INTRODUCTION
Ayurveda defines Medoroga that “an individual whose increased Meda (adipose tissue) and Mansa (Muscle tissue) makes its hips, abdomen and breasts Pendulous and whose vitality is much less as compared to its bodysize, should be called as “Sthaulya” i.e. Obese.

--- CHARAK SOOTRA 21-9 ---

Excessive accumulation of Meda (body fat) is defined as Sthulya. It is usually expressed on the percentage by which a person weight exceeds the Ideal weight, Genitic, nural, humoral and enviromental factores have been recognized in the pathogenesis of Sthaulya. Continuous positive balance to the extent of 100 Kcal per day will result in an increase of weight approximately by 10 lbs. (4.5 Kgs.) per year, thus it is a continued effect of positive calorie balance over the years which leads to sthaulya.

Sthaulya may be defined as a condition in which there is an excessive amount of Meda. This simple defination gives rise to two questions, as follows :-

(1) How can meda (Body fat) be measured?

(2) What is excessive?

All methods of measuring the Meda (fat) content in the living subjects are, to a greater or lesser degree indirect. The Simplest, but also the least indirect is the measurement of body weight and this is the method almost exclusively used in clinical Practice.

Sthaulya is a problem of developed Sociaties, much can you learned from a general inspection of the patient’s physique.
Is his appearance consistent with his age?

Is he tall, short, fat, thin, muscular or asthenic?

Are there any obvious deformities and is the body proportionate?

Obesity is an important disorder associated with a number of potentially fatal diseases such as adult onset diabetes mellitus and ischemic heart disease. Treating obesity has become a problem since safe drugs are not available for long term therapy. Amphetamines have a well-defined abuse potential and drugs like diethylpropion and fenfluramine cause appreciable undesirable sympathomimetic side effects, pulmonary hypertension and depression (Galloway et al 1984).

Thyroid hormones were once used to treat obesity but are now contraindicated due to their untoward systemic effects (Kyle et al 1966). There is a clear need for a safer drugs for long term therapy of obesity (Stunkard et al 1980). The development of a non-toxic compound with a capacity to hold weight gain in check is much needed. Individuals in any society are obsessed about their weight. As a consequence, scientists are searching for weight reducing methods today. What they find are a few methods that are bonafide and many are worthless.

The medical profession has long considered excess weight an emotional, generally incurable disorder. Thus it has no official standards for treating overweight individuals partly because being fat is not itself an illness. Physicians tend to treat this disorder in a causal manner giving out archaic advice consequentially the success rate for weight reduction is dismal. Even those physicians with expertise and interest in treating overweight have not devised a sure-proof method for weight control.
Ayurveda is the ancient science of life in the sanskrit language. “AYU” means life and “VEDA” means the knowledge. This branch of medicine has a nearly 5000 year record of use in the Indian system of medicine. The concept and treatment of most of the diseases have been described nicely and in great depth. Ayurvedic classics such as the Charak Samhita and Sushrut Samhita are still followed critically by Ayurvedic Physicians in India.

Obesity is referred to as “Medoroga” and is considered to be a disease of “Medodhatu” meaning a disorder of lipid metabolism or fatty tissues. A variety of different types have been detailed in the Ayurvedic classics along with the treatment for the same.

The indigenous drugs described by Ayurveda are comparatively safe and have been used for many years. Drugs such as Triphala Guggulu are claimed to be effective in the treatment of obesity.

(Sharangdhar Samhita 1984)

Numerous herbal remedies mentioned in Ayurvedic Samhitas (Treatise) have been used to reduce body fats. Action of these drugs is described as ‘LEKHAN’ of Meda (adipose tissue) ‘Lekhan’ means to scratch or scrape. These ‘Lekhandravyani’ (Substemics) have “Teekshna” (Pungent) “Ushna” (hot) and Laghu (light) attributes. These drugs act by the virtue of ‘Teja’ (Fire) and vayu (Air) ‘Mahabhootagni’ (Enersecs).
मेदोमासनिव्रृद्धत्वचा्ध्वलसकक उदर सन्नः
अयथोपयोत्त्वाहो ननोतिस्तूलु उच्यते॥ च. सू. 21/9
"सनन्त्वा व्याधिनावेऽति अनिस्तूलु कृृशी नरा" ।
च. सू. 21--26
HISTORICAL BACK-GROUND
ABOUT “STHAULYA”
In Ayurveda, as early as 3000 BC, the ‘Charak Samhita’ described the sthaulya as “Medoroga” as a disease of Medo dhatu with the vivid description of its aetiology. Pathogenesis, role of diet and exercise and certain plants that correct the malfunctioning of glands and cure obesity due to auxiliary causes. Even the associated diseases, hazards of obesity like sterility heart diseases, diabetes mellitus, shortening of the life span, skin disorders etc. are vividly mentioned in different Ayurvedic Samhitas. Sthaulya is a disqualified condition of human health is stressed by Ayurveda. Also says Ayurveda; that leanness is better than sthaulya. Charak has given simily of an obese person with that of a pig!. In ‘Sushruta Samhita’ and ‘Ashtanga Hridaya’ these are many references which praises leanness than sthaulya.

Ashtounindita, the state of health should be regarded as disqualified ir. ‘Atreya Samhita’.

Indian literature has given the evidence about the sthaulya. e.g. Vishnu Puran, Bhagwat Gita, Channakya Neeti, etc.. charak had said “The body is a product of food. Diseases occur as a result of faulty nutrition. The distinction between the pleasure (health) and pain (disease) arises as a result of differance between the wholesome and unwholesome diet”.

Sthaulya is the most common disorder of metabolism in man and is also one of the oldest documented metabolic disturbances in recorded history. A lime stone statuatte from the stone Age has been unearthed which appears to be the most ancient example, of sthaulya similar historical evidence for obesity is found in Egyptian mummies and Greek sculpture.
In Western countries the popular Goddess of Waylendart is in a form of fatty female. In Bible there are many references about sthaulya.

Since historical period, Picturisation of Sthaulya person is found in paintings, sketches and many other art forms.
CHAPTER NO. 1

DEFINATION OF “STHAULYA”
DEFINITION OF STAHLUYA

In Ayurveda there is no separate definition of Sthaulya like other disease. But it describes Sthaulya very perfectly as follows:--

An individual whose increased Meda dhatu (Adipose tissue) makes his hips, Abdomen and breasts Pendulous and whose vitality is much less as compared to his body size is called as “Sthaulya” the word “Roga” clears that Ayurveda has classified Sthaulya under disease entity. Ayurveda has described Eight Personalities as disqualified i.e. ASHTOUNINDITA.

Modern Science defines obesity as a body mass index greater than 27 for men and 25 for women. Body mass index can be calculated as body weight in Kilograms per square meter of the body size. In other words it is approximately Equivalent to 120 percent of the ideal body weight.

Obesity also can be defined as triceps skinfold thickness greater than 23 mm in men and 30 mm in women. For common use obesity is defined as that body weight which is more than 20% of the mean ideal body weight.

The statistically studied height weight charts of life insurance are used for this purpose. There are some indices to define obesity like Pundoral index, qutlet index etc..
CHAPTER NO. 2

“STHAULYA” NIDAN
The body, according to Ayurveda, is the result or an outcome of nutrition. Disease, on the other part is the result of mal or impaired nutrition. Scholar Charaka says:

"The body is the Product of food. Diseases occur as the result of faulty nutrition. The distinction between the pleasure (health) and pain (disease) arises as a result of differences between the wholesome and unwholesome diet".

--- CHARAK SOOTRA 28-45.---

It is also interesting to note that Ayurveda has also studied the importance of the role of mental environment in the aetiology of Medoroga.

Scholar Vagbhat quotes that, "One who doesn't think, is always happy and sleeps more, gets overnourished like a Pig!

Following are said to be the causative factors of Medoroga.

- Overeating --- Guru (heavy to digest)
  --- Sheeta (cold)
  --- Madhur (sweet)
  --- Snigdha (oleating)

food stuffs.

- Lack of exercise;

- Daytime sleeping;
Abstinence of Sexual intercourse;
Lack of mental tensions and worries.

Hereditory (Beej - swabhav)

In studying the Nidana of Sthaulya, the modern Science has tried in many ways to pinpoint the etiology of obesity. Cerebral and emotional influences on eating patterns as well as cultural influences and socioeconomical status is said to play a role in obesity. Genetic factors play a role, but their mechanism remains unknown. Oestrogen - androgen balance also appears to influence the site and amount of adipose tissue deposition, since women and prepubertal children have higher proportion of subcutaneous fat than men. Only in rare instances of hypothalmic obesity in man can etiology be defined.

Sthaulya is a clinical sign with several possible causes. There is no satisfactory Nidana of Sthaulya, but a number of factors are as follows:--

(1) **Age:**

Sthaulya is most prevalent in middle age but can occur at any age of life in childhood and adolescence is likely to be followed by Sthaulya in adult life.

(2) **Socio--Economic:**

In some BHUMI--DESHA (Parts of the countries) Sthaulya is more common in lower Socio-economic groups. In developing parts of country it can occur only in the prosperous life. Some occupations predispose to sthaulya. In some societies fat men are respected and fat women considered beautiful in others are not.
(3) **BIJ-SWABHAV:**

A familial tendency exists in many cases but it is difficult to disentangle, environmental and genetic components. Pattern of eating and activity are influenced by social, cultural and economic factors which may be handed on from generation to another.

(4) **Energy Balance:**

A very small excess of calories, if habitual, can lead eventually to a large accumulation of meda if a person eats a slice (20 gm.) of bread that is not needed each day or goes by vehicle instead of walking for 20 minutes the daily extra 48 kg. of fat deposits.

(5) **Social Factors:**

Such as advertising and business, lunches, may contribute to overeating and some people overeat because they are unhappy. There is some evidence that in obese people eating is determined less by “Internal cues” i.e. hunger and satiety, than by external influence like the availability appearance and taste of food or the enviromental in which the food is served.

