

Skin and nail analysis

What you will learn

- The importance of carrying out a nail and skin analysis
- How to identify nail and skin conditions
- Diseases and disorders of the nail and skin

Key terms

Analysis – looking at the nails, skin and cuticles and determining their condition.

Contra-indication – skin disorder or disease that prevents or restricts a treatment.

Contagious – a disease that can be passed from one person to another.

Restriction – a limitation or reduction.

Adaptions – changes that are made to a treatment plan to suit the individual client.

Direct cross-infection – when a person is infected by a contagious person by being in direct contact with them, for example through touch.

Indirect cross-infection – when a person is infected because they have been in contact with something, for example a tool, that has been used on a client with a contagious disease.



Severely bitten nails

Think about it

If you do not identify a contra-indication, then you and every person you come in contact with could be either **directly** or **indirectly cross-infected**.

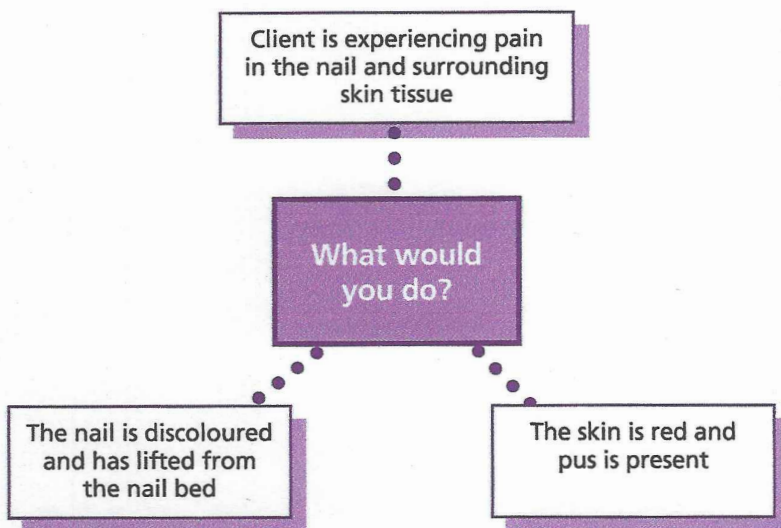
Introduction

Having a good understanding of nail and skin **analysis** is vital to the nail technician, and you will need this knowledge and understanding to complete assessments for all the practical skills units.

The importance of carrying out a nail and skin analysis

As a nail technician, you need to understand that there are many **contra-indications** that can prevent a treatment from happening. The client may suffer from a nail or skin condition that could be **contagious**, might be caused pain if worked upon, or the treatment could cause the condition to worsen. If none of these possibilities applies, then the treatment can be performed with **restrictions** or **adaptions**; for example, if a client has a very old bruise on their arm, then either avoid the area or avoid putting pressure on it.

What would you do?



Not every client will have perfect nails and skin, which means that you must understand and be able to recognise every possible contra-indication to enable you to make an informed decision as to whether or not to perform or adapt a treatment. Some conditions such as excessively dry nails are not contagious and would benefit from regular ongoing treatments.

How to identify nail and skin conditions

The consultation process

Before you plan the client's treatment, as part of the **consultation** process, you must first check for contra-indications. This unit identifies the relevant nail and skin diseases and disorders that are applicable to a nail technician and would be contra-indicated. During the consultation, if you recognise a contra-indication, you must not say to the client what you think it is. Nail technicians are not medical professionals and might make a wrong diagnosis. Instead, inform the client that you think there appears to be a problem and advise them to visit their GP.

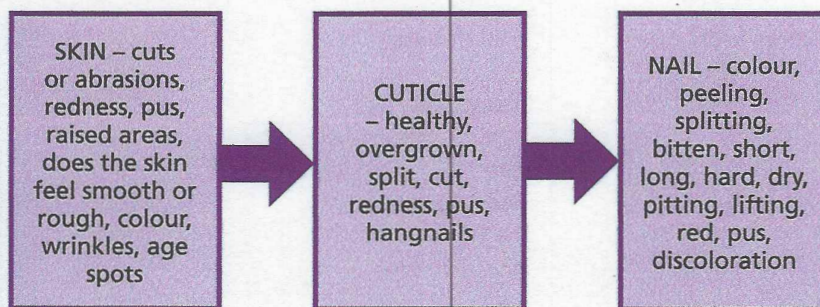
Secondly, you will need to check the general health of the skin and nails. Do they look healthy? Are there any concerns?

