

Obesity in Europe: a Demographic, Biomedical, and Ayurvedic Perspective through CoMS



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Obesity in Europe is often reduced to statistics – nearly 60% of adults affected, according to WHO data. However, numbers alone do not explain why some individuals develop the disorder while others do not, or why modern pharmacology alone often falls short of lasting resolution. In this article,

Dr Antonio Morandi introduces CoMS (Collaborative Medicine and Science), a framework that brings Ayurvedic concepts like agni, āma, and meda dhātu into genuine dialogue with biomedical markers and cutting-edge treatments such as GLP-1 receptor agonists – not to replace one system with the other, but to build a shared map between them. It's a thoughtful case for treating obesity as a disorder of adaptation, not just excess weight.

Obesity is one of the clearest examples of how a modern disease cannot be reduced to a single cause. It is not simply the result of eating too much and moving too little, although these factors remain important. In Europe, obesity is the visible expression of a complex interaction between food systems,

ageing, sedentary lifestyles, stress, sleep disruption, socioeconomic inequality, metabolic vulnerability, and individual biology.

The scale of the problem is considerable. According to the WHO European Regional Obesity Report, overweight and obesity affect almost 60% of adults and nearly one in three

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children in the WHO European Region. Obesity is also one of the major risk factors for non-communicable diseases, including type 2 diabetes, cardiovascular disease, some cancers, musculoskeletal disorders, and reduced quality of life. In the European Union, Eurostat data show that in 2022, 50.6% of people aged 16 years or over were overweight, with important differences between countries, sexes, and age groups.

The demographic dimension is crucial. Obesity increases with age and often interacts with sarcopenia, frailty, insulin resistance, hypertension, sleep apnoea, and chronic inflammation. In older adults, excess adiposity is not only a question of body mass, but part of a broader loss of metabolic flexibility and adaptive resilience. In younger populations, childhood and adolescent obesity are particularly worrying because they create an early trajectory towards chronic disease. Social determinants are equally important: obesity is more frequent in disadvantaged groups, where access to healthy food, safe physical activity, stable daily rhythms, and preventive care is often limited.

Modern medicine has recently entered a new phase in the treatment of obesity. The arrival of incretin-based drugs, especially GLP-1 receptor agonists such as liraglutide and semaglutide, and dual GIP/GLP-1 receptor agonists such as tirzepatide, has changed the therapeutic landscape. These medicines act on appetite, satiety, glycaemic control, and metabolic regulation. The European Medicines Agency authorises semaglutide for weight management in adults with obesity or overweight associated with weight-related complications, together with diet and physical activity.

Tirzepatide is similarly authorised for weight management in adults with obesity or overweight with at least one weight-related comorbidity.

These drugs are important because they confirm that obesity is not merely a problem of willpower. It is a neuroendocrine-

metabolic disorder involving appetite regulation, reward circuits, insulin signalling, adipose tissue function, and systemic inflammation. Semaglutide has also been evaluated for cardiovascular risk reduction, with effects probably related not only to weight loss but also to improvements in blood pressure, lipids, glucose metabolism, and inflammation. This supports the idea that obesity-related treatment is becoming treatment of the whole metabolic system, not only of body weight.

Ayurveda offers a particularly useful interpretive framework for this complexity. Obesity may be related to classical categories such as sthauilya and medoroga, but it should not be simplistically identified with them. In contemporary Europe, obesity requires a new samprāpti, a pathophysiological reconstruction adapted to the modern environment. The visible accumulation of adipose tissue corresponds to disturbance of meda dhātu, but the process begins earlier, with altered agni, impaired transformation of food and experience, accumulation of āma, and obstruction of srotas, especially medovaha srotas.

From this perspective, obesity is not just 'excess fat'. It is a disorder of transformation, distribution, and adaptation. Food is not merely caloric matter; it is information entering the organism. If agni is efficient, this information is transformed into nourishment, structure, vitality, and clarity. If agni is disturbed, the same input may produce āma, metabolic residue, stagnation, and pathological accumulation.

The European obesogenic environment can be read through guṇa analysis. Ultra-processed foods are often guru, snigdha, picchila and excessively madhura in effect: heavy, unctuous, sticky, and building. Sedentary life adds manda and sthira qualities: slowness and immobility. Chronic stress, digital overstimulation, and sleep disruption aggravate vāta and rajas, producing irregular appetite, emotional eating, and loss of rhythm. Thus, obesity is not simply a Kapha disorder.



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Very often, a primary disturbance of Vāta and manas destabilizes rhythm and appetite; then Kapha and meda become the visible expression.

This is where Collaborative Medicine and Science, or CoMS, becomes useful. CoMS does not aim to force Ayurveda into biomedical categories, nor to replace modern medicine with traditional language. Its aim is to create a rigorous interface between different epistemologies. In the CoMS framework, this involves reformulation, modelling, and localization: Ayurvedic principles must be made intelligible to modern science without losing their epistemological integrity.

Applied to obesity, reformulation means that BMI, waist circumference, insulin resistance, dyslipidaemia, inflammatory markers, and liver steatosis are not mechanically translated into one Ayurvedic term. They are interpreted as different expressions of a systemic disturbance involving agni, meda, āma, srotorodha, prakṛti, and vikṛti. Modelling means building a shared map that includes biomedical markers, demographic data, lifestyle, social determinants, and Ayurvedic constitutional assessment. Localization means adapting Ayurvedic prevention and treatment to European food culture, climate, ageing populations, and healthcare systems.

The same CoMS logic can be applied to new anti-obesity drugs. CoMS pharmacological model proposes that drug

action can be interpreted through pañcamahābhūta, guṇa, doṣa, and karma, and that the final effect emerges from the interaction between the drug's qualities and the individual's prakṛti, vikṛti, agni, and āma status. In this sense, GLP-1 and GIP/GLP-1 drugs may be interpreted as acting on regulatory nodes of hunger, satiety, metabolic transformation, and meda accumulation. They are powerful tools, but their effect still unfolds within a specific constitutional and metabolic terrain. The Ayurvedic perspective, therefore, does not reject modern pharmacology. It helps to contextualize it. A patient losing weight with semaglutide or tirzepatide may still need restoration of rhythm, digestion, sleep, movement, emotional regulation, and food quality. Otherwise, the phenotype may improve while the deeper samprāpti remains partially unresolved.

Obesity in Europe should, therefore, be understood as a systemic disorder of adaptation. Modern epidemiology measures its scale; pharmacology offers powerful new interventions; Ayurveda reveals the hidden dynamics of transformation, accumulation, and loss of rhythm. Through CoMS, these perspectives can collaborate, generating a more complete, preventive, and personalized approach to one of Europe's most urgent health challenges. 

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