

## MENOPAUSE AND OBESITY

with the consensus of the Spanish societies SEMERGEN, SEEN and SEEDO

### Summary of the most noteworthy points

Obesity is a chronic, progressive, relapsing and multifactorial disease which has a negative effect on women's health throughout all stages of their life.<sup>1</sup>

The objective of the AEEM **Menopause and Obesity Menoguide** is to summarise the current understanding of the physiopathology of changes to body composition in menopause, to make it possible to prevent and appropriately treat long-term health complications in order to **make it easier to manage overweight and obesity in women in daily clinical practice.**<sup>1</sup>

### Prevalence in Spain

**34%**  
obesity

in postmenopausal women<sup>2</sup>

**46.1%**  
overweight

in postmenopausal women<sup>2</sup>

**50%**  
obesity and  
overweight

in women  
>50 years<sup>1</sup>

### Aetiology<sup>1</sup>



Ageing



Decrease in  
lean body mass/  
Increase in fat  
mass



Musculoskeletal  
problems



Hormonal  
imbalance



Psychological  
problems



Sedentary  
lifestyle



Sleep  
problems

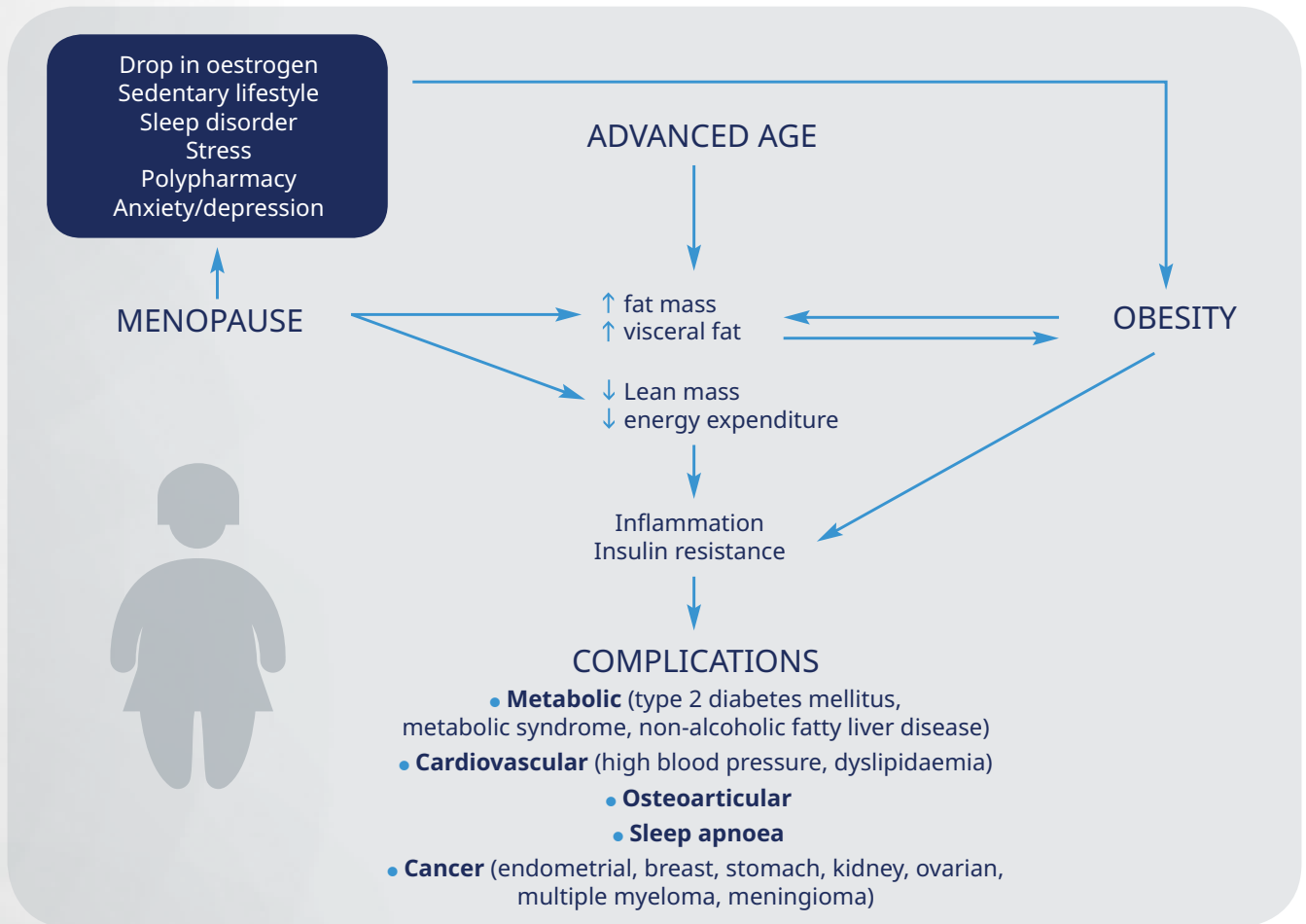
Excess weight is currently the number one cause of diseases and preventable disabilities, exceeding smoking<sup>1</sup>