Consultation techniques

While performing a skin and nail analysis and checking for contra-indications, you will need to carry out the following procedures:

- visual checks – look at the condition of the skin and nails
- manual checks – feel the skin to determine if it is healthy
- questioning – ask the client if they have had any problems or concerns with their skin and nails
- referring to client's record card – you will need to establish if the client has visited the salon before to find out what treatments they have had. Also check for previous contra-indications, contra-actions and allergies as they will have an impact on your treatment plan.

Look at the flow chart of visual and manual checks to be carried out during analysis.



Visual and manual checks during analysis

Key term

Consultation – discussion between client and nail technician to determine treatment plan.

Think about it

While training to become a nail technician, you might not have the confidence or experience to instantly recognise a problem. To help you, create some flash cards with photographs of the condition and a brief description as a prompt.

Top tip

When examining the nails and skin for contra-indications, never touch the client's hands or feet. Perform visual checks first and use the hand towel to turn the client's hands or feet over to check both sides. If the client had a condition that could cross-infect, you could become contaminated if you touch the client. Once you are ready to begin the treatment, wipe over the area with a hand or foot sanitiser to cleanse the area.

Top tip

Do not perform a manual check until you are sure there are no contagious conditions present.

Think about it

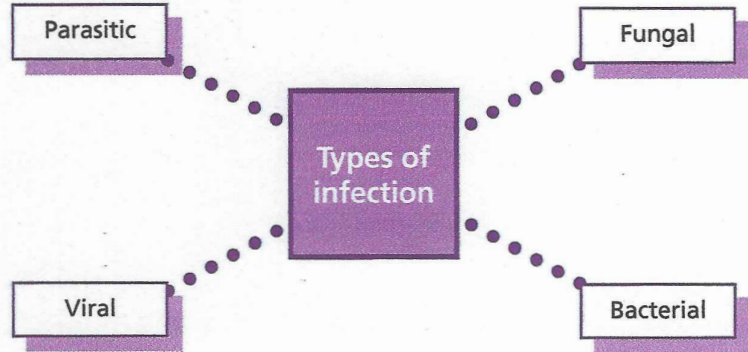
Examine your own nails, cuticles and skin. What condition are they in?

Think about it

Look at the table summarising contra-indications and decide whether each is a disease or a disorder.



Diseases and disorders of the nails and skin

A disease is a condition that is contagious, such as onychomycosis. A disorder is non-contagious, such as onycholysis.



Types of infection

The following table summarises the skin and nail diseases and disorders that you will need to know about. This knowledge will enable you to advise clients before any treatment begins. Some of the conditions will be infectious (can be cross-infected) and others will be non-infectious. There are other conditions that do not relate to a nail or skin disease or disorder but must be taken into consideration when performing a consultation.

Condition	Description	Cause	Treatment (contra-indicated or restricted)
<p>Ridges</p> 	<p>Longitudinal (vertical) grooves in the nail plate</p> <p>Long ridges that run either lengthwise (vertically) or across the nail (horizontally)</p>	<ul style="list-style-type: none"> Nail naturally grows that way Part of ageing process, illness or damage to matrix Vertical ridges are normal in adults and increase with age Can be caused by psoriasis, poor circulation or frostbite Horizontal ridges are caused by high fevers, pregnancy or measles 	<p>Buff the nails and apply ridge filler base coat</p> <p>Buff the nails and apply ridge filler base coat</p>
<p>Corrugations (furrows)</p> <p>Beau's lines</p> 	<p>Transverse lines or furrows on nail plate</p>	<p>During illness, nail cells in matrix stop reproducing. Once reproduction begins again, lines will be evident but will eventually grow out</p>	<ul style="list-style-type: none"> Regular manicure or pedicure Buff the nails and apply ridge filler base coat

