

**MANAGEMENT OF OBESITY (SIMAN MUFRIT) IN UNANI
MEDICINE**

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ABSTRACT

Obesity is a state of excess adipose tissue mass. Although often viewed as equivalent to increased body weight, this need not be the case—lean but very muscular individuals may be overweight by numerical standards without having increased adiposity. Body weights are distributed continuously in populations, so that choice of a medically meaningful distinction between lean and obese is somewhat arbitrary. Obesity is therefore more effectively defined by assessing its linkage to morbidity or mortality. The high intake of calories is the most important factor responsible for obesity. The body needs a good

number of calories to fulfill the need of the body. It is achieved from food we take. In some condition the intake is higher than consumption which results accumulation of excess fat/fluids/humors inside the body. In Unani system of Medicine obesity has been defined as Siman Mufrit. The excess calories are burnt through exercise otherwise the excess material is deposited in form of different shapes and the person faces various diseases. In Unani System of Medicine, various single and compound drugs are prescribed for obesity. A part from single and compound Unani drugs a Unique therapy in Unani Medicine, Ilaj bit Tadbeer (Regimenal Therapy) is beneficial especially Riyazat (Exercise), Dalk (Massage), Fasd (Venesection).

KEYWORDS: Siman Mufrit, Riyazat, Ilaj bit Tadbeer.

INTRODUCTION

In a world where food supplies are intermittent, the ability to store energy in excess of what is required for immediate use is essential for survival. Fat cells, residing within widely distributed adipose tissue depots, are adapted to store excess energy efficiently as triglyceride and, when needed, to release stored energy as free fatty acids for use at other sites. This physiologic system, orchestrated through endocrine and neural pathways, permits humans to survive starvation for as long as several months. However, in the presence of nutritional abundance and a sedentary lifestyle, and influenced importantly by genetic endowment, this system increases adipose energy stores and produces adverse health consequences.

In 2000, a historical moment occurred when the estimate of the number of overweight people in the world exceeded the number of those who were underweight. The World Health Organization (WHO) now describes global obesity, or “**globesity**,” as one of the top 10 risks to human health.

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WHO Classification of Overweight and obesity associated risk of comorbidities based on Body Mass Index (BMI)

Class	BMI (Kg/m ²)	Risk of comorbidities
Overweight	25-30	Mildly increased
Obese	>30	Mildly increased
Class I	30-35	Moderate
Class II	35-40	Severe
Class III	>40	Very Severe

According to National Health and Nutrition Examination Surveys (NHANES) show that the percentage of the American adult population with obesity (BMI >30) has increased from 14.5% (between 1976 and 1980) to 33.9% (between 2007 and 2008).

As many as 68% of U.S. adults aged >20 years were overweight (defined as BMI >25) between the years of 2007 and 2008. Extreme obesity (BMI >40) has also increased and

affects 5.7% of the population. The increasing prevalence of medically significant obesity raises great concern. Obesity is more common among women and in the poor, and among blacks and Hispanics; the prevalence in children is also rising at a worrisome rate.

Although not a direct measure of adiposity, the most widely used method to gauge obesity is the *body mass index* (BMI), which is equal to weight/height² (in kg/m²). Other approaches to quantifying obesity include anthropometry (skinfold thickness), densitometry (underwater weighing), CT or MRI, and electrical impedance. Using data from the Metropolitan Life Tables, BMIs for the midpoint of all heights and frames among both men and women range from 19 to 26 kg/m²; at a similar BMI, women have more body fat than men. Based on data of substantial morbidity, a BMI of 30 is most commonly used as a threshold for obesity in both men and women. Large-scale epidemiologic studies suggest that all-cause, metabolic, cancer, and cardiovascular morbidity begin to rise when BMIs are >25, suggesting that the cutoff for obesity should be lowered. Most authorities use the term *overweight* (rather than obese) to describe individuals with BMIs between 25 and 30. A BMI between 25 and 30 should be viewed as medically significant and worthy of therapeutic intervention, especially in the presence of risk factors that are influenced by adiposity such as hypertension and glucose intolerance.

