three times a day	5.8–10.6
Phentermine-Topiramate	Sympathomimetic amine anorectic/antiepileptic combination	Oral	7.5 mg/46mg once a day	9.2–12.4
Bupropion-naltrexone	Opioid antagonist/antidepressant combination	Oral	16 mg/180mg twice a day	3.6–9.3

FULL ACCESS | Review and Overview | Published Date: 1 January 2024

Psychotropic Drug–Related Weight Gain and Its Treatment

Roger S. McIntyre, M.D., F.R.C.P.C., Angela T.H. Kwan, M.Sc., Joshua D. Rosenblat, M.D., F.R.C.P.C., Kayla M. Teopiz, H.B.Sc., and Rodrigo B. Mansur, M.D.,



What we do know

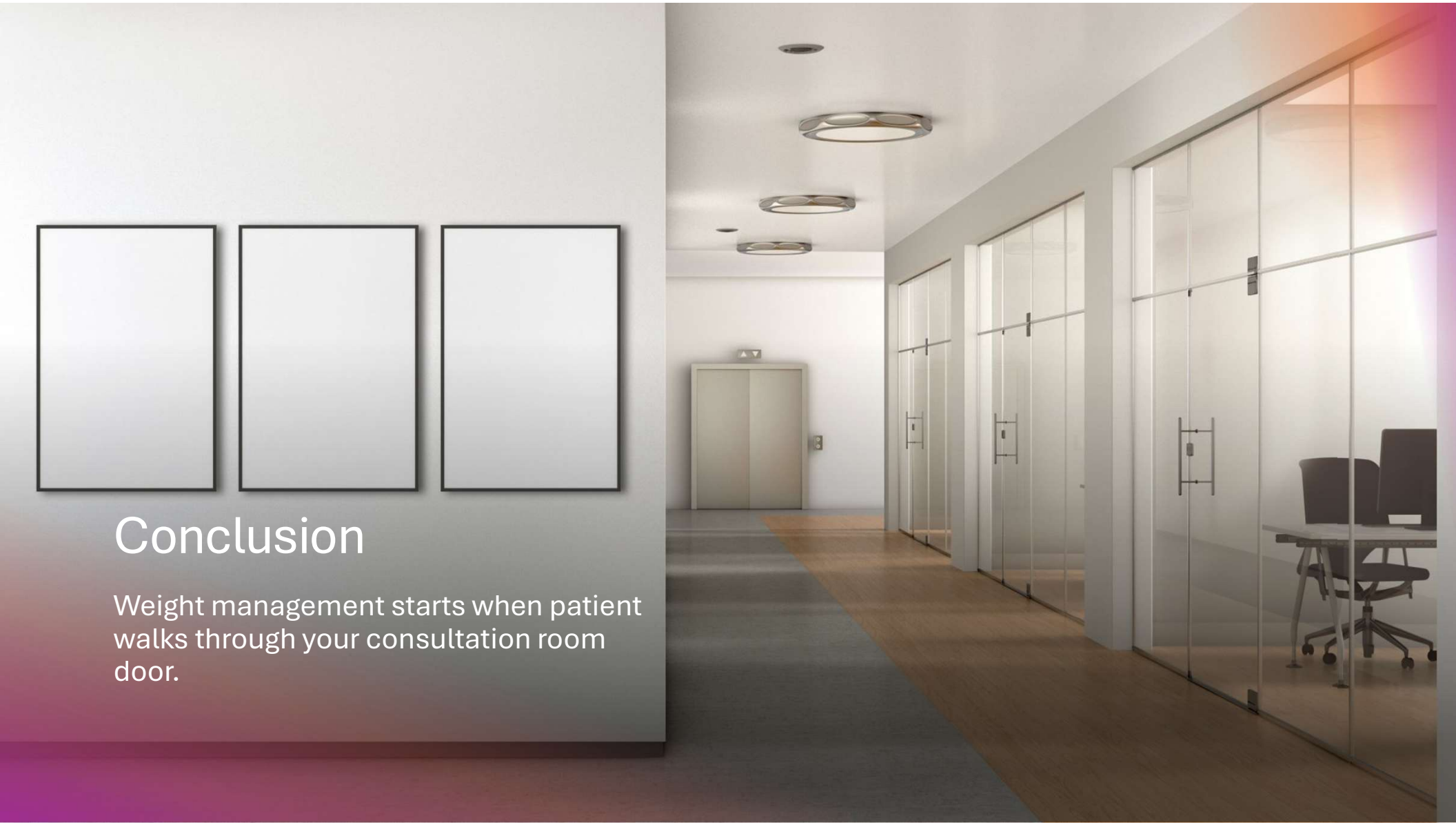
			A1c lowering	Effect weight	Side effects	CV safety	Other
Exenatide	T2D	Byetta	Low	Lowest	Mixed	Lowest	
Lixisenatide	T2D	Soliqua	Lowest	Lowest	Intermed		
Semaglutide	T2D WL	Ozempic Wegovy	High	High	High	High High	BP lowering Renal benefit
Liraglutide	WL T2D	Saxenda Victoza	High	Intermed	Intermed	Intermed	BP lowering Renal benefit
Dulaglutide	T2D	Trulicity	Intermed	Low	Intermed	Intermed	Renal benefit
Tirzepatide	T2D WL	Mounjaro	Highest	Highest	High	High	BP& Triglycerides

Sabina M. Pulse of progress: A systematic review of GLP-1 Ras in Cardiovascular health. Cardiology Res. 2024;15(1): 1-11

What do we know

	Depression	Anxiety	Suicide	SUD	Metabolic syndrome	Binge Eating	Cognitive
Exenatide							
Dulaglutide							
Liraglutide							
Semaglutide							
Tirzepatide							

De Giorgi R. An Analysis on the role of GLP1 agonists in cognitive and mental health disorders. Nature Mental Health. March 2025;3:354-373.
Valenta ST. The impact of GLP1 Ras on mental health: A systematic review. Current Treatment Options in Psychiatry. https://doi.org/10.1007/s40501-024-00331-y.



Conclusion

Weight management starts when patient walks through your consultation room door.