

### SENSITIVE SKIN

By Vanessa Brown, CNC Aged Care  
BrightSky Australia

Protecting our skin is of paramount importance. It is the largest organ in our body and it is constantly exposed to environmental elements.

At any age we need to take care of our skin but as we age our skin becomes more sensitive and vulnerable.

Our skin is made up of 3 layers, the epidermis, the dermis and the hypodermis (subcutaneous layer). Sitting within the skin layers are nerve endings, blood vessels-capillaries, sweat glands, hair follicles, lymph vessels, adipose tissue and sebaceous glands.

The nerve endings allow our skin to act as a sensory receptor, we are able to respond to extreme temperatures, stimuli and also differentiate between different textures.

The blood vessels transport oxygen and nutrients to the skin and also remove waste products from the epidermis. They also help with temperature control by “constricting or dilating to conserve or release heat “ Farris (cited 2013)

Sweat glands are designed to secrete sweat when our skin detects hot temperatures to assist cooling our body.

The sebaceous glands secrete oils which assist keeping our skin moist and smooth. They also produce acids to maintain the normal pH of our skin.

Adipose tissue is a tissue that stores fat within the skin. Its main role is to provide cushioning to limit trauma and insulation to maintain warmth.

As well as incorporating the above components, the skin has other functions. The skin acts as a barrier to prevent entry of harmful substances and prevent excess fluid loss from our body. The skin is also responsible for vitamin D synthesis. The skin when exposed to ultraviolet-B rays in sunlight produces Vitamin D. Vitamin D production is important as it is responsible for healthy levels of calcium absorption in our intestines. Without adequate calcium absorption, we are at risk of weakened bones.

Also found in the skin are proteins called elastin and collagen. These proteins provide the supportive structure of

the skin. Collagen is responsible for firmness whilst elastin is responsible for tightness, basically strength and flexibility.

The ageing skin goes through numerous changes.

Stephen – Haynes (2012) suggests that during the ageing process there is a loss in the thickness of the dermis, the thinning of the dermis reduces the blood supply to the area, as well as a reduction in the number of nerve endings and collagen. This leads to a decrease in sensation, temperature control, rigidity and moisture control. (p.6)

The hypodermis (subcutaneous layer) lies below the dermis and is composed of adipose (fat) and connective tissue. As the subcutaneous layer thins, this area is susceptible to trauma. The blood vessels also become more fragile which can lead to bleeding /bruising. The subcutaneous layer provides insulation and if this layer is thinned it puts us at greater risk of hypothermia. As we age, our sweat glands can become less effective and less sweat is produced. Sweat is released by sweat glands to help cool our body. If we produce less sweat the harder it is to keep cool. Elderly people are at “increased risk of heat stroke.” (Voegeli 2012) p.63

“Owing to a loss of collagen and elastin, the skin naturally becomes thinner in those beyond 70yrs making skin more susceptible to damage from mechanical forces such as moisture, friction and shear.” Stephen – Haynes (2012) p.s.8. Skin is at risk of damage as its normal strength and flexibility is reduced.

The ageing process also leads to shrinking of the sebaceous gland, less sebum/oil is produced causing dryness of the skin. The sebaceous glands ability to maintain a normal pH in the ageing skin may also be affected. This puts the skin at risk of becoming more alkaline. The more alkaline the skin, the greater the risk of infection. The skin may also become rougher, dryer and the skin may flake, Farris explains.

Older adults are at increased risk of developing vitamin D insufficiency. In part because, as they age, skin cannot synthesise vitamin D as efficiently, they are likely to spend

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more time indoors, and they may have inadequate dietary intake of the vitamin. This is supported in an article by Jansenn et.al (2002)

Voegeli, D (2012) suggests changes in our skin as we age are not only attributed to the ageing process. Our skins condition is also attributed to genetic and environmental factors. The environment, mainly sun exposure and lifestyle choices such as smoking, all impact on the rate and extent of skin ageing. (p62)

Due to the changes that occur to the skin as we age, precautions need to be taken to ensure our skin remains intact and free from injury.

Adhesives need to be used with caution on elderly skin. Removing adhesive products such as tapes can strip already thinned sensitive layers of the skin.

Soaps can also have negative effects on our skin. Components that are added to soaps are known to be skin irritants and they may also strip the skin of essential oils which dries out the skin. This is supported in a clinical review 2010. As mentioned earlier it is important to maintain a normal pH to the skin and some soaps can disrupt this acid level.

If ageing skin is exposed to excessive moisture such as urine, faeces or fluids from heavily exudating wounds, skin is at risk of breakdown. A barrier cream product may be useful to protect the skin. Voegeli, D (2012) supports the use of an appropriate barrier cream to assist in the protection of fragile ageing skin. (p67)

### Tips for maintaining skin health

- limit lengthy exposure to the sun
- regular G.P. checks
- maintain good nutrition and adequate hydration
- use a non slip moisturiser
- use a mild soap (one that does not affect the normal pH of the skin)
- avoid injuries (reduce clutter, be aware of sharp edges, wear correctly fitted shoes, wear glasses, ensure adequate lighting)
- if immobile, ensure regular repositioning to avoid pressure areas. Use pressure relieving pads and mattresses. Avoid dragging of skin when being moved to reduce risk of tearing.
- if incontinent, ensure absorbency levels of continence products are adequate to minimise skin exposure to urine +/- faeces, and ensure the products are changed as needed.
- if skin is exposed to excess moisture, use a barrier cream to protect the skin. If you are using continence pads, ensure the barrier cream is suitable for that product. Some creams can smear onto the pad and affect how well the pad absorbs fluids.
- manage health conditions effectively eg. diabetes, dermatitis, psoriasis etc.
- inspect skin regularly for injury
- daily washing and thorough drying of skin (dabbing/patting skin rather than rubbing).

### References

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