(6) **Physical inactivity:**

Has an important role in the developments of sthaulya. Affulence is commonly associated with reduced AGNIMANDHYA (DHATU). It is well recognized that physical activity is less.
(7) **BESHJAM (Drugs):--**

The drugs having the following properties also lead to Sthaulya. i.e. Shit, Guru, Madhur, Snigdha etc...

(8) Diwaswap.

(9) Chintaabhav.

(10) Anatasravi Granthi (Endocrine glands).
CRITERIA FOR DIAGNOSIS OF "STHAULYA"
In most cases the diagnosis will be apparent from the patient appearance, but the degree of Sthaulya should also be assessed.

**LIFE -- INSURANCE TABLE:**

The usual tables on body weight refer to the ideal weight for height and sex. These are derived from the statistic accepting significant obesity as being present when the body weight exceeds the ideal by 20% or more however, the total body weight may not reflect that fat mass accurately and usually when referring to the frame of build, average weight may indicate the true status better than the ideal weight.

Sthaulya is classified grossly into three groups according to the severity of weight.

**MILD OBESITY:**

Weight just more than 20% of ideal mean body weight.

**MODERATE OBESITY:**

Weight more than 30 to 50% of ideal mean body weight.

**SEVERE OBESITY:**

Weight more than 50% of ideal mean body weight.

**WEIGHT--HEIGHT RATIO:**

The use of height--weight ratio provide some comparative parameters for different population groups and removes certain inequalities; but for the assessment of Sthaulya, it does not provide objectively.
Proderal Index i.e. Height / \sqrt{Weight}
(Hight in inches, weights in pounds.)

Modern medicine defines obesity as a body mass index of greater than 27 for men and 25 Kilogrammes/Sq. meter for women. There are some other indices to define obesity like ponderal index. Quetlet index etc., also.

DETERMINATION OF BODY DENSITY:

The technique such as total body radio active pottassium are direct method and are considered most reliable but they have inherent inaccuracies.

SKIN--FOLD THICKNESS--(Parinah):

Triceps--skin fold with calipers at a point midway between the shoulder and elbow with the arm hanging freely appears to be the most representative of the total body fatness regardless of any disproportionate distribution of adipose tissues in various parts of the body. On the basis of population studies, it has been suggested that triceps skinfold thickness greater than 23mm in men and 30mm in women should be defined as sthualya.

CLINICAL TYPES:

There are two clinical types of obesity. There has been little metabolic or physiologic evidence until recently to support such a concept.

(1) LIFE LONG OBESITY:

In this type patients give a characteristic history. Although generally of normal birth weight. They tend to have been heavier as children, to have a
large spurt in weight gain during puberty and (in females) to give a history of gaining weight with each successive pregnancy. These individuals usually have tried all available methods and fads promoted for caloric restriction and weight reduction to no permanent avail. After successful weight loss regardless of the program, they usually return gradually to approximately their prereduction level of over weight as through it were present. These individuals also tend to be grossly obese (more than 150% of ideal body weight) adults.

(2) **ADULT-ONSET OBESITY:**

Is much more common and represents "middle--age spread". These individuals give a history of being thin or of average weight until age 20 to 40, when weight gain associated with a more sedentary existence begins. This type of weight gain in adult life is extremely common and is seen in most affluent populations.

<table>
<thead>
<tr>
<th>TYPES OF OBESITY</th>
<th>Hyperplastic (Life long)</th>
<th>Hypertrophic (Adult onset)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Severity</td>
<td>Marked</td>
<td>Moderate</td>
</tr>
<tr>
<td>History</td>
<td>Lifelong</td>
<td>Adult--onset</td>
</tr>
<tr>
<td>Fat distribution</td>
<td>Peripheral and Central</td>
<td>Central</td>
</tr>
<tr>
<td>Adipose Cellularity</td>
<td>Cell number &amp; size</td>
<td>Cell size increased only</td>
</tr>
<tr>
<td>Insulin resistance</td>
<td>increased</td>
<td>Related to cell size</td>
</tr>
<tr>
<td>Metabolic Consequences</td>
<td>Related to Cell size</td>
<td></td>
</tr>
<tr>
<td>Longterm response to treatment</td>
<td>Poor</td>
<td>Fair</td>
</tr>
</tbody>
</table>
These two broad clinical types of obesity were recognized early by Abrink, who proposed that adult onset obesity is mainly central in location, whereas lifelong obesity might be peripheral as well as central. For peripheral localization of adiposity, skinfold thickness of the forearm or the triceps is measured and compared with skinfold thickness over the tip of scapula. Weight gain during adult life is significantly correlated with costal, scapular and to a lesser extent triceps skinfold thickness but not with ulnar skinfold thickness. The forearm fat is minimally influenced by adult onset obesity. Where adipose tissue of the trunk is most influenced by weight gain during adult life.

Ayurveda defines Sthaulya i.e. "Medoroga" that an individuals whose increased Meda dhatu (adipose tissue) and Mansa dhatu (muscle tissue) makes its hips, abdomen and breasts pendulous and whose vitality is much less as compared to its bodysize should be called as ‘medorogi’ or sthool, i.e. obese. Ayurveda has categorised obesity as a disease entity. Apparently from definition, it seems that Ayurveda has defined Medoroga rather loosely. But from its pathogenesis to treatment, the concept are crystal clear and specific.
CHAPTER NO.4

"STHAULYA"
ROOPAWASTHA
In Charak Samhita Sootra-sthan 21-4 the following signs and symptoms of medoroga are mentioned as:--

- Shortening of life.
- Difficulty in walking.
- Hastening of ageing process.
- Depression of Libido.
- Difficulty in sexual performance.
- Hyperhidrosis.
- Foul body smell.
- Debility.
- Dyspnoea on mild exersion.
- Polydyspsia.
- Sleepyness.
- Polyphagia.
- Loss of Vigour.
- Moha.
- Difficulty in breathing.
Merely all signs and Symptoms can be correlated with the pathogenesis of medoroga quite rationally.

Life shortens because of malformation or dearangement in metabolic process of dhatus. Due to virtues of Meda (viz. Guru etc..) the speed in every aspect gets hindered. As there is failure in proper formation of shukra dhatu, it produces difficulty in sexual performance and in females, oligomenorrhoea and menstrual irregularities occur. Debility results mainly due to imbalance of formation of dhatus. Due to Medadhusthi, the picchil guna is the cause of excessive perspiration with foul body smell.

Out of these signs and symptoms mentioned above, Eight Drawbacks. (Asthā Nindit dosha) observed and are common. They are:

(1) Life shortens.
(2) Ageing hasten.
(3) Difficulty in sexual performance.
(4) Debility.
(5) Foul body smell.
(6) Hyperhidrosis (Excess sweating).
(7) Polydyspsia (Excess thirst).
(8) Polyphagia (Excess hunger).
(1) AYUSHORAHAS;
(2) JAVOPRODHA;
(3) KRUCHAVYAVAYATA;
(4) DOURBALYA;
(5) DORGHANDHAYA;
(6) SWEDABADHA;
(7) ATISKHUDHA;
(8) ATI TRISHNA;

AYUSHORAHASA:--

In body only Vikrut Meda Dhatu Creates and another DHATU provides the small quantity and quality then the function of Dhatus are not regular.

"DHARNAT DHATVAS!".

JAVOPRODHA:--

Increases of large amount of meda activity reduces by the SHITHIL, MRUDU and GURU properties of Meda.

KRUCHAVYUVAYATA:--

In male shukra dhatu is not form properly hence disability occur in libido. Also in females affect the Artavah srotas causes menopausal syndrome.
DOURBALYA:--

In body there is no regular function of Dhatu occur.

DOURGANDHAYA:--

Smell of body occur when the Medas MALA -- SWEDA becomes Vikrut.

SWEDABADHA:--

Picchil properties of Meda and medodusthi creates sweda.

ATISKHUDHA -- ATITRUSHNA:--

Due to stimulation of appetite causes atshkudha and atitrishna.

Sthaulya is a Asadhya Disease but prolong use of diet, pathya and medicine it becomes YAPYA/KASTASADHAYA.
इह खलु शरीरमधिकृत्यापि पुरुषा निदिता भवन्ति, तथथा अनिर्विर्धः 
अनिलस्यः, अनिलोमा च, अलोमा च, अतिकृष्णः। अतिगारः। 
अतिस्थूलः, अतिकृष्णि।।

च. सू. 21/2
CHAPTER NO.5

“STHAULYA” SAMPRAPTI
PATHOPHYSIOLOGY:--

Energy balance, the difference between the intake and output of energy determines the body Fat stores. Energy input in the form of food intake and energy expenditure is required for basal Metabolism and Physical activity are balanced to provide a relatively constant level of total energy stores. Positive balance leading to obesity can thus be due to an increase in the gain of calories to the body (Food intake) or because of a reduction in the output of calories from the body (basal and activity metabolism).

The physiological regulatory mechanisms for the energy balance may be summarised as above.
(1) CENTRAL MECHANISMS:--

In hypothalamus -- the two areas ventro -- medial (satiety center) and lateral nuclei (feeding center) have a reciprocal functional interrelationship. During period of hunger, the centromedial nucleus is inhibited, and lateral is activated, but with 'Satiety' the ventromedial nucleus becomes active and lateral area is suppressed.

Food intake causes an increased stomach volume. This volume change is perceived by the stretch receptors in the stomach wall and leads to a feedback signal that will lead to cessation of food intake by inhibiting the lateral hypothalamus. Simultaneously, the intestinal flow of (CCK--PZ) cholecystokinin--pancreozymin following feeding has an inhibitory influence on the lateral hypothalamic nuclei.