# What is the physiopathological connection between menopause, age and obesity?

During menopause, a change occurs in the oestrogen/androgen ratio which gives rise to an extraordinary build-up of abdominal fat identified as a **risk of cardiometabolic complications**.<sup>3</sup> This occurs because as well as causing thermogenesis to increase, oestrogen also regulates the hormone and neurotransmitter levels related to appetite, **bringing about an energy imbalance**.<sup>1</sup> This situation makes it necessary to **establish preventive and therapeutic measures** to avoid complications associated with weight gain.<sup>1</sup>



## PHYSIOPATHOLOGICAL CONNECTIONS BETWEEN MENOPAUSE, AGE AND OBESITY<sup>1</sup>

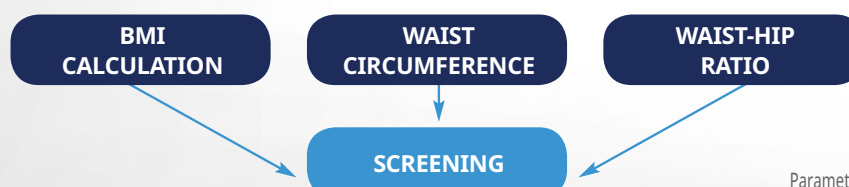


Modified figure from the AEEM Menoguide.



The Menoguide suggests that the TM or postmenopausal stage is a suitable time to carry out examinations to detect overweight and obesity<sup>1</sup>

The Menoguide recommends assessing the following parameters in order to effectively **screen overweight and obesity in menopause** and carry out studies on body composition, where necessary.<sup>1</sup> Diagnostic individualisation must include the research of potential etiopathogenic factors, additional examinations and stratification of the spectrum of **complications associated with obesity**.<sup>1</sup>



Parameters to assess and effectively screen overweight and obesity in menopause.

# What are the risk factors of developing obesity in menopause?

The decrease in basal metabolism together with a drop in lean body mass, old age, sedentary lifestyle, rise in caloric intake, psychological conditions, problems sleeping, concomitant diseases which are common in women and hormonal imbalance due to the drop in oestrogen production combined with absolute or relative hyperandrogenism, are some of the **determining factors for developing obesity in menopause**.<sup>1</sup>

## ADVANTAGES OF WEIGHT LOSS IN MENOPAUSE

				
<b>Improvement in hot flushes</b> associated with menopause <sup>4</sup>	<b>Cardiovascular</b> benefits <sup>3</sup>	Prevention of the <b>loss of bone mass</b> <sup>5</sup>	<b>Improved quality of life</b> , related to physical activity and general health <sup>6</sup>	Brings about <b>significant benefits</b> for health <sup>7</sup>
				
Associated with <b>significant improvements in the perception of appearance and self-esteem</b> <sup>8</sup>	Promotes <b>psychological well-being</b> of the patient <sup>9</sup>	Improvement in <b>urinary incontinence</b> <sup>10,11</sup>	Improvement in <b>sexual function</b> <sup>12</sup>	



## COMORBIDITIES BENEFITED WITH A CLINICALLY MEANINGFUL WEIGHT LOSS (>5%)<sup>13-25</sup>



Adapted from Ryan et al<sup>12</sup>. PCOS: polycystic ovary syndrome, OSA: obstructive sleep apnoea, UI: urinary incontinence, DOA: degenerative osteoarthritis; HDL: high-density lipoproteins; CV: cardiovascular.

