

The Skin

The skin is the largest organ in the body. It forms a complete external covering of the body and is visible to other people. This means that most of our skin problems are also visible to other people. In order to understand the common skin conditions affecting adolescents and what it feels like to have a common skin condition, we first need to understand the skin itself - what it is made up of and what it does.

did you know??

On a very hot day, an average adult can lose up to 2.5 litres of sweat

What is the skin made up of and what does it do?

The skin is made up of two main layers: the epidermis and the dermis (see skin diagram).

The epidermis is the outer layer of the skin and is made up of cells called epithelial cells. Some parts of the epidermis are very thick, such as on the soles of our feet, and some parts are very thin, such as our eyelids.

The epidermis provides a physical barrier that prevents microorganisms (germs) and substances such as water from entering the body, and helps to protect us from disease.

The epidermis also contains cells called melanocytes which produce a substance called melanin. Melanin is a skin pigment and gives skin its colour. People who have darker skin produce more melanin than people with paler skin. Melanin provides protection against sunlight (ultraviolet light). The amount of melanin produced increases when the skin is exposed to sunlight, and this is why some people tan when they are exposed to the sun.

Under the epidermis is a thicker layer of the skin called the dermis. This mostly consists of connective tissue and cells called fibroblasts. The dermis provides much of the skin's strength. This layer of the skin contains blood vessels, lymphatic vessels and nerve fibres.

The dermis plays a major role in controlling our body temperature. When we are warm, the blood vessels expand and this helps the body to lose heat. The reverse occurs when we are cool, in that the blood vessels become narrow to stop the body from losing any more heat. As well as detecting temperature changes, the skin also provides the body with other information about the environment, enabling us to feel pain and pressure.

The skin also contains hair follicles, sebaceous glands and sweat glands (eccrine and apocrine).

A hair follicle is a narrow tube in the skin which contains cells that produce hair. Hair follicles and hair are found over most of the skin, even though some hair is so fine it is hard to see. The palms of the hands, soles of the feet, lips and eyelids (apart from the eyelashes), are the only parts of the body which do not have any hair growing on them.

did you know???

Your skin gives signals to others about you. Feelings of embarrassment or self-consciousness may cause you to blush or feeling unwell may cause you to look pale. It can be particularly frustrating when we do not want others to know how we are feeling!

Some manufacturers who make products that are used to clean the skin claim that their products open the pores in the skin and clean them out. Some even claim that their products close the pores once they are clean. A pore is the opening of the hair follicle and it cannot be easily opened and closed by a product applied to the surface of the skin.

Sebaceous (oil) glands are found in part of the hair follicle. They produce a type of oil called sebum which lubricates the hair and keeps the skin supple. Sebum travels up the hair follicle and onto the surface of the skin where it is often rubbed off by clothing or washed off in the shower. When this happens, the sebaceous glands produce more sebum. Sebaceous glands become most active when certain hormones are released at puberty. This contributes to the development of acne (see the "Acne (Pimples)" Information Sheet).

Eccrine sweat glands are found over most of the skin. When we are hot, they release sweat to the surface of the skin. This has a cooling effect.

Apocrine sweat glands are found in the armpits and groin area. These glands only begin to work when certain hormones are released at puberty. They produce an oily fluid which has a musky smell when it comes into contact with the air and bacteria. This smell is often described as body odour.

What about body odour???

We have all smelt or heard people complain about the smell of body odour. Many people consider body odour to be unpleasant and use various methods to prevent and remove this odour. Not all body odour is caused by the apocrine sweat glands. Some foods, such as garlic, meat, chillies, alcohol and peppercorns, can create body odours. For most people, regular bathing and deodorants or antiperspirants will work to keep body odours under control.