

Anthropometry in Ayurveda

RACHNA GUPTA* AND AMIT CHOWDHARY¹

Department of Kriya Sharir, MJF Ayurved Mahavidhyalaya, Chomu, Jaipur-303 702 (Rajasthan), India
(e-mail: rgupta00@gmail.com; Mobile: 89684 18501)

(Received: February 17, 2026; Accepted: March 22, 2026)

ABSTRACT

The systematic measurement of the human body is well explained in ayurveda as well as contemporary science as anthropometry. In Ayurveda, it is described exclusively under *Pramansharir* by *Acharya Charaka* in *Vimanasthana* 8th chapter. It deals with quantitative assessment of body parts and body fluids with specialized units of measurement such as *Angulipraman* and *Anjalipraman*. It is broadly used in health and medicine departments to monitor child growth, detection of malnutrition, obesity, wasting of muscles, dosing medications based on BSA and assessment of risk of lifestyle diseases. In sports science, it is applied to assess talent identification (e.g., taller athletes for basketball, lighter for gymnastics), designing training programs based on body composition. Designing tools, clothing, equipment, and work places to fit human body dimensions in ergonomics etc. *Praman Sharir* introduces utilization of *Swa-Angula* as a tool of measurement for various anatomical structures of human body. By knowledge of *Ayam*, *Vistar*, *Utsedha* and *Parinah* of various *Pratyanga* one can differentiate individuals as possessing proportionate body or disproportionate body. As *Pramana Sharir* reveals measurements of body parts which are proportionately related to the total height of an individual; it could be beneficial for estimation of stature in forensic medicine.

Key words: Anthropometry, *praman sharir*, *angulipraman*, *ayam*, *vistar*

INTRODUCTION

Anthropometry is the systematic measurement of the human body to study physical variation in size, shape, and proportion of one's body. The word comes from Greek: "*Anthropos*" = man, "*Metron*" = measurement. It is widely used in physical education, exercise physiology, ergonomics, medicine, nutrition, and anthropology.

In Ayurveda, it is described exclusively under *Pramansharir* by *Acharya Charaka* in *Vimanasthana* 8th chapter. As per Ayurved classics; *Pramansharir* deals with quantitative assessment of body parts and body fluids with specialized units of measurement such as *Angulipraman* and *Anjalipraman*. Out of these two, *Angulipraman* can be used to measure length (*Ayam*), breadth (*Vistar*), height (*Utsedha*), circumference (*Parinah*) of various *Pratyangas*. Here the word *Anguli* stands for finger whereas the word *Praman* stands for measurements. The reference unit of measurement used to measure various anatomical structure of individual; is the finger measurement of that individual. i.e. *Swa-Anguli*. *Acharya Chakrapani* further explains that; while assessing measurements of female; reference unit of measurement is her own finger breadth; in case

of male individual, his finger breadth; and in case of children, figure breadth of the same child should be considered by physician. As one knows that the length and breadth of the figure of an individual differs with age, sex, ethnicity, race etc. There are three different opinions regarding the particular site for taking *Swa - Anguli* measurement.

Acharya Dalhan; commentator of *Shushrut Samhita*; says that; closed palm or fist measures four *Angula*. One can consider this reference for satisfactory understanding of *Anguli Pramana*. *Acharya Sushruta* mentioned the length and breadth measurement of the palm is six *Angula* and four *Angula* respectively. So, by taking measurement of the width of palm and dividing it by four one will get *Swanguli Pramana*.

According to *Acharya Adhamalla*; commentator of *Sharagdhara Samhita*; measurement of tip of thumb (*NakhaTalaBhag*) or middle part of middle figure can be considered during *Swa - Angul Pramana*. By observing all above references; one can conclude that; breadth of middle part of middle finger is most the logical one for *Swa-Angulipramana*.

Objectives and Application of Anthropometry

Anthropometry is used to assess growth and development of children and adolescents, their

¹Department of Kayachikitsa, Devbhoomi Medical College of Ayurveda & Hospital, Dehradun-248 007 (Uttra Khand), India.

nutritional status (underweight, overweight, obesity), determination of body composition (fat, muscle, bone mass), classification of somato types (body build: ectomorph, mesomorph, endomorph) and providing standards for ergonomics and equipment design (e.g., clothing, sports gear, furniture, military equipment) and to assess physical fitness and performance potential in sports science. Similarly, *Acharayas* while exploring the significance of *Praman Sharir* mentioned that when individual possesses body parts having standard measurements as mentioned in classics, he or she can be considered to have *Pramanvat Sharir* (proportionate body). Such individual is blessed with strength, immunity, cheerfulness, potentiality, prosperity and have great life expectancy. Thus the concept of *Angulipraman* has a great anatomical significance and it admits that the proportion of the body plays important role in maintenance of health, strength and life expectancy. As *Pramana Sharir* reveals measurements of body parts which are proportionately related to the total height of an individual; it could be beneficial for estimation of stature in forensic medicine.

