

## EXPLORING OBESITY THROUGH AYURVEDA W.S.R TO *STHOLYA*: A LITERARY REVIEW

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### ABSTRACT

Obesity occurs over time when we eat more calories than we use. The balance between calories-in and calories-out differs for each person. Weight that is higher than what is considered as a healthy weight for a given height is described as overweight or obese. Body Mass Index, or BMI, is used as a screening tool for overweight or obesity. Treatments include lifestyle changes, such as heart-healthy eating and increased physical activity, and Food and Drug Administration (FDA)-approved weight-loss medicines. For some people, surgery may be a treatment option. *Aacharya Charaka* described obesity as *Atistholyata* in *santarpanajanya vyadhis*(diseases)i.e diseases due to over nourishment. As per *Aacharya Sushruta stholya* is a *rasaja* vikara whereas *Aacharya Charaka* described it as a *medodhatudushtivikara*,

but the prime factor in both of these views is *Agnimandya* which further leads to *Dgatvagnimandya* at both *Rasadhatu* and *Medodhatu* level.

**KEYWORDS:** Obesity, *medoroga*, *stholyata*, *srotorodha*, *dhatvagnimandya*.

### INTRODUCTION

Obesity means having too much body fat. It is different from being overweight, which means weighing too much. The weight may come from muscle, bone, fat, and/or body water. Both terms mean that a person's weight is greater than what's considered healthy for his or her height. Obesity occurs over time when we eat more calories than we use. The balance between calories-in and calories-out differs for each person. Factors that might affect weight include genetic makeup, overeating, eating high-fat foods, and not being physically active. Being obese increases risk of diabetes, heart disease, stroke, arthritis, and some cancers.<sup>[1]</sup>

Weight that is higher than what is considered as a healthy weight for a given height is described as overweight or obese. Body Mass Index, or BMI, is used as a screening tool for overweight or obesity. Body Mass Index (BMI) is a person's weight in kilograms divided by the square of height in meters. A high BMI can be an indicator of high body fatness.

BMI	Weight status
Below 18.5	Underweight
18.5-24.9	Normal
25.0-29.9	Overweight
30.0-34.9	Obese (Class I)
35.0-39.9	Obese (Class II)
40.0 and higher	Extreme obesity (Class III)

For most people, BMI provides a reasonable estimate of body fat. However, BMI doesn't directly measure body fat, so some people, such as muscular athletes, may have a BMI in the obese category even though they don't have excess body fat.

#### Key facts<sup>[2]</sup>

- Worldwide obesity has more than doubled since 1980.
- In 2014, more than 1.9 billion adults, 18 years and older, were overweight. Of these over 600 million were obese.
- 39% of adults aged 18 years and over were overweight in 2014, and 13% were obese.
- Most of the world's population live in countries where overweight and obesity kills more people than underweight.
- 41 million children under the age of 5 were overweight or obese in 2014.
- Obesity is preventable.

#### DISCUSSION

Overweight and obesity are increasingly common conditions in the United States. They are caused by the increase in the size and the amount of fat cells in the body. Body mass index (BMI) and waist circumference are used as tools to screen and diagnose overweight and obesity. Obesity is a serious medical condition that can cause complications such as metabolic syndrome, high blood pressure, atherosclerosis, heart disease, diabetes, high blood cholesterol, cancers and sleep disorders. Treatment depends on the cause and severity of the condition and whether associated with the complications. Treatments include lifestyle changes, such as heart-healthy eating and increased physical activity, and Food and Drug

Administration (FDA)-approved weight-loss medicines. For some people, surgery may be a treatment option.<sup>[3]</sup>

In *Charak Samhita*, *Acharya Charaka* has mentioned the features of good physical health (Ideal person). According to *Acharya Charaka* a person having *Sama Mamsa pramana* – proportionate musculature.

