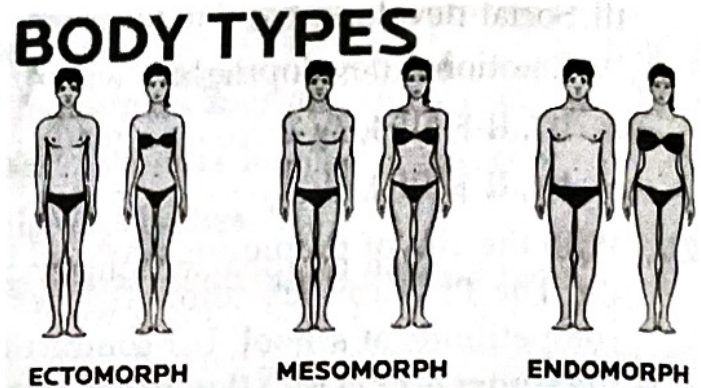


Body types (Somato types) : The physical size and shape of a person's body is called a body type. Genetics we inherit from our mother and father, lifestyle, and level of fitness affect the body type of a person.

Body type, refers to the idea that there are three generalized body compositions that people are predetermined to have. The concept was theorized by Dr. W.H. Sheldon back in the early 1940s, naming the three somatotypes endomorph, mesomorph, and ectomorph. Most people are unique combinations of the three body types: *ectomorph*, *mesomorph* and *endomorph*.



- 1. Endomorph :** Endomorphs are said to have a higher percentage of body fat with less muscle mass. They're often heavier and rounder, but not necessarily obese. They gain weight easily, have a higher body fat percentage. Because of their physical makeup, people with endomorphic bodies are more sensitive to calorie consumption than people with other body types. They enjoy relaxing, physical comfort. *e.g.* athletes, sumo wrestlers, weight lifters.

Characteristics of endomorph body (Typical traits) :

1. They are stocky with large round body or pear shaped body.
 2. They have smooth and round shaped body.
 3. They have short and thick neck.
 4. They have short arms and legs.
 5. They have wide hips and narrow shoulders, which make them pear-shaped.
 6. They have quite a lot of fat spread across the body.
 7. They have quite slim ankles and wrists.
 8. They have wide bone structure, thick rib cage and shorter limbs.
 9. They have high body fat percentage level.
 10. They gain weight easily, lose weight slowly.
 11. They have a slow metabolism.
 12. They have large bone structure and large appetite.
- 2. Mesomorph :** Mesomorphs are typically strong and solid, not overweight or underweight. Their bodies may be described as rectangular in shape with an upright posture. People with mesomorph-type bodies tend to be suited to sports and have good posture. For example, basketball, boxing, martial arts, strength training, swimming, track and field, and volleyball typically have mesomorphic characteristics.

Characteristics of mesomorph body (Typical traits) :

1. They have large head, broad shoulders, and narrow waist.
 2. They tend to have muscular body, with strong forearms and thighs.
 3. They have very little body fat percentage level.
 4. The body fat is evenly distributed.
 5. They have long torso, full chest and good shoulder to waist ratio.
 6. They gain and loses weight easily.
 7. They quickly respond to the exercise and they have medium to high metabolism.
 8. The shoulders are slightly wider than hips.
 9. They have long torso and good shoulder to waist ratio.
 10. They have average to fast metabolism.
3. **Ectomorph** : Ectomorphs are long and lean, with little body fat, and little muscle. They have a hard time gaining weight. They have a fast metabolism, which can be both a boon as well as a bane. A high metabolism makes it easy to get lean, and it can seem as if they can eat whatever they want and not gain weight. Fashion models, long distance runners and basketball players fit this category.

Characteristics of ectomorph body type (Typical traits) :

1. They have small delicate frame and bone structure.
2. Generally they are tall.
3. They have thin and narrow face, with a high forehead.
4. They have narrow shoulders and hips.
5. They have a thin and narrow chest and abdomen.
6. They have thin legs and arms and low body fat percentage.
7. They have a fast metabolism with high calorie burning.
8. It is hard to gain weight.
9. It is difficult to gain muscles.
10. They respond quickly to exercise.
11. They have thin bones and small joints.

QUESTIONS :

1. Define the term endomorph body.
2. State any six typical traits of an endomorph body.
3. Define the term mesomorph body.
4. State any six typical traits of mesomorph body.
5. Define the term ectomorph body.
6. State any six typical traits of an ectomorph body.