Plasma levels of glucose, free fatty acids, glycerol and amino acids are indicative of the peripheral metabolic function, and provide negative feedback signals to neural centers. These are integrated at the hypothalamic centers and regulate the neurogenic control of energy balance.

(2) ADIPOCYTES:--

Their number and size. Recent studies have shown that the number of adipocytes is established in the late prenatal period and early life. Nutritive excess at these times establishes hypercellularity of the adipose tissue: new fat cells are not formed during adult life. Lipogenic function of the adipocytes determines the cell size which depends upon the available insulin and glucose cell size relates to its fat content. Large sized fat cells have certain metabolic
anomalies that include increased re-esterification of glycerides, decreased FFA/glycerol ratio, insensitivity to insulin and decreased in epinephrine-induced lipolysis with reduction in the fat cell size, the metabolic changes are partially reversible. This pattern is applicable to acquired obesity. On the contrary irreversability of the adipose cell number relates to the self-sustaining nature of obesity.

PATHOGENESIS: --

Due to excessive eating of heavy, cold, sweet and oleating foodstuffs, derangement of Ahar—Rasa takes place and it produces ‘Ama’ This Ama pacifies the agni of Medovaha Srotas and blocks their channels. Due to this blockade in Modovaha Srotas, Vata which play a key role in transformation of Dhatus (tissues) gets vitiated and accumulated in Kostha (stomach). This Vitiated Vata in Kostha, stimulates the appetite further.

SCHEMATIC DIAGRAM --
From the schematic diagram above, it will be easy to understand that due to excessive eating of heavy, cold, sweet and oleating foodstuffs, gastric secretions become deranged and produce ‘Ama’ the term ‘Ama’ in ordinary paralance means unripe, uncooked, immature and undigested. Due to production of this Ama the first Dhatu amongst seven Viz. Rasa (chyle/plasma) is not properly formed. Instead, the Annarasa (food) undergoes fermentation and/or putrefaction (dustha) being retained in the stomach. It is the state of Rasa which is spoken of as ‘Ama’ This Ama specifies the agni of Medodhatu i.e. Medogni. Due to pacification or depression of this Meda Dhatwagni instead of Physiological accumulated Meda blocks further chain of formation of Asthi Dhatu (Bone tissue), Majja Dhatu (Marrow tissue) and Shukra Dhatu (Reproductive elements. Simultaneously, in reverse direction, it affects the proper physiology of formation of proper Dhatus.

The term ‘Srotas’ as you know, means ‘Awakasha’ or ‘Kha’ -- meaning empty channels. As mentioned above, accumulated meda blocks the channels and vata gets no place else than to enter kostha (stomach). This vitiated vata stimulates agni of kostha (Jathar agni) and increases appetite and thirst enormously As a consequence, patient feels more hungry further the stage comes that any diet gets ultimately converted into Meda dhatu itself. Thus again meda dhatu gets further accumulated and the Vicious cycle goes on.
Vicious Circle

(Further accumulation of Meda Dhatu)

(Consumption of more food) (Blockade in channels)

(Increase in Appetite) (Accentuation of vata)

(Acceleration of Agni in stomach)
CHAPTER NO.6

FUNDAMENTAL CONCEPT OF AYURVEDA RELATED TO "STHAULYA"
Before seeing the concept of Medoroga proper, it will not be out of place to see in brief the fundamental concept of Ayurveda Related to Sthaulya.

CONCEPT OF DOSH -- DHATU AND...
other digestive secretions including various enzymes and hormones (pitta
dosha) appear in the proximal part and they re-enter in the distal part with
absorbed food. These members are called Doshas.

KAPHA DOSHA:--

is thrown away or ejectable product from Rasadhatu or nutrient body fluid. Su

When it appears in the mouth, G.I.Tract, lungs or in cerebral circulation
ch Kapha dosha looses certain character of Rasa dhatu hence it is called as
ejectable product of Rasadhatu i.e. Rasa -- mala -- Kapha.

This nutrient fluid when it leaves the circulating channels forms various
tissues according to the need it may change to muscular binding, may give away
its lubricating globules to fat deposit, may help in the formation of bone, nerve
or sperms. Thus out channelled nutrient fluid is Kapha Dosha because it helps
in interlinking of various tissues.

PITTA DOSHA:--

Is also the product of breakdown of Raktadhatu. Hence it is called as
Rakta-Mala i.e. Pitta dosha.

This pitta dosha appears as coloured secretions in middle part of
G.I.Tract and is responsible for total conversion complex. Raktadhatu does not
interlink with any other constituent in the body. Hence it is different from other
tissues.
Pitta dosha which is breakdown of haemoglobin, helps in various conversions, e.g. in the eye for vision in Liver for formation of tissues.

**DHATU (TISSUES):**

Are the constituents which do not get eliminated from the body (except shukra) and they remain well within a particular limit. This limit is skin from outside and internal linings (of G.I.Tract, bladder, joints, cerebral linings) from ‘within’ As the body strength grows these dhatus or members go on adding certain new units. They are seven in numbers.

Most important functions of this group is to give maximum support and strength to the body. Members in this category cannot be afforded to be eliminated by the body like the first category. When they cross the limits of skin or the internal linings, then the condition becomes very serious.

**MALA :— (The Waste products)**

Are the constituents that are constantly eliminated from the body. Their physical appearance varies from gaseous, liquid, semi-solid to solid form. The sthoola malas are urine, faces and sweat. While sookshma malas or kleda are exudations that are eliminated from the epithelial linings of eye, nose, mouth, ear and smegma. Similarly many minute waste products that are formed in the body during formation of dhatus from food--Dhatu parinamana are also included in sookshma mala. Health is maintained well when these waste products are eliminated properly and when they get accumulated in excess various diseases are created.

**CONCEPT OF AGNI:**

Agni is the principle of conversion in the body. It converts food and
other external Primordial pentad substances. Agni is the minute form of energy of principle of conversion or SUN in the Universe. This energy acts through Pitta dosha conversion of food to various body constituents take place at three different levels, by three types of Agni.

(1) **JATHARGNI:**

Kayagni, Kosthagni

Are synonyms of each other. This energy acts through pachaka pitta. The seat of this pachak pitta is Grahani or small intestine or Pittadhara Kala. This energy converts food into uniforms suspension called as Ahara Rasa.

(2) **DHATWAGHNI:**

They are situated in different srotasas of Dhatus. Each dhatu has its own dhatwagni. Thus there are seven dhatwagnis for 7 tissues. The function of dhatwagni is to carry out second type of conversion i.e. formation of dhatu from the Ahara Rasa.

(3) **BHootAGNl:**

They are five and are required for formation of special nutrients required for five sense organs. This is the third type of conversion. Each sense organ is formed out of predominance of one Bhoota or primordialpentad.
CONCEPT OF SROTASAS :-

Srotas means channel or system which is hollow, but the outer wall is made up from different tissues. It usually circulates, manufactures, excretes various body constituents. Each srotas has its own controlling organs, which govern the function of all srotasas. As the body constituents are innumerable, srotasas are also inumerable. But according to 13 major body constituents, 3 type of srotasas have been described.

TYPES :-

1) From the outside Universe, we accept food drinks and air for sustenance. There are three channels for these substances.

   I) Annavah srotas - accept food and digest it.

   II) Pranavah srotas - accept air for beathing.

   III) Udaakavah srotas - is responsible for circulating water in the body.

2) For formation of each Dhatu, there is separate srotasas. Thus there are seven srotasas e.g. Rasavah, Raktavah, Mansavah, Medovah, Asthivah, Majjavah, Shukravaha.

3) For three major waste product. There are three srotasas e.g. Purishavah, Mootravaha and Swedavaha.
FUNCTIONS :-

For manufacture of tissue from Ahara Rasa each srotas has its own Dhatwaghi which acts through Ranjak pitta. Vyanvayu also helps this transformation from the essence of previous tissue, new tissue is formed in each srotas.

<table>
<thead>
<tr>
<th>Medovaha srotas</th>
<th>Meda Dhatu</th>
</tr>
</thead>
<tbody>
<tr>
<td>Medo Dhatwagni</td>
<td>Sweat as waste product</td>
</tr>
<tr>
<td>essence of Mansa Dhatu</td>
<td>I) Kleda minute waste products.</td>
</tr>
<tr>
<td>in Ahara Rasa</td>
<td>II) Minute muscle.</td>
</tr>
</tbody>
</table>
DHATU :- Body tissue they are seven. There character and functions are as follows:

<table>
<thead>
<tr>
<th>Sr.No.</th>
<th>Name</th>
<th>Character</th>
<th>Function</th>
</tr>
</thead>
<tbody>
<tr>
<td>01.</td>
<td>Rasa Dhatu</td>
<td>Circulating nutrient fluid in channels.</td>
<td>Nutrition</td>
</tr>
<tr>
<td>02.</td>
<td>Rakta Dhatu</td>
<td>Heam part in the blood</td>
<td>Oxygention</td>
</tr>
<tr>
<td>03.</td>
<td>Munsa Dhatu</td>
<td>Muscular tissue</td>
<td>Movements</td>
</tr>
<tr>
<td>04.</td>
<td>Meda Dhatu</td>
<td>Lubricating fat deposits</td>
<td>Lubrication</td>
</tr>
<tr>
<td>05.</td>
<td>Asthi Dhatu</td>
<td>Supporting and accommodating bony structures</td>
<td>Support</td>
</tr>
<tr>
<td>06.</td>
<td>Maija Dhatu</td>
<td>Nerve tissue</td>
<td>Better understanding</td>
</tr>
<tr>
<td>07.</td>
<td>Shukra Dhatu</td>
<td>Reproductive tissue</td>
<td></td>
</tr>
</tbody>
</table>
FORMATION OF DHATUS AND THEIR QUALITIES:

The food that is taken in, sets transformed into these 7 dhatus or tissues in sequential order. First Rasa Dhatu is formed from Ahara Rasa or uniform suspension of food, formed in the G.I.Tract. Then Rakta Dhatu is formed. Then mansa dhatu is formed. In this sequence all 7 dhatus are formed in the body. Ayurveda has described three laws to explain how this transformation takes place.