The high intake of calories is the most important factor responsible for obesity. The body need a good number of calories to fulfill the need of the body. It is achieved from food we take. In some condition the intake is higher than consumption which results accumulation of excess fat/fluids/humors inside the body. In Unani system of Medicine obesity has been defined as Siman Mufrit. The excess calories are burnt through exercise otherwise the excess material is deposited in form of different shapes and the person faces various diseases.

Types of obesity

In obese persons two well recognized phenotypes of obesity are seen

1. Android type: Also known as Apple shaped/Abdominal/Central obesity. It is recognized by waist circumference or waist hip ratio, it is associated with metabolic syndrome.
2. Gynaeoid (Generalised or pear shaped): It is recognized by mid arm circumference.

Etiology of obesity

Until recently, obesity was considered to be the direct result of a sedentary lifestyle plus chronic ingestion of excess calories. Although these factors are undoubtedly the principal

cause in many cases, there is evidence for strong genetic influences on the development of obesity. Adopted children demonstrate a close relationship between their BMI and that of their biologic parents. No such relationship is found between the children and their adoptive parents.

Twin studies also demonstrate substantial genetic influences on BMI with little influence from the childhood environment. As much as 40–70% of obesity may be explained by genetic influences. Five genes affecting control of appetite have been identified in mice. Mutations of each gene result in obesity, and each has a human homolog.

One gene codes for a protein expressed by adipose tissue—leptin—and another for the leptin receptor in the brain. The other three genes affect brain pathways downstream from the leptin receptor. Numerous other candidate genes for human obesity have been identified. Only a small percentage (4–6%) of human obesity is thought to be due to single gene mutations. Most human obesity undoubtedly develops from the interactions of multiple genes, environmental factors, and behavior. The rapid increase in obesity in the last several decades clearly points to a major role of environmental factors in the development of obesity.

Role of Leptin in typical obesity

The vast majority of obese persons have increased leptin levels but do not have mutations of either leptin or its receptor. They appear, therefore, to have a form of functional "leptin resistance." Data suggesting that some individuals produce less leptin per unit fat mass than others or have a form of relative leptin deficiency that predisposes to obesity are at present contradictory and unsettled. The mechanism for leptin resistance, and whether it can be overcome by raising leptin levels or combining leptin with other treatments in a subset of obese individuals, is not yet established. Some data suggest that leptin may not effectively cross the blood-brain barrier as levels rise. It is also apparent from animal studies that leptin signaling inhibitors, such as SOCS3 and PTP1b, are involved in the leptin-resistant state.

Pathogenesis of obesity

Obesity can result from increased energy intake, decreased energy expenditure, or a combination of the two. Thus, identifying the etiology of obesity should involve measurements of both parameters. However, it is difficult to perform direct and accurate measurements of energy intake in free-living individuals; and the obese, in particular, often underreport intake. Measurements of chronic energy expenditure are possible using doubly

labeled water or metabolic chamber/rooms. In subjects at stable weight and body composition, energy intake equals expenditure. Consequently, these techniques allow assessment of energy intake in free-living individuals. The level of energy expenditure differs in established obesity, during periods of weight gain or loss, and in the pre- or postobese state. Studies that fail to take note of this phenomenon are not easily interpreted.

There is continued interest in the concept of a body weight "set point." This idea is supported by physiologic mechanisms centered around a sensing system in adipose tissue that reflects fat stores and a receptor, or "adipostat," that is in the hypothalamic centers. When fat stores are depleted, the adipostat signal is low, and the hypothalamus responds by stimulating hunger and decreasing energy expenditure to conserve energy. Conversely, when fat stores are abundant, the signal is increased, and the hypothalamus responds by decreasing hunger and increasing energy expenditure. The recent discovery of the *ob* gene, and its product leptin, and the *db* gene, whose product is the leptin receptor, provides important elements of a molecular basis for this physiologic concept.

