

OBESITY (*Sthaulya*)

BRIEF BACKGROUND

Obesity is accumulation of excess fat in the body which may lead to negative effects on health, reduced life expectancy and/or increased health problems.

Current estimates suggest that the global prevalence of obesity has increased by two fold from 1980 to 2014. A major proportion of Diabetes, Ischemic Heart Disease, Hypertension, Ischemic Stroke, Osteoarthritis, and Cancer burden may be attributed to Overweight and Obesity.

In *Ayurveda*, *Atisthanlya* (Obesity) is described as excessive accumulation of *Meda* (fat/adipose tissue) and *Mamsa* (flesh/muscle tissue) leading to flabbiness of hips, abdomen, and breast. It is considered as one of *Santarpanotha Vikaras* (disease due to consumption of excessive calories) in *Ayurveda*. *Medodushti* (disorders of fat metabolism) may be one of the risk factors for Ischemic Heart Disease (IHD).

CAUSES OF OVERWEIGHT/OBESITY

- Increased intake of energy-dense foods that are high in fat, carbohydrates
- Overeating and Irregular food habits
- Lack of Physical activities due to sedentary life style
- Genetics, endocrine disorders, Medical Reasons or Psychiatric illness
- Day – time sleeping

SYMPTOMS:

1. Breathlessness even on little exertion / physical activity.
2. Lack of interest in doing work.
3. Profuse sweating with foul body odor.
4. Excessive hunger.
5. Feeling of tiredness.
6. Excessive sleep.

DIAGNOSING OVERWEIGHT/OBESITY

➤ **Body Mass Index (BMI):** Overweight and Obesity are assessed using **Body Mass Index (BMI)**. It is defined as a person's weight in kilograms divided by the square of his / her height in meters (kg/m^2).

$$\text{Body Mass Index (BMI)} = \frac{\text{Body weight (in kilograms)}}{\text{Height (in metres)}^2}$$

Healthy/Normal BMI	-	18.5 - 24.9
BMI of Overweight	-	25 - 29.9 kg/m^2
BMI of Obesity	-	$\geq 30\text{kg}/\text{m}^2$



		Body mass index																		
		20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	
Height in metres		Weight in kilograms																		
		1.50	45	47	50	52	54	56	59	61	63	65	68	70	72	74	77	79	81	83
	1.55	48	51	53	55	58	60	63	65	67	70	72	75	77	79	82	84	87	89	
	1.60	51	54	56	59	61	64	67	69	72	74	77	79	82	85	87	90	92	95	
	1.65	54	57	60	63	65	68	71	74	76	79	82	84	87	90	93	95	98	101	
	1.70	58	61	64	67	69	72	75	78	81	84	87	90	93	95	98	101	104	107	
	1.75	61	64	67	70	74	77	80	83	86	89	92	95	98	101	104	107	110	113	
	1.80	65	68	71	75	78	81	84	88	91	94	97	100	104	107	110	113	117	120	
	1.85	69	72	75	79	82	86	89	92	96	99	103	106	110	113	116	120	123	127	
	1.90	72	76	79	83	87	90	94	98	101	105	108	112	116	119	123	126	130	134	
	1.95	76	80	84	88	91	95	99	103	107	110	114	118	122	126	129	133	137	141	
		Healthy					Overweight					Obese								

- **Waist circumference** should also be used in addition to BMI to measure **Central obesity** and disease risk in individuals with a BMI less than 35kg/m².

Normal range of Waist circumference:

Men: 94–102 cm; Women: 80-88 cm

Further, following **Lab investigations** are recommended to assess the risk of other related health problems

- Lipid profile
- Blood glucose (both Fasting and Post Lunch preferably fasting) and
- Blood pressure measurement

AYURVEDIC MANAGEMENT

LINE OF TREATMENT

(Under strict supervision of **Registered Ayurvedic Physician**)

Shamana (Palliative) treatment:

- Langhan (Fasting),
- Ama pachan (oral use of digestives to augment the fat metabolism),
- Ruksha Udwartan (Dry medicated powder massage),
- Heavy and non-nourishing diet/items like Honey, salad etc are advised.
- Physical exercises, mental work is also recommended.

Samshodhana Chikitsa (Purificatory procedures): Panchakarma

- Vaman (Therapeutic emesis),
- Virechan (Therapeutic purgation),
- Lekhan vasti (Medicated enema) are advised for the management of Sthaulya.
- **Single drugs:** *Guduchi, Vidanga, Musta, Sunthi, Amla, Vaca, Daruharidra, Guggulu*, etc.



