

# Preventive and Therapeutic Dimensions of Sthaulya: An Ayurvedic Approach Integrating Swasthavritta and Yoga

Dr. Tejendra Singh<sup>1</sup>, Dr. Himani Bhardwaj<sup>2</sup>

<sup>1</sup>Assistant Professor, Department of Swasthavritta, Om Ayurvedic Medical College, Hospital & Research Center, Roorkee - Haridwar, Uttarakhand, India.

<sup>2</sup>MD Scholar, Department of Kaya Chikitsa, Gurukul Govt. Ayurvedic College, Haridwar, Uttarakhand, India.

**Abstract**—Obesity is a rapidly rising global lifestyle disorder associated with increased morbidity and mortality due to its strong links with cardiovascular diseases, diabetes mellitus, musculoskeletal disorders, infertility, and psychological stress. Ayurveda describes obesity as Sthaulya or Medoroga, a Santarpanajanya Vikara resulting from over-nourishment, sedentary habits, and deranged Kapha-Meda metabolism. Classical texts categorize Sthaulya among the Aṣṭaninditiya Puruṣa, highlighting its detrimental effects on health, functional capacity, and longevity.

This review explores the preventive and therapeutic dimensions of Sthaulya through an integrative Ayurvedic framework that combines Swasthavritta (principles of healthy living) and Yoga. Preventive measures such as balanced dietary regulation, mindful eating, physical activity, and proper sleep aim to maintain metabolic balance and prevent Meda accumulation. Therapeutically, Ayurveda recommends strict Pathya-Apathya guidelines to correct metabolic impairment. Yogic practices including Asana, Pranayama, and Dhyana further support weight management by enhancing metabolic efficiency, reducing stress, and improving behavioral control.

An integrative approach combining Swasthavritta and Yoga provides a holistic, sustainable, and preventive-oriented strategy for addressing Sthaulya, offering valuable insights for managing the modern obesity epidemic.

**Index Terms**—Sthaulya, Medoroga, Obesity, Ayurveda, Swasthavritta, Yoga, Meda Dhatu, Lifestyle Disorders, Preventive Health, Integrative Medicine

## I. INTRODUCTION

Obesity has emerged as one of the most serious global public health challenges of the 21st century, affecting populations across all age groups, socioeconomic

strata, and geographic regions. Characterized by excessive accumulation of body fat resulting from an imbalance between energy intake and expenditure, obesity significantly increases the risk of morbidity and premature mortality. According to the World Health Organization (WHO), the prevalence of obesity has increased dramatically over recent decades, with millions of adults worldwide now classified as overweight or obese. This rising trend is no longer confined to high income nations but is accelerating rapidly in low- and middle-income countries, including India, due to urbanization, sedentary lifestyles, unhealthy dietary habits, and psychosocial stress.

Obesity is a major predisposing factor for a spectrum of non-communicable diseases such as type 2 diabetes mellitus, hypertension, dyslipidemia, cardiovascular diseases, osteoarthritis, infertility, and certain malignancies. Even a modest increase in body weight can substantially elevate health risks, which escalate further with rising body mass index (BMI). Beyond physical complications, obesity is also associated with psychological distress, reduced quality of life, social stigma, anxiety, and depression, creating a self-perpetuating cycle of unhealthy behaviors.

In Ayurveda, obesity is described under Sthoulya or Medo roga, classified as a Santarpanotha Vyadhi a disease caused by over-nourishment. Classical texts, particularly Charaka Samhita, enumerate Sthoulya among the Aṣṭa-Nindita Puruṣa, highlighting its pathological significance. Excessive intake of guru, madhura, snigdha, and sita-ahara, coupled with lack of physical activity, day sleep, psychological comfort, and genetic predisposition (bija-svabhava), leads to aggravation of Kapha and abnormal increase of Medo

Dhatu. This results in Medovaha Srotas dusti, Medodhatvagni mandya, and obstruction of Vata pathways, causing hyper-stimulation of Jatharagni and perpetuation of excessive appetite and fat accumulation. Improper nourishment of subsequent dhatus further contributes to systemic imbalance.

