ANDERSON COLLEGE
OF HEALTH, BUSINESS AND TECHNOLOGY

Manicure and Pedicure Student Manual

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Overview

Being a Medical Esthetician will require knowledge on how the body works. Manicures and Pedicures in the Medical Esthetic setting concentrates in the integrity of the skin and structure of the nails.
Understanding how to properly manicure and take care of hands and feet is the basic core of the Esthetician knowledge.
Estheticians are not nail technicians, Estheticians take care of hands and feet, making sure that the health of the client will never be compromised, and even though the Esthetician might find advanced nail techniques something of an interest, is important to have a basic core knowledge of the work, health, and safety of every nail procedure.

Chapter 1

Types pathogens that can be dangerous in a non-sterile Spa environment

Cleaning, sanitizing, and disinfecting are key in order to run a healthy beauty salon, and to be compliant with your province's health Ministry rules and regulations.
The focus in your practice should always be the health of your clients above anything else.
Cleansing procedures take approximately 5 to 15minutes, from rinsing all tools with hot water and soap, discarding disposables, and placing all sharps in the sanitizing trays. The steps of cleaning after each client cannot be skipped nor shorten, as this would compromise and put your clients at risk of infections and diseases.

Common Nail Infections that can be transmitted at Salons

TOENAIL FUNGUS -ONYCHOMYCOSIS

Toenail infections can be caused by fungus, yeast, or mold. The most common infectors of the skin and nails are Trichophyton mentagrophytes and T. Rubrum, which are types of fungus and are the most treatable.

Fungal infections most commonly can be transmitted in wet not sterile environments. It is important to check your clients' nails before you start treatment to make sure there is no evidence of fungal infection. If a client presents a fungal infection, you need to re book the treatment and refer the client to a doctor.
Fungal infections are treated with special prescribed ointments, and it can take months to clear up.

Other causes of fungal infections:

- Footwear
- Public swimming pools
- Public showers
- Public locker rooms
- Public saunas and spas
- Non-sterilized footcare equipment

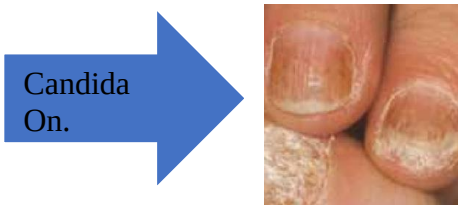
How does nail fungus looks like and what are the characteristics?

- Discoloration of the nail plate; white, yellow, brown, black.
- Visible changes to the toenail; thickened, lifted, brittle, crumbly, or ragged.
- Progressive darkening or changes in nail plate color that can start at the edges.
- Odor

Types of fungal infections found on nails:

There four main types that can be found are the following

- Distal subungual
- Proximal subungual
- White superficial
- Total dystrophic



Usually cause by candida, present in weak immune systems, very common in persons who have hands in water for long periods or time where the body's candida can grow.

Proximal subungal



This fungal infection will show as a white discoloration accompanied by cuticle inflamation and liquid discharged.

Superficial White



This tyoe of fungus will look like white islands and raised white clumps of bumps on top of the nail

Distal Lateral



Distal subungual



This is the most common type of nail fungus, it looks like a buildup of extra keratin that has a yellow color and appearance, and it will appear between the nail plate and the nail bed.

How to prevent fungal nail infections at the salon:

- Always follow proper instructions for infection control

- Never perform a manicure or pedicure on a client that has an obvious fungal infection.

- Never try to cure or treat medically a fungal infection

- Always use disposable covers on basins and disinfect them after each use

- Always disinfect hand soaking bowls

- Always sanitize all sharp tools on the sanitizing solution according to manufacturer's instructions

- Never re-use disposables files, or any tools on clients

Other Measurements of prevention

- Wear appropriate fitting dry shoes.
- Always wear flip flops in public swimming pools, locker rooms, showers, and hotel rooms.
- Do not pick or tear at your toenails. Use clean instruments to cut the toenails straight across, avoiding rounding the edges. Trauma or aggressive cutting can create portals of entry for fungus.
- Thoroughly dry your feet, including between your toes after showering.
- If you have family members with foot or toenail fungal infections, avoid sharing common spaces barefoot.
- If you have diabetes or reduced blood flow to the feet, follow the footcare recommendations from you podiatrist.

How are fungal infections are treated:

- Oral Medications

- Laser

- Topical ointments

Other Types of Fungal Infections

Tinea Pedis or Athletes Foot

Is also known as ringworm of the foot, characterized by fungal infection of the skin of the foot. It can be found on the plantar part of the feet, in between the finger toes or all over the foot area. It can be transmitted by using or sharing contaminated objects from person to person, contaminated water or soil, contaminated show wear. The name “Athlete’s foot “is because is common in athletes who wear sportswear and sweat, this creates and environment where fungus can grow, but is not bound to happen just to Athletes

Athlete’s foot may occur in people of all ages but is more prevalent in males. Children rarely develop athlete’s foot.

Risk Factors

Using public or community pools or showers

Wearing tight, non-ventilated footwear

Sweating profusely

Having a weak immune system

Sharing contaminated basins or foot pools.

How it looks



Prevention at the Salon:

Never treat a client with this condition, and always follow the proper sanitation and disinfection procedures.

Symptoms:

- Itchy
- Foul smell
- Thickening of the skin
- Red spots that look like sores
- Foul discharge
- White thick abnormal looking skin on the plantar soles of the feet

Treatment:

This type of fungus can only be treated by a doctor with ointments and oral md

Bacterial Nail Infections

Paronychia

Usually results from bacteria. When Bacteria gets introduced into the nail fold or under the cuticle through cuts with infected tools.

It needs to be treated with antibiotics and in some cases, the infection lasts a long time or comes back after treatment.

There are two types of paronychia.

- **Acute paronychia:** After contact with a contaminant the skin around the cuticle will start changing and getting swelling and redness. The infection remains localized, and it does not spread to fingers or toes. Acute paronychia needs to be treated and symptoms improve after around 6 weeks of treatment. Water, detergent, and exposure to more irritants can delay healing.
- **Chronic paronychia:** The symptoms will appear slowly as the infection takes over. It will spread to several fingers and or toes. Fungus will also be present at the sight as the bacteria makes the skin more vulnerable to other pathogens. Pus may be found on both conditions.



Healthy fingernail (top).
Infected nail (paronychia), bottom



a. **Acute Paronychia**



b. Chronic Paronychia

Necrotizing Fasciitis-Flesh Eating Disease

Necrotizing fasciitis is a rare infection of the skin and tissues below it. It can be deadly if not treated quickly. It spreads very quick throughout the tissues causing the damage and dead of skin cells.

Every year, between 600 and 700 cases are diagnosed in the U.S. About 25% to 30% of those cases result in death. It rarely happens in children.

It is caused by group A streptococcus (GAS) bacteria in combination with other bacteria. When these types of bacteria infect the superficial fascia, a layer of connective tissue below the skin, starts killing the cells resulting on dead tissue.

Flesh-eating bacteria transmission

Although very rare, when the transmission happens, the bacteria will start killing skin, muscle and fat tissue. Individuals with weak immune systems are more prone to get infected if not careful.

The way the bacteria is introduced into the body is by

- Surgical wounds
- Puncture wounds or other injury
- Burns
- Minor cuts
- Insect bites
- Abrasions



a. **Client who contracted the disease at a nail salon**

Green nail syndrome (GNS)

Infection also known as chloronychia. Is a distinctive discoloration of the nail that varies from blue green to dark green to bluish grey. The discoloration is inside the nail and is caused by bacteria called Pseudomonas aeruginosa. This bacterium flourishes in wet environments, such as Jacuzzis, contaminated lens solution, sinks, dirty sponges, not sanitized tools and soaking bowls. When it grows, it produces hallmark green pigments called pyocyanin and pyoverdin. These same pigments impart the green color of chloronychia.





a. Examples of green nails

Therapy consists of cutting the detached portion of the nail, keeping nails dry, and avoiding trauma to the area. Topical antibiotics, chlorine bleach, Occasionally, the nail may need to be removed, if more conservative treatment fails. At these times, an oral antibiotic, such as ciprofloxacin, is often prescribed.