Onychorrhexis (on-ee-korrex-is)



Split, weak, brittle nails – the dry, brittle nail may peel and split

- Lack of oil in nails
- Skin and nails exposed to chemicals or detergents
- Change of weather
- Unhealthy diet
- Illness or medication
- Too much buffing or filing

- Nail strengthener
 - Keep nails short
 - Wear gloves when using chemicals
 - Apply hand and nail cream
 - Regular manicures
- Note: Condition could worsen if nail enhancements applied

Hangnails

Cuticle down the side of the nail plate separates, leaving a long hangnail

Dryness

- Clip away during a manicure
- Use a hand and nail cream regularly

Whitlow (paronychia)



- Small abscesses at the side or base of the nail
- Swollen, red, infected (pus present)

- Viral (herpes simplex virus) or bacterial
- Damage to area with sharp object or having finger in mouth (thumb sucking in children)

Refer client to their GP

Bruised nail



Dark blue/black patch under the nail plate where blood has attached itself

Trauma

Avoid area while painful, then a dark enamel can be applied to disguise the discoloration

Habit or tic



- Damage to the nail as a result of regular picking or biting
- Can damage the matrix

Can be related to stress or a nervous condition

Manicure with care

Black streaks



- Usually small black streaks across nail plate, often around the top of the nail near the nail bed
- More common in dark-skinned than light-skinned people

- Indicative of heart problems or malignant melanoma
- An indication of hormonal changes and imbalance, as in the first stages of pregnancy
- A vitamin B12 deficiency
- Trauma can also cause black streaks that tend to run the length of the nail, rather than around the top of the nail bed

Seek GP approval before performing any treatments

Splinter haemorrhage



- Tiny streaks of blood running lengthways up the nail plate
- Non-contagious

Trauma

- Avoid until the area is pain-free, then use dark varnishes to conceal
- Always work carefully in the area

Blue nails



Blood colouring to nail bed

- Bad circulation
- Heart problems

Manicure or pedicure with massage to help with circulation

Cuts and abrasions



Red, swollen, possibly infected (pus may be present)

Injury to skin surrounding the nail

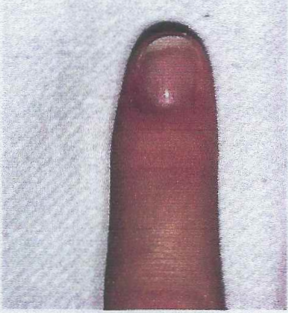
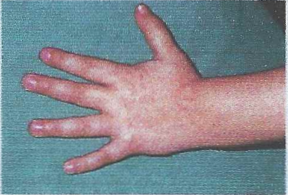
- Contra-indicated to the working area: avoid area until fully healed
- If cut and abrasion is not directly in the working area then cover and protect while working

Onychia

Inflammation of the matrix with pus present

Tools not **sterilised** correctly; poor sanitisation can cause a bacterial infection

- Contra-indicated to the working area: avoid area until fully healed
- Refer client to GP

Redness or inflammation	Red and swollen area	Infection or allergic reaction	Contra-indicated: avoid area until fully healed
			
Allergy	<ul style="list-style-type: none"> • Red, swollen, irritated or raised areas • Urticaria (hives) 	An allergic reaction to an irritant or ingredient within a product	<ul style="list-style-type: none"> • Perform patch tests (24 hours prior to treatment) • If client has a reaction after or during treatment, then remove products and apply cold compress; see GP if irritation persists • Document the reaction on their record card
			
Undiagnosed lumps and swellings	Raised and tender area	Infection or trauma	Contra-indicated: avoid area until fully healed
Damaged nails	Split or broken nail plate	Trauma	<ul style="list-style-type: none"> • If it is only the free edge, then cut the nail • If high up onto the nail plate, it is contra-indicated: trim and avoid area until the nail grows back • If no infection is present, nail repair can be made with silk and resin
Eggshell nails	Very thin and fragile nail plate with a white curved free edge	<ul style="list-style-type: none"> • Medication • Chronic illness • Systemic disorder • Nervous disorder • Diet 	<ul style="list-style-type: none"> • No nail extensions allowed • Regular manicure (no soaking of nails, as nails change shape when wet and polish will chip off; also they are prone to damage)

