

# Skin

*“The skin is far more than a protective outer coat of the body; it is our interface with the world. Through it we touch and are touched, it is our protection into the world of form; it is the image we create.”*

- David Hoffmann

Our skin is the largest organ of our body; an organ of protection and elimination. Our skin is also our major physical representation to the world around us. It is the ‘visual’ appearance of people that we notice first. This is where someone’s skin colour challenges our sense of self. They are different to us. Then we tend to look for other differences.

Skin and nervous system tissue

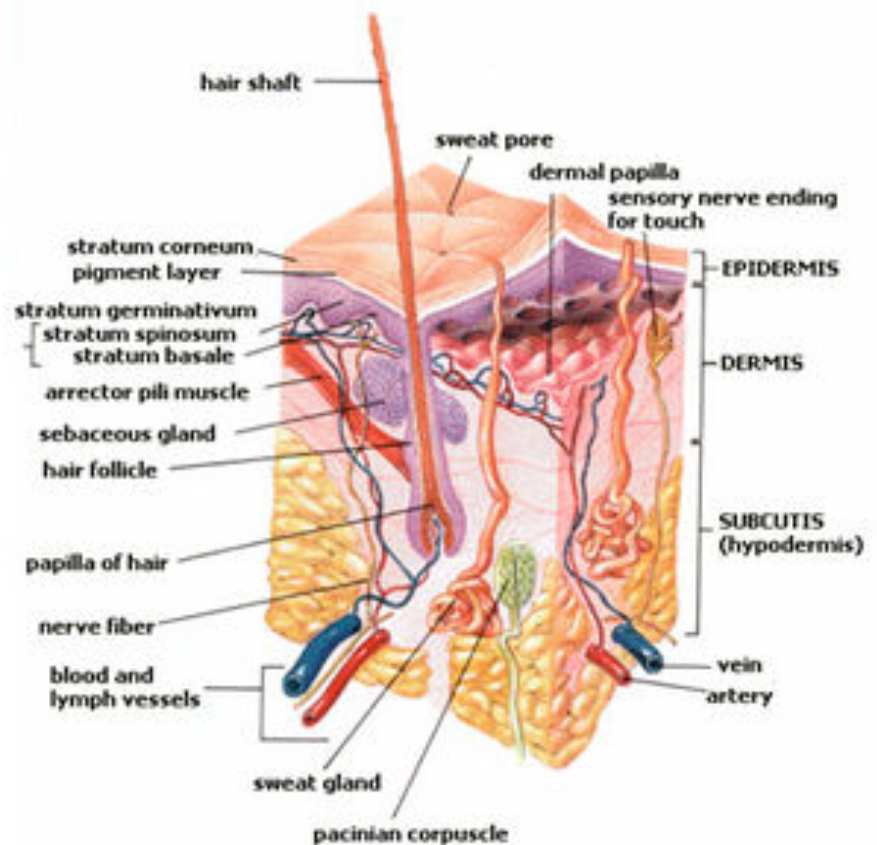
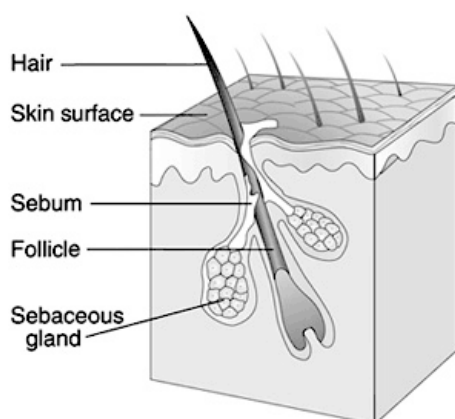
arise from the same foetal tissue; hence skin and the nervous system have a close functional relationship.

Being the biggest organ of elimination of our body and the health of our skin is a gauge of what is going on inside our body. The condition of the skin is a very valuable assessment tool the underlying cause of ‘un-wellness’ in a person. E.g. If the skin is dry; look at the digestive tracts ability to absorb nutrients. Does the skin feel hot or cold? With contact dermatitis, what substances are in contact with the body which cause irritating reactions to the skin? In cases of eczema, what is being ingested to the body and causing an internal reaction, an inflammatory response, which manifests in irritated and inflamed skin externally?

Changes in a person’s body function show through the skin, our diet, fitness, stress etc affect the condition of our skin. *We express a lot of our self image through our skin.*

## What do you need on the inside to look great on the outside?

Diet & Skin Nutrition: Essential Fatty Acids (EFA’s) in your diet are essential for healthy skin, in fact are essential for the development and effective cellular function. They assist the formation and function of the cellular membrane or lipid layer, which every cell in your body has. EFA’s are derived from fats and oils, so it essential to have a regular intake of ‘good fats and oils’ in your diet.



A wide range of fresh fruits and vegetables will ensure that we ingest the vitamins and minerals we need. To make new body tissue & repair damaged to existing tissue we need protein foods, which through digestion are broken down into amino acids. These are known as ‘building blocks’ for our body. Protein is obtained from meat, sea foods, grains, nuts, seeds and many fruits and vegetable, so if you choose to be Vegetarian find out your best protein sources.

*“It is better to prevent than to cure” - Peruvian (on common sense)*

**Water:** Our body composition contains about 2/3rds water. Water has different concentrations in the body. Lean muscle tissue contains about 75% water. Blood contains 83% water, body fat contains 25% water and bone has 22% water.

For us to function well we need to maintain these levels. We can survive without food for months, yet without any water we will die after a few days.