Ayurvedic management of Sthoulya is based on the principles of Nidana Parivarjana, Sodhana, and Samana, with special emphasis on Apatarpana Chikitsa. Lifestyle and dietary regulation form the cornerstone of management, aiming to correct the underlying causative factors and prevent recurrence. Complementing Ayurveda, Yoga therapy plays a vital role in obesity management by improving metabolism, enhancing endocrine function, reducing stress, and promoting sustainable weight reduction. Yogic practices such as asanas, pranayama, kriyas, and meditation provide an effective, low-cost, and holistic approach to restoring body-mind balance.

In this context, the present article explores the integrative role of Swasthavritta and Yoga in the prevention and management of obesity, emphasizing their potential as safe, effective, and sustainable therapeutic modalities.

## II. AIMS AND OBJECTIVES

- Aims:
- To evaluate the preventive and therapeutic role of Ayurveda through the integrated application of Swasthavritta principles and Yoga practices in the management of Sthaulya (obesity).

## III. OBJECTIVES

- To review the Ayurvedic concept of Sthaulya with reference to its Nidana, Samprapti, and Chikitsa Siddhanta.
- To assess the role of Swasthavritta (Ahara, Vihara, Dinacharya, and Ritucharya) in the prevention of Sthaulya.
- To evaluate the therapeutic effectiveness of Yoga practices (Asana, Pranayama, and Dhyana) in reducing obesity and associated metabolic disturbances.
- To analyze the synergistic impact of integrating Swasthavritta and Yoga in improving metabolic health and preventing relapse in Sthaulya.

- To highlight the relevance of a holistic, non-pharmacological, and sustainable Ayurvedic approach for long-term weight management.

## IV. MATERIALS AND METHODS

Information was collected from Bhrihatrayee & Laghutrayee books, Review articles, various Research papers and related Journals.

Table 1: Classification of Adults for Underweight, Overweight and Obese According to BMI

| S. No | Classification       | BMI  |
|-------|----------------------|--|
| 1.    | Severely underweight | BMI less than 16.5kg/m <sup>2</sup>                        |
| 2.    | Underweight          | BMI under 18.5kg/m <sup>2</sup>                            |
| 3.    | Normal weight        | BMI greater than or equal to 18.5 to 24.9kg/m <sup>2</sup> |
| 4.    | Overweight           | BMI greater than or equal to 25 to 29.9kg/m <sup>2</sup>   |
| 5.    | Obesity              | BMI greater than or equal to 30kg/m <sup>2</sup>           |
| 6.    | Obesity class I      | BMI 30 to 34.9kg/m <sup>2</sup>                            |
| 7.    | Obesity class II     | BMI 35 to 39.9kg/m <sup>2</sup>                            |
| 8.    | Obesity class III    | BMI greater than or equal to 40kg/m <sup>2</sup>           |

- ❖ Vagbhata's classification can be correlated with Modern as given below –
- Hina Sthaulya (Over weight)
  - BMI 25 to 29.90 Kg / m<sup>2</sup>
  - Duration of less than 1 year.
  - Without any complications or secondary diseases.

Madhyam Sthaulya (Obesity Class 1 & 2)

- BMI - 30 to 34.99 kg / m<sup>2</sup>
- With least complications without any secondary diseases.
- With less than 8 undesirable effects.
- Within duration of 1 to 5 years.

Ati Sthaulya (Severe or morbid obese)

- BMI > 40 kg / m<sup>2</sup>
- With systemic complications or secondary disease.
- With all eight undesirable effects.
- With more than 5 years duration.

Table 2: Classification of Obesity Based on Various Factors

| S. No. | BASED ON:           | TYPE  |
|--------|---------------------|---|
| 1      | Onset               | Insidious   |
|        |                     | Gradual   |
|        |                     | Rapid   |
| 2      | Severity            | Mild  |
|        |                     | Moderate  |
|        |                     | Severe  |
| 3      | BMI                 | Class – I = Overweight (25 – 29.9)                  |
|        |                     | Class – II = Obesity (30 – 34.9)                    |
|        |                     | Class – III = Obesity (35 – 39.9)                   |
|        |                     | Obesity (> 40)                                      |
| 4      | Fat Distribution    | Generalized   |
|        |                     | Central or Trunk-type                               |
|        |                     | Superior or Buffalo-type                            |
|        |                     | Inferior or lipodystrophy                           |
|        |                     | Girdle-type or fatty apron                          |
|        |                     | Breeches or trochanteric type                       |
| 5      | Etiological Factors | Physiological                                       |
|        |                     | Pathological: Exogenous, Endogenous, and Idiopathic |
| 6      | Clinical Condition  | Enviably  |
|        |                     | Regal   |
|        |                     | Pitiable  |
| 7      | Histopathology      | Hyperplastic obesity                                |
|        |                     | Hypertrophic obesity                                |