*Sama Samhana* – compactness of the body, *Druda indriya* – strong sensory and motor, Cannot be overcome by the onslaught of diseases, *Kshut Pipasa Atapa Saha* – Ability to stand hunger, thirst, the heat of the sun, *Sheeta Vyayama Samsaha* – Ability to stand cold and physical exercises, *Samapakta, Samajara* – Ability to digest and assimilate food easily, *Sama Mamsa Upachaya* – good muscular body is said to be in a good healthy state.<sup>[4]</sup>

First of all *Acharya Charaka* described obesity as *Atistholyata* in *santarpanjanya vyadhis*(diseases) i.e diseases due to over nourishment. While describing he told the causes of *santarpanjanya vyadhis* as- due to intake of excessive nutritious diet and sedentary life style, taking more quantity of foods which are unctuous(fatty), sweet, hard for digestion and slimy, use of fresh grains and fresh wine, meat of animals of marshy lands and living in water, milk and its products, food made from jaggery and corn flour, disliking or not doing physical activities, sleeping in day time, taking comfort bed and seats may get affected by the diseases caused by over nutrition like obesity.<sup>[5]</sup>

While describing the definition of *purusha aacharya charaka* said that *srotasaameva samudayam purushamichchanti* i.e. group of *srotas* is called *purusha*. *Srotas* are the channels to provide nutrition from the *aahara*(food) to different *dhatu*s(tissues) and *dhatvagni* (enzymes responsible for the metabolic processes taking place in particular that tissue).

Formation of *dhatu*s in the body takes place in a consecutive manner continuously. There is a sequence of seven *dhatu*s i.e *rasa, rakta, mansa, meda, asthi, majja, shukra*. Previous *dhatu* regenerates and gives nutrition to the next level *dhatu*. Thus previous *dhatu* plays an vital role in the formation of next *dhatu*. This process takes place constantly. In the process of formation, destruction, and recreation *dhatu*s are fed with the appropriate materials derived from the nutrient substances. Nutrients or *annarasa* reaches to the *dhatu*s via *srotas*(channels) and with the help of *dhatvagni* only is able to assimilate the *annarasa*. If one *dhatu* is not formed in a healthy manner, the *dhatu* that will come after that particular *dhatu*

will also not be healthy. These seven *dhatu*s remain inside the body in a proper quantity and quality and thus promote the growth and support to the body. Any disturbance in their quantity or quality may cause various disorders.

The lipids as described in modern science closely resembles that of *meda dhatu*. This is fat or adipose tissue of the body. Its function is to lubricate the body. Unctuousness in complexion is the feature of normal *Meda dhatu*. Under normal conditions the body fat keeps the body moisturized, promotes sweating, provides energy to the body, nourishes the bones, helps in heat insulation, absorption of shock, storage of energy etc. Excess of *meda dhatu* makes person fatty and causes obesity.<sup>[6]</sup>

Acharya Charaka has described *atistholyata* as *medodhatudushtilakshana*.<sup>[7]</sup> Obstruction in *srotas* (microchannels) due to *apakva annarasa* or *Amarasa* leads to *dhatudushti* (abnormal tissues) and *dhatvagnimandya* (disturbed enzymes for metabolic processes) producing morbid state of the body. As per *Ayurveda dushti* or vitiation of *medovahasrotasa*, *medodhatu* and *medodhatvagnimandya* leads to *stholyata*. *Medodhatudushti* can occur due to *dushti* at its own level or by the *dushti* of previous *dhatu*.

Dominance of *dhatu* in a person depends upon the type of *aahara* (diet/food), *vihara* (lifestyle) he follows.

As per *Acharya Madhava* when a person takes *kaphavardhaka aahara*, not does exercises, excessively sleeps during daytime excessive *medadhatu* is formed in his body due to sweetness and unctuousness in the *annarasa* (produced after metabolism of food). Excessive *medadhatu* causes *srotorodha* (obstruction in the channels) hampering the nutrition of other *dhatu*s too. So that the person is not able to do any work, gets exhausted very easily. as the place of *meda dhatu* is small bones and *udara* so collection of *meda dhatu* (adipose tissues / fatty tissue) mostly occurs over the abdomen area.<sup>[8]</sup>

Further *Acharya Madhava* stated that due to excessive *meda* (obesity), there is vitiation of *vatadidoshas* leading to the life threatening complications.<sup>[9]</sup>

As per *Acharya Sushruta stholya* is a *rasaja vikara* whereas *Acharya Charaka* described it as a *medodhatudushtivikara*, but the prime factor in both of these views is *Agnimandya* which further leads to *Dgatvagnimandya* at both *Rasadhatu* and *Medodhatu* level.