MULTIPLES CHOICE QUESTIONS :

1. Somato type is a taxonomy developed in:
 - a. 1950
 - b. 1940
 - c. 1960
 - d. 2001
2. What does somato stands for:
 - a. Physique
 - b. Weight
 - c. Size
 - d. Height
3. Who came up with the theory for Somatotype?
 - a. William Gilbert
 - b. Charles-Augustin de Coulomb
 - c. William H. Sheldon
 - d. Sheldon Lee Glashow
4. Which of these is NOT a somatotypes as classified by W. H. Sheldon?
 - a. Endomorph
 - b. Mesomorph
 - c. Ectomorph
 - d. Graphomorph
5. Different body types are also noted in
 - a. Rigveda
 - b. Yajurveda
 - c. Ayurveda
 - d. Atharveda
6. Most of the people have a combination of how many body types?
 - a. One
 - b. Two
 - c. Three
 - d. Four
7. What does body composition refers to:
 - a. Size of bones
 - b. Percentage of body fat.
 - c. Length of limbs
 - d. Size of neck.
8. What does an Endomorph refer to?
 - a. They are fat with heavy body build and have smooth and round shaped body
 - b. They tend to have muscular body, with strong forearms and thighs
 - c. They have small delicate frame and bone structure
 - d. Generally they are tall
9. i. Which body type can be characterized by a round body?
ii. The are considered a good body type for body building.
 - a. Endomorph
 - b. Mesomorph.
 - c. Ectomorph
 - d. Obese person
10. Which body type can be characterized by muscular body with strong forearms and the body fat is evenly distributed?
 - a. Endomorph
 - b. Mesomorph
 - c. Ectomorph
 - d. Obese person

11. **What does an Endomorph refer to?**
- They gain weight easily, lose weight slowly
 - They gain and lose weight easily
 - It is hard to gain weight
 - They do not gain weight and height
12. **What does an Endomorph refer to?**
- Wider hips than shoulders
 - Longer legs than arms.
 - Lean body
 - Tall
13. **What does an Endomorph refer to?**
- They have high body fat percentage level
 - They have little fat percentage level
 - They have very little body fat percentage level
 - Very tall structure
14. **Endomorph tends to have metabolism.**
- Slow
 - Fast
 - Medium
 - High
15. **What physical traits are associated with mesomorph?**
- They have wide hips and narrow shoulders, which make them pear-shaped.
 - They tend to have muscular body, with strong forearms and thighs.
 - They have small delicate frame and bone structure.
 - They have narrow shoulders and hips.
16. **What physical traits are associated with mesomorph?**
- They have wide hips and narrow shoulders, which make them pear-shaped.
 - They tend to have muscular body, with strong forearms and thighs.
 - They have small delicate frame and bone structure.
 - They have narrow shoulders and hips.
17. **What does Ectomorph refer to?**
- They are slender, lean and best suited to endurance activities.
 - They tend to have muscular body, with strong forearms and thighs.
 - They are stocky with large round body or pear shaped body.
 - They have short and thick neck.
18. **What physical traits are associated with an Ectomorph?**
- They have small delicate frame and bone structure.
 - They tend to have muscular body.
 - They have high body fat percentage level.
 - Small Feet.

19. **Given below are the two statements labeled Assertion (A) and Reason (R).**

Assertion: The ectomorphs are long and lean, with little body fat.

Reason: The ectomorphs find difficult to gain muscles and weight.

In the context of the above two statements, which one of the following is correct?

- a. Both (A) and (R) are true and (R) is the correct explanation of (A)
- b. Both (A) and (R) are true, but (R) is not the correct explanation of (A)
- c. (A) is true, but (R) is false
- d. (A) is false, but (R) is true

20. **Given below are the two statements labeled Assertion (A) and Reason (R).**

Assertion: The mesomorphs are long and lean, with little body fat.

Reason: The mesomorphs have muscular body with strong forearms and thighs.

In the context of the above two statements, which one of the following is correct?

- a. Both (A) and (R) are true and (R) is the correct explanation of (A)
- b. Both (A) and (R) are true, but (R) is not the correct explanation of (A)
- c. (A) is true, but (R) is false
- d. (A) is false, but (R) is true

21. **Given below are the two statements labeled Assertion (A) and Reason (R).**

Assertion: The endomorphs are stocky with large round body or pear shaped body.

Reason: They have short arms and legs.

In the context of the above two statements, which one of the following is correct?

- a. Both (A) and (R) are true and (R) is the correct explanation of (A)
- b. Both (A) and (R) are true, but (R) is not the correct explanation of (A)
- c. (A) is true, but (R) is false
- d. (A) is false, but (R) is true

22. **Given below are the two statements labeled Assertion (A) and Reason (R).**

Assertion: The endomorphs have pear shaped body.

Reason: The endomorphs have long arms and legs.

In the context of the above two statements, which one of the following is correct?

- a. Both (A) and (R) are true and (R) is the correct explanation of (A)
- b. Both (A) and (R) are true, but (R) is not the correct explanation of (A)
- c. (A) is true, but (R) is false
- d. (A) is false, but (R) is true