Group Discussion

What have you learned about this session and what role can you play as a professional to avoid these complications to happen in your Spa?

Chapter 2

Nail Diseases and Disorders



1. Anonychia congenita

Characteristics: Lacking nails on toes and hands, lacking of parts of the nails. Is a congenital condition and it can be observed from birth.

Treatment: There is no treatment, if there is some nail on the nail plate, artificial nails can be used, but is controversial, as fungus can reproduce on the groves of the remaining nail plate

Can it be Manicured or Pedicure? Even though you will have no nails to work on per say, the client can receive a manicure or pedicure to relax and work on calluses and the overall beauty of the skin



2. Nail Psoriasis

Characteristics: Is an autoimmune disease that causes discoloration, pitting and changes in the structure of your nails.

Treatment: Medical Treatment with corticosteroids and strong soaking solutions recommended by a dermatologist can improve the condition, usually nail psoriasis is an extension of skin psoriasis

Can it be Manicured or Pedicured? If there is not active infection, the client can receive treatments and filing the nails and applying a strengthener nail polish can benefit to protect the nail, gel nails and nail extensions are not recommended as it can make the nails too brittle



3. Lichen planus

Characteristics: Nail Plate looks thin, vertical ridges can be observed sometimes it can be also combined with psoriasis, alopecia areata or trauma to the nail. Nails can break and split easily.

Treatment: In most severe cases, intramuscular corticoids and medical treatments can be applied but is very hard to clear the condition

Can it be manicured or pedicured? The nails need to be carefully treated and this condition is not contagious, buffing the nail has to be very cautious. Applying a base coat specialized on making the nail stronger can help protect and strengthen the nails



4. Koilonychia, Spoon Nails:

Characteristic: This conditions happens when there is acute lack of iron in the body, the nails look brittle and spoon like.

Treatment: Doctor might need to review iron levels in the body and recommend the right dosage for the patient. Never try to diagnose and recommend Iron intake to your clients, as this can be very dangerous, all iron intake should be monitor by a Medical Doctor

Can it be Manicured or Pedicured? Yes, this is not a contagious condition



5. Ectodermal Dysplasia

Characteristic: Discolored nails, usually genetically inherited. Sometimes there will be a blackened of the nail with inverted edges. This condition also affects some aspects of the body overall.

Treatment: Lubricants such as petroleum jelly or lanolin can be massaged into the nails to reduce some of the dryness, brittleness, or cracking. The nails should be kept short and trimmed smoothly. Thick nails can be filed with the fine pumice used by beauticians for pedicures.

Can it be manicured and pedicured? Yes, is not contagious. But because the immune system might be compromised, be careful and always use caution.



6. Melanoma

Characteristics: Dark Streaks under the nail plate that could be located on any side of the nail, when this discoloration is noticed, the client should be referred to a dermatologist right away, sometimes it might not be melanoma but this could be a potential life threatening condition

Treatment : Cancer treatments

Can it be manicured or pedicured? Although the condition is not contagious the client should be referred to a dermatologist and for liability is better not to proceed



7. Onycholysis

Characteristics: nail starts to lift so that it's no longer completely attached, you'll likely see white discoloration.
When a nail lifts, the cause could be fungal infection, psoriasis, injury from an aggressive manicure, injury from overly cleaning nails.

Treatment: A dermatologist should examine any nail that's lifting up as this might be an infection. The dermatologist can also treat the condition until it gets better and the nail grows back to normal

Can it be Manicured or Pedicure? No.



8. Yellow Nails

Characteristics: Yellow and discolored nails, the causes can be wearing nail polish, smoking, lung disease, arthritis

Treatment: Use base coat if nail polish is the cause, for medical treatments refer to the doctor for recommendations

Can it be manicured and pedicured? Yes, is not contagious, but always apply base coat before the nail polish.



9. Beau lines

Characteristics: Deep grooves, lines that run the length of a nail as something slowed or stopped the nails from growing temporarily. A fever, injury, chemotherapy, or major stress can cause your nails to grow slowly or stop growing.

Treatment : A dermatologist or primary care doctor can take a look and find and get rid of the cause, nails often start growing normally.

Can it be Manicured or Pedicured? Yes, is not contagious.



10. Ram's horn nails

Characteristics: This happens when the nails thicken and overgrow. Some people get Ram's horns because the condition runs in the family.

Treatment: Cutting and treating these nails requires help from a podiatrist or dermatologist

Can it be manicured and pedicured? No.

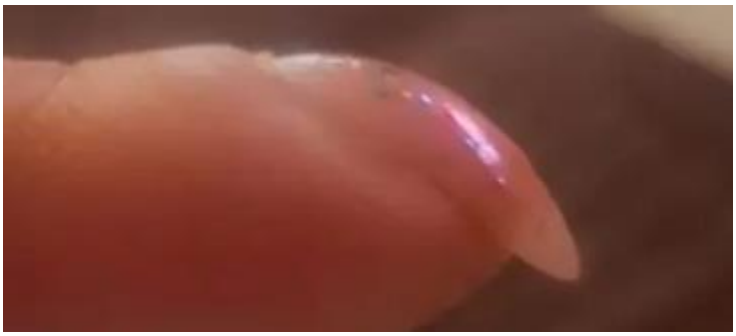


11. Washboard nails

Characteristics : Grooves and ridges in the center of your thumb that look like the ones shown in this picture, sometimes the client will have the habit of scratching the nail plate with another nail as a steaming habit , also using sharp instruments on nails or occupational work can create this grooves

Treatment: Stopping the habit

Can it be manicured and Pedicured? Yes, is not contagious, a buffer can be used to smooth out the surface.



12. Curved Nails

Characteristics: Nails look extremely curved down, the causes could be genetics, lung , liver or heart disease

Treatment: Client should consult with a doctor about what is causing the nails to curve down

Can it be Manicured or Pedicured? Yes, is not contagious.



13. Ingrown Nails

Characteristics: The nail plate grows too much into the skin, causing bleeding and bruising

Treatment: A podiatrist can help the condition

Can it be Manicured and Pedicured: Yes but only with proper training



14. Leukonychia

Characteristics: White spots. Is usually harmless, it can happen due to nail trauma or some medical conditions, like iron deficiency anemia.

Treatment: Client can consult with the doctor to discover the cause

Can it be Manicured or Pedicured? Yes, it is not contagious



15. Nail Clubbing

Characteristics: the end portion of the nail raises up and rounds out and the tip of the finger or toe appears swollen and rounded

Treatment: This could be a symptom of lung or cardiac disease, is good to advice your client to seek a doctor's consultation

Can it be manicured or pedicured ? Yes, is not contagious



16. Bruised Nail Bed

Characteristics: the nail plate will look like is bruised and have a dark blood color, it usually happened when the nail gets impacted by trauma or a heavy object, bruising under the nail happens the same as bruising on the skin

Treatment: When the bruising is mild, icing and aspirin and resting the area is enough, when there is too much blood and pressure is painful, a doctor might subtract the blood and drain it in a very simple in and out surgical procedure

Can it be manicured or pedicure? Yes, is not contagious but the client might be sore.



17. Eggshell Nail Hapalonychia

Characteristics: very brittle soft and break out easy. This condition is caused on clients who overly manicure with nail extensions, gel nails, and or work with abrasive agents.

Treatment: The best course of treatment is to use ointments, cut the nails short, wear gloves when washing or doing house chores.