*Aacharya Charak* also described eight kinds of men who are undesirable nature in respect of their body (Physique). They are called as *Ashtonindatiya purusha* (eight undesirable persons). These are *Atidirgha* (Excessive tall person), *Atihrasva* (Excessive short person), *Atiloma* (Excessive body hairs), *Aloma* (absence of body hairs), *Atikrishna* (Excessive black colored person), *Atigour* (Excessive white or fair colored person), *Atisthula* (Excessive obese person), *Atikrisha* (Excessive thin person or emaciated persons). As per *Aacharya Charaka Atistholya purusha* is not able to tolerate any type of physical exercise, over saturation, hunger, thirst, diseases and drugs.<sup>[10]</sup>

As per *Aacharya Charaka* Causes of *Atistholya* are- *Divaaswapna* - Sleeping during day time for long time, *Avyayama* - lack of physical exercises or activities, *Avyavaaya* - Abstinence from sexual intercourse, *Shleshmal Ahara Sevana* - Excessive intake of Ahara which increase Kapha Dosha, *Shleshma Vardhaka Vihara Sevana* - Sedentary life styles, which cause an increase in the Kapha Dosha, *Atisampurana* or *Atibhojana* - Excessive intake of foods, which are heavy for digestion, such as consuming sweet, cold and unctuous (fatty) foods, *Harshanitya* - Enjoying happiness always, *Achintana* - Not thinking or worrying about anything, *Bijaswabhaba* - Heredity or Genetic abnormalities.

As per *Aacharya Charaka* consequences of *atistholya purusha* (obese) are *Ayushorhasa* (reduced lifespan), *Javoparodha* (early onset of senility), *Kruchya vyavayita* (Find difficulty to perform sex) *Daurbalya* (debility or general weakness), *Daurgandhya* (foul smell of body), *Swedabadha*, *Ati-trishna* (Increased thirst), *Ati-kshudha* (Increased appetite).

As per the modern science causes of obesity<sup>[11]</sup> are- Genetics-- A person is more likely to develop obesity if one or both parents are obese. Genetics also affect hormones involved in fat regulation. For example, one genetic cause of obesity is leptin deficiency. Leptin is a hormone produced in fat cells and also in the placenta. Leptin controls weight by signaling the brain to eat less when body fat stores are too high. If, for some reason, the body cannot produce enough leptin or leptin cannot signal the brain to eat less, this control is lost, and obesity occurs. The role of leptin replacement as a treatment for obesity is currently being explored.

Overeating--Overeating leads to weight gain, especially if the diet is high in fat. Foods high in fat or sugar (for example, fast food, fried food, and sweets) have high energy density

(foods that have a lot of calories in a small amount of food). Epidemiologic studies have shown that diets high in fat contribute to weight gain.

**A diet high in simple carbohydrates--** The role of carbohydrates in weight gain is not clear. Carbohydrates increase blood glucose levels, which in turn stimulate insulin release by the pancreas, and insulin promotes the growth of fat tissue and can cause weight gain. Some scientists believe that simple carbohydrates (sugars, fructose, desserts, soft drinks, beer, wine, etc.) contribute to weight gain because they are more rapidly absorbed into the bloodstream than complex carbohydrates (pasta, brown rice, grains, vegetables, raw fruits, etc.) and thus cause a more pronounced insulin release after meals than complex carbohydrates. This higher insulin release, some scientists believe, contributes to weight gain.

**Frequency of eating--** The relationship between frequency of eating (how often we eat) and weight is somewhat controversial. There are many reports of overweight people eating less often than people with normal weight. Scientists have observed that people who eat small meals four or five times daily, have lower cholesterol levels and lower and/or more stable blood sugar levels than people who eat less frequently (two or three large meals daily). One possible explanation is that small frequent meals produce stable insulin levels, whereas large meals cause large spikes of insulin after meals.

