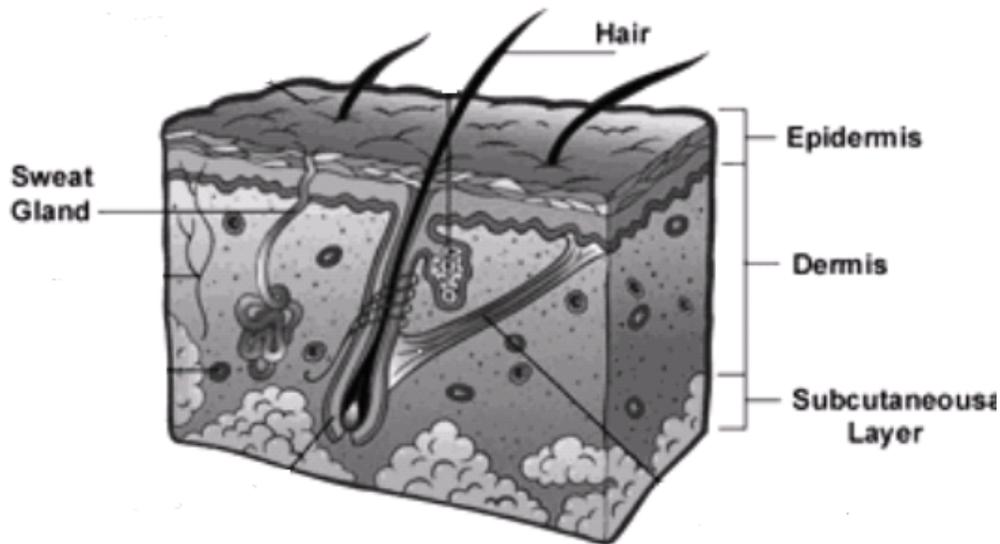


# Preparation for HND Interview Briefing

## Skin



The skin is the largest organ of the human body. It provides a tough flexible covering for the body and has many different functions. Every 5 days a human will shed a complete surface layer of skin. This process is known as desquamation. 80% of household dust is made up of dead skin cells.

There are 3 main layers that form the structure of the skin. These are –

- The epidermis
- The dermis
- Subcutaneous layer

The epidermis is the outermost layer of the skin and is made up of 5 different layers. The main function of the epidermis is to protect the deeper structures of the body from harm. The layers are from the outside in –

Stratum Corneum

Stratum Lucidum

Stratum Granulosum

Stratum Spinosum

Stratum Basale

The dermis is the layer underneath the epidermis. It contains 2 layers called the –  
Papillary layer – this layer contains nerve endings and blood capillaries.

Reticular layer – this layer contains the fibres that give the skin strength. These are known as collagen fibres. It also contains fibres called collagen. These allow the skin to stretch.

The innermost layer of the skin is called the sub-cutaneous layer. This layer contains fat cells which are also known as adipose cells. This layer forms a soft barrier for protection and also insulates the body against the cold.

## THE PILO SEBACEOUS UNIT

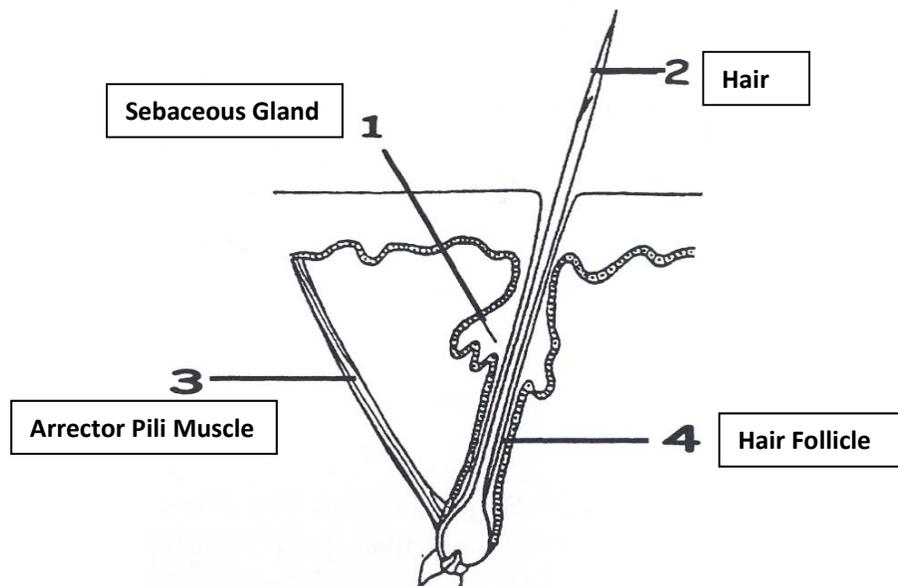
Every hair grows from a tiny tube that lies at an angle in the skin and opens onto the surface of the skin. It is known as the hair follicle. The base of the follicle is usually situated deep in the dermis where it has a supply of blood vessels to 'feed' it.

The functions of the hair follicle is to produce a hair and secrete sebum (the oil that helps to keep our hair shiny and skin bacteria free, soft, moisturised, and water proof) from the sebaceous gland.

Because the hair follicle is a very important part of the skin itself, there is a collective name for all the structures that are part of it. It is called the pilo-sebaceous unit.

The pilo-sebaceous unit is made up of:

- The hair
- The hair follicle
- The sebaceous gland
- The arrector pili muscle



The arrector pili muscle is attached to the side of the hair follicle at its lower end and to the base of the epidermis at its upper end. When this tiny muscle contracts, it becomes shorter and acts as a lever, pulling the hair follicle vertical which makes the hair in the follicle stand straight up.

You can see this happening on your skin when you are cold or when you get a fright; you probably know it as gooseflesh (or goose bumps). Your hairs stand on end and your skin looks bumpy. Your body does this to close up the opening of the follicle so that you do not lose heat from your skin. Your hairs are also made to stand on end to trap air and help to keep you warm.

In animals this function is also designed to help scare off other animals as the long coat hair stands out and makes the animal look bigger and scarier



When you are no longer shivering you will notice that your skin goes smooth and your hairs lie flat on your skin again. This means that your arrector pili muscle has relaxed.