Manicures and Pedicures: It is not recommended to do nail extensions, or gel nails



18. Hangnails

Characteristic: more common in fingernails than toenails. The skin along the edge shows tears and what seems to be a small spiny nail left over coming from the side. If left unassisted it can get painful and infected, usually there will be redness and soreness around the area. Bad manicuring practices, or cutting the nails the wrong way can increase the chances of hang nails

Treatment: Cutting the hangnail with a small instrument as close as possible to the skin and applying an antiseptic

Manicures and Pedicures: Yes, is not contagious , make sure there is no infection before you start.



19. Splinter Hemorrhages

Characteristics: caused by physical trauma, blood oxidizes and turns brown or black, giving the appearance of a small splinter underneath the nail plate. Splinter hemorrhages will always be positioned lengthwise

Treatment: No treatment is necessary, as the nail grows it will slowly fade away

Manicures Pedicures : Yes, is not contagious



20. onychophagy

Characteristics: Nail biting, usually happens when specified behavioral and emotional disorders occur in childhood and adolescence. Sometimes it can become infected

Treatment: client must consult with MD

Manicures and Pedicures: If the nail is not infected, applying nail polish or a gel extension might help reduce the biting habit

Chapter 3

Chemical Products Used in Nails Salons

There is a vast variety of products that are used in Nail Salons, from chemical to polish to callus removers, acetone, binders, and mechanical tools, the list is ever growing.

As a Medical Esthetician, you will not be exposed to this variety as this is only found on Nail technical salons specifically.

Medical Estheticians usually focus on the overall enhancement and beauty of skin and cuticles, making sure the integrity of the nail and skin are always primordial.

There are variations on manicure-pedicure procedures and each Spa will have their signature treatment, but the common elements you will find are :

Chemical for disinfection:

- Hand Soaps
- Detergents
- Liquid Disinfectants
- Liquid Sanitizers
- Sanitizing wipes
- 70% Alcohol
- Wipes
- Disposable towels
- Sprayers

Chemical For Treatments:

- Acetone polish remover
- Non-Acetone nail polish remover
- Cuticle Remover
- Callus remover
- Feet Soak

- Foot and hand Scrubs
- Foot and hand massage creams
- Nail polish
- Gel polish
- Cuticle oil
- Gel polish primer
- Gel Polish Dehydrator
- Gel polish cleanser
- Gel polish top and base coat
- Foot and Hand cooling or soothing masks
- Nail art

Mechanical Elements:

- Nippers
- Foot file
- Cuticle pushers
- Nail files
- Electrical foot files
- Electrical mittens
- Disposable wood cuticle pushers
- Disposable flip flops
- Buffers
- Nail trimmers
- UV curing lamps.
- Etc.

For this reason is very important, that the esthetician protects her airways and works in a spacious place, with good ventilation. Some of the items listed above have strong fumes and odors that are not harmful when exposed occasionally, but with over exposure, it can create health problems, respiratory issues, a weaken immune system and unbalanced hormones.

We have already reviewed how sanitization and disinfection work, and how to properly use the elements all hazards.

The active chemical ingredients used in Manicures and pedicures

Let's review the most "active" forms of liquids and chemical ingredients in detail, that you will be exposed to daily.

This are the type of chemicals you should be aware of by protecting yourself with the right PPE equipment and ventilation.

Adhesives and primers

Adhesives are liquids, creams, stickers, or chemicals used to bind elements to the nail plate. It helps elements to stick together.

Primers are chemical products that act a preparation so that the adhesive can take hold on the nail plate properly. For example, base coat is a good example of an adhesive to nail polish, it will make it last longer.

Most products are being developed with non-corrosive ingredients, but always use protection on your hands and airways, like gloves and masks when using products with high fumes and odors.

Some nail primers can be very corrosive to soft tissue and eyes and it can cause visible and possibly irreversible permanent. Nail primers must never touch the skin

Some corrosive acid-based primers can burn the nail bed tissue if the nail plate is improperly filed.

Overly filing the natural nail will excessively thin the nail, making it more porous. On the contrary, a slight buffing to the nail plate is ok and should not affect the treatment in a negative way.

Never use too much primer, a very thin layer is needed as this is a very penetrating solution and it could penetrate all the way to the nail bed, potentially leading to the separation of the nail plate from the bed.

If you need to apply too much primer, there might be something on the steps that is not correct, always follow guidelines and procedures according to manufacturer. Always try to master your technique, as this is better in the long run than to use a lot of primer.

Not all primers are corrosive to skin. Noncorrosive primers do not contain methacrylic acid instead have a neutral pH. But regardless of this, no matter how “natural” the product might seem, it is still a chemical and prolonged used and contact with the skin can create dermatitis.

If you are always careful, and never apply it into the skin your practice should be safe, and your client should never develop allergies to the products.

Acetone

Acetone is an organic chemical compound with the chemical formula C3H6O. It is a solvent, removing and it works by varnishes, gels, acrylics etc.

Short-term exposure, health effects:

- Eye and nose irritation.
- Mood swings.
- Nausea.
- At high doses, slow motion, and drowsiness.

Long-term exposure, health effects:

- Respiratory irritation
- Headaches
- dizziness
- Weakness

Butyl acetate

In manicure it is used as a solvent and thinner to facilitate spreading in nail polish. Quickly evaporates after application to the nail plate. Also used in nail polish removers. It has a strong allergenic effect. Dangerous for pregnant women. Toxic to the respiratory tract and mucous membranes

Short-term exposure, health effects:

- Very dangerous if swallowed.
- Irritating to skin
- Irritating to eyes

Long-term exposure, health effects:

- Toxic to lungs, nervous system and mucous membranes.
- Causes damage to organs exposed for long periods of time.

First aid:

- Contact with eyes:
- Remove contact lenses immediately if used. Flush eyes with plenty of water for at least 15 minutes. Cold water can be used. Contact a physician.
- Skin contact:
- Rinse immediately with plenty of water. Cover irritated skin with a moisturizing cream. Take off contaminated clothing and shoes. Wash and clean before putting it on again.
- Contact with skin over a large area:
- Wash with disinfectant soap and cover the contaminated skin with antibacterial cream. Seek immediate medical attention.
- Inhaling:
- If the vapors have been drawn into the lungs, immediately go to fresh air. If weak or without breath give oxygen and apply artificial respiration. Seek immediate medical attention.

Formaldehyde in Nail Hardeners and Nail Polishes

Formaldehyde is an ingredient in some nail hardeners and nail polishes. It may be listed on the product label as formaldehyde or by different names, such as “formalin” and methylene glycol.” In nail hardeners, formaldehyde bonds with the keratin that occurs naturally in the nails, making the nails harder. Using these nail hardeners often, however, may make nails brittle and more likely to break or peel. Nail products that contain formaldehyde may also cause skin irritation, as well as allergic reactions to this ingredient.

- Other nail products contain resins that form a strong coating on the nails, rather than hardening the nails themselves. For example, toluene sulfonamide/formaldehyde resin (TSFR) is used in some nail polishes to make the coating tough and resilient. TSFR also helps the polish adhere to the nail, adds gloss, and helps the product flow well when applied. There is evidence that some people may become allergic to TSFR.

- If you are allergic to formaldehyde, have previously experienced an allergic reaction to nail preparations containing formaldehyde, or for any other reason wish to avoid this ingredient, be sure to read the ingredient statement on the

label to learn whether the product contains formaldehyde or related ingredients, such as formalin, methylene glycol, or tolunesulfonamide/formaldehyde resin

. **Phthalates in Nail Polishes and Other Nail Products**

Phthalates are a group of chemicals used in a wide variety of products, from toys to carpeting and medical tubing. In nail polishes, they are used primarily at concentrations of less than 10% as plasticizers, to reduce cracking by making the nails less brittle.