**Physical inactivity--** Sedentary people burn fewer calories than people who are active. The National Health and Nutrition Examination Survey (NHANES) showed that physical inactivity was strongly correlated with weight gain in both sexes.

**Medications--** Medications associated with weight gain include certain antidepressants (medications used in treating depression), anticonvulsants (medications used in controlling seizuressuch as carbamazepine [Tegretol, Tegretol XR, Equetro, Carbatrol] and valproate [Depacon, Depakene]), some diabetes medications (medications used in lowering blood sugar such as insulin, sulfonylureas, and thiazolidinediones), certain hormones such as oral contraceptives, and most corticosteroids such as prednisone.

**Psychological factors--** For some people, emotions influence eating habits. Many people eat excessively in response to emotions such as boredom, sadness, stress, or anger. While most overweight people have no more psychological disturbances than normal weight people,

about 30% of the people who seek treatment for serious weight problems have difficulties with binge eating.

Diseases such as hypothyroidism, insulin resistance, polycystic ovary syndrome, and Cushing's syndrome are also contributors to obesity.

Social issues-- A link between social issues and obesity has been established. Lack of money to purchase healthy foods or lack of safe places to walk or exercise can increase the risk of obesity.

Several genetic syndromes are associated with overweight and obesity, including the following.

- Prader-Willi syndrome
- Bardet-Biedl syndrome
- Alström syndrome
- Cohen syndrome

Obesity doesn't happen overnight. It develops gradually over time, as a result of poor diet and lifestyle choices, such as.<sup>[12]</sup>

- eating large amounts of processed or fast food – that's high in fat and sugar.
- drinking too much alcohol – alcohol contains a lot of calories, and people who drink heavily are often overweight.
- eating out a lot – you may be tempted to also have a starter or dessert in a restaurant, and the food can be higher in fat and sugar.
- drinking too many sugary drinks – including soft drinks and fruit juice.
- Lack of physical activity is another important factor related to obesity. Many people have jobs that involve sitting at a desk for most of the day. They also rely on their cars, rather than walking or cycling.
- For relaxation, many people tend to watch TV, browse the internet or play computer games, and rarely take regular exercise.
- If a person is not active enough, he don't use the energy provided by the food eaten by him, and the extra energy consumed is stored by the body as fat. The Department of Health recommends that adults should do at least 150 minutes (two-and-a-half hours) of moderate-intensity aerobic activity, such as cycling or fast walking, every week. This doesn't need to be done all in one go, but can be broken down into smaller periods. For example, exercise can be done for 30 minutes a day for five days a week.



Being obese can raise blood cholesterol and triglyceride levels, lower "good" HDL cholesterol. HDL cholesterol is linked with lower heart disease and stroke risk, so low LDL tends to raise the risk. Obesity can increase blood pressure. Obesity can induce diabetes. In some people, diabetes makes other risk factors much worse. The danger of heart attack is especially high for these people.

Obesity increases the risk for heart disease and stroke. But it harms more than just the heart and blood vessel system. It's also a major cause of gallstones, osteoarthritis and respiratory problems.

Commonly prescribed weight-loss medications include orlistat (Xenical), lorcaserin (Belviq), phentermine and topiramate (Qsymia), bupropion and naltrexone (Contrave), and liraglutide (Saxenda).

But these have their own side effects like bowel urgency, frequent bowel movements, oily evacuation, oily rectal leakage, steatorrhea, and flatulence with discharge, fecal incontinence.<sup>[13]</sup>

In some cases, weight-loss surgery, also called bariatric surgery, is an option but it can pose serious risks. Liposuction is another surgical method but soon the patient again gains the weight.

As per *Ayurveda* line of treatment of obesity is *guru aahara* (foods which are heavy for digestion) and *aptarpana aahara* (which make the body thin).<sup>[14]</sup>

First of all *nidanaparivarjana* (avoidance of causative factors) should be done. Diet and life style of the obese person should be corrected. In *Ayurveda* there are two modes of therapy: *Shamana* and *Sanshodhana*.

