



BODY FAT PERCENTAGE AND BMI ACROSS VARIOUS DEHA PRAKRITI: A REVIEW

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ABSTRACT: According to *Ayurveda*, *Prakriti* is a person's innate constitution that was created at the time of conception by the predominance of *Doshas*. Different physical traits of *Vata*, *Pitta*, and *Kapha Prakriti* are described in classical texts; these traits correlate to differences in body compositions. In modern science few objectives such as BMI and body fat percentage are used to evaluate the body compositions. The purpose of this review is to evaluate the association between *Prakriti*, BMI, and body fat percentages. A critical review of classical *Ayurvedic* texts, along with CCRAS guidelines and relevant modern literary research, was conducted. From the mentioned text it can be concluded that *Vata Prakriti* individuals can typically have lower parameters, *Pitta Prakriti* aligns with normal body composition, and *Kapha Prakriti* shows higher BMI and body fat percentages. The findings state significant correlation between *Prakriti* and body composition which supports an integrative approach.

Key words: *Ayurveda, Prakriti, BMI, body fat percentage, body mass index.*

INTRODUCTION:

The fundamentals of the ancient science *Ayurveda* are *Tri Doshas*, *Sapt Dhatus* and *Malas*. *Prakriti* is inherent and is the form of body which determines constitutional, physiological and psychological entity of an individual^[1]. *Deha Prakriti* described by the combination of bodily *Doshas* at the time of conception^[2]. These are of seven types of which three are *Ekal Prakriti*, three are *Dwandaj Prakriti* and one is *Sama Prakriti*.

Acharya's have assigned particular attributes in different *Prakriti* which define the body type as for *Vata Prakriti* *Purusha* have slender body type, *Pitta Prakriti* *Purusha* are moderate body type and *Kapha Prakriti* *Purusha* are heavy body type.

Aacharya Shusrutha lists three different kinds of *Shariras*: *Sthaulya*, *Karshya*, and *Madhya Sharira*^[3].

In *Ayurveda* while describing particular concepts like *pramanas* *Acharyas* mentioned the parameters according to *Madhya Sharira* and is considered as ideal. Vitiation of *Medo Dhatu* and *Rasa Dhatu* respectively are the causes behind *Sthaulya* and *Karshya* which are described by *Acharyas* in the *Ayurveda* texts^[4].

An objective parameter which categorizes person's weight is BMI (Body mass index) which is calculated by dividing an adult's weight(mass) in kilograms by height in meter squares, but doesn't determine the

other components of the body as Body Fat Percentage. In today's era where obesity and emaciation are not only the subject of weight but also of other components like body fat percentage.

AIM: The aim of this study is to explore the possible significant relationship between BMI and body fat percentage with *Dosha Prakriti*.

METHODOLOGY:

- For this review, literary materials related to *Prakriti*, BMI and body fat percentage have been compiled, screened and critically analysed from *Charaka Samhita*, *Sushrutha Samhita Ashtanga Hridaya* and *Sharangdhara Samhita* also from the commentaries of other Ayurvedic textbooks,
- Manual of SOP for *Prakriti* assessment by CCRAS.
- Research articles published in peer-reviewed journals, WHO, Google scholar, National Science Library.

PRAKRITI:

Prakriti is a person's unique mindset and constitution. *Prakriti* identifies characteristics of people who are the same in appearance and thought process. It is an expression of how the body works and can be used as a tool to help one and get access to oneself and the world around them.

ORIGIN OF PRAKRITI

Doshas that is predominant at the time of union of *Sukra* and *Shonithe Prakriti* of the person get formed from that particular *Dosha*^[5]

Types of *Prakriti*

Prakriti are of 2 types –

1. *Sharirik Prakriti*
2. *Mansik Prakriti*

Figure:1 Types of *Prakriti*

| SHARIRIK PRAKRITI | MANSIK PRAKRITI |
|--|--|
| <ul style="list-style-type: none"> • <i>Vata Prakriti</i> • <i>Pitta Prakriti</i> • <i>Kapha Prakriti</i> • <i>Vata-Pitta Prakriti</i> • <i>Pitta-Kapha Prakriti</i> • <i>Kapha-Vata Prakriti</i> • <i>Sama doshaj prakriti</i> | <ul style="list-style-type: none"> • <i>Satvik Prakriti</i> • <i>Rajasik Prakriti</i> • <i>Tamasik Prakriti</i> |