Nail Polish

Nail polishes contain a film forming polymer which is dissolved in an organic solvent. When applied the solvent in the polish evaporates and the polymer forms a film layer. The most common polymer used is Nitrocellulose that is dissolved generally in butyl acetate or ethyl acetate solvent.

Methacrylate monomers and photoinitiator like benzoyl peroxide are used in gel nail polishes. This mixture after applying is exposed to UV lights to trigger the polymerisation process and solidify polish.

Plasticizers

Plasticizers like dibutyl phthalate, camphor and triphenylphosphate are used in polish to prevent cracking and chipping.

Pigments

Pigments are the compounds used in polishes to give them their colors. It can either be inorganic pigments or organic, thermochromic and photochromic pigments can also be there. Inorganic pigments include chromium oxide for green, iron oxide for red and ferric ferrocyanide for blues. Organic compounds are like food colorings and come in a variety of colors.

The glittery or shimmery look in nail polish can be achieved using titanium dioxide, mica or natural pearls.

Other Agents and Stabilizers

Some nail polishes contain glitter, thickening agents such as stearalkonium hectorite are used to suspend these glitters, pigments and other additives into polishes
UV stabilizers are used to resist change in color of polish when it is exposed to sunlight. The commonly used stabilizer is benzophenone-1.

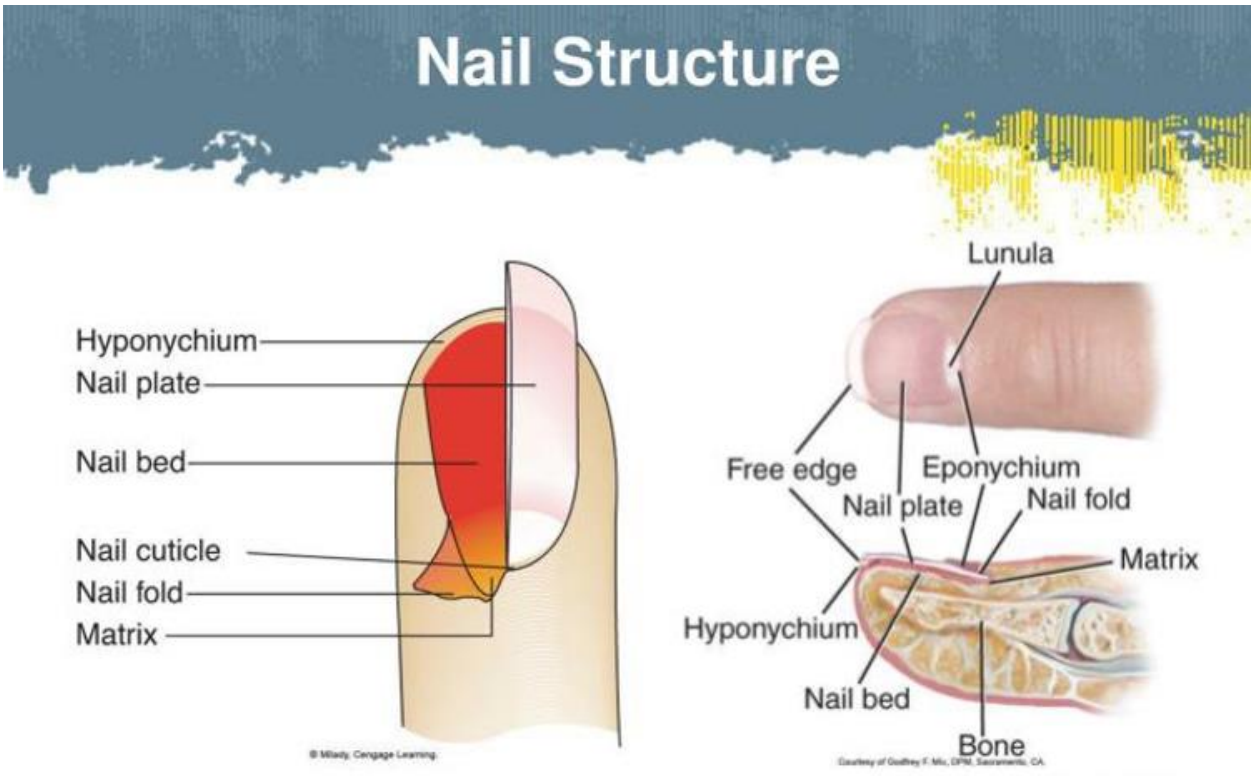
Nail products that contain chemicals of concern:

For more information

https://womensvoices.org/2015/05/18/nail-products-polishes-that-contain-chemicals-of-concern/

Chapter 4

Anatomy of the Nail



Nails are a group of extra hard keratinized cells that are meant to protect the edges of our fingers. They also allow us to control things like grabbing objects. As you have already learned, nails are appendages of the skin, that means they are part of our skin system, which is called the integumentary system. The doctors that treat and cure the integumentary system problems and complications are called Dermatologist.



Did you know?
All the parts of the finger are referred to as the natural nail unit.

Healthy nails look slightly pink in color, they are not brittle and free of any spots or discoloration. Nail water content varies from 11% to 12% .
The actual name of the nail is Onyx.
Nails are more porous than skin, and more prone to absorbing water.

The Nails are composed of

- Nail Plate is the keratinized part of the nail and is formed by the cells of the matrix. The main function of the nail matrix is to create new nail cells which form the nail plate. The nail plate is what extends from one side to another on the top tip of your fingers covering and protecting the endings.

- The Nail Bed, is the flesh base of the nail, the nails rest upon the nail beds. The nail beds are full of nerve endings and blood vessels, and they are very sensitive, within the nail bed we can find the epithelium, which is a thin layer connected to the nail bed and is in charge of guiding the nail bed as it grows along.

- The Matrix, is the most important structure of the nail, because at the matrix level, cell division occurs, creating more nail cells, if the matrix is damaged by trauma, the nail might not grow normally. Lymph, blood vessels and nerve endings are found at the Matrix, which nourish the new cells. When the nourishment is not good it affects the nail growth, thickness, and appearance.

- Lunula, you can distinguish where the matrix extends from under the nail fold at the base of the nail plate. It looks like a half-moon at the top of your nail between your where your nail ends and your finger skin starts.

Everyone has a lunula, but is not visible on all skin types, depending on many factors as blood circulation or skin type. Nail health, etc.

- The Cuticle, The cuticle is a layer of protective barrier that is made of overgrown dead skin, some individuals will grow more cuticles than others, and sometimes some fingers might grow more cuticle than others. It grows from under the skin sealing the skin of the finger and the nail. The cuticle can be removed but its main purpose is to protect foreign bacteria entering the body through the nails, it is very important for the esthetician to know how to properly trim the cuticles without affecting the health and integrity of the fingers and nails.

- The Eponychium unlike the cuticle is the living tissue covering the matrix area. The cuticle is dead tissue that is on top of the nail plate, the eponychium is found at the base of the nail and is commonly mistaken by the cuticle. While the cuticle is dead tissue and it can be removed, cutting into the Eponychium could cause many infections. This living tissue should always be left uncompromised. How can you know the difference between the eponychium and the cuticle? The cuticle will be dead skin that comes out easily after being soften and soaked, while the eponychium will bleed if you cut it.

- Hyponychium is the strong seal between the end of the nail and the nail plate, if this is damaged, the nail plate will separate from the nail bed and infection can occur, also bacteria and fungus and many pathogens can enter the nail if the hyponychium is compromised. It forms a seal of the nail unit.

- Specialized ligaments attach the nail bed and matrix bed to the underlying bone. They are located at the base of the matrix and around the edges of the nail bed.

- Nail Fold is the skin that protects the matrix at the base of the nail, is called a fold because if you see it in the nail structure it looks like is folding right above at the root of the nail matrix and nail bed.

Nail Growth

The nails growth depends on many factors, such as genetics, nutrition, climate, age, health, etc.

