



Module 2 : Anatomy of the Skin

- About skin layers and their roles
- What the Epidermis is
- About the Dermis and the important role it plays
- What to do in the event the skin layer gets broken while treatment is being carried out

In this module you will learn:

- About skin layers and their roles
- About contraindications and contra actions
- What the epidermis is
- About the dermis and the important role it plays
- What to do in the event the skin layer gets broken while treatment is being carried out

2:1 The Skin



The chances are you already know that the skin is the body's largest organ.

In addition to acting as a mechanical barrier between the inside of your body and pathogens outside, it keeps you warm, and it keeps you cool.

What you may not know is that the nail bed and your nails are simply an extension of the skin. This is why both are so important to nail technicians.

In order to do this, the skin needs to be robust. For the majority of people, this is the case. Aside from the odd spot of sunburn, many do not experience any acute or chronic skin conditions. However, this does require the skin's owner to treat it properly. As a nail technician, you too will need to treat the skin properly. Part of your role will involve bringing it into contact with noxious substances.

Because of this, you need to understand the skin, its layers, and its roles. Knowing more about all these factors can help you determine which products to use and it helps you know how to respond when something goes wrong.

Contraindications and Contra actions

Even though most people do not experience any acute or chronic skin conditions, as nail technicians, we may need to deal with contraindications or contra actions on a daily basis.

Contraindications: this would mean you would not be able to go ahead with treatment, and to advise your client to seek medical attention. Always remember to never 'diagnose' a client as you are not a qualified doctor or GP.

Examples of contraindications:

- skin conditions: eczema, dermatitis, psoriasis
- cuts\abrasions
- bruising\swelling
- lumps\swelling
- infectious skin diseases: impetigo, scabies, chicken pox, mumps

- broken bones
- ringworm
- fungal nail infections
- paronychia(whitlow)

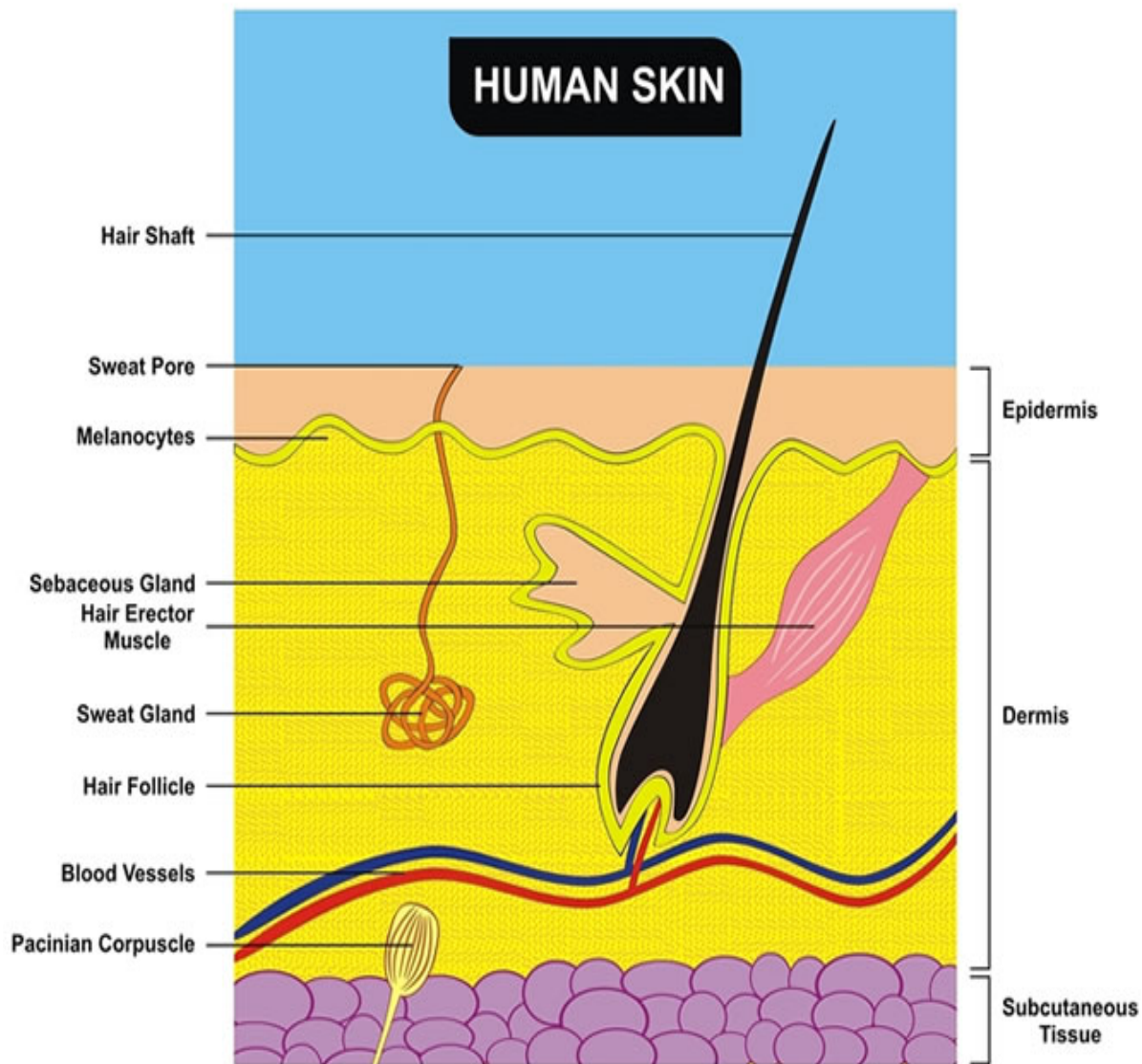
Contra actions: this is something that would happen during a treatment meaning the treatment would need to be stopped.