Discoloured nails



Nails are stained – often a brownish-yellow colour

- No base coat worn under dark enamels
- Smoking

- Use a four-way buffer to remove surface stain and perform a manicure
- Advise client to wear base coat before applying enamel

Pterygium (pet-er-ee-gee-um)

- Overgrown cuticles
- Cuticles grow very low down on to nail plate
- If too long, they may split and become infected

Neglect or excessive removal previously

Regular manicures (client can pre-soak for a few days before the manicure to soften for easy removal)

Recent scar tissue



Scar will feel either smooth or bumpy and will be a different colour to the surrounding skin

Injury or surgical procedure

Contra-indicated: avoid area until fully healed (more than 6 months old)

Hyper-keratosis

Thickening of the stratum corneum and the stratum granulosum due to abnormal keratin production; usually affects elbows, knees, palms and soles

Can be caused by vitamin A deficiency or chronic exposure to arsenic

- Do not rub or exfoliate area as it will stimulate skin growth and make condition worse
- Refer clients to their GP, who will prescribe topical creams to remove the excess skin if required

Diabetes

- Lack of skin sensation
- Thin skin that is slow to heal and prone to damage/infection
- Poor condition of skin (cuticles and nails generally show poor health)

Too much glucose in the blood because the body cannot use it properly (pancreas does not produce any or enough insulin to help glucose enter body's cells or insulin does not function correctly)

Need GP approval before performing any treatments

Contact dermatitis



- Red, inflamed skin
- Dry, cracked skin
- Itchy skin, small blisters

- Similar to eczema, but not hereditary
- Caused by external irritants; for example, chemicals

- Avoid contact with skin irritants
- Wear personal protective equipment (PPE) when needed, such as powder-free gloves
- Ensure all products are removed properly
- Wash hands regularly
- Moisturise regularly
- Use a barrier cream or very oily creams
- Refer client to GP

Eczema of the skin



- Underactive sebaceous gland
- Red, inflamed skin
- Dry, cracked skin
- Itchy skin, small blisters

- Inherited condition
- Stimulated by irritants such as chemicals, pollen, temperature changes, hormone level changes, stress and certain fabrics

- If not infected, use a very oily cream or a barrier cream
- Refer client to GP

Eczema of the nail



- Inflammation, ridges, horizontal ridges, infection, pitting
- Nail plate will lift and become thicker

Internal factors

If the area is not infected or painful, a gentle manicure can be performed

Psoriasis of the nail

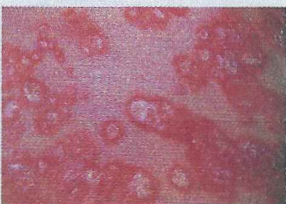


- Inflammation, pitting, Beau's lines
- Nail plate is thick and curved, and will lift

Internal factors

If the area is not infected or painful, a gentle manicure can be performed

Psoriasis of the skin



- Red and silver scaly patches of skin
- Can become infected if skin breaks – with bleeding, pus and inflamed areas

Unknown cause but related to stress

- Can be treated as long as there is no infection
- Patch test with products 24 hours prior to treatment

Warts



- Raised areas of skin on the fingers or hands that feel rough and hard
- Can be dark or flesh coloured in appearance
- Can be one or many grouped together
- Very contagious

Human papilloma virus

- Contra-indicated: avoid area until wart has been treated
- Refer client to GP

Verruca vulgaris (plantar warts)

- Found on soles of feet
- Circular patches on the skin surface with a large black dot or lots of small black dots inside
- Vary in size and shape
- Appear flat, as they grow inward due to pressure of body weight
- Very contagious

Human papilloma virus

- Contra-indicated: avoid area until verruca has been treated
- Refer client to GP