The Matrix of the nail is the structure in charge of nail growth, and it will determine the length, thickness, health and curvature of the nail.

Healthy nails will grow strong, they are pliable, flexible, slightly shiny with a good moisture content and free of grooves or discoloration. The thickness of the nail is determined genetically and by the size of the Matrix. There is not product that can actually make the nail grow thicker, as this is according to the size of the Matrix. The only exception is, when nails have grown thinner and brittle due to health conditions, once health is restored, some care can make the nails grow to the similar natural stage as they were.

Nails can grow at a rate of 2.5 mm to 3 mm per month on adults. Children's nails will grow faster as they are in the process of overall growing, and for elder people the growth is slower. Nails tend to grow faster during the summer months.

Aspects that can affect Nail growth

As mentioned before, there are several factors that can contribute to the impact of nail growth, let's review a few of them

1. Pregnancy, during pregnancy nails might grow faster because of hormones, the opposite is true after delivery, especially with breastfeeding from fluctuating hormones, maybe vitamin deficiencies etc. Is important for post-partum clients to always make sure they are eating right and nourishing their bodies as much as possible
2. Chemo or medical treatments, some treatments will impact the nail growth and integrity of the nail during and sometimes months after treatments
3. Medications, certain medications can make the body's immune system weak, affecting nail growth. Some medications like Accutane can make the integumentary system very dehydrated and the nails might grow at the same rate, but they might be splitting or look very dry.

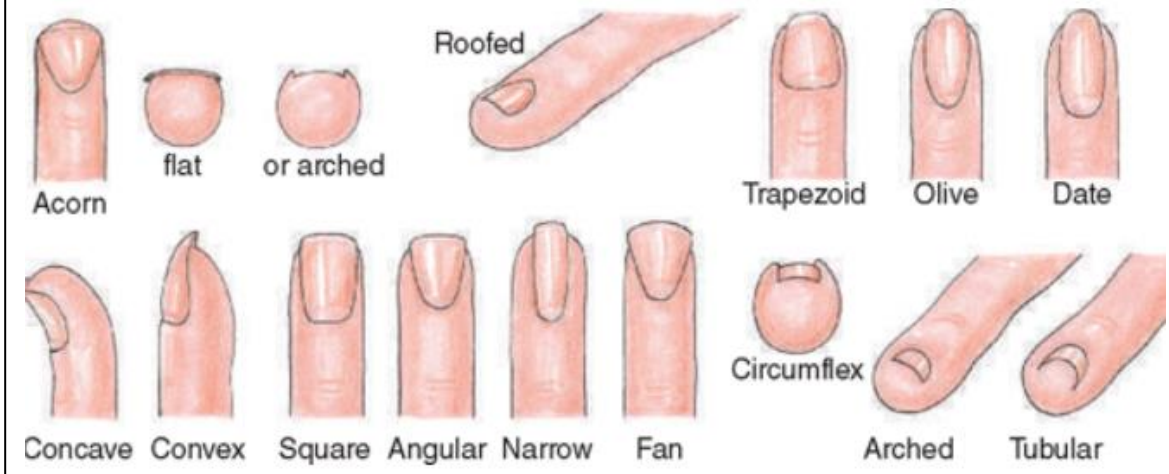
Nail Facts

Did you know?

The nail of the middle finger grows faster than the nails of the thumbs

The toenails are thicker than the fingernails because the Matrix is larger on the toes

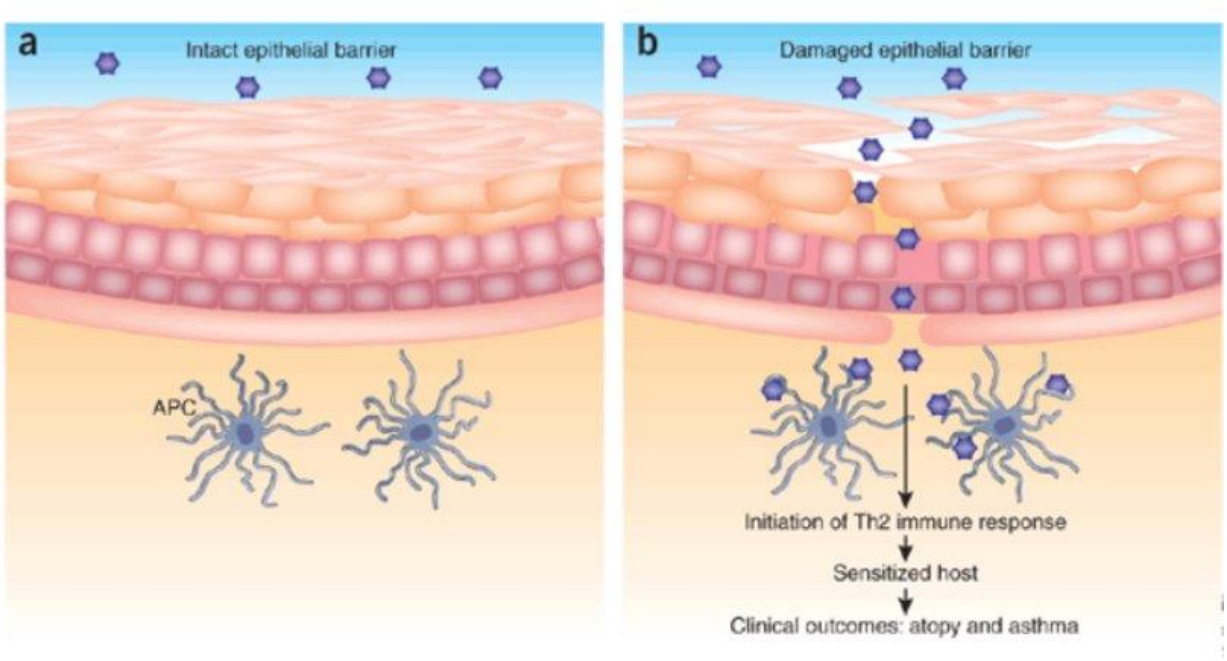
Shapes of Natural Nails



Chapter 5

Compromised Skin

Sometimes, the perfectly balanced system is compromised.



What is compromised skin?

-When the skin layers no longer function properly to protect and maintain itself.

-A condition has affected the integrity of the skin

-Specifically, when talking about compromised skin, we are talking about the epidermal layer, which has been compromised

Let's Imagine the Epidermis as a layer of plastic, nothing can penetrate and is protecting everything that is in the inner layers

Now let's imagine this plastic blanket has holes that do not heal properly, now the skin is permeable and vulnerable

1. **The skin can no longer hold onto moisture as well, causing dryness, flaking, itching, and redness**
2. **The skin can't protect itself as well, making it more vulnerable to environmental toxins, harmful UV rays, bacteria, allergens, and harsh chemical ingredients in personal care products.**

What causes compromised skin?

- **Genetics**
- **Medications**
- **Cancer Treatments**
- **Wrong usage of products**
- **Using products that are within the wrong PH to the skin**
- **Hormones**
- **Environment**
- **Poor nutrition**
- **Alcohol consumption**
- **Smoking**

Can clients with this conditions get manicures and pedicures



No. Because the products used can make the conditions worse.
Clients with compromised skin are more susceptible to infection and reactions, the best is to treat them when the condition is cleared or not in an active stage.



Chapter 6

Anatomy of the Arms and Legs

Introduction

The structure and purpose of our hands are extremely unique. Our hands need to be functional to move wrists, fingers and articulate properly for various purposes. Nothing in our human body is so unique as to our hands. We use our hands for many purposes like communication, work, writing, cooking, arts, and every culture will even communicate while talking with the hands, there is no wonder why we love to enhance their look and appearance.