Diagnosis

In most cases the diagnosis will be apparent from the appearance but the degree of overweight or obesity should be assessed by

1. Measurement of height and weight and Body Mass Index (BMI)
2. Triceps skin fold thickness by spring loaded calipers
 1. Obesity is indicated if reading is above 20 mm in man and above 30 mm in woman
 2. Obese persons with increased abdominal circumference (>102 cm in men and >0.85 in women) constitute a component of metabolic syndrome and have risk of comorbidities.

Historical information should be obtained about age at onset, recent weight changes, family history of obesity, occupational history, eating and exercise behavior, cigarette and alcohol use, previous weight loss experience, and psychosocial factors including assessment for depression and eating disorders. Particular attention should be directed at use of laxatives, diuretics, hormones, nutritional supplements, and over-the-counter medications.

Less than 1% of obese patients have an identifiable secondary, non psychiatric, cause of obesity. Hypothyroidism and Cushing syndrome are important examples that can usually be diagnosed by physical examination in patients with unexplained recent weight gain. Such

patients require further endocrinologic evaluation, including serum thyroid stimulating hormone (TSH) determination and dexamethasone suppression testing.

All obese patients should be assessed for medical consequences of their obesity by screening for the metabolic syndrome. Blood pressure, waist circumference, fasting glucose, low-density lipoprotein (LDL) and HDL cholesterol, and triglycerides should be measured.

Complications

Most obese patients do not seek medical advice unless or until they develop its complications, common complication of obesity are as follows:

1. Metabolic Sequelae

Type 2 diabetes mellitus, insulin resistance, hyperlipidemia, hyperuricemia are common among obese than in in general population.

2. Gastro intestinal consequences

Gastroesophageal Reflux, gall stones, colorectal cancer, Fatty Liver, Cirrhosis of liver.

3. Mechanical disabilities

The osteoarthritis (knees, hips, lumbar spine) hernias (abdominal diaphragmatic), varicose veins and thromboembolism are common complications associated with obesity.

4. Cardiovascular disorders

Obesity is the risk factor for atherosclerosis and ischaemic heart disease. Hypertension is common in obese than in non obese individuals.

5. Increased peripheral steroid interconversion in adipose tissue

The outcomes of increased peripheral steroid interconversion in adipose tissue are

Hormone dependent cancers eg Breast and Uterus cancer, Polycystic Ovarian Syndrome (Infertility) etc.

Mortality

Overweight is mainly associated with high mortality. There is an evidence that reduction in weight of obese people is associated with lesser death rate. In the society of Actuaries Build and Blood Pressure Study of 1979, the mortality was reduced to near normal in those who successfully lost and maintained weight within the desirable range.

Obesity in Unani Medicine

Obesity is described by most of the Graeco-Arab Physicians as “*Siman Mufrit*” in classical Unani treatise.

The description of aetiology, signs & symptoms, complications and treatments about *Simane Mufrit* is found in detail. As per unani philosophy, *Samane Mufrit* is a *Balghami* disease.

Khilte balgham predominates in the body of obese persons and hence is considered the predisposing factor in the causation of obesity because *shahem* and *sameen* (fats) are having *Barid Ratab Mizaj*.

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Father of Medicine, Hippocrates (Buqrat) describes about symptoms of obesity “The person having excess humours are very much prone for diseases in comparison to thin persons. Like wise such persons get trouble from cold and heat. They also become exhausted soon and suffer from lack of sleep, strict, sad and anger.

Roofas says “The fatty persons do not tolerate exertion and hunger, they are very prone for diseases specially for epilepsy, paralysis, difficulty in breathing and syncope.”

Galen says “The excess fatty bodies are dangerous because there must be expansion in the vessels. When there is excess accumulation the management to reduce body weight is required.

Regarding prognosis of obesity *Nooh Al Qamari* says, “In comparison to thin person fatty persons are more prone to death”.