(1) **KSHIRA - DADHI - NYAYA:**

According to this first law there is total transformation of one dhatu to other dhatu e.g. entire Rasa dhatu is transformed into Rakta dhatu and so forth.

(2) **KEDARA - KULYA NYAYA:**

This second law explains, that Rasa Dhatu being the nutrient tissue fluid, contains nutrient substances for all dhatus. Hence, when it is distributed to all the tissues viz. circulatory channels, each system accepts only particular nutrients that are required for that particular tissue or dhatu.

(3) **KHALE - KAPOTA NYAYA:**

This third law explains that due to selective absorption and selective rejection all tissues are formed.

Thus all the above three laws explain different theories about sequential formation of dhatus and they are not antagonistic to each other.
RASA DHATU:- The nutrient tissue fluid pool, is formed from the digestive juice that is absorbed from G.I. Tract for the formation of each dhatu following requirements are must.

1) Srotas, ii) Dhatwagni, iii) Pitta, iv) Vyana Vayu.

RASAVAH SROTAS

<table>
<thead>
<tr>
<th>Digestive juice</th>
<th>Transformation with the help of</th>
<th>Rasadhatu</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Kapha</td>
</tr>
</tbody>
</table>

OR

| Rasa Dhatwagni and Vayana Vayu | dosha waste product |

Ahara Rasa (kleda)

It is termed as ‘Sauma’ because ‘Kaphadosha’ is formed from it. This nutrient fluid imparts instant energy and strength, as well as resisting power to the body (Ojas) Rasa dhatu is predominant in Apa Mahadhoota.
RAKTA DHATU:--

This is formed from Rasa Dhatu in Raktavaha srotes situated in Liver, with the help of Ranjaka Pitta and Rakta Dhatwagni. It is bright red in colour. has strong metallic smell. This particulate matter in blood does not stick to the walls of vessels while in circulation. It is called 'Jeevana' because life is dependent of it. Complexion of the skin, maintenance of body temperature proper digestion and proper sensation of skin, all depends on healthy state of Rakta dhatu pitta dosha is formed from Rakta dhatu.

Although Raktha is predominantly Tejas; Apa, Prithvi and Vayu mahaboota are also present in Rakta dhatu.

MANSA DHATU:--

The muscle tissue is stable, compact and slightly reddish in colour. It is predominant in Prithavi Mahaboota. Mansa is formed from the essence of Raktha dhatu in mansvaha srotas as or Mansa dhara Kala, situated in liver, mansa dhatwagni. Ranjaka pitta and Vyana Vayu helps this transformation. Lepana means covering up other structure is the main characteristic of mansa dhatu. Peshee or muscle bellies are abundant with mansa dhatu. Locomotion of various type is carried out through these muscle bellies. Vasa means fat contained in the muscle.
MEDA DHATU:--

Meda or fat is whitish yellowish soft lipid tissue in the body, found under the Skin, Small bones, in the omentum and around both kidneys.

It is formed in medodhara kala or medovaha srotas present in abdominal cavity; from the essence of Mansa Dhatu. Medo dhatuwagni and vyana vayu helps this transformation.

Oleation and lubrication are the chief functions of this tissue. It prevents wear and tear at the sight of movements or friction. When the body movements get restricted or if more and more oily, fatty substances are consumed, fat starts accumulating in body and around abdominal in the omentum and under abdominal skin around buttocks and breasts.

Meda dhatu is Guru (heavy), sthoola (large volume) Pichila (sticky) Mrudu (soft) and sandra (viscid).
**ASTHI DHATU:**

It has been observed that only hard and rough substances cannot help in proper formation of bony tissue. When some oleating substances are mixed or given along with hard and rough substances, then only bone tissue is properly formed. Hence according to Ayurveda Asthi dhatu is formed from the essence of medadhatu in Asthi dhara kala or Asthivaha strotasas. Dalhana in his commentary on Sushruta has explained the similarity between Asthidhara kala and purishadhara kala. Purishadhara kala is present in large intestine, and the function of this srotas is to absorb the excess water from the faeces and make it dry and solid.

In Asthidhara kala essence of medha dhatu is digested with the help of Asthi Dhatwagni; vayan vayu absorbs liquid portion, and ultimately hard and rough Asthi dhatu is formed. Hence asthi is predominant in Prithvi, Tejas and Vayu Mahaboota.

Asthi gives shape to the body. It protects vital organs and gives strengths to the body.
**MAJJA DHADU:**

Meaning of majja is tissue immersed deep (into bony cavity) major nerve tissue is found in bony cavity of skull or vertebral column, the rest tissue is like elongated thread structure which carries vata dosha (impulse) to the brain and from the brain to various organs.

Majja dhatu is formed from the essence of Asthidhatu in majjadahara kala which is found in the inner lining of bony cavities. Majja dhatwagni and Vyana vayu plays an important role in this conversion.

Intelligence is the chief function of this tissue. As pitta dosha is also responsible for these functions, it is said that there is close relation between pittadhara kala and majjadahara kala for all body movements, various enzymes secretions proper relation between mansa dhatu and majja dhatu is essential.
SHUKRA DHATU :-

This reproductive tissue is the compact most tissue in the body. It is the essence of all dhatus. Formation of reproductive seed, strength and desire of intercourse are the general functions of this dhatus. Testicles or ovaries are the seats of production of the seeds.

Essence of majja dhatu gets converted into shukra dhatu in shkruavah srotasas for the manifestation of shukra dhatu in male person many physiological factors connected to majja dhatu are essential. Shukra dhatu is present in all cells of the body from childhood, but at the time of puberty it gets manifested in testicles.
CHAPTER NO.7

RISK OF "STHAULYA"
Prameha, Medadikya, Raktavaha-strotas vikurti and certain disease of the Digestive system are the risks associated with sthaulya. A direct causal effect relationship has not been always possible, and it is from the mortality data that such interferences are substantiated. Systemic complications in association with sthaulya are tabulated as follows:

1. **RAKTA VAH SHROTAS** -- (Cardiovascular system)
   - HRUDAROGA (Hypertension, Coronary artery disease generalised atherosclerosis and congestive cardiac failure).

2. **PRANVAH SHROTASAS** -- (Respiratory system)
   - Aleolar hypoventilation, leading to hypercapnoea, hypoxaemia and secondary polycythaemia (cardiorespiratory failure).

3. **ANTASRAVI GRANTHI** -- (Endocrine metabolic)
   - Diabetic mellitus, ammenorrea, hirsutism hypometabolic state, hyperlipidemia and gout.

4. **ANNAVAH SHROTAS** -- (Gastro-intestinal tract)
   - Hiatus hernia, cholethiasis, and pancreatitis.

5. **MANS ASTHIGAT SROTAS** -- (Musculoskeletal)
   - Osteoarthritis, especially of knees and hips.
(6) **Miscellaneous--**

Varicosity of veins, venous thrombosis delayed wound healings.

(7) **Skin--**

Intertrogo, fungal infections.

The pathophysiologic consequences of obesity lead to variety of clinical manifestations and aggravate or predisposes to a number of common diseases for many of these diseases obese individuals have higher death rates than their thin counterparts affected by the same disorder.

**RAKTAVAH SROTAS -- (Cardiovascular system)**

Every major organ system appears to be involved in the cardiovascular system, sthauyla is associated with four major the risk factors for atherosclers i.e. hypertension diabetes hypercholesterolemia hypertriglyceridemia therefore it is not surprising that obese individuals have more atherosclerotic manifestations. Particularly angina pectoris, and are more prone to sudden death.

There is a close correlation between blood pressure levels and obesity in most population. A large portion of the increased death rate of moderate or markedly obese individuals may be a direct or indirect consequence of hypertension.

**PRANAVAH SROTAS -- (Respiratory systems)**

In the respiratory system, alveolar hypoventilation associated with massive obesity eventually leads to carbon dioxide retention (PCO=values
consistently above 48 mmHg) daytime somnolence, chronic fatigue, dyspnoea and personality changes. The syndrome is initiated by the increased work of respiration necessary to move the ponderous thoracic wall and abdomen and is associated with decreased compliance of the thorax - Hypoxia, secondary polysytemia, pulmonary hypertention and eventually or palmonale with cardiopulmonary failure ensue.

ANTASRAVI GRANTHI -- (Endocrine glands)

Sthaulya is the single important factor associated with the emergence of diabetes mellitus in populations throughout the world.

Women who are obese tend to have irregular menses and increased morbidity associated with pregnancy and again after toxamia of pregnancy and hypertention is increased obstetric risk is higher due to longer duration of labour, large babies, more cesariansections, and higher anaesthetic risk. Later in life, there are more uterine fibroids and an increased risk of development of endometrial cancer directly related to the degree of obesity. The larger adipose mass is associated with increased estrogen storage and increased conversion of adrenal androgens to estrone, which may result in increased chronic hormonal stimulation of the uterus.
ANNAVAH SROTAS -- (Gastro -- Intestinal tract)

Gastrointestinal symptoms are frequent in the obese and are usually non-specific (bloating, dyspepsia) Diaphragmatic hernias may become symptomatic fatty liver is common with associated abnormalities of liver function being detectable in as many 85 percent of obese patients.

MANS -- ASTHIGAT SROTAS -- (muscul--skeletal)

The incidence of several types of arthritis is increased among the obese. In populations uric acid levels are directly related to the degree of overweight, and the prevalence of gouty arthritis is increased in obesity. Gouty arthritis may also be precipitated during treatment of obesity with carbohydrate deficient (ketonic) fad diets. Presumably related to the hyperuricemia resulting from the competition between ketone acid and uric acid for renal excretion. Osteoarthritis is also more common and severe, particularly in the spine and other joints that bear the brunt of excess weight bearing.