# Approaching patients with obesity and menopause

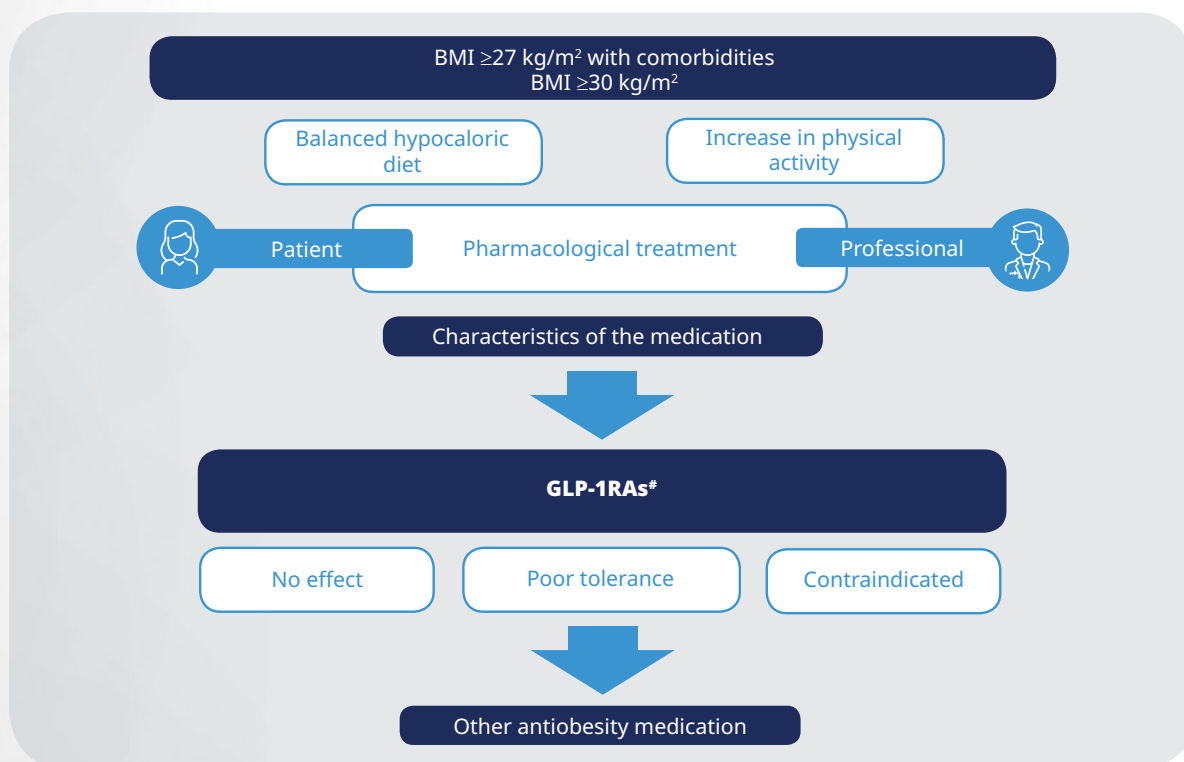
It is difficult to lose weight and maintain a healthy weight because weight loss itself triggers a series of changes to the hormones that regulate appetite. After losing weight, the body will try to put it back on naturally, stimulating hunger and promoting energy storage.<sup>1</sup>

**Pharmacological treatment** of obesity is indicated **when nutritional therapy, physical activity and emotional support are not enough to achieve the objectives set out.** In some cases, pharmacotherapy may be indicated from the start of treatment, together with diet and exercise, and may be useful for the maintenance of weight loss, due to the metabolic adaptation phenomena and the tendency to regain weight after it has been lost.<sup>1</sup>

**The function of pharmacotherapy** in treatment, in addition to the weight loss response (if this does not take place or in insufficient), is to help adherence, **reduce comorbidities and risks**, such as breast cancer, cardiovascular diseases and venous thromboembolism, **and make it easier for weight to be maintained in the long term.**<sup>1</sup>



## ALGORITHM FOR THE PHARMACOLOGICAL TREATMENT OF OBESITY<sup>1</sup>



Modified from Menoguía<sup>1</sup>. Available at: [https://aeem.es/1126\\_22-menoguia-menopausia-y-obesidad-v24/](https://aeem.es/1126_22-menoguia-menopausia-y-obesidad-v24/). #GLP-1 receptor agonists.