Management of obesity in Unani Medicine

As far as the management of obesity in Unani Medicine is concerned number of single drugs (*Mufrad Advia*), Compound Drugs (*Murakkab Advia*), Regimenal Therapy (*Ilaj bit Tadbeer*) is prescribed for the management of obesity.

Single Drugs

Luk Maghsool (*Coccus lacca*)

Sandroos

Darchini (*Cinnamomum zeylanicum*)

Lehsun (*Alium sativum*)

Zanjabeel (*Zingiber officinalis*)

Muqil (*Commiphora mukul*)

Tukhm Suddab (*Ruta graveolens*)

Zarawand Mudahraj (*Aristolchia rotunda*)

Compound Drugs

Safuf Muhazzil 5gm bd

Jawarish Bisbasa 5gm bd

Arq Zeera 20 ml bd

Jawarish Falafili 5 gm bd

Qurs Muqil 2 bd

Hab Sandroos 2 bd

Qurs Luk 2 bd

Some important Unani prescriptions for obesity

1. Luk Maghsool 28 gm, Ajwain 14 gm, Badiyan 14 gm, Zeera Siyah 14 gm, Suddab 14 gm, Marzanjosh 3 gm, Boora Armani 3 gm make fine powder of these drugs and take 4 gm bd with Arq Zeera 20 ml.
2. Ajwain, Tukhm Karafs, Sunbul ut Tib, Luk Maghsool, each 1 gm, Gul Surkh, Marzanjosh each 4 gm make fine powder of these drugs and take 4 gm with Arq Zeera 20 ml.
3. Take Sandroos, Luk Maghsool, Marzanjosh in equal parts and make fine powder of these drugs and take 4 gm twice a day and take Itrifal Sagheer 9 gm at bed time.

Regimenal Therapy

In Unani System of Medicine Regimenal therapy is a unique mode of treatment. In this therapy drugs are usually not administered. It is a type of therapy which is given in the form of regime to maintain the health of a person. This therapy creates changes in the obligatory causes of health i.e. Asbab Sitta Zaruriya (six essentials of health).It deals with the rules of diet, exercise etc. for improving health and physical or mental well being or any intervention other than medicine that restores the health.

Various methods of Regimenal therapy are

Hijama (Cupping), *Fasd* (Venesection), *Taleeq* (Leeching), *Dalk* (Massage), *Riyazat* (Exercise), *Tareeq* (Diaphoresis), *Hamмам* (Bath) *Nutool* (Irrigation) etc.

For the management of obesity mainly *Riyazat* (Exercise), *Tareeq* (Diaphoresis), *Hamмам* (Bath) are usually prescribed.

***Tareeq* (Diaphoresis)**

Expulsion of humours by sweating is beneficial in certain fevers, ascites, obesity and joint pain. It is done by using some specific drugs which induce sweating or it can be done by hot chamber,

***Riyazat* (Exercise)**

It is defined as Voluntary movements entailing deep and rapid respiration. *Riyazat* (Exercise) is beneficial in obesity.

***Hamмам* (Bath/Bathing)**

One of the methods included in the regimenal therapy where treatment through bath is adopted. It also prevents various humoral diseases. It is of various types.

Best Slimming Tips

1. Every time you're about to put food into your mouth, ask yourself if you're really hungry
2. Never eat just because it's time to eat. Most of us learn to eat at fixed mealtimes. Break away from this damaging habit. Eat when your body wants food-not when the clock wants you to eat.
3. If you're planning a big meal, have a small snack half an hour beforehand. A piece of fruit or raw vegetable, or a handful of raisins, nuts and dried fruit will do. The idea is to fill your stomach so that your appetite will be reduced.
4. Never eat standing up
5. When you sit down to eat, don't talk, read or watch television. If you concentrate on what you're doing you are far more likely to hear your appetite control centre tell you when you're full.
6. Choose a small plate- if you eat from a big one there is a danger that you'll fill it and eat too much.

7. If you eat Chinese or Japanese food use chopsticks- it's difficult to eat quickly when using chopsticks.
8. Drink one glass of luke warm water in the morning.

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