*Shaman* therapy includes *langhana* and *rukshana* for *stholya* (obesity). *Shaman chikitsa* of obesity as told by *Aacharya Charaka* is-- taking Diets and drinks that alleviate **Vata and Kapha Dosha** and which can reduce fat, Intake of *Guduchi* (*Tinospora cordifolia*), *Musta* (*Cyperus rotundus*), *Triphala* [*Haritaki* (*Terminalia chebula* Linn.), *Bibhitaki* (*Terminalia belerica* Roxb.) and *Amalaka* (*Emblica officinalis* Gaertn.)], Administration of *Takrarista* – buttermilk, fermented with spices, Administration of honey, Intake of *Vidanga* (*Embelia ribes* Burm f.), *Nagara* (ginger), *Yavaksara* (Kshara prepared from Barley), *Loha Bhasma* with



honey and powder of *Yava* – barley and Amla, Administration of honey along with decoction of *Bilva panchamula* (roots of Bael, *Oroxylum indicum*, *Gmelina arborea*, *Stereospermum suaveolens* and *Clerodendrum phlomidis*), Administration of *Silajatu* (asphaltum / mineral pitch), Administration of the juice of *Agnimantha* (*Clerodendrum phlomidis* Linn. f.) Intake of *Prashatika* (*Setaria italica* Beauv.), *Priyangu* (*Callicara macrophylla*), *Syamaka* (*Echinochloa frumentacea* Linn.), *Yavaka* (small variety of barley), *Yava* – Barley, *Jurnahva* (*Sorghum vulgare* Pers.), *Kodrava* (*Paspalum scrobiculatum* Linn.), *Mudga* (green gram), *Kulattha* (horse gram), *Chakramudgaka* (?), seeds of *Adhaki* (*Cajanus cajan* Millsp.) along with *Patola* (*Trichosanthes cucumerina* Linn.) and *Amalaki* (Indian gooseberry) as food, *Madhudhaka* – combination of honey and water, Alcoholic preparations that help to reduce fat, muscle and *Kapha* may be used as after-food-drinks, avoiding sleeping during day time, doing physical and mental exercises.<sup>[15]</sup>

*Sanshodhana* therapy for *stholya*(obese) can be of two types.

*Aabhyantara sanshodhana* which includes *vamana*, *virechana*, *Rooksha*, *Ushna Teekshna Basti* (Enema with drugs that are sharp, ununctuous and hot), depending upon the condition of *doshas* and person. *Vamana* drugs are having *tikshna*, *sukshma*, *vyavayi*, *vikashi*, *sara* and *urdhva* *bhagahara prabhava* by which the drugs act upon the excessive *kapha*, *meda*, *kleda* lodged in the *srotas* and removes out the toxins through oral route. *Virechana* expels morbid material from the body through anus. So both the *shodhana* procedures release the *srotorodha*(obstruction in microchannels) and thus correcting the *agni* at gross level as well as *dhatu* level. Moreover after *shodhana* therapy one feels of well being in sense organs, elimination of toxins from the body, good appetite and digestion. *Swedana* is mandatory prior to any *shodhana* therapy. *Swedana* by its *ushna*, *tikshna*, *drava*, *snigdha*, *sthira*, *guru* properties liquefies the morbid materials in the minute channels in the body which has undergone properly oleation therapy and then by its circulatory effects help them to come into the concerned *koshtha*.

*Lekhaniya basti* by virtue of its *ushna tikshna* properties helps in scrapping the excess *meda*(adipose tissue/fat) from the body.

*Bahya sanshodhana* includes *Rooksha Udvartana* (powder massage with herbs having dry quality). *Udvartana* helps in increasing the circulation over the particular area, helps in scrapping the excess fat. Ex. is *shaileyadiudvartana*.<sup>[16]</sup>

Formulations that can be used in *stholya* are *chavyadishaktu*, *vyoshadishaktu*, *vidangadichurna*, *loharasayana*, *navakagugulu*, *tryaushnadyamaloham*, *vidangadiloha*, *amrutadyaguggulu*, *loharishta*.

## CONCLUSION

Obesity is one of the leading major cause of many life threatening diseases like CAD, Stroke, hypertension, Myocardial infarction, diabetes Mellitus. It makes the person not only physical ill but also mentally ill. obese person is under depression because of his physical appearance/personality.