In addition to the arterial lesions of atherosclerosis varicose veins are common, as is venous stasis and edema. This contributes to the increased post operative morbidity cause by thrombophlebitis and pulmonary embolism in sthaulya.

SKIN DISORDER:--

Flabby and redundant skin associated with excessive substanceous fat produces moist folds, resulting in propensity to fungul and yeast skin lesions.

(intertriginous dermatitis, particularly in the axillae, in the perineal region and under the breasts.)
STHAULYA AND MORTALITY:--

Overall mortality rates are higher in untreated moderate or severe obesity beyond about 30 percent over weight unfortunately successful weight reduction over the long term is difficult to achieve. The prognosis for treatment of obesity appears to vary with the clinical type. Lifelong obesity (hyperplastic) is frustrating to treat and lead to grief on the part of both, physician and patient. In view of poor results after longterm follow up of variety of dietary weight reduction schemes this form of obesity may be virtually irreversible.

According to Ayurveda, in sthauyla the process of ageing gets accelerated and life span shortens. It is because of malformation or derangement in metabolic process of Dhatus. Due to virtues of meda (adipose tissue) there is hinderance in the metabolic transformations of dhatu because of guru picchil gunas of meda.
DISEASES ASSOCIATED WITH OBESITY:

- Cardiovascular disease.
- Athrosclerotic.
- Hypertensive.
- Cor--pulmonale.
- Hypertention.
- Pulmonary disease.
- Diabetes Mellitus, adult onset.
- Fatty Liver.
- Cholelithiasis and Cholecystits.
- Arthritis.
- Oseoarthritis.
- Gout.
- Vericose Veins and Thromboembolism.
- Intertriginous dermatitis.
- Hernias Ventral.
- Diaphragmatic.
- Endometrial Carcinoma.
- Toxaemia of pregnancy.
- Amenorrhoea and
- Oligomenorrhoea.
CHAPTER NO. 8

UPDRAV OF “STHAULYA”
According to Ayurveda, following conditions are described in the sequelle of Sthaulya.

(1) Prone to Diabetes.

(2) Fistula.

(3) Lipoma.

(4) Vata Roga e.g. Joint pains, Hemiplegia etc...

(5) Heart disease --- Leading to hypertension.

(6) Hyperhidrosis.
CHAPTER NO. 9

PATHYAPTHYA VICHAR
(Do's AND DON'T)
Whatever the ultimate cause of Sthaulya in the individual case the immediate cause (ATYASHANA) energy imbalance, and weight reduction can be achieved only by reducing energy intake or by increasing output or by combination of the two.

This involves change in the individual's way of life thus treatment is difficult and patient needs motivation. Rewards must be seen a head and Psychological understanding and behavioural advice are essential weapons.

It is most important for success that patients should be educated and informed about their disorder and misconception corrected. There are no ‘Slimming Foods’ or ‘Slimming Tablets’ which do not depend on a reduced energy intake.

Long term results are best where patients are well motivated and educated. Follow structured diets designed to provide 800 to 1600 Kcal daily and are being seen and weighed regularly every 1 to 2 weeks. Initially, by the same person.

The number of patients requiring supervision is so great, the need for support is so prolonged and the success of same lay organisation such as “Weight Watchers” compares so favourably with conventional medical methods.

However supervision is arranged, it is most important for success that sthaulya patients should be given precise instruction as to how they should recognize their dietary and other habits; a target weight to aim for and an indication of the rate of weight loss expected.

Among the important lessons to be learned by obese people is the need
to manage the disorder themselves, unlike many conditions for which patients seek help, success does not depend upon operations, drugs, injections or other manipulations under taken by the therapist but rather on the ability of the pts. to accept advice, to act upon it, and to persist indefinitely with some restriction on dietary freedom.

Physicians role is to provide and continuing support. Many doctors find obese people unattractive, have difficulty in sympathising with their problems, and fail to establish satisfactory report with them. Such attitudes contribute to the frequent lack of success in treatments.

PATHYA (DOS) :

means food, exercise, behaviour that is advisable.

Food :-

obese person should use special quality of rice, that gets matured in sixty days. This rice shuld be stored for 6 months and then should be used. Also he can use barly, green gram (moog). Red lentil, horse gram, beans etc. He can eat breat and chappati prepared from pennisatus typhoides (Bajari) and barly honey.

As far as possible, he should drink only tepid or hot water which is not aevated.

For cooking food, seasame oil or oil of mustard should be used, with proper use of black pepper rock salt and ginger.

Total fasting for two days a week or partial fasting and drinking fruit juice, tepid water and honey or eating crop flokes is ideal for severe obese.
Vegetables having slightly astringent, bitter and pungent tastes should be used.

**APATARPAYA :-**

To reduce the weight of sthauyla it is necessary to give him Apatarpankari Dravaya. (i.e. the diet for digestion in properties of “GURU GUNAS” as well as it should not develop the growth of SHARIRIK DHATU. We can say in brief. Low Calorie Diet.

To use in the form of PADARTHAS like as Vatnashak, Kafnashak and Medonashak.

**ROLE OF HONEY :**

In Ayurveda drugs is old it is good for to use. Here when honey becomes old, after six months storage, it changes its potency into hot and becomes beneficial for “LEKHAN” action. Obese should take 2 tsf honey with tepid water every day in the morning regularly also use the curd in diet.

**Exercise :-**

Regular exercise like walking, horse riding, swimming, is very essential. Without regular exercise it is quite impossible to control obesity. Yogic exercise with Surya Namaskara is very helpful.

**Behaviour :-**

Sthauyla person should engage himself in work with constant activities through the day.
APATHYA (DON'TS)

Means food, exercise, drinks, etc. that is not advisable.

Food :-

He should not consume recently matured food like rice, **avoid wheat**. milk, sweets, cold drinks, ice creams and salty substances.

Non vegetarian food containing much fat should be avoided **totally**.

Drinks :-

Drinking beer and eating food frequently enriched with cheese, butter, oily substances should be strictly avoided. He should not drink cold water after food. To avoid Diwaswap, and increase by gradually Vyavay and Vyayam.

Behaviour :-

Too much rest, sleeping during day time, specially after taking lunch should be avoided. Applying oils to the skin before bath, bath with cold water should be avoided.
**SHOWING DIET CHART CONTAINING**

Approx. (1200 Kcal / day)

<table>
<thead>
<tr>
<th>Sr.No.</th>
<th>Time</th>
<th>Food Taken</th>
</tr>
</thead>
<tbody>
<tr>
<td>01.</td>
<td>Early in Morning</td>
<td>One glass water mixed with juice of one Lemon.</td>
</tr>
<tr>
<td>02.</td>
<td>Morning Break fast</td>
<td>Only once substance out of five described below:</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1) One cup of Milk, tea or coffee without sugar,</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2) Any small size fruit,</td>
</tr>
<tr>
<td></td>
<td></td>
<td>3) One slice of bread,</td>
</tr>
<tr>
<td></td>
<td></td>
<td>4) One egg,</td>
</tr>
<tr>
<td></td>
<td></td>
<td>5) 2-3 Tomatoes, Kakadi (Cucumber) or carrots,</td>
</tr>
<tr>
<td>03.</td>
<td>In the afternoon Meal</td>
<td>1) Before the meals one cup of soup of boiled vegetable should be taken,</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2) 2 - 3 cucumbers or 4 -5 tomatoes,</td>
</tr>
<tr>
<td></td>
<td></td>
<td>3) One ounce (30 gms) vegetable,</td>
</tr>
<tr>
<td></td>
<td></td>
<td>4) 2 small sized chapatis or 2 slices of the bread,</td>
</tr>
<tr>
<td></td>
<td></td>
<td>5) 25 gms of Usal of any Kad-dhanya like Moog (green nut) Ghewada, etc.</td>
</tr>
<tr>
<td>4)</td>
<td>In the evening.</td>
<td>As in Morning breakfast.</td>
</tr>
<tr>
<td>5)</td>
<td>Before bed.</td>
<td>As in the afternoon meal. Rice can be taken instead of chapati or bread slice.</td>
</tr>
</tbody>
</table>
CHAPTER NO.10

“STHAULYA” CHIKITSA
It is difficult to treat sthaulya i.e. medoroga because of to look after the Vatprakopa. Sthaulya has to give Vatnashak diet but it is not Abhishandi and we have to use Ruksha and Guru Drayas i.e. Yav, Kulitha, Truradhanya Vari, Nachani, Bajari etc.

We will have continuous observe Vatprakopa while we can treat the Kapha and Medohar chikista. A possibility may concern of increase in kapha and Medovikruti using of Bruhanckikista for Vatshamanas. Here I am use Triphala Guggulu alongwith appropriate diet and pathyas.

" Guruchaptarpunam Chasan.........."

---- Cha. Sutra 21-20

In sthaulya chikitsa use Guru but Apatarpankari drayas i.e. Honey is a Guru properties of drayva it should not done the Agnidipuna as well as it is a Aputarpunkari it acts as Medodhatu Lekhanas Karma.

In day to day life of Sthaulya luke warm water is important or to use Tiktha katu Ras Sankarit by Jala. Prepare the sidha foods and Peya, Mandu, Vilepi using the Pimpli. Jirak as a prakshepak Dravyas.
MEDOROGA CHIKITSA

Chikitsa for Ama
- Deepan
- Pachan
- Both

Chikitsa for Dhatwagni
- Shilajit
- Guggul

Chikitsa of vitiated Doshas

Chikitsa of vitiated Vat dosha
- Oleation
- Sudation
- Basti
- Anuvasan
- Niruh
- Whole body Sauna

Chikitsa of vitiated Kapha dosha
- Udgharshan
- Shamman
- Lekhan
- Deepan
- Pachan

Chikitsa of vitiated Pitta dosha
- Sudation
- Basti
- Anuvasan
- Niruh
- Whole body Sauna

Chikitsa of vitiated Kapha dosha
- Udgharshan
- Shamman
- Lekhan
- Deepan
- Pachan
AYURVEDIC VIEW POINT:

Charak samhita described sthāulya as a disease of Medo dhatu and has given entirely a natural, rational and wholistic approach for its management. The treatment plan of medoroga includes of three factors.