Examples of contra actions:

- headache
- nausea
- vomiting
- profuse sweating
- restlessness and irritability
- feeling faint
- abnormal erythema (redness of skin)
- allergic reaction - make sure any allergic reactions are noted down in clients' records, so you know for future appointments

When performing your consultation, before every treatment, any contra-indications should be made a note of, and, if any contra-actions happen during the client's treatment, make sure this is also noted.

Human Skin Cross-section



2:2 The Epidermis



The outermost layer of the skin is the epidermis.

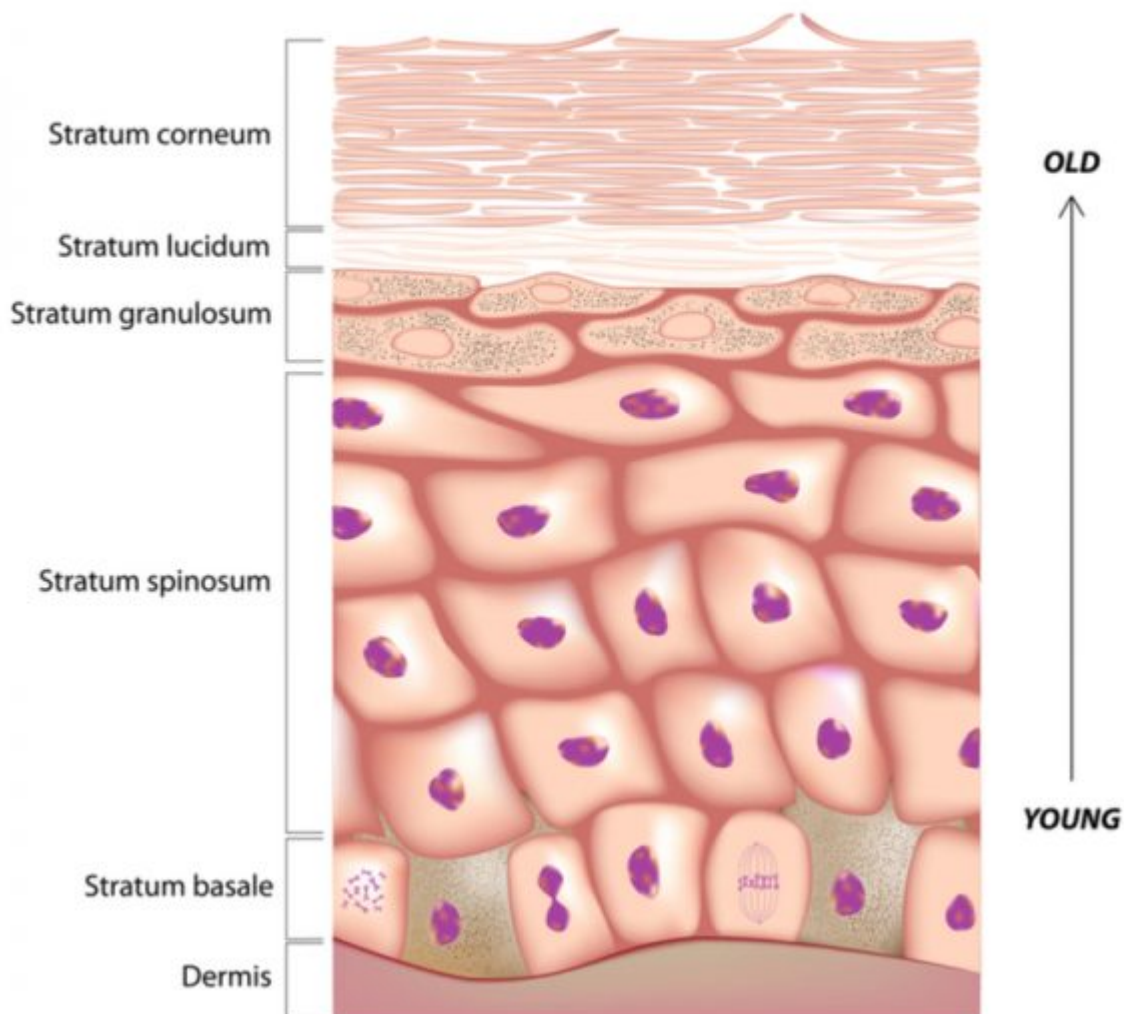
Its etymology stems from the Greek word 'epi' which means 'over', along with the anatomical term 'dermis'.