Table 3: Factors Playing Vital Role in Samprapti of Sthaulya (Obese)

|             |   |
|-------------|---|
| Dosha       | Kapha Kledaka, Pitta- Pachaka, Vata-Samana and Vyana. |
| Dushya      | Rasa and Meda Dhatu                                   |
| Agni        | Jatharagni, Bhutagni, Rasa and Medadhatvagni          |
| Srotasa     | Medovaha, Mamsa, Rasavaha, Swedavaha Srotasa          |
| Srotodushti | Sanga (Margavarodha)                                  |
| Adhisthana  | Sarvanga  |

Table 6: Role of Swasthavritta in Primary Prevention of Sthaulya (Obesity)

| Preventon | Role Of Swasthavritta  |
|-----------|--|
| Primodial | This is the genuine sort of anticipation in way of life infections like Sthaulya and it is accomplished through individual and mass instruction of customary exercise (Vyayam) till the presence of highlights of Ardashakti Vyayam (practice till expanded pace of breath, sweat, feel of newness) as a piece of Dincharya (every day system). This should be possible through the methods for mass training and social practice. Accentuation has been given in Swasthavritta on Sanskar. Sadvritta incorporates great propensities to be follow for lifetime to bring way of life changes including diet, exercise and weight decrease. Utilization of appropriate dietary propensities according to Ashtvidhi-Ahar-Vidhisheshayatan, and Dwadash-Ashan Pravichar (eight and twelve standards for taking eating |

|               |   |
|---------------|---|
| Udbhavasthana | Amashaya  |
| Prasara       | Rasayani  |
| Roga Marga    | Bahya   |
| Vyakti Sthana | Sarvanga specifically Udara, Sphika, Stana and Gala pradesha. |

Table 4: Pathya – Apathya Ahara (Diet regimen) for Sthaulya (Obese)

| Ahara Varga  | Pathya  | Apathya                            |
|--------------|---|------------------------------------|
| Shuka Dhanya | Yava, Venuyava, kodrava, nivar, Jurna                                       | Godhuma, Navanna, Shali            |
| Shami Dhanya | Mudga, Rajmasha, kulattha, Chanak, M asur, Adhaki                           | Masha, Tila                        |
| Shaka Varga  | Vruntak, Patrashaka, Patola   | Madhurshaka, Kanda                 |
| Phala        | Kapitha, Jamun, Amalak  | Madhurphala                        |
| Dravya       | Takra, Madhu, Ushnodaka, Til tail, Sarshap tail, Arishtha Asava, Jirnamadya | Dugdha, Ikshu Navnit, Ghrita Dadhi |
| Mamsa        | Rohitmatsya   | Anupa, Audaka Gramya               |

Table 5: Pathya – Apathya Vihara (Physical Regimen) for Sthaulya (Obese)

| Pathya                           | Apathya                           |
|----------------------------------|-----------------------------------|
| Shrama (Labour)                  | Sheetala Jala Snana (Cold bath)   |
| Chintana (Worry)                 | Swapna Prasanga (Excessive sleep) |
| Jagarana (Night awakening)       | Divaswapa (Day sleep)             |
| Vyavaya (Intercourse)            | Avyayama (Not exercising)         |
| Nitya Bhramana (Regular walking) | Avyavaya (Avoiding sex)           |
| Shoka (Grief)                    | Sukha Shaiya (Comfortable bed)    |
| Harshakshaya                     | Achintana (No worries)            |
| Krodha (Anger)                   | Nityaharsha (Always happy)        |