(1) **Vitiation of Doshas:**

   (a) Vitiation of Vata Doshas.

   (b) Vitiation of Kapha Doshas.

(2) **Formation of Ama**

(3) **Medo—Dhatwagni Mandya:**

Aim of the treatment is to treat each Pathogenic factor, so that complete irreversible cure can be achieved. Hence the treatment plan is of 3 phases. According to Ayurveda sthāulya is difficult to treat.

Treatment of Vitiation of Doshas:

(a) **Vitiation of Vata Doshas:**

In Sthāulya, due to obstruction by Ama in Medovaha Srotas, Vitiation of Vata takes place, the strength of the patient is good then first Purificatory procedure of Vata like Niruha Basti should be carried out; after this the patient is subjected to little oleation and then sudation.
Oleation:--

This means making the body unctous by oleating substances. This is done by external and internal methods.

In obesity, both these procedures are used just to achieve minimum oleation. External oleation can be done with oils containing Vacha (Acorus calamus).

Sudation:--

Means sweating by applying heat to the body. This can be achieved by two methods.

(i) External Sudation.

(ii) Internal Sudation.

In obesity, external sudation can be done by various methods.

SARWANGA BASHPA SWEDA – Whole body sudation.

In this method patient is asked to lie down in a wooden chamber in such a way that his neck and head portion remains out side this chamber. In this chamber there is perforated wooden bed, on which patient is asked to sleep below this perforated bed, herbal decoction of herbs like Nirugudi (Vietex hegundo) are kept in constantly boiling condition. The stem coming out of this herbal decoction is used for sudation.
Sauna Bath:

Ideally sudation of hot and dry air is better than sudation with steam. Hence in intractable cases of obesity patient is subjected to hot and dry air sudation method.

In Western Countries this is very popular method of sudation but according to Ayurveda, it is not advisable to take cold water bath.

If the patient is not suitable for purificatory procedures, then Vata alleviation should be done with the Lekhana (scraping out and mobolising adipose tissue) medicines should be given. Guggulu (resin of comphora mukul) and shilajit (Asphalt) are the drug of choice for this. Triphala Guggulu (Three myrobalans with equal quantity of Guggulu) in the does of 3 to 5 gms. a day should be given.

(b) VITIATION OF KAPHA:

In obesity, Excessive accumulation of abnormal Medo dhatu formed. Triphala Guggulu of Rasa—Shala, Pune also acts on as a Lekhan drugs on vitiated Kapha dosha.

For alleviation of Kapha, external massage with powders of Agra (Aquilavia agallocha), Vach (Acorus calamus) should be done. This type of massage with dry powders of herbs having ushna qualities is called as “Udgharshana”. These substances help to remove the excess of medo dhatu.
(2) **TREATMENT OF AMA:**

Ama is undigested and toxic substances in the body. It can be undigested food for any other undigested metabolite.

Treatment of Ama is done by two methods:

(i) Administering drugs which destroy Ama called “Amapachak drugs”.

(ii) To increase the conversion powder of Agni by giving “Deepan” drugs.

**PACHAN DRAVYAS (Substances)**

Are predominant with vata and Agni Panch Mahabootas. These substances digest the raw, unripe food, particles but they do not stimulate the Agni of stomach (Jatharagni) Examples of such pachan dravyas are Nagkesher (mesua fera) Musta (cyperus rotundus) shunthi (Gingiber officinale) etc...

**DEEPAN DRAVYAS (Substances)**

Are predominant with Agni, one of the pachmahabootas, which stimulate the agni of stomach, but do not digest the Ama. These are Pimpli (Piper nigrum) Pimpal mool (Piper longum), Chitrak (Plumbago Zeylanica) etc..

Ampachak drugs live Guduchi (Tinospora cordifolia) Haridra (curcuma longa), musta (cyperus rotundus) Three myrubalans (Triphala) Daruharidra (Berberis aristata) are commonly used. Ginger (Gingiber officinalis) Piper longum and piper nigrum are very potent pachana and Deepan drugs, are given in a dose of 250 mg. three times a day in obesity.
(3) Treatment of Dhatwagni:

In sthauya although Jathargni is in proper condition, Dhatwagni of medovaha srotas gets impaired to power of conversion of meda dhatu (fat) becomes very low. Hence production of abnormal fat stars. The aim of the treatment therefore, is to increase the power of Medo Dhatwagni, by giving drugs like Navak Guggulu (combination of Triphala — Trikatu and Guggulu). The drugs should be given in a dose of 500 mgm 4 times a day.

Shilajit (Asphalt) should be given with combination of lekhan drugs like Ativisha (Aconitum heterophyllum), Kutki (Picrorrhiza Kurra) etc., Shilajit and Guggulu have duel action of lekhan and increasing poweder of Meda dhatwagni. These if given in combination, show synergism.
GENERIC DRUGS FOR STHAULYA:

(1) Arogya Vardhini.
(2) Chandraprabha Vati.
(3) Punarnava Guggulu.
(4) Vadvagni Rasa.
(5) Trimurti Rasa.
(6) Haritaki Guggulu.
(7) Punarnava Guggulu.

LEKHAN – HERBS FOR STHAULYA:

(1) Haridra -- Curcuma longa.
(2) Karanj -- Pongamia Clabra.
(3) Chitrak -- Plumbago Zeylanica.
(4) Kutki -- Picrorrhiza Kurvoa.
(5) Ativisha -- Aconitum netero phyllum.
(6) Vacha -- Acrus calamus.
(7) Kostha -- Saussavea lappa.
(8) Nagarmotha -- Cyperus rotundus.
(9) Daruhavidhra -- Berberis aristata.

These “Lekhaniya drayas” substances are predominant in Vaya and Teja (Panch Mahabootas) they offer lightness to the body. They possess the quality to act on Meda and Ama also.
Other than Lekhania—group, many herbs acts on Meda are mentioned to be effective in the treatment of Sthaulya. They are

<table>
<thead>
<tr>
<th>No.</th>
<th>Herb</th>
<th>Plant Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Gugullu</td>
<td>Commiphera mukul.</td>
</tr>
<tr>
<td>2</td>
<td>Arjun</td>
<td>Terminalia arjuna.</td>
</tr>
<tr>
<td>3</td>
<td>Khadhir</td>
<td>Acacia Katechu.</td>
</tr>
<tr>
<td>4</td>
<td>Karpur</td>
<td>Cinnamomum Comdhora.</td>
</tr>
<tr>
<td>5</td>
<td>Nimba</td>
<td>Azadirachta Indica.</td>
</tr>
<tr>
<td>6</td>
<td>Rohitak</td>
<td>Tecomeolla undulata.</td>
</tr>
<tr>
<td>7</td>
<td>Apamarga</td>
<td>Achiyranthus as peru.</td>
</tr>
<tr>
<td>8</td>
<td>Brahmi</td>
<td>Herpestis mormiera.</td>
</tr>
<tr>
<td>9</td>
<td>Madukpurni</td>
<td>Hydrocotye aciata.</td>
</tr>
<tr>
<td>10</td>
<td>Amalaki</td>
<td>Phyllanthus emblica.</td>
</tr>
<tr>
<td>11</td>
<td>Shigru</td>
<td>Moringa Concanensis.</td>
</tr>
<tr>
<td>12</td>
<td>Kantakari</td>
<td>Solanum Xanthocarpum.</td>
</tr>
<tr>
<td>13</td>
<td>Kumbha</td>
<td>Carea arbirea.</td>
</tr>
</tbody>
</table>

**PREVENTIVE ASPECTS:**

1. Apunavbhav Chikitsa.
(2) Rasayan Chikitsa.

With these both lines no meda is allowed to form in excess and accumulate in the body and all seven dhatu are formed in properly balanced condition with the help of "RASAYANA" dravyas as and sthaulya may be prevented.

With the plan of treatment of sthaulya mentioned above, one should appreciate the crystal clear concept of aetiology of Medoroga of Ayurveda and the wholistic approach of Line of treatment.
CHAPTER NO.11

THE MANAGEMENT OF "STHAULYA"
Sthaulya can be treated by reduction of Caloric intake or increase of caloric expenditure or both. In special circumstances, particularly as applied to lifelong obesity, surgical techniques to decrease gastrointestinal absorption of food and to decrease fat storage capacity by resection of large amount of tissues have been used. Weight loss can be achieved by caloric restriction regardless of the nature of the diet the amount of weight loss depends largely on the degree of negative energy balance that is attained.

In the management of sthaulya chiefly the consideration of following points complete the span of treatment.

I) Diet.

II) Exercise.

III) Drugs.

IV) Surgery.

V) Behavioural therapy.

VI) Prevention.

According to severity of Sthaulya and individual variations, permutations and combinations of the above Points are done in the treatment of Sthaulya.
I) DIET:--

Although there have been many suggestions that the macronutrient composition of the calorically restricted diet is important for successful weight reduction. There is no final evidence that a calorie is anything more or less than a calorie, regardless of the food source from which it is derived, despite the popularity of many calorically unbalanced (fad) diets. The rate of weight loss on low calorie diets high in protein is the same as the rate on diets high in fat or high in carbohydrate. Previous observations that indicated less rapid weight loss with high carbohydrate low calorie diets have been attributed to short term treatment in which changes in salt and water balance obscure changes in weight. 