**Sun & Skin:** Long-term sun exposure, (particularly the Ultra Violet (UV) light part of the light spectrum), has been shown to be the cause as the cause of ‘sun-induced skin damage’. This included sunspots, actinic keratoses and skin cancers. These include Non-Melanoma Skin Cancers include basal cell and squamous cell carcinomas (BCC & SCC’s) also Melanomas – (carcinoma means cancer).

Generally the more long-term sun exposure a person has, the more likely they are to develop some type of ‘sun-induced skin lesion, especially if the skin gets sunburnt.

Higher incidence of these lesions are found in countries with a sunny climate or closer to the equator. And with people with outdoor occupations and those who enjoy outdoor activities. Australia has the highest skin cancer rate in the world and the greatest prevalence of actinic keratoses amongst adults older than 40 years. It has been reported that for people older than 40 years 40-60% of them will have at least one.

They are more frequent in men than in women and this is considered to be due to the greater cumulative UV exposure more men working in outdoor occupations than women. A high-fat diet is another factor that has been indicated in the progression in development of lesions such as actinic keratoses.

Current Medical Treatments for sun-induced skin lesions include destruction of the lesion with cryogenics (freezing), electrodesiccation (burning), curettage (cutting), and chemical peeling agents and medical therapy with chemicals such as 5-Fluorouracil and retinoid. Other treatments include escharotic (eroding) paints, creams and lotions. All these treatments cause some degree of pain and leave some degree of scarring. There are also commercially available products, sold as ‘cosmetic treatments’, that have a ‘bleaching action’, that is they contain chemicals that bleach the skin thereby fading skin marks, including ‘sun and age spots’.

### **Historical use of herbs for skin disease**

From the very early history of mankind, plants were used to treat disease; these were referred to as herbs and some had very powerful actions.

Actinic Keratoses and other skin lesions were not historically recognized as a specific name, they were considered as “growths or cankers”, along with other skin lesions, including skin cancers.

There is a traditional use of herbs for such skin conditions (1)

Plants are complex chemical cocktails. Each specific chemical has a specific therapeutic action.

There has been some research conducted to assess a number of the individual constituents; particular attention has been focused on a large class of phytochemicals (plant chemicals) broadly known as ‘antioxidants’. There is a group of phytochemicals called polyphenols. They have been shown to have antioxidant, anti-inflammatory and anti-tumour properties, all of which are relevant therapeutic actions for treating AK’s (2)

To date there has been limited research to investigate the use of herbs for treating sun damaged skin. From some research there is evidence that support Polyphenols in plants do have anti-oxidative, anti-inflammatory and anti-tumour activity. (3)

Flavonoids are another significant group of chemical compounds in plants that have been referred to as “biological stress modifiers” as they have been shown to protect cellular function against environmental stressors. They assist to stabilise cellular membranes and they have anti-oxidant and anti-inflammatory actions. (4) These actions assist to counter the UVR (Ultra Violet Radiation) damage on human skin.

- (1) Fisher, C. P., G. (1996). *Materia medica of western herbs for the southern hemisphere* (1st ed.). Auckland: self published.
- (2) Lin, J.K, *Cancer chemoprevention by polyphenols including flavonoids and flavonoids through modulating signal transduction pathways*, *Phytochemicals: mechanism of action* 2004 CRC Press New York Pgs 79-106
- (3) Epstein, Howard *Cosmeceuticals and polyphenols*, *Clinics in Dermatology*, 2009 27 (5) Pg 475-478
- (4) Pengelly A, *The constituents of medicinal plants* Publisher Sunflower Herbals Muswellbrook, NSW 1996



**We sweat, urinate and breathe out water every day.** Water is essential for all body functions including the elimination of toxic waste from our body.

The regulation of our body water content is the task of our hormones (aren't they so important to take care of!), including anti-diuretic hormone (ADH), aldosterone and atrial natriuretic peptide.

It is so very important also to take care of our kidneys as they play a significant part with the hormone and water regulation.

Our clever body has a mechanism to let us know if its water levels are depleting, it is called our thirst reflex, and we feel thirsty and want to drink to quench this feeling.

As we age we lose our 'thirst reflex', this means that we don't feel thirsty, even if we are dehydrated. It is very important to ensure that our aged folk drink enough water, even if they don't feel thirsty and not, just drinking cups of tea is not enough! Tea, coffee and alcohol act as diuretics and so will further stimulate water to be excreted from your body. Now I am not going to be a 'wowsler' here and say not to drink these beverages, what I am suggesting is that we become more aware of what we drink.

Of course, we need more water in summer than winter due to increased sweating. Generally it is considered that we require a minimum of 2 litres a day.

A great way to start the day is warm water and lemon juice – the water re-hydrates and the lemon juice has an 'alkalising' effect on our body (even though we consider lemons to be acid).

## **Lifestyle**

Take care with: What you put on your body. Soaps, deodorants, moisturisers, fragrant toilet paper. Artificial fragrances are responsible for many 'allergic reactions'. Fragranced toilet paper is often responsible for itching and inflammation in the genital & anal area.

If you have such problems, I would suggest using fragrance free toilet paper as the first step to treating this.

**Cleaning Agents:** Can cause contact dermatitis, respiratory problems, toxic homes, these can absorb through our skin and lungs.

*“Living herbs – living because unlike drugs, they are organic and not inorganic. They are natural food and medicine for the membranes, glands and tissues.”*  
– Mrs Level, 'The Truth about Herbs' 1943

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**Advisory Note:** This text is given a general guidance. If any adverse reactions occur or symptoms persist, please contact a qualified Medical Herbalist or Doctor immediately