In order for our hands to work properly, all our bones, ligaments and muscles, nerve endings and nails need to be in working order. Have you ever experienced injury to your hands or wrists? It is amazing how hard it is to work when our hands are injured and not working properly. Estheticians can help not only enhance the beauty of the nail and finger, but by performing massages, compresses and paraffins, we can help alleviate some pains associated with arthritis and other conditions. Estheticians are never meant to diagnose or cure acute conditions but can help with the overall feeling of the extremities.

Did you know that a well done soothing and relaxing manicure and pedicure can have many mental benefits?

From the smells of essential oils to the hot warm feeling of the touch and massage, our nerve endings send pleasure signals to our mind, making our bodies relax and de stress.

This introduction to anatomy and physiology is necessary for every esthetician in order to perform professional services. This is the mail difference between an Esthetician from a Nail technician, Medical Estheticians are equipped and fully trained to work for the overall well being of the body without compromising our body systems.

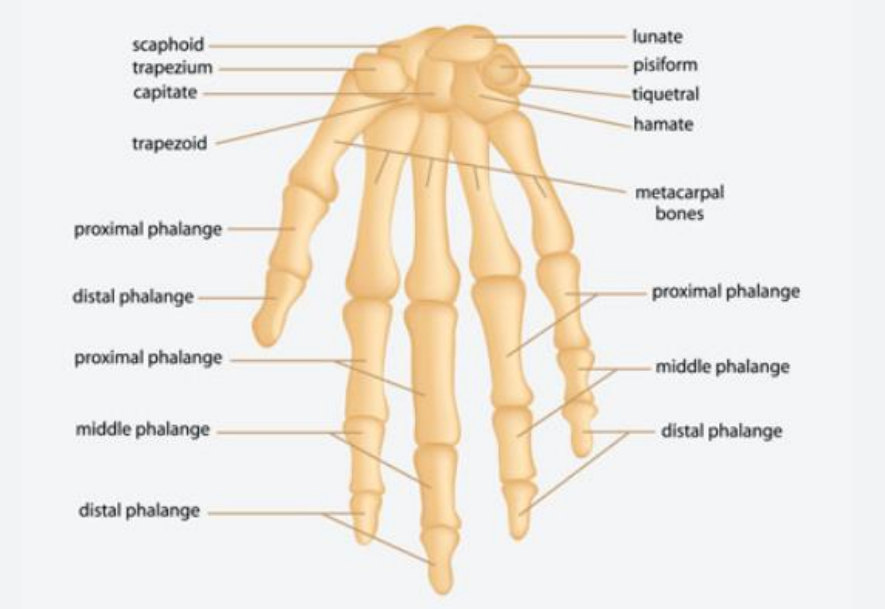
Group Discussion

When was the last time you went to a nail salon? What was your experience? Do you feel your technologist had the appropriate knowledge to do the service?

Hand and Arms Anatomy

Bones and Joints: There are 27 bones in the wrists and the hands. Within the wrists we find 8 small bones called **carpals**.

The **carpals** join the radius and ulna, the 2 forearm bones forming the wrist joint.
On the palms of our hand's, we find the **metacarpals**, there are 5 and each one connects with one of our fingers which then connects to each finger and thumb. Small bone shafts called **phalanges** line up to form each finger and thumb.



Joints

knuckle joints are formed by the connections of the phalanges to the metacarpals. These joints are called the metacarpophalangeal joints (MCP joints). Joints work as hinges when you move.



your fingers.

The three phalanges (little bones) in each finger are separated by **two joints**, these specific joints are **called interphalangeal joints (IP joints**). The one closest to the MCP joint (knuckle) is called the **proximal IP joint (PIP joint.)** The joint near the end of the finger is called the **distal IP joint (DIP joint)**. The thumb only has one IP joint between the two thumb phalanges. The IP joints of the digits also work like hinges when you bend and straighten your fingers and thumb.

The joints of the hand, fingers, and thumb are covered on the ends with articular cartilage. It is white, shiny looking like material that has a rubbery consistency. The function of cartilages in our bodies is to absorb shock. There is articular cartilage essentially everywhere where 2 bones are connected for movement.

Ligaments and Tendons

Ligaments are like very hard rubber bands connecting all the structures together.

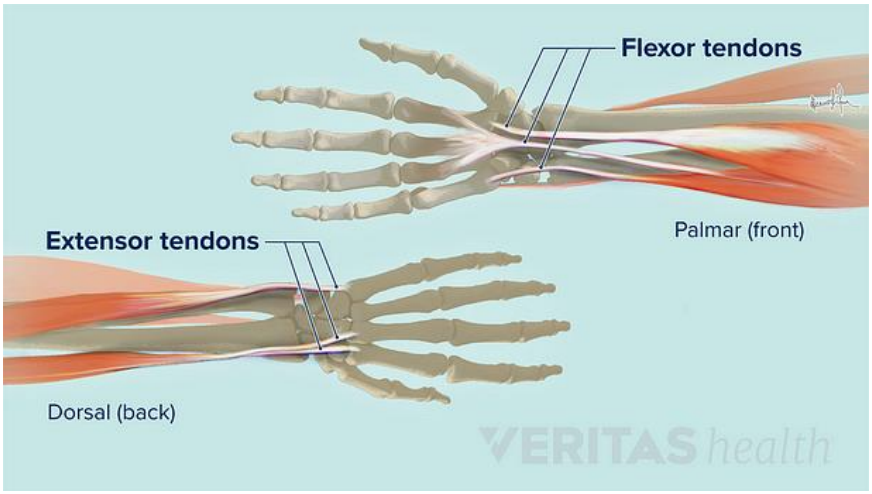
There are two main structures. This are Collateral ligaments, found on either side of each finger and thumb joint.

In the middle joint between the main knuckles, we find the stronger ligament called the **volar plate.** This ligament connects the proximal phalanx to the middle phalanx on the palm side of the joint.

Tendons are strong smooth cords that straighten the fingers by connecting the muscles of the forearm and hand to the bones in the fingers and thumb, there are 2 types of tendons found in hands and wrists.

- Extensor tendons: are just under the skin and are easily injured by any cut across the back of the wrist hand or fingers. Extensors control the hands' ability of straightening the fingers and wrists

- Flexor Tendons: Allow you to bend your fingers.



Muscles

The muscles that control the hand run down the forearm and cross the wrist and hand. The muscles oversee controlling contracting and releasing movement, they control finger, wrist, and hand movements like grabbing etc.

There are more than twenty muscles in your upper arm and your forearm.

Let's view the main ones.

Forearm Muscles:

There are 2 type of muscles, Superficial and Deep

Superficial forearm muscles

On the underside of your forearm that are superficial (close to your skin's surface) include:

- Flexor carpi ulnaris.
- Palmaris longus. (Up to 25% of people don't have this muscle.)
- Flexor carpi radialis.
- Flexor digitorum superficialis.
- Pronator teres.

Superficial muscles on the top of your forearm include:

- Anconeus.
- Brachioradialis.
- Extensor carpi radialis longus and brevis.
- Extensor digitorum communis.
- Extensor digiti minimi.
- Extensor carpi ulnaris.

Deep forearm muscles:

This muscles sit under the superficial muscles on the underside of your forearm and they include:

- Flexor digitorum profundus.
- Flexor pollicis longus.
- Pronator quadratus.

Muscles located deep under your skin on the top of your forearm are:

- Abductor pollicis longus.
- Extensor pollicis brevis.
- Extensor pollicis longus.
- Extensor indicis.
- Supinator.