It is apparent that an obese individual has a marked propensity to retain sodium during weight reduction and that this tendency is transiently exaggerated by carbohydrate in the diet. Carbohydrate depleted ("ketogenic") diets increase weight loss solely by affecting water excretion and their long term use associated with mild ketosis and acidosis may cause decreased bone mineralization and amenorrhea. Meal frequency may play a role in the degree of success frequent feedings may be more likely to prompt weight loss than less frequent consumption of large loads which may lead to abnormal eating patterns such as the night eating syndrome.

Total starvation has been promoted as a rapid route to achieve or start weight loss. However, the additional metabolic and other consequences of prolonged total starvation, such as unexplained anaemia, body potassium depletion, hyperuricemia, gout, ketosis, lactic acidosis, liver function abnormalities, arrhythmias, hypotension and rarely sudden death have limited the utility of this form of treatment. Furthermore, it has been shown that the additional weight loss achieved by total starvation or carbohydrate deprived diets over that achieved by a 600 to 800 mixed calorie diet as achieved by a selective
loss in lean body mass rather than by additional loss of fat mass.

In principle, it is clear that the aim of weight reduction diet should be to keep normal body composition as well as to attain normal weight. There is no evidence to support the superiority of any form of low calorie diet over that of any other. Thus a practical dietary recommendation for long term Management of obesity would be 15 to 20 cal. per kilogram of ideal body weight, containing 20 percent protein, 45 percent carbohydrate and 35 percent fat calories. Substitution of one or more meals each day by fixed composition liquid formulas appear to have contributed to successful initiation of weight loss in many individuals. However, unbalanced formulations such as the high protein, "protein sparing" formula, appear to be associated with the same untoward consequences as seen with total starvation and other carbohydrate - deprived regimens and the use of liquid protein hydrolysates to supplements total fasting has been associated with increased mortality.

REVIEW OF FEW POPULAR DIETS :-

Individuals in American Society are obsessed about their weight. Many popular fat diets meet the criteria of being dramatically different. Recent innovations are the Pritikin Longevity Programme, the Cambridge diet, the scardsdile diet, the last chance diet and latest promotion starch Blockers.

CAMBRIDGE DIET :-

The powdered formula, for the first three weeks an individuals consumes, only formula, one cup per meal, which daily provides 330 calories and 33 of high quality of protein. After three weeks, a maintenance diet is
followed for one week consisting of one meal per day and two servings of formula. Instructions are given that the formula diet is intended to be temporary.

The problem with this and other formula diets is that it does not educate the individual in good and poor eating habits. Followers of the programme will never learn what food habits caused the weight problem and how to change them.

LAST CHANCE DIET :-

A prime example of dangerous formula diets was the last chance diet which source of calories.

PRITIKIN MAXIMUM WEIGHT LOSS DIET :-

Specially developed to help patients with heart disease, diabetes, hypertension and gout. This MWLD outlines two calorie levels 600 calories and 1000 calories. The diets contain approximately 80% complex carbohydrate calories 10% protein and 10% fat. Exercise, an important component of any weight reduction regimen, is an integral part of the Pritikin programme.

THE SCARSDALE DIET :-

The scarsdale medical 14 day diet appeared in 1978 and is still popular. Essentially this diet is another type of the high protein, low carbohydrate diets that continually reappear in revised versions. The diet contains 43% protein compared to 12% recommended by various health professionals 22.5% fat and 34.5% carbohydrates and total 1000 calories per day.
STARCH BLOCKERS :-

Because so many popular fad diets discourage carbohydrate consumption. The American public has misconceptions about this nutrient, considering it high calorie. When starch Blockers were introduced in 1982, the dieting public was ecstatic. Over 200 manufacturers aggressively marketed starch Blockers as the answer to the dieter's prayers. Because it contained an enzyme from kidney beans which purportedly prevents digestion and absorption of starch, advertisements announced that individuals could eat ad libitum of pasta, bread, pizza, etc. and not gain weight. However, numerous side effects were noted with the pill such as nausea, vomiting, abdominal cramps and diarrhea. Hospitalisation was required in several cases.

In the fall of 1982, the food and drug Administrations banned the sale of starch blockers until further studies could be performed. This is another example of a gimmick and like all gimmicks, it will go away. This is true of most fad diets, eventually they fade away.

Ultimately, everyone has to learn that patience is important for weight loss.

To summarise the planning scheme of nutritional management can be charted out as follows.
NUTRITIONAL MANAGEMENT PLANNING SCHEME :

I) Assessment.

A. Food intake analysis and nutritional assessment.

B. Height/weight body consumption

II) Problem identification:

A. Identify and rank problem areas of the diet as evidenced in the nutritional assessment.

B. Nutritional basics:

1. Introduce the exchange system.

2. Define terms: calories, energy, carbohydrate, protein, fat.

III) Dietary structure:

A. Goal setting: long and short term goals and objectives

B. Meal pattern development.

IV) Dietary revisions:

A. Evaluate goals and revise plan as necessary.

B. Nutrition basics II: Integration of nutrition research and clinical management.
1. Metabolic rate:
   a) Effective caloric restriction.
   b) Effective exercise.

2. Dietary factors.
   a) One versus three or more meals per day.
   b) Percentage of kilocalories as carbohydrate, protein, fat.

V. Calorie costing:
   The exchange equivalent of recipes and convenience foods.

VI. Menu planning.

VII. Dining out.

VIII. Incorporating fast foods into the exchange system.

IX. Brown-bagging it.

X. Entertaining for the health of it.

XI. Recipe adjustment and calorie reduction.
II) EXERCISE :-

Recently, exercise has been proposed as a viable alternative or adjunct to the dietary treatment of sthauila. The shift in attention has resulted primarily from two lines of experimental evidence. Studies evaluating the efficiency of dietary intervention on weight reduction have generally shown minimal results with poor long-term compliance. Some research suggests that physiologic mechanisms (i.e. the body's adaptive lowering of the basal metabolic rate during food deprivation may counteract the effect of dieting.

With the popularity of exercise increasing, obese individuals are oftentimes confronted with exercise myths and misconceptions, along with gadgets and gimmicks that are promoted as 'miracle agents' to assist in weight reduction. Although some of these are beneficial and effective may have no practical value.

EFFORTLESS WEIGHT REDUCTION :-

MECHANICAL VIBRATORS

The investigators concluded that the vibrator is not to be taken seriously as a device to assist in fat reduction or shifting of fat deposits within the body.

PASSIVE EXERCISE DEVICES :-

These are also not hopeful in weight reduction the advertisers promote them as an easy way to improve your figure.
WEIGHT REDUCING CLOTHING :-

Special weight reducing clothing, including heated belts, rubberised suits and oilskins are semipermeable or impermeable to sweat and rely chiefly on dehydration, localised pressure or tissue compression. Although circumference measures or scale weight may temporarily decrease, these losses are unrelated to reductions in body fat.

SPOT REDUCTION :-

The concept of 'spot reduction' is based on the widely held belief that it is possible to selectively 'burn off' fat from a particular part of the body by exercising that body area. But it has been proved recently, that no significant difference in the effect of spot and generalised exercise on fat reduction is observed.

CELLULITE CURES :-

Cellulite is the term used to describe a unique and unsightly type of fatty tissue, causing and overlying type of fatty tissue, causing an overlying skin to appear dimpled like an orange peel. It is believed to be different from normal fat in that if squeezed, the pinched tissue produces lumps and bulges. Proponents claim that trapped fat in the connective tissue, a major layer of the skin, is responsible for this distortion.

Although it is true vigorous exercise and caloric restriction will cause a general reduction in body fat stores, including localized fat deposits, there is no conclusive scientific evidence that high protein diets, sauna, massage, special skin creams, body wrappings or pseudo-elastic devices will break-up or reduce cellulite deposits.
Thus to summarise the role of exercise in obesity, exercise does appear to result in a significant decrease in the percentage of body fat, with a proportional increase in the lean body mass. Exercise alone however, does not appear to be an effective means of weight reduction, since the caloric equivalent of most activities is easily nullified by small amounts of food intake.

III) DRUGS:

Appetite suppressants (usually amphetamine derivatives) are of limited utility because their effect is transient and rarely leads to more than a 10 percent weight reduction. In as much as the treatment of obesity is life long, such drugs have no demonstrable role in the long term management of obesity. However, since neural regulations of adipose mass appear likely, future development of drugs altering such mechanisms hold promise.

Thyroid hormone has been widely used to increase oxygen consumption of obese patients regardless of whether they suffer from hypothyroidism or ‘hypometabolism’ studies of body composition have shown that the accelerated weight loss from superimposition of thyroid exact on a low calorie diet is due to a differential loss of lean body mass rather than to loss of fat tissue. Numerous other medications have been promoted for ability to achieve weight loss in obese individuals. Evaluation of these becomes a problem, because the routine frequent physician visits, weight measurement, emotional support, medication and diet itself promotes weight loss and it is difficult to ascribe success to a particular medication. Furthermore, weight loss many result predominately from loss of fluid, as with the widely dispensed diuretics, rather loss of adipose mass.
IV) **SURGERY:**

**Intestinal bypass operation:**

Jejunoileal shunt offers bypass of a large part of the intestinal tract and the weight loss is due to ensuing malabsorption. The criteria for selection of the surgical procedure have to be strict, and other risk factors should be duly considered, possibilities of subsequent nutritional deficiencies and serious liver damage should be born in mind.

**Cosmetic plastic surgery:**

In it layers of fat are removed by performing an operation on those parts of body where the fat has accumulated (i.e. hips, thighs, breasts, abdomen)

**Lipectomy and Liposuction:**

Lipectomy means excision of excessive fat accumulated on different parts of body like things buttocks etc.

Liposuction means aspiration of fat in semisolid conditions from body viz. abdominal fat.