Scabies

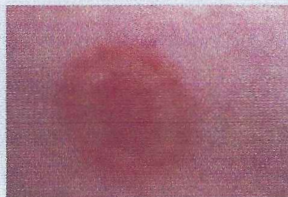


Animal parasite that burrows under the skin leaving wavy, grey lines

Parasitic

- Contra-indicated: avoid area until fully healed
- Refer client to GP

Ringworm of the skin

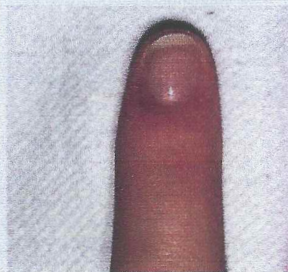


Small, scaly red patches that grow outwards, then heal in the centre, to create rings varying in size

Fungal infection

- Contra-indicated: avoid area until fully healed
- Refer client to GP

Nail infections



Red, swollen, infected (pus may be present)

Bacterial, fungal or viral infection

- Contra-indicated: avoid area until fully healed
- Refer client to GP

Onychocryptosis (on-ee-co-crip-toe-sis)



Ingrowing toenails (nail grows into nail wall) – infected (pus may be present), inflamed

- Incorrect filing or cutting
- Ill-fitting shoes
- Neglect

Refer to chiropodist or GP

Onychoptosis (on-ee-cop-toe-sis)

Shedding of whole or part of nail

May result from certain diseases – for example, syphilis – or as result of fever, trauma, systemic upsets or adverse reaction to drugs

Refer client to GP

Onychophagy (on-ee-co-fa-jee)



- Bitten nails, with little or no free edge (often exposing the hyponychium)
- Often the area is red, swollen and infected

Severely bitten nails

- Unpleasant-tasting nail varnishes designed to discourage nail biting, but client has to want to stop
- Regular weekly manicures
- Can have short artificial nails applied, to prevent nail biting and encourage natural growth

Onycholysis (or onycholisis) (on-ee-co-li-sis)

The nail separates from the nail bed, leaving a large uneven area of free edge

Internal disorders such as psoriasis, eczema or lifting nail plate away with tool; for example, nail file when filing the side of the nail

Contra-indicated: avoid area until fully healed

Onychomycosis (tinea unguium) (on-ee-com-ee-co-sis)



- Ringworm of the nail
- Yellow-green patches under nail plate
- Nail can be brittle and may start to lift

Fungal infection

- Contra-indicated: avoid area until fully healed
- Refer client to GP

Tinea pedis (athletes foot)



- Ringworm of the feet, usually found in between the toes but can spread over the feet
- Dry, scaly with small blisters that burst
- Can dry out and reoccur

Fungal infection

- Contra-indicated: avoid area until fully healed
- Refer client to GP

Pseudomonas

- Green between nail plate and artificial nail
- Bacteria present when artificial nails applied or enter after application
- More associated with onycholysis or paronychia, where damage already exists
- Pus and pain present around nail surrounding tissue

- Bacterial infection between natural nail plate and nail bed or between an artificial nail and natural nail plate, leaving a green by-product of the infection

- To help prevent this infection individually cleanse each nail plate, sanitise client's skin and wash your hands before each treatment
- Not easily cross-infected
- If client has the infection then remove nails, lightly buff, remove moisture and surface oils
- Client must keep nail plate clean and dry until it hardens again
- Wear gloves and refer client to GP
- Don't use nail file on infected nail then on healthy nail – throw all disposable tools away and sterilise and sanitise all tools and the working area

Paronychia (pa-ro-nic-ee-ah)



Redness and pus present at the nail wall

Bacterial or fungal infection

- Contra-indicated: avoid area until fully healed
- Refer client to GP

Onychatrophia (atrophy)
(on-ee-cat-row-fee-ah)

- Nail becomes smaller – may waste away
- Opaque and ridged

- Damage to matrix
- Nervous disorder or disease

- Contra-indicated: avoid area until fully healed
- Refer client to GP

Onychia (hypertrophy)
(on-ee-cork-sis)

Thickening of nail plate –
may change colour

- Irritant; for example, ill-fitting shoe or rubbing nail
- Internal disorders, infections or neglect

If no infection present, can perform regular treatments

Onychogryphosis (on-ee-co-gri-fo-sis)

