



GETTING TO KNOW YOUR SKIN

www.woundaware.org

Skin is the largest organ in the human body. It is supple enough to allow movement, but generally tough enough to resist breaking or tearing. Skin varies in texture and thickness depending on the location; for example, your eyelid skin is thin (at 0.5mm) and delicate, while the skin on the soles of our feet is thicker and harder (around 4mm thick).

Any break or opening in the skin is a wound.

What does the skin do?

Skin is a barrier against trauma from water, chemicals, microorganisms, mechanical stress and irradiation. It regulates temperature, working with the brain to produce sweat that cools an overheating body or heat to warm a cooling body.

The skin is a sensory organ, connecting us with the outside world and providing feedback on sensations like temperature, touch and vibrations.

Skin plays a crucial role in supporting the immune system, detecting foreign matter like bacteria and triggering an immune reaction that is the body's way of fighting infection. Read more about infections in factsheet 4.

What is skin made of?

The epidermis is the outermost layer of the skin – the one you can see. It creates a waterproof barrier to hold moisture in and keep moisture out and protects the more fragile tissues below. It also contains the pigment-producing cells (melanocytes) that give the skin its colour.

There is a continuous process of renewal in the epidermis. New cells are formed in the lower layers of the skin rising to the surface of the skin as they mature. These replace the old cells that die and are shed.

The dermis lies just beneath the epidermis and gives the skin its structure. It's made up of networks of elastic fibres (elastin) for flexibility and dense fibres (collagen) for strength. The dermis contains nerve fibres for sensation and blood vessels for transporting nutrients and waste products and for regulating temperature. In



THE WOUND WARNING SIGNS

- ✓ Hot and painful
- ✓ Smells bad
- ✓ Oozing thick yellow liquid
- ✓ 30+ days to heal



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Consumer education about chronic wounds by experts at the national peak body, Wounds Australia. Find more factsheets for consumers on our website.



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hot weather or during exercise, blood vessels expand to bring heat closer to the skin surface, which then evaporates in perspiration from sweat glands, while blood vessels contract during cold weather in order to conserve body heat.

The subcutaneous layer of fat beneath the dermis provides temperature insulation and mechanical protection. It gives smoothness and contour to our body, and cushioning. The fat stored in the subcutaneous is a source of energy, and the size of this layer varies around the body, and from person to person.

How the skin changes with age

Ageing skin is at greater risk of injury and takes longer to heal because:

- Collagen and elastin production decrease, making the skin more fragile.
- The epidermis and subcutaneous layers begin to thin, reducing their protective powers.
- Older blood vessels are more prone to bruising and breaking.
- Chemical changes that occur with ageing mean fewer surface bacteria are destroyed than in our youth, increasing the chances of infections in broken skin.

Additionally, many chronic conditions that impact wound healing rates, such as diabetes (see factsheet 9) and vascular disease (see factsheet 11), are associated with age. Some medications that tend to be prescribed to older people also affect wound healing.

It's clear that ageing skin is at increased risk of chronic wounds occurring. The good news is that some skin care habits will help you minimise your risk of developing chronic wounds and improve their healing rates, and we'll look at these in factsheet 8.



ADVICE AND SUPPORT

Good sources of advice about wounds include:

- Wound care clinicians
- GPs
- Nurses
- Pharmacists
- Podiatrists
- Aboriginal and Torres Strait Islander health workers
- Diabetes educators
- Some allied health professionals such as dietitians, occupational therapists and physiotherapists.



Find out more about healthcare professionals working with wounds in factsheet 6 on our website.