Measurements in Anthropometry

Anthropometric data includes both basic dimensions and derived indices like:

1. Linear measurements-height/ stature, sitting height, arm span, leg length
2. Girth/Circumference - chest girth, waist circumference, hip circumference, thigh, calf, and arm girths
3. Breadths/Diameters - biacromial (shoulder width), bicristal (pelvic width), elbow, knee, and wrist breadths
4. Skinfold thickness - Biceps, triceps, subscapular, suprilliac, thigh skinfolds for estimating body fat percentage
5. Weight and body mass - body weight, derived indices like BMI (Body Mass Index = kg/m²) indicating underweight: <18.5, normal: 18.5–24.9, overweight: 25–29.9, and obesity: ≥30
 - Waist–Hip Ratio (WHR) = Waist ÷ Hip - Indicator of abdominal obesity.
 - Body Surface Area (BSA)- Used in medical dosing.
 - Somatotyping (Heath–Carter method) - Ectomorph (lean, tall), Mesomorph (muscular, strong), Endomorph (round, higher fat).

In the same way there are various references of different *Acharayas* regarding body measurements in *Ayurveda* which are as follows: Acharya Charaka in *Vimansthana* 8th chapter

described *Angulipramana* of 34 *Anga – Pratyanga* in terms of *Ayam* (length), *Vistar* (breadth), *Utsedha* (height) and *Parinah* (circumference). The *Ayam* i.e. vertical height of whole body measured from the sole to the top of head should be eighty-four *Angul* and it should be exactly same to *Vistar* i.e. arm span measured horizontally from tip of middle figure of left arm to tip of middle figure of right with hands are fully out – spread.

Acharya Sushruta; in 35th chapter of *Sutrashtana* described *Angulipramana* of forty-eight number of body parts. He also mentioned the space between two *Pratyangs* in terms of *Angulipramana* e.g. space between *Mehan* and *Nabhi* is twelve *Anguli*; space between *Nabhi* and *Hridaya* is twelve *Anguli* etc. *Purushayam – Acharya Sushruta*, opines that total height i.e. *Purushayam* of a person is one hundred and twenty *Anguli*. This opinion regarding height of entire body differs from that of *Acharya Charaka* and *Vridhdha Vagbhata*. According to them, total height (*Ayam*) is eighty-four *Anguli* when person stands straight in normal upright posture.

Acharya Dalhan commented that the *Purushayam* should be measured in a posture with person standing on the anterior part of the foot i.e. in heel high position and raising hands straight up. Thus, *Purushayam* is the unique feature of *Pramana Sharir* introduced by *Acharya Sushruta*.

Acharya Bhela; in 1st chapter of *Indriyasthan* mentioned that if *Angulipramana* of forehead, nose and ears is six *Angula* each; such a person will be endowed with long life span i.e. of hundred years.

SUGGESTED REFERENCES

- Acharya, Jadavji Trikamji (2017). *Sushrutasamhita* of Sushruta with Nibandhasangraha Commentray of Sri Dalhanacharya. (Ed.) Chaukhambha Sanskrit Sansthan, Varanasi.
- Krishnamurthy, K. H. (2008) *Bhela Samhita: Text with English Translation Commentary and critical notes* by Sharma, P. V. (Ed.). Chaukhambha Orientalia, Varanasi.
- Pandit Parshuram Shastri Vidyasagar and Guruprasad Sharma (2013). *Sharangadhara Samhita*. Chaukhambha Orientalia, Varanasi.
- Shiva Kumar Gaur. (2019). *Ayurvediya Sharir Kriya Vigyan*. Nath Pustaka Bhandar, Rohtak
- Vaidya Jhadavji Trikamji Acharya (2023). *Charaka Samhita with Ayurveda* by Dipika Commentary. Nirnaya Sagar Press, Bombay.
- Vaidya Ranjeet Rai Desai (2023). *Ayurveda Kriya Sharir*. Vaidyanath Ayurved Bhavan- Allahabad
- www.orthopaedicsone.com