Table 1: Characters of *Sharir* in *Prakriti* according to different Acharyas

| PRAKRITI | CHARAKA ^[6] | SUSHRUTHA ^[6] | VAAGBHATA ^[6] | SHARANGDHARA ^[7] |
|---------------|--|---|--------------------------------------|--------------------------------------|
| VAAT PRAKRITI | Emaciated (<i>Karshya</i>), dwarf body, visible abundance of | Rough and lean personality, skin shows prominent networks of veins. | <i>Alpabal</i> /weak, lean and thin. | Emaciated structures and rough body. |

| | | | | |
|-----------------------|---|---|---|--|
| | veins, muscles and tendons inconsistent action of food movements. | | | |
| PITT PRAKRITI | Medium strength and medium life span, loose and soft joints and muscles, strong digestive power. | <i>Madhyam Bala/</i> strength, heavy eaters. | Medium strength and loose and flaccid joints. | ----- |
| KAPHA PRAKRITI | Round and chubbiness of all the organs, stable gait, smooth organs, with the foot sole pressed against the earth, and compact joints. | Strong and heavy body. | Joints muscles dense. and are | <i>Sthulang/</i> heaviness of body, solid body, have great strength. |

BMI- One current assessment for healthy weight is a measurement known as the body mass index, or BMI.

The body mass index (BMI) is a figure that is calculated using an individual's height and mass (weight). The BMI, which is calculated by dividing the body mass by the square of the body height, is given in kilograms per square meter (kg/m^2).

Body mass index is a way to figure out how much fat is on your body by looking at your height and weight.

According to WHO A BMI between 18.5 and 24.9 is considered normal weight. ^[8] Less than 18.5 is underweight, and more than 24.9 is over- weight. A BMI over 30 indicates obesity.

Table 2: BMI Classification ^[9]

| Classification | BMI |
|------------------------|-----------------------------------|
| Under Weight | $< 18.5 \text{ kg}/\text{m}^2$ |
| Normal Weight | $18.5-24.9 \text{ kg}/\text{m}^2$ |
| Over Weight | $25-29.9 \text{ kg}/\text{m}^2$ |
| Obesity Class 1 | $30-34.9 \text{ kg}/\text{m}^2$ |
| Obesity Class 2 | $35-39.9 \text{ kg}/\text{m}^2$ |
| Obesity Class 3 | $>40.0 \text{ kg}/\text{m}^2$ |

BODY FAT PERCENTAGE - Defined as the ratio of fat in the body to the overall body weight.

According to the **American Journal of Clinical Nutrition** acceptable ideal body fat percentage^[10]

Table 3: Body fat percentage classification

| | |
|--------------------|-------------------|
| For males | 12 to 20 % |
| For females | 20 to 30% |

WHO [World Health Organization] has proposed a definition of obesity as:^[11]

greater than 25% body fat in men.

greater than 35% body fat in women.

DISCUSSION:

Understanding *Prakriti* plays a crucial role in various health care aspects. This study correlates the classical description of *Dehik Prakriti* with the body compositions such as BMI and body fat percentage which provides an integrative approach towards body composition via both modern and contemporary sciences. As above discussed:

- *Vata Prakriti* individuals are described as emaciated, dwarf, with the prominent appearance of tendons and veins, which can correspond with the lower values of BMI and body fat percentages with reinforce correlation between underweight status and low body fat percentage with *Vataj* constitutional body.
- *Pitta Prakriti* individuals are described to exhibit the moderate body with medium strength and medium life span, loose and soft joints and muscles with indicates the demonstration of the alignment of pitta constitutional body to optimal body compositions.
- *Kapha Prakriti* individuals have the roundness and chubbiness of all the organs, stable gait, smooth organs, with the foot sole pressed against the earth, and compact joints which corresponds to the increased body compositions.

All things considered, the combination of *Prakriti* assessment and contemporary anthropometric measurements offers a thorough foundation for comprehending individual differences in body composition. Dietary planning, lifestyle changes, and individualized preventive efforts can all be improved with combined approach of both the sciences.

CONCLUSION:

From the above literature it can be interpreted that there is a significant relationship between people's BMI and body fat categories and their *Prakriti*, *Kapha Prakriti* people can have the highest body compositions, indicating a propensity for being overweight and obese, whereas *Vata Prakriti* people may lie in underweight category. The majority of those with normal BMIs may be lie under *Pitta Prakriti*. These findings corroborate *Ayurvedic* writings that states the relationship between *Prakriti* and compositions of physical well-being, as reported by ancient *Acharyas* who described how different *Prakriti* types correspond with different physical states.

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