

## Anthropometric Assessment: Somatotype

Interest in the body or physical type of people has a long history dating back to the ancient Greeks. Throughout the centuries, they have proposed different systems for classifying the physical, which have led to the origin of the system called "somatotype" proposed by Sheldon in 1940, and subsequently modified by others, especially by Parnell (1958) and Carter (1967). Sheldon was believed that somatotype is a fixed or genetic entity, but the present view is that somatotype is subject to change with growth, aging, exercise and nutrition (Carter and Heath, 1990).

### What is it for?

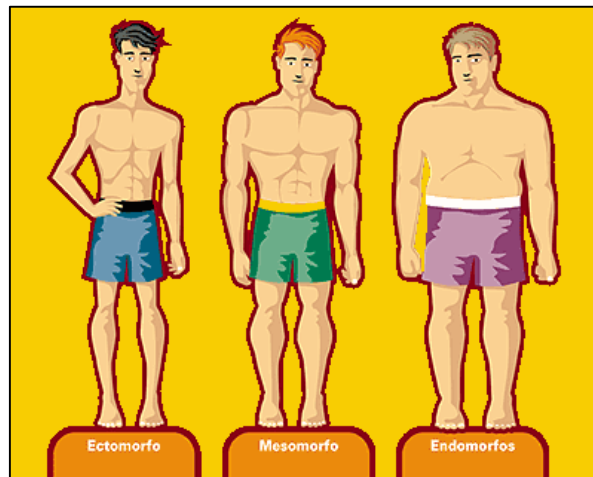
Somatotype technique is used, therefore, to estimate and classify body shape and composition. The result is a quantitative summary of the physical, as a unified whole. It is defined as the quantification of the current shape and composition of the human body.

Somatotype utility is based on the relationship between the physical characteristics of the athletes and their sport own mechanical factors facing the prediction of success in the techniques used in detecting talents. The measures used to calculate the somatotype are:

- Weight.
- Height.
- Muscle perimeters: biceps contraction y leg circumference.
- Bone diameters: femur y humerus.
- Skinfolds (using a compass skinfold): triceps, subscapularis, y suprailiac.

Measures should be taken by qualified and experienced personnel, certified by the ISAK (International Society for the Avancement of the Kinanthropometry), and with perfectly calibrated equipment (scales, measuring rod, skinfold compass, pachymeter and tape measure).

Somatotype is expressed in a rating of three numbers representing the endomorph, mesomorph and ectomorph, respectively, and always in the same order components.



Endomorphism: it represents the relative adiposity, refers to body shapes rounded own disciplines such as sumo or athletics throws.

Mesomorphy: it represents the strength or magnitude relative musculoskeletal, being predominant feature in sprinters, weightlifters, etc.

Ectomorphism: represents the relative linearity or thinness of a physical, referring to body shapes typical of disciplines such as the high jump and volleyball.

The three digits forming somatotype is calculated by a system of equations (one for component), using data mentioned above.

## Conclusions

The unique combination of three aspects of the physical, in a single expression three numbers, is the strength of the concept of somatotype, what we It serves to:

- Describe and compare athletes at different levels (amateur vs. professional) and categories (junior vs cadet).
- Characterize physical changes during growth, aging and training.
- Compare the relative shape of men and women.
- As a tool in the analysis of "body image".

The Heath-Carter's method somatotype is the most commonly used today.

## References

1. CEJUELA ANTA, R. (2009). VALORACIÓN ANTROPOMÉTRICA: El somatotipo. Sport Training Magazine, (22), 48-51.