**Jaw wiring:**

Wiring the jaws closed, is a method of reducing food intake through physical control rather than through a change in eating or activity habits the result is that the person can no longer eat solid food but can take liquids through a straw.
Intragastric Balloon:

This is another method of reducing food intake by filling the stomach with inflating the balloon. The mechanical method of this type is not promising at all.

V) BEHAVIOURAL THERAPY:

Since there are differences in the feeding behaviour of obese and thin individuals, the newer method of behavioural control have been applied to overeating. Short term success in small groups of patients has been reported, and this approach to have promise, particularly as an adjust to the other forms of therapy.

Caloris restriction and diet plans focus only on the desired outcome of eating behaviour, that is reduced energy intake. The individuals is told what to eat, how much to eat and perhaps when to eat but never why to eat. He or she goes home with the diet, tries it for a while and then reverts to old eating habits because the basic eating behaviour was not changed. The person feels guilty because of failures with the diet, which generates still another Psychological influence on eating that usually leads to regaining of any lost weight. Through Behaviour modification Techniques, the over weight person gains insight of the factor that influence his or her eating behaviour and learns methods for controlling the factors or the eating response to them, so that the end result is new eating habits, weight loss and maintenance of the lower weight.
The following behaviour modification techniques have been applied in obesity therapy.

(1) **AVERSIVE CONTROL:**

A real or imagined aversive stimulus such as nausea is associated with a favourite food or eating behaviour.

(2) **CONTINGENCY MANAGEMENT:**

A positive or negative consequence is attached to desirable or undesirable eating behaviour, depending upon the need of the client. For example, paying a nickel every time one eats a piece of cake is a form of contingency management.

(3) **ENVIRONMENTAL MANAGEMENT:**

Changes are made in the environment by the client to aid in or reinforce positive eating behaviours.

(4) **SELF MONITORING:**

The food record includes:

(1) Time of eating.

(2) Place of eating.

(3) Physical position during eating.

(4) Presence of others.

(5) Activity associated with eating.
(6) Mood or emotional state at the time of eating.

(7) Degree of hunger just before eating.

(8) Type and amount of food eaten.

These are only some of the methods that can be used when beginning to control eating behaviour. The techniques used should be individualised depending upon the type of eating behaviours that need to be changed. Behavioural change should be approached in a step-wise fashion.

Changing any behaviour, especially eating behaviour, is neither easy nor rapid. While learning new behaviours and changing old ones, people need constant reinforcement and positive feedback. In the beginning, much of this comes from self observation in the form of daily records that show control over eating behaviour. Later, reinforcement will come from comments by others about weight loss or from the Development of a more pleasing body image.
PREVENTION:--

As with hypertension, most obesity is 'essential' because definable, preventable, and treatable causes rarely can be identified. However, focus on the most refractory form of obesity, hyperplastic or juvenile onset, should produce additional insights leading to more effective prevention. It is premature to suggest to physicians who struggle ineffectively with grossly obese patients that the breakthrough is here at last; if only the excessive replication of fat cells during some critical period in infancy could be prevented, adult obesity must be prevented in childhood if there is to be an impact on obesity in the adult.

Taking into account the hazards and disadvantages associated with obesity the old adage “Prevention is better than cure” holds true with obesity too.

PROGNOSIS:--

It is easy for an obese person to lose up to 5 Kgs. in weight, with the help of numerous popular “Slimming cures”. How difficult it is to achieve further losses is not generally realised. Experience in many clinics has shown also that it is difficult for patients to maintain their reduced weight. The reasons for these poor results are not clear, but must be related to failure of motivation in the patient, and to the inadequacies of the methods at present available for the control of obesity.
CHAPTER NO.12

TRIPHA GUGGULU OF RAS-SHALA, PUNE.
TRIPHALA GUGGULU OF RAS-SHALA, PUNE.

AYURVEDIC MEDICINES:--

Composition of the formulation are detailed in tables 1 and were obtained from the well-established company of Ayurved Ras shala of Pune which has a valid drug licence issued by the Government. The authoritically of each plant and mineral component was established by the Quality control Laboratory of the Company, is also certified by the Government. All tests of indentification were carried out by a qualified chemist approved by the food and drug Administrations.
### TABLE : 1

**COMPOSITION OF THE AYURVEDIC FORMULATIONS VIZ TRIPHALA GUGGULU**

<table>
<thead>
<tr>
<th>Local Name</th>
<th>Scientific Name</th>
<th>Plants parts</th>
<th>Weight per tablet (Mg)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hirda</td>
<td>Terminalia chebula Retz (Combretaceae)</td>
<td>Dried Fruits</td>
<td>27</td>
</tr>
<tr>
<td>Behda</td>
<td>Terminalia belerica (Combretaceae)</td>
<td>Dried Fruits</td>
<td>27</td>
</tr>
<tr>
<td>Amalaki</td>
<td>Emblica Officinalis (Euphrbjaeae)</td>
<td>Dried Fruits</td>
<td>27</td>
</tr>
<tr>
<td>Pippali</td>
<td>Piper longum Linn (Pipervaceae)</td>
<td>Dried Fruits</td>
<td>27</td>
</tr>
<tr>
<td>Guggulu</td>
<td>Commiphora mukul Hook ex. stock (Burseraceae)</td>
<td>Gum</td>
<td>138</td>
</tr>
</tbody>
</table>

In Ayurvedic samhita has described the sthaulya and their chikista. Charak sutra 21 & Vagbhatta sutra 14 and plenty of drugs for the treatment of sthaulya, but in my research study I have taken “The Effect of Triphala Guggulu on Sthaulya”.
Here I use the Triphala Guggulu of Ras-Shala, Pune.
Type of Dravyas -- Guti i.e. TABS.

250 Mg Guti contain the following component: --

**COMPOSITION:**

<table>
<thead>
<tr>
<th>Dravya</th>
<th>Ingredient</th>
<th>mg</th>
</tr>
</thead>
<tbody>
<tr>
<td>HARITAKI</td>
<td>Terminalia Chehula</td>
<td>27</td>
</tr>
<tr>
<td>BIBHITAK</td>
<td>Terminalia Belerica</td>
<td>27</td>
</tr>
<tr>
<td>AMALAKI</td>
<td>Phyllanthus Embiliea</td>
<td>27</td>
</tr>
<tr>
<td>PIPPALI</td>
<td>Piper Longum</td>
<td>27</td>
</tr>
<tr>
<td>GUGGULU</td>
<td>Commipnora Mukul</td>
<td>138</td>
</tr>
</tbody>
</table>

**DOSE:** --- 2 Tabs. T. D 5 x 6 Months.

(Two tablets thrice daily x 6 months)

**ANUPAN:** -- Luke warm water i.e. KOSHNA JAL.

The above combination of Triphala Guggulu of Rasa-Shala, Pune is select for the dose, Anupan and treatment for Sthaulya.

The following are the dravyas in the Triphala Guggulu.

(1) HARITAKI -- Terminalia chebula.

Taste (RAS) -- Madhur, Amla, Katu, Tikta, Kashaya.

Post Digestive taste (VIPAK) -- Madhur -- Sweet.

Thermal Effect (VIRYA) -- Ushna -- Hot.
(2) **BIBHITAK** -- *Terminala Belerica.*

<table>
<thead>
<tr>
<th>Taste (RAS)</th>
<th>-- Madhur, Kashaya, Amla.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Post-Digestive Taste (VIPAK)</td>
<td>-- Madhur -- Sweet.</td>
</tr>
<tr>
<td>Thermal Effect (VIRYA)</td>
<td>-- Ushna -- Hot.</td>
</tr>
<tr>
<td>Dosh</td>
<td>-- Kaphpittashamak.</td>
</tr>
<tr>
<td>Dhatu</td>
<td>-- Destroy the dhatu of Meda.</td>
</tr>
</tbody>
</table>

(3) **AMALAKI** -- *Phyllanthus Emblica.*

<table>
<thead>
<tr>
<th>Taste (RAS)</th>
<th>-- Madhur, Kashaya, Tikta, Katu, Mostly Amala Rasa.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Post Digestive Taste (VIPAK)</td>
<td>-- Madhur.</td>
</tr>
<tr>
<td>Thermal Effective (VIRYA)</td>
<td>-- Shita Cooling.</td>
</tr>
</tbody>
</table>

(4) **PIPALI** -- *Piper Longum.*

<table>
<thead>
<tr>
<th>Taste (RAS)</th>
<th>-- Wet pipali; Madhur, Dry Pipali, Katu.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Post Digestive Taste (VIPAK)</td>
<td>-- Madhur.</td>
</tr>
<tr>
<td>Thermal Effect (VIRYA)</td>
<td>-- Ushna.</td>
</tr>
<tr>
<td>Dosh</td>
<td>-- Vatakaphanashak.</td>
</tr>
</tbody>
</table>
Dhatu

-- Doing pachan of meda dhatvagni it reduces meda.

(5) GUGGULU -- Commiphora mukul.

Taste (RAS) -- Tikta, Katu, Kashaya.

Post Digestive taste (VIPAK) -- Katu.

Thermal effect (VIRYA) -- Ushna.
METHOD OF PREPARATION OF TRIPHALA GUGULLU:--

This formula was described in Ayurvedic classics such as Sharangdhar Samhita. Ayurved Ras-Shala of Pune is a well-known Company who is manufacture this formula.

(1) After purification test Haritaki, Bibhitak, Amalaki and Pipali are taken in same proportion.

(2) Also Guggulu is taken in same proportion. Guggulu is dissolved in Triphala Quath. For dissoluation procedure it is melted for one night; after this procedure remaining extract is called as “Shudha Guggulu”.

(3) Haritaki, Bibhitak, Pipali, Amalaki and Shudha Guggulu are mixed in grinder for seven days, after that with binding mixture tablets are made. Which are Triphala Guggulu tablets.

Ref.:--Sharangdhar Samhita.