The epidermis is made from something called 'stratified squamous epithelium'. Across the body, there are cells made from several defining shapes. Squamous cells tend to be flat, and the stratified element means they are layered on top of one another. The stratified squamous epithelium of the epidermis makes its way up towards the surface from the basal layer of the skin. This is a continuous process, and as they move upwards, they lose their keratin and die. In other words, the epidermis is made of dead skin cells.

Does this mean the epidermis is insensitive? Not at all. There is only a small distance between the epidermis and nerves that fire pain signals, which means you need to pay close attention to your clients' skin as you work on them.

Epidermis cross-section

Structure of the Epidermis



2:3 The Dermis



The dermis, otherwise known as the skin's dermal layer, is a little more complex than the epidermis.

It features sweat glands, connective tissue, and hair follicles. When it comes to maintaining the skin's tone, the dermis plays an incredibly important role. There's a lot of connective tissue and collagen there, which keeps the epidermis above lovely and stretchy.

Thanks to those hair follicles and sweat glands, the dermis plays an important role in keeping you safe. The hair follicles, when stimulated, let you know that something is present on your skin. This is a protective mechanism, as it allows you to remove whatever that thing is. At the same time, they will stand on end and flatten themselves to respond to varying degrees of heat.

As for the sweat glands, they don't just produce sweat for the sake of being gross. They push sebum through too, which keeps your skin lovely and supple. Okay, so this is the stuff that's also responsible for acne at times, but for the most part it is a lubricant that prevents the progression and establishment of conditions like dermatitis.

2:4 Subcutaneous Layer

As a nail technician, you'll have very little to do with the subcutaneous layer, but it helps to know that it's there.

The subcutaneous layer of the skin is made of fat and connective tissue. Its presence helps keep the skin in shape, and it makes you nice and warm.

Amongst all these layers, you will find:

- Small blood vessels: Unlike major blood vessels, they're not likely to make you bleed excessively when disturbed. However, they do feed down into the larger ones, which means cutting them increases the risk of infection. It's painful too.
- Nerve endings: The skin features nerve endings and there really is a lot of them. They come under lots of different names, but some of them can produce raw and uncomfortable feelings when sheared. At the same time, these nerve endings deliver pleasurable sensations during hand massages.
- Melanin: Melanin is responsible for the colour we go when we tan. For some of us this means turning a glaring shade of pink, while others may find they turn a lovely golden colour.

One of the key things you need to remember about the skin as a nail technician is that it is a barrier to infection. When disturbed, even the smallest of cuts can lead to serious problems. As such, you need to make sure your tools and working environment are as sterile as possible. This includes items such as files, brushes, metal tools, towels etc – **everything must be sterilised**. In addition, you should change gloves between clients. This is made easier by using disposable gloves.

If you do break this barrier, don't carry on working. Hopefully you just won't do this, but if you do you should clean the wound, dress it, and ask the client to keep an eye on it.

Finally, you also need to remember that the skin is the pathway to great sensations when you're performing manicures and pedicures. Different nerve endings deliver different types of signals. When brushed lightly, some send slow and sensuous signals, while others deliver tickling sensations. Learning how to apply the right amount of pressure is the best way to ensure your customer relaxes and enjoys their treatment.

The skin isn't just important to you, it's important to your client. Having an understanding of its anatomy, how it responds to different forms of stimulation, and what to do if you injure it are all key to your success.

Go and Practice

Estimated time: 10 minutes

Study the human skin cross section from section 2.1 then print out the worksheet below and fill in the missing blanks

[Download Worksheet](#)

Module Summary

In this module, you learned a little about the skin. Not only is the skin an important barrier to infection, but it is also full of nerve endings that let you deliver great hand and foot massages to your clients.

There are three key layers to the skin you need to understand: the epidermis, dermis, and subcutaneous layer. Knowing more about them helps you keep your clients safe.

You also learned about contraindications and contra actions, and how important it is to make a note of these when performing your consultation.

[Tweet "I just completed Module 2 of the Nail Technician Diploma"]