Gradually the weight increases so much that the person feels difficulty in doing his daily activities, gets exhausted very easily, increased sweating, not able to climb the staircase because of his heavy weight. the person may get affected by osteoarthritis. Finally he/she can become disabled and reaches into a state of morbid obesity.

However our ancient scholars showed us the path of living(describing *dinacharya*, *ritucharya*, *sadvrutta* and *pathyaaahara* and *vihara*). At the time of *Aacharya Charaka* and *Sushruta* incidences of obesity were less that is why a separate chapter has not been described by them. As the civilization progressed and the people started doing *apathy aahara*, *vihara* cases of *medoroga*(obesity) became noticeable. *Aacharyas* of later era described *medoroda* in a separate chapter.

Our ancient scholars have scientifically described the aetiopathogenesis of *medoroga* (obesity). We can combat with this slow and serious killer disease by following the principles of *Ayurveda*.

## REFERENCES

1. <https://medlineplus.gov/obesity.html>
2. <http://www.who.int/mediacentre/factsheets/fs311/en/>
3. <https://www.nhlbi.nih.gov/health/health-topics/topics/obe>
4. *Charakasamhita* of *Agnivesha* elaborated by *Charaka* and redacted by *Dridhabala*, vol 1, edited with 'vaidyamanorama' hindi commentary by *Acharya Vidyadhara Shukla*, Prof. *Ravi Dutta Tripathi*, forwarded by *Acharya Priya Vrata Sharma*- *Sutra Sthana* 21/18-19, page no. 303.

5. Charakasamhita of Agnivesha elaborated by Charaka and redacted by Dridhabala, vol 1, edited with 'vaidyamanorama' hindi commentary by Acharya Vidyadhara Shukla, Prof. Ravi Dutta Tripathi, forwarded by Acharya Priya Vrata Sharma- Sutra Sthana 23/3,4,6 page no. 317.
6. <http://ayurvedanews.in/sep.html>.
7. Charakasamhita of Agnivesha elaborated by Charaka and redacted by Dridhabala, vol 1, edited with 'vaidyamanorama' hindi commentary by Acharya Vidyadhara Shukla, Prof. Ravi Dutta Tripathi, forwarded by Acharya Priya Vrata Sharma- Sutra Sthana 28/15, page no. 430.
8. Madhava Nidan-madhukosha vidyotinee teeka vol 2 medoroganidanam, shloka no1-4 page no.28.
9. Madhava Nidan-madhukosha vidyotinee teeka vol 2 medoroganidanam, shloka no.8 page no 29.
10. Charakasamhita of Agnivesha elaborated by Charaka and redacted by Dridhabala, vol 1, edited with 'vaidyamanorama' hindi commentary by Acharya Vidyadhara Shukla, Prof. Ravi Dutta Tripathi, forwarded by Acharya Priya Vrata Sharma- Sutra Sthana 21/3, 4 page no.300.
11. [http://www.medicinenet.com/obesity\\_weight\\_loss/page3.htm](http://www.medicinenet.com/obesity_weight_loss/page3.htm).
12. <http://www.nhs.uk/Conditions/Obesity/Pages/Causes.aspx>.
13. <https://www.drugs.com/sfx/orlistat-side-effects.html>.
14. Charakasamhita of Agnivesha elaborated by Charaka and redacted by Dridhabala, vol 1, edited with 'vaidyamanorama' hindi commentary by Acharya Vidyadhara Shukla, Prof. Ravi Dutta Tripathi, forwarded by Acharya Priya Vrata Sharma- Sutra Sthana 21/20, page no.303.
15. Charakasamhita of Agnivesha elaborated by Charaka and redacted by Dridhabala, vol 1, edited with 'vaidyamanorama' hindi commentary by Acharya Vidyadhara Shukla, Prof. Ravi Dutta Tripathi, forwarded by Acharya Priya Vrata Sharma- Sutra Sthana 21/21-28, page no 303.
16. Bhaishajya Ratnavali of Govind Das Sen Edited with Siddhiprada Hindi Commentary By Prof. Siddhi Nandan Mishra 39 adhyaya medorogadhikara shloka no.21, page no.725.