Muscles of the Hand

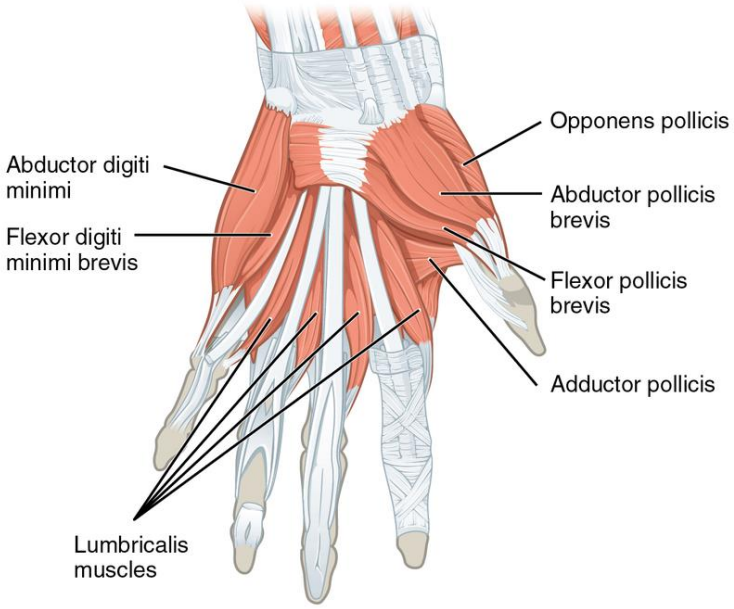
The muscles that act on the hand can be divided into two groups:

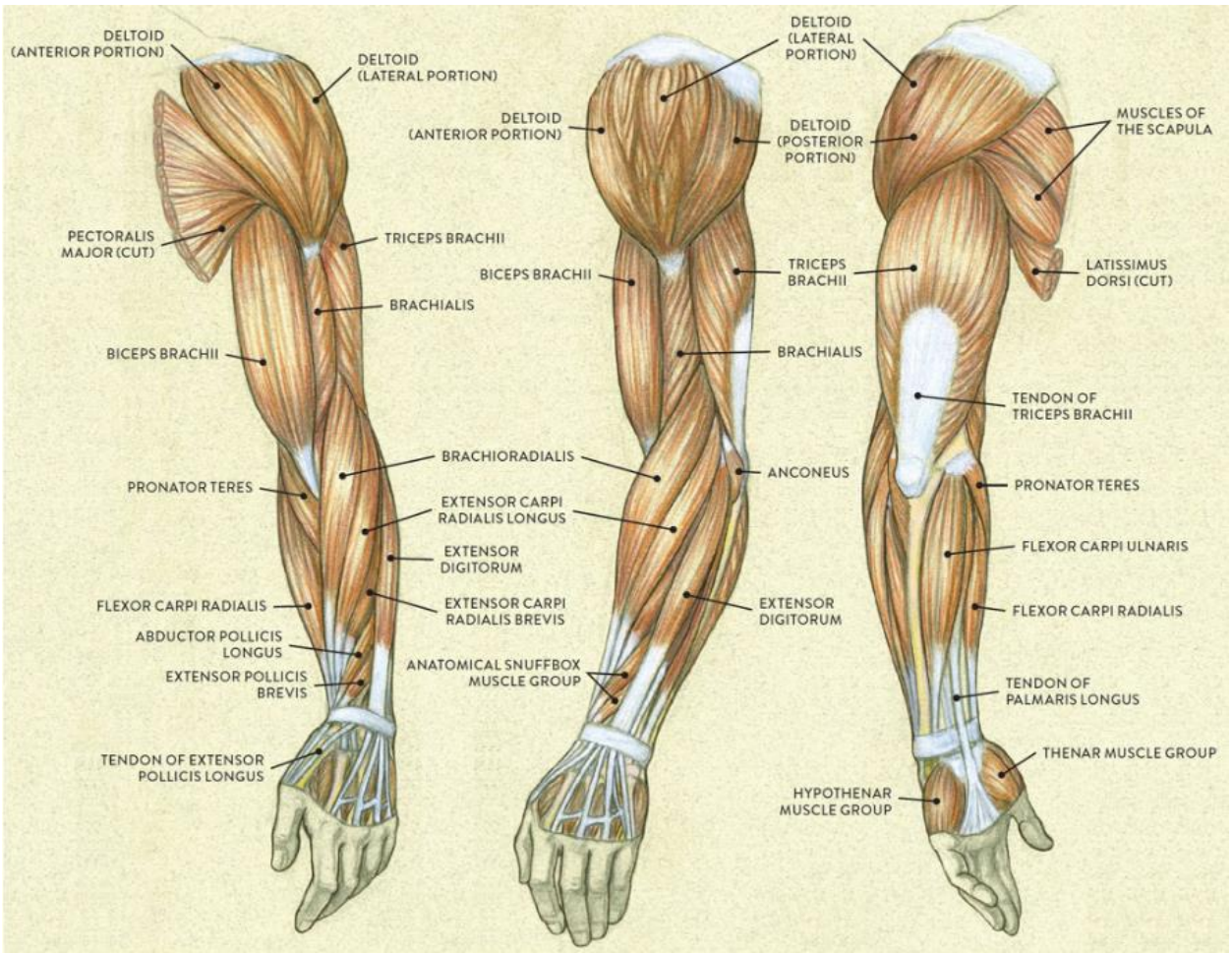
- Extrinsic muscles – located in the anterior and posterior compartments of the forearm. They control crude movements and produce a forceful grip.
- Intrinsic muscles – located within the hand itself. They are responsible for the fine motor functions of the hand.

- Thenar group: abductor pollicis brevis, adductor pollicis, flexor pollicis brevis, opponens pollicis

- Hypothenar group: abductor digiti minimi, flexor digiti minimi, opponens digiti minimi, palmaris brevis

- Metacarpal group: lumbricals, palmar interossei, dorsal interossei,





Nerves

Radial Nerve

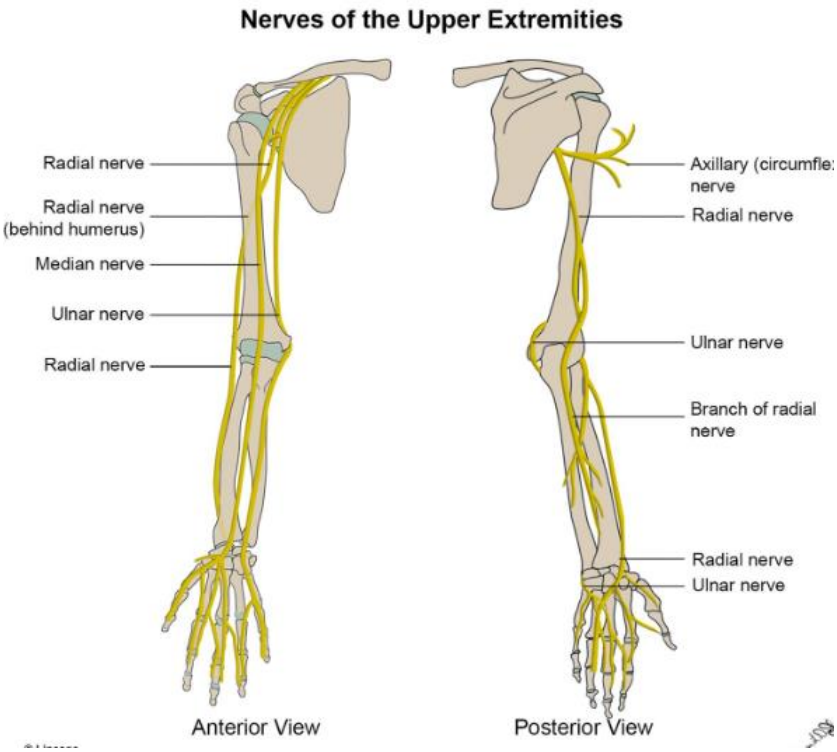
The radial nerves supply muscles on the back of the arms and the skin of the forearms and hands.

Medial Nerve

The median nerve is one of the three major nerves in the forearm and hand. It plays a key role in the function of the upper limb by carrying both sensory and motor information between the forearm and hand and the brain. Likewise, the median nerve passes through the carpal tunnel and is the primary nerve affected by carpal tunnel syndrome.

