

Skin

The skin is the largest organ of the human body. It is soft, to allow movement, but still tough enough to resist breaking or tearing. It varies in texture and thickness from one part of the body to the next. For instance, the skin on our lips and eyelids is very thin and delicate, while skin on the soles of our feet is thicker and harder.

Our skin is a good indicator of our general health. If someone is sick, it often shows in their skin.

Functions of the skin

Skin is one of our most versatile organs. Some of the different functions of skin include:

- A waterproof wrapping for our entire body
- The first line of defence against bacteria and other organisms
- A cooling system via sweat
- A sense organ that gives us information about pain, pleasure, temperature and pressure.

The epidermis

The skin you can see is called the epidermis. This protects the more delicate inner layers. The epidermis is made up of several 'sheets' of cells. The bottom sheet is where new epidermal cells are made. As old, dead skin cells are sloughed off the surface, new ones are pushed up to replace them. The epidermis also contains melanin, the pigment that gives skin its colour.

The dermis

Under the epidermis is the dermis. This is made up of elastic fibres (elastin) for suppleness and protein fibres (collagen) for strength. The dermis contains sweat glands, sebaceous glands, hair follicles, blood vessels and nerves.

The subcutis

The subcutis is a layer of fat that sits immediately under the dermis. It provides thermal insulation and mechanical protection. It gives smoothness and contour to our body. Adipose fat stored in the subcutis is a source of energy.

Glands and blood vessels in the skin

The dermis is well supplied with blood vessels. In hot weather or after exercise, these blood vessels expand, bringing body heat to the skin surface. Perspiration floods out of sweat glands and evaporates from the skin, taking the heat along with it.

If the temperature is cold, these blood vessels in the dermis contract, which helps to cut down on heat loss. Sebaceous glands in the dermis secrete sebum to lubricate the skin.

Hair and nails and the skin

Hair and nails are manufactured by cells in the epidermis. Our lack of a complete cover of body hair makes human skin very different from the skin of any other animal. Hair is made up of a protein called keratin. The amount of hair on our body varies from place to place.

Hairless sites include the lips, palms and soles of the feet. The hairiest sites include the scalp, pubis and underarms in both sexes, and the face and chest in men. Nails are made from skin cells, but the only live parts are the nail bed and the nail matrix underneath the cuticle. The nail itself is made of dead cells.

Nerves in the skin

Both the dermis and epidermis have nerve endings. These carry information about temperature, sensation (pleasure or pain) and pressure. Some areas have more of these nerves than others, such as the fingertips.

Common skin problems

Some common skin problems include:

- Acne – caused by hormones
- Dermatitis – inflammation of the skin, with many different triggers
- Fungal infections – such as tinea (athlete's foot)
- Skin cancer – from long-term exposure to the sun's UV (ultraviolet) rays
- Sunburn – a radiation burn from the sun's UV rays
- Warts – caused by a virus.

Where to get help

- Your doctor
- Dermatologist
- SunSmart Tel. (03) 9635 5148

Things to remember

- Skin is the largest organ of our body.
- The skin is made up of three main layers: the epidermis, dermis and subcutis.
- Our skin is a good indicator of our general health.

This page has been produced in consultation with, and approved by:

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