Guduchi



Amla



Sunthi

- **Compound Formulations:** Trikatu, Navak Guggulu, Triphala Guggulu, Vidangadi Churna, Takrarishta, Navayasa lauha, Arogya Vardhini Vati etc.

PREVENTIVE MEASURES

Unhealthy diet results in building up of adipose tissue in the body resulting in weight gain & obesity. Physical activity lessens the energy imbalance between calories consumed on one hand, calories expended on the other hand resulting in weight gain & obesity. **Hence, intake of healthy diet comprising of sufficient fibre, adopting active life style and practicing Yoga and Meditation to manage stress and fatigue are highly recommended for the prevention of Overweight / Obesity.**

Life Style modifications such as

- Mild to Moderate exercise according to individual capacity.
- Regular habit of Brisk morning walk for 30 minutes.
- Avoid sedentary habits.

- Avoid excessive sleep.

- Avoid watching TV while having food.
- Avoid Alcohol and Smoking



Do's:

- Take low-fat and low-calorie food items.
- Take more proteins to stay longer without food.
- Steamed/ boiled and baked vegetables rather than fried.
- Take frequent small meals to avoid food cravings.
- Drink skimmed milk instead of whole milk.
- Take Healthy foods such as – oatmeal, walnuts, salads, bitter gourd (*Karela*), drumstick (*Shigru*), barley (*Yava*), wheat, Green gram (*Moong dal*), honey (*Madhu*), Indian Gooseberry (*Amla*), pomegranate (*Anar*) and snake gourd etc and skimmed Buttermilk.
- Include cabbage in daily meal. It will stop the conversion of sugars to fat.
- Use warm water for drinking.
- Include lemon in diet and drinks.



Dont's:

- High carbohydrate vegetables like – potato, rice etc.

- More sugary or sweet products, more dairy products, fried and oily foods, fast foods, excess salt.

- Salty foods or excessive salt in meals.



Note:

1. Medication is to be taken strictly under supervision of Registered Ayurvedic physician.
2. Visit National Institutes/ CCRAS Research Centres for necessary consultation.
(www.ccras.nic.in)

FREQUENTLY ASKED QUESTIONS(FAQs)

What is obesity?

Generally, a patient with a body mass index, or B.M.I., of 25 to 29.9 is considered overweight; one with a B.M.I. of 30 or higher is considered obese.

Does obesity cause complications?

Yes. Obese patients are at a risk of developing Diabetes mellitus, Cardiovascular diseases and Hypertension in the long term.

How much weight should I lose?

Weight losing process should be gradual. Losing 4-5 kg over a period of 2 months and then keeping it at the same pace under the supervision of consulting doctor/nutritionist is advisable.

What kind of diet do you recommend for me?

Avoid diets that are rich in fats. Diet should be wholesome with sufficient fiber content. Fruits and vegetables should be the foundation of any long-term diet.

Does a low calorie diet help in losing weight?

Yes. Weight reduction can be achieved by reducing food intake and by regular exercise. A low calorie diet should constitute a low carbohydrate, high fiber, moderate protein and a low fat diet.

Does meal frequency matter?

Some patients find it helpful to eat small meals five or six times a day. Complicated regimens involving macronutrients consumed only at certain times of the day have not been well supported by research.

Do I need gastric bypass surgery?

This procedure is an option only for people who are severely obese and cannot lose weight by other means. Studies suggest that gastric bypass surgeries associated with several side effects and may sometimes be fatal. It should be emphasized that surgery should be considered only for those with gross, intractable obesity.

Is it safe for me to exercise? How should I begin?

Most obese people are capable of moderate aerobic exercise such as walking, swimming, gardening, dancing. Moderate exercise usually is safe even for obese patients, though it is wise to undergo a physical evaluation before beginning a new program. Patients should begin slowly with activities they enjoy. Regular daily exercise will help in reducing than exercising once in a while.

What if I lose weight and put it back on again?

Some studies suggest that weight cycling, or yo-yo dieting, may be linked to high blood pressure, high cholesterol, gall bladder disease and other health problems. Keeping exercise as a routine habit will help in reducing weight than exercising once in a while. Strive to maintain a modest 10 percent weight loss before trying to lose more.