Thickening and curving of nail

- Internal factors – increased production of nail
- Ill-fitting shoes
- May be part of ageing process

- Contra-indicated: avoid area until fully healed
- Refer client to GP

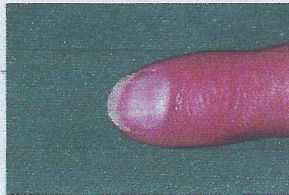


Leuconychia (lu-co-nic-ee-ah)

White patches on nail plate

Air pockets form on nail from trauma or damage to matrix

- Will grow out
- Can use a dark varnish to disguise
- Regular manicures



Koilonychia (coy-lo-nic-ee-ah)

Nail curves upwards in a spoon shape

Inherited or side-effect of anaemia (iron deficiency) or overactive thyroid gland

- Contra-indicated: avoid area until fully healed
- Refer client to GP



Hallux valgus

- Bunions – swelling of big toe joint pushes the toe close to the second toe so they look distorted
- Painful and inflamed

- Often hereditary
- Injury
- Arthritis or muscular imbalance

If not infected then perform treatment carefully



Corns and calluses

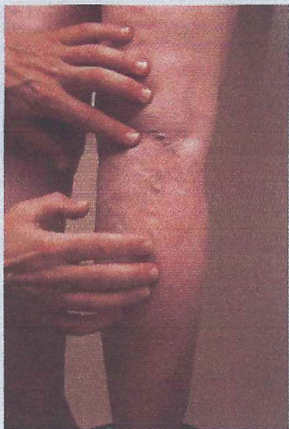


- Pressure to skin on or between toes causes areas of thick skin to form
- Corns press on to deeper layers, causing pain
- Calluses are larger and wider than corns
- Found on bony areas of soles of feet – may be painful

Friction from ill-fitting shoes or too much running

- Remove with **rasp**, exfoliate, foot mask, paraffin wax or bootees and moisturise
- Regular pedicures

Varicose veins



- Protruding veins in legs
- Bluish/purple in colour – may be painful

Friction from ill-fitting shoes or too much running

- Damaged or weak valves in veins cause blood to pool in that area
- Occurs in mature, overweight or pregnant people (hormonal changes); worse if person stands for excessive period of time

- Remove with rasp, exfoliate, foot mask, paraffin wax or bootees and moisturise
- Regular pedicures

- Refer client to GP
- Do not massage affected area

Chilblains



- Can affect hands or feet
- Skin appears red, purple and blue in patches – painful and itchy

- Poor circulation
- Aggravated by cold weather

- Regular massage and heat treatments
- Refer client to GP

Phlebitis

- Inflammation of superficial vein
- Red, tender, long thin veins appear on surface – area is warm, itchy, swollen, hard and tender
- If infected, additional symptoms may include fever, pain and breakdown of skin

Can occur without cause or through injury or medical procedure

GP approval required before treating

Epilepsy	<ul style="list-style-type: none"> Abnormal electrical discharge in the brain interrupting normal functions Epileptic seizure symptoms include muscle twitching, abnormal sensations, emotional symptoms and loss of consciousness 	<p>Possible causes include:</p> <ul style="list-style-type: none"> abnormalities in the development of the brain lack of oxygen during birth infections (meningitis or encephalitis) brain tumour cerebral thrombosis or haemorrhage (stroke) 	Check with GP before treatment
Recent broken bones, fractures and sprains	<ul style="list-style-type: none"> Client should inform nail technician but always ask them during the consultation Observe any visible casts, post-surgery scars, dressings or discomfort 	Injury or brittle bones	<ul style="list-style-type: none"> Be aware of health and safety considerations Ensure client is comfortable sitting for a period of time Do not perform treatment directly on an area where a broken bone, fracture or sprain is present
Muscular aches and pains	Pain, muscular nodules and inflammation present in area to be treated	<ul style="list-style-type: none"> Strain RSI Injury Accident 	Massage can alleviate aches and pains but if they are related to an accident do not work upon this client without a GP letter

How to identify contra-indications which prevent or restrict treatments