|           |   |
|-----------|---|
|           | routine) from absolute starting point of life for example youth is again a solid measure in forestalling hazard variables of from developing way of life issues.  |
| Primary   | Primary prevention is action taken prior to the onset of disease which removes possibility that a disease will ever occur in future life. For this; extensive surveys are conducted, free camps are arranged and high-risk people are identified. This group is advised to make certain changes in socio-economic, behavioral, food patterns, habits, sleep cycle and lifestyle. This includes modification in lifestyle as per guidelines of Ayurvedic classical texts such as Sadvritta (good lifestyle practices), non-suppression of natural urges, Nidana- Parivarjana (avoiding causative factors) and so on after recognizing Purvaroop (early signs) of Sthaulya. |
| Secondary | Secondary prevention involves measures which are taken to halt the progress of a disease at its incipient stage and prevent complication. Such measures which reduce Meda and Kapha, for example heavy exercise, Ruksa- udavartana, Ratri-jagarana Pramitashana (adequate quantity of food), Langhan (fasting) Ati-maithun (excess sexual activity etc. are beneficial for patients of Sthaulya. Use of certain medicines such as Triphala, Amalki, Takrarishta, Madhu (Honey), Sunthi, Kshar, Loha bhasma, Nagarmotha, Shilajit.   |
| Tertiary  | It includes all measures that reduce or limit impairments and disabilities and minimize suffering of the patient due to disease. Ayurveda has limited role at this stage.   |

Yoga Protocol (I) For Prevention of Obesity

- |   |  |
|---|--|
| <ol style="list-style-type: none"> <li>1. Prayer</li> <li>2. Kapalabhati - 5 rounds of 20 strokes (started with 3 rounds of 10 strokes and reached 5 rounds of 20 strokes by the end of 2 weeks)</li> <li>3. Loosening exercises - 10 minutes</li> <li>4. Surya namaskara - 10 rounds (started with 3 rounds and reached 10 rounds by the end of 2 weeks)</li> <li>5. Savasana and Deep relaxation technique - 10 minutes</li> <li>6. Dynamic Asanas - 10 Rounds of each Asanas - Started with 3 rounds and reached 10 rounds by the end of 2 weeks)</li> </ol> | <ul style="list-style-type: none"> <li>• Tadasana</li> <li>• Trikonasana</li> <li>• Katichakrasana</li> <li>• Uthanapadasana</li> <li>• Pavanamuktasana</li> <li>• Noukasana</li> <li>• Dhanurasana</li> <li>• Paschimottanasana</li> <li>• Bhujangasana</li> <li>• Salabhasana</li> <li>• Chakkichalasanana</li> <li>• Marjari asana</li> </ul> |
|---|--|

| Categories                    | Asanas  | Benefits   | Contraindications |
|-------------------------------|---|--|-------------------|
| Loosening Exercises: 2 rounds | Bending: Forward, Backward, and Side. Jogging: Front, Back and Side. Twisting and Dhanurasana Swing   | Reduces Weight, reduces Abdominal Fat, Strengthens Abdominal muscles and Increases flexibility of the Spine  |                   |
| Breathing Exercises: 2 rounds | Tadasana (Hand Stretch) Hands in and out Ankle stretch Shashankasana (Rabbit) Straight Leg breathing  | Improves Internal Awareness, synchronises body movements with breathing, slows down the mind, and prepares for further practices   |                   |
| Surya Namaskara: 2 rounds     | Pranamansana Hastha Uttanasana Padahasthasana Ashwasanchalasanana Dandasana Shashankasana Ashtanga Namaskara Bhujangasana Parvatasana Shashankasana Ashwasanchal sana | Balances and harmonizes the Prana throughout the body, Revitalizes the whole body, Stimulates and balances all systems of the body, Increases Metabolism, and decreases body weight. |                   |

|                                |                                   |   |   |
|--------------------------------|-----------------------------------|---|---|
|                                | Padahasthasana Hastha Uttanasana  |   |   |
| Standing Asanas: 2 rounds each | Ardakati Chakrasana               | Reduces fat in the waist region and stimulates the flanks, gives lateral bends to the spine, improves liver function, and Reduces waist circumferences.                     |   |
|                                | Padahasthasana                    | Makes the spine flexible, strengthens the thighs, prevents constipation and menstrual problems, and enhances blood flow to the head.  | Vertigo, Severe HTN, Cervical Spondylitis and disc prolapse |
|                                | Parivrutta Trikonasana            | It gives deep pressure on one side and releases pressure in its complimentary posture and it provides a strong stimulation and relaxation effect on the Pancreas.           | Severe Hypertension, Spinal Problem                         |
|                                | Arda Chakrasana                   | Makes the spine flexible and stimulates spinal nerves, renders strong stretch, Strengthens neck muscles, and improves breathing by expanding the chest and shoulder region. | Vertigo   |
| Sitting Asanas: 2 rounds each  | Vakrasana or Ardha Matsyendrasana | It gives deep pressure on one side and releases pressure in the complementary posture gives rotational movement to the spine, and improves the functioning of the kidney.   | Recent abdominal surgery for 3 months                       |
|                                | Ushtrasana                        | Makes the spine flexible and reduces fat in the gluteal region  | Recent abdominal surgery, Hernia, and HTN                   |