**REFERENCES:** **1.** Comino Delgado R, Sánchez Borrego R, Frühbeck G, Jurado López A.R, Lubián López D.M, Llanaza Coto P, Llanaza Suárez C, Mendoza Huertas L, Navarro Moll C, Palacios Gil-Antuñano S, Salvador Rodríguez J, Sánchez Prieto M, Vázquez Martínez C, Ferrer Barriendas J, Parrilla Paricio JJ, Mendoza Ladrón de Guevara N. Menopausia y obesidad. MenoGuía AEEM. Primera edición: Abril 2022. karma et col, s.l.u. Barcelona 2022. ISBN: 978-84-09-40503-9. Available at: [https://aeem.es/1126\\_22-menoguia-menopausia-y-obesidad-v24/](https://aeem.es/1126_22-menoguia-menopausia-y-obesidad-v24/) **2.** Llanaza et al. Maturitas. Differences in health related quality of life in a sample of Spanish menopausal women with and without obesity. 2007;58(4):387-94. **3.** Nappi RE, Chedraui P, Lambrinoudaki I, Simoncini T. Menopause: A cardiometabolic transition. Lancet Diabetes Endocrinol. 2022 Jun;10(6):442-456. **4.** Thurston RC, et al. Behavioral Weight Loss for the Management of Menopausal Hot Flashes: A Pilot Study. Menopause. 2015; 22(1): 59–65. **5.** Iepsen EW et al. GLP-1 Receptor agonist treatment increases bone formation and prevents bone loss in weight-reduced obese women. J Clin Endocrinol Metab. 2015;100:2909-2917. **6.** Supplement to: le Roux CW et al. Lancet 2017; published online Feb 22. [http://dx.doi.org/10.1016/S0140-6736\(17\)30069-7](http://dx.doi.org/10.1016/S0140-6736(17)30069-7). **7.** Lean, M., Carraro, R., Finer, N. et al. Tolerability of nausea and vomiting and associations with weight loss in a randomized trial of liraglutide in obese, non-diabetic adults. Int J Obes 38, 689–697 (2014). **8.** Foster GD. Body image in obese women before, during, and after weight loss treatment. Health Psychology. 1997;16(3):226-229. **9.** Blaine BE. Weight loss treatment and psychological well being: a review and meta-analysis. J Health Psychol. 2007;12(1):66-82. **10.** NICE Guidance. Urinary incontinence and pelvic organ prolapse in women: management. BJU Int. 2019; 12 3(5): 77 7- 80 3. doi: 10. 111 1/bju. 1476 3. **11.** Thüroff JW, Abrams P, Andersson K, et al. EAU guidelines on urinary Incontinence. Eur Urol. 2011; 5 9(3): 38 7- 400. **12.** 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. **13.** Knowler WC et al. Reduction in the incidence of type 2 diabetes with lifestyle intervention or metformin. N Engl J Med. 2002;346(6):393-403. **14.** Foster GD et al. A randomized study on the effect of weight loss on obstructive sleep apnea among obese patients with type 2 diabetes. Arch Intern Med. 2009;169(17):1619-1626. **15.** Wing RR et al. Benefits of modest weight loss in improving cardiovascular risk factors in overweight and obese individuals with type 2 diabetes. Diabetes Care. 2011;34(7):1481-1486. **16.** AMERICAN ASSOCIATION OF CLINICAL ENDOCRINOLOGISTS AND AMERICAN COLLEGE OF ENDOCRINOLOGY COMPREHENSIVE CLINICAL PRACTICE GUIDELINES FOR MEDICAL CARE OF PATIENTS WITH OBESITYEXECUTIVE SUMMARY Complete Guidelines Endocr Pract. 2016;22(Suppl 3). **17.** Cefalu et al. Advances in the science, treatment, and prevention of the disease of obesity: reflections from a diabetes editor's expert forum. Diabetes Care 2015;38:1567-82. **18.** Lean et al. Primary care-led weight management for remission of type 2 diabetes (DiRECT): an open-label, cluster-randomised trial. Lancet 2018;391:541-51. **19.** Hannah & Harrison. Effect of weight loss, diet, exercise, and bariatric surgery on nonalcoholic fatty liver disease. Clin Liver Dis 2016;20:339-50. **20.** Li G et al. Cardiovascular mortality, all-cause mortality, and diabetes incidence after lifestyle intervention for people with impaired glucose tolerance in the Da Qing Diabetes Prevention Study: a 23-year follow-up study. Lancet Diabetes Endocrinol 2014; 2:474-80; **21.** Dattilo AM, Kris-Etherton PM. Effects of weight reduction on blood lipids and lipoproteins: a meta-analysis. Am J Clin Nutr 1992; 56:320-8; **22.** Kuna ST et al. Long-term effect of weight loss on obstructive sleep apnea severity in obese patients with type 2 diabetes. Sleep 2013; 36:641-9A; **23.** Warkentin LM et al. The effect of weight loss on health-related quality of life: systematic review and meta-analysis of randomized trials. Obes Rev 2014; 15:169-82; **24.** Wright F et al. Understanding the relationship between weight loss, emotional well-being and health-related quality of life in patients attending a specialist obesity weight management service. J Health Psychol 2013; 18:574-86. **25.** Chopra S et al. Weight management module for perimenopausal women: a practical guide for gynecologists. J Midlife Health. 2019 Oct-Dec;10(4):165-172.