7. Kapalabhati - 5 rounds of 20 strokes (started with 3 rounds of 10 strokes and reached 5 rounds of 20 strokes by the end of 2 weeks)
8. Nadi Shuddhi Pranayama - 5 rounds (Started with 3 rounds and reached 5 rounds by the end of 1 week)
9. Sooryabhedani Pranayama - 10 rounds (started with 5 rounds and reached 10 rounds by the end of 1 week)
10. Om Chanting Meditation
11. Closing Prayer

❖ Yoga Protocol (II) for Prevention of Obesity

|                              |                                  |  |  |
|------------------------------|----------------------------------|--|--|
| Prone Asanas: 2 rounds each  | Bhujangasana                     | It brings flexibility to the dorsal spine, strengthens spinal muscles, and reduces abdominal fat.  | Abdominal surgery Cervical Spondylosis   |
|                              | Dhanurasana                      | Deep compression on the abdominal organs reduces Gastro-intestinal disorders, gives flexibility to the back, and slims the whole body                              | Practice with proper guidance Avoid in case of heart disease, severe HTN, and Slip disc. |
|                              | Hamsasana                        | Deep compression and relaxation on the abdomen, balances Pranic blockages, makes the wrist flexible and arms stronger, improves digestion, and clears constipation | Abdominal surgery, Menstrual problems, hernia, hyperacidity, and gastric ulcer.          |
| Supine Asanas: 2 rounds each | Vipareetakarni with wall support | Increases blood flow toward abdominal organs, removes GI disorders, and gives flexibility to the back.   | General debility Severe HTN  |
|                              | Sarvangasana                     | Balances Prana flow, improves Thyroid gland functioning and varicose veins and Menstrual disorder.   | Cervical spondylosis Low back pain   |
|                              | Matsyasana                       | Improves Thyroid functioning, expands the chest region and flexibility to the spine  | Abdominal and Thoracic surgery Cervical spondylosis                                      |
|                              | Shavasana                        | Final relaxation and the most important part, reduces fatigue, decreases stress, and calms all parts of the body.  |  |
| Pranayama 2 rounds each      | Vibhagiya                        | Improves awareness of three different components of respiration (Abdominal, thoracic, and clavicular), improves  |  |

|  |                     |  |  |
|--|---------------------|--|--|
|  |                     | power and vitality, and improves calmness in daily activities Clarity of thoughts improve  |  |
|  | Nadishuddhi         | Promotes balance between Ida and Pingala Nadi's, cleanses nostrils, increases vitality, digestive fire, and appetite, and brings balance between Sympathetic and Parasympathetic Nervous System. |  |
|  | Sitali and Shitkari | Cools down the body, relaxes the mind good for Oral hygiene, especially in Obesity.  |  |
|  | Bhramari            | The vibration of Bhramari calms down the mind which leads to the experience of no thought state of mind.   |  |
| Yoga Nidra for 10 min                          |                     |  |  |
| Dhyana – Chanting Om followed by Shanti Mantra |                     |  |  |

## V. DISCUSSION

Obesity (Sthaulya) is described in Ayurveda as a Santarpanjanya Vyadhi resulting from improper diet, sedentary lifestyle, and mental factors leading to Kapha predominance, Medo Dhatu vriddhi, and Agnimandya. Classical texts emphasize Apatrapana Chikitsa as the cornerstone of management, incorporating Ahara, Vihara, Ausadha, and Shodhana measures. Regulation of Agni through appropriate dietary modifications and lifestyle interventions is crucial, as Sthaulya is often associated with Teekshnagni, excessive hunger, and thirst. Therapeutic approaches such as Ruksha Udvartana, Swedana, Vamana, Rukshana, and Basti aim to alleviate Srotorodha, balance Samana Vayu and Pachaka Pitta, and enhance Medodhatvagni, thereby correcting fat metabolism and restoring physiological equilibrium.

Yoga plays a complementary and synergistic role in obesity management by addressing physical, metabolic, mental, and emotional dimensions. Practices such as Surya Namaskara, dynamic asanas, Kapalabhati, and Bhastrika act as effective metabolic stimulants, comparable to aerobic exercise, improving cardiovascular fitness and basal metabolic rate. Pranayama and meditation influence neuroendocrine regulation, reduce stress, and promote mindful eating, which are essential for sustainable behavioral change. Evidence from recent studies highlights the beneficial effects of yoga on anthropometric parameters, lipid profile, and overall metabolic health, reinforcing its role in integrative obesity management.

Dietary and lifestyle interventions remain fundamental for long-term outcomes, as reliance on pharmacological or procedural therapies alone often

results in relapse. High-fiber, protein-rich, and low-glycemic diets incorporating millets, pulses, fruits, and vegetables contribute to improved lipid profiles, gut microbiome modulation, and weight reduction. Ayurveda's individualized approach based on Prakriti, Dosha, Satwa, and Agni combined with yoga-based mind-body practices offer a holistic, culturally adaptable, and sustainable strategy for obesity prevention and management. This integrative model underscores the relevance of personalized, non-invasive, and lifestyle-centered interventions in addressing the global burden of obesity.

## VI. CONCLUSION

The growing global burden of obesity ("Globesity") necessitates safe, sustainable, and holistic management strategies. Evidence from classical Ayurvedic texts and contemporary studies indicates that Sthaulya can be effectively managed through Apatrapana Chikitsa, emphasizing Nidanaparivarjana, Ahara-Vihara modification, Shodhana, Rukshana, and appropriate therapeutic procedures such as Udvartana, Swedana, and Basti. These interventions act by correcting Agni, reducing Medo Dhatu, alleviating associated symptoms, and preventing disease progression, thereby supporting healthy and gradual weight reduction without nutritional deprivation.

The integration of Ayurveda with Yoga further enhances therapeutic outcomes by addressing the physical, metabolic, mental, and emotional dimensions of obesity. Yogic practices support metabolic regulation, stress reduction, and long-term behavioral change, contributing to sustained weight management and improved quality of life. This integrative approach not only facilitates effective

obesity management but also reduces the risk of relapse when supported by continued adherence to Pathya Ahara and Vihara. Future research should focus on strengthening evidence for this integrative model and exploring its systematic incorporation into modern preventive and therapeutic healthcare frameworks.

REFERENCES:

- [1] Charaka Samhita, part 1, Satya Narayana Shastri, editor, Chaukhambha Bharti Academy, 2019. (Ch. Su- 21)
- [2] Sushruta Samhita, Ambika Dutt Shastri editor. 2nd ed., Varanasi: Chaukhambha Orientalia, Shusrut Sutra, 15.
- [3] Ashtanga Sangraha. Ashtavaidyan Vaidyamadhom Cheriya, editor. 1st ed. Varanasi, Shutra Sthan, 24.
- [4] Madhav nidanam. Yadunandan Upadhyaya, editor. 1st ed. Varanasi: Chaukhambha Bharti Academy, Adhyaya, 34.
- [5] Hathyog Pradipika by Dr. Chamanlal Gautam.
- [6] 'Swasthavrit Sudha' by dr. Kashinath Samgandi, Ayurveda Sanskrit Hindi Pustak Bhandar, Jaipur.
- [7] Obesity, by Dr. Ajay Gopalani G. and Dr. Bhushan A. Sarmandal.
- [8] WHO2000p9.
- [9] <https://hi.m.wikipedia.org>.
- [10] Mundargi B, Sajitha K, Ashoka A. (2024). ROLE OF AYURVEDA AND THERAPEUTIC YOGA TO PREVENT OBESITY – A REVIEW. WJPLS, Vol. 10, Issue 6, 154-157
- [11] BMI classification. Global Database on BMI WHO 2006. Retrieved july27,2012. 'Davidson's Principles of Internal Medicine, Mc Graw-Hill Companies.
- [12] <https://pubmed.ncbi.nlm.nih.gov>
- [13] Singh T, Chauhan M, Zambare S, Sreejith K, Chandran N (2025). A Review Article on Role of Swasthavritta in Sthaulya (Obesity). IJFMR, Vol. 7, Issue 1, 4-8
- [14] [www.ncbi.nlm.nih.gov](http://www.ncbi.nlm.nih.gov) Connor B. Weir; Arif Jan-BMI. Classification percentile & cut off points.