Ulnar Nerve

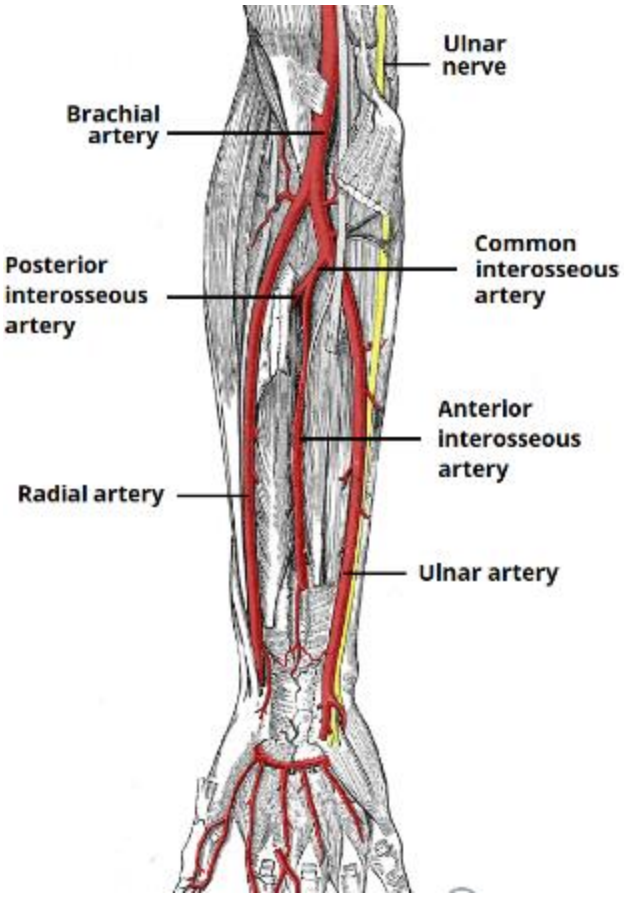
The ulnar nerves are branches stemming from the cervical nerves, which supply impulses to and from the muscles of the forearms and hands and from the skin of the hands.



Blood Vessels

Traveling along with the nerves are the large vessels that supply the hand with blood. The largest artery is the radial artery that travels across the front of the wrist, closest to the thumb. The radial artery is where the pulse is taken in the wrist. The ulnar artery runs next to the ulnar nerve through Guyon's canal (mentioned earlier).

The ulnar and radial arteries arch together within the palm of the hand, supplying the front of the hand, fingers, and thumb. Other arteries travel across the back of the wrist to supply the back of the hand, fingers, and thumb.



Anatomy of Leg and Feet

Bones of the leg:

The Bones of the legs are divided in 2.

The Tibia: Known as the shin bone. The bone on the big toe on the side of the leg that carries all our body weight.

The Fibula: The bone that lies next to the tibia and protects the outside of the ankle.

Bones of the Foot:

It is made up of 3 groups of bones that fitting together support the foot.

It is made of:

- 7 Tarsal bones that make up the ankle.
- 5 Metatarsal bones that support the arches of the feet.
- 14 phalanges which are also called toes.

Muscles of the legs and feet:

The main muscles of the lower leg are:

The Gastrocnemius: Is used for walking and running.

The Tibialis Anterior: Bends the ankle and pull the foot up to the leg.

The soleus: It provides steady function of the lower leg.

The muscles of the feet are responsible for the arches of the feet and control all movement of foot and toes.

The main muscles are :

Abductor Hallucis: located on the medial side of the sole, where it contributes to a small soft tissue bulge.

Flexor Hallucis: is located laterally to the abductor hallucis. It sits in the center of the sole, sandwiched between the plantar aponeurosis and the tendons of flexor digitorum longus.

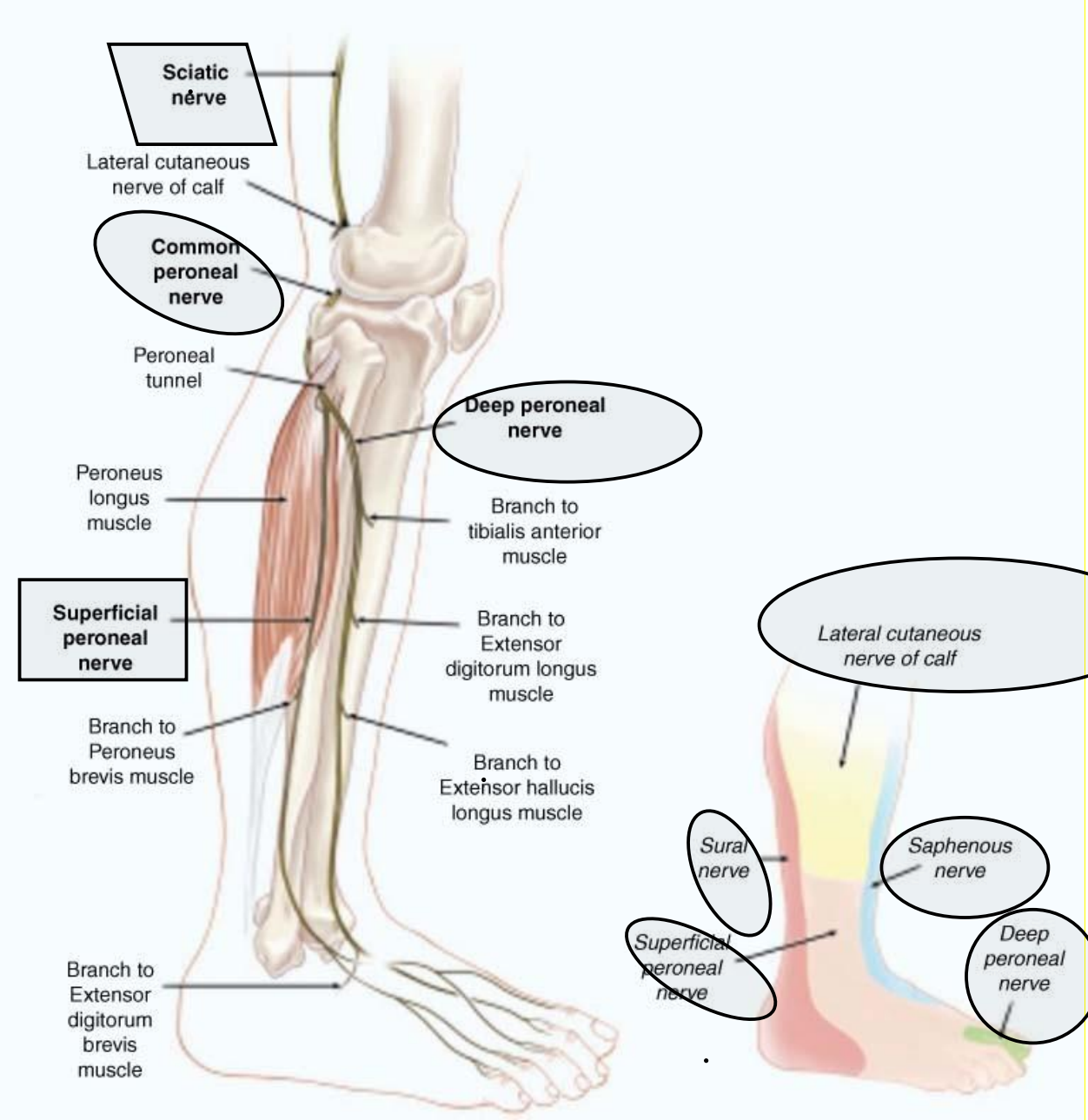
Abductor Digiti Minimi is located on the lateral side of the foot. It is homologous with the abductor digiti minimi of the hand.

Flexor Brevis: is located laterally to the abductor hallucis. It sits in the center of the sole, sandwiched between the plantar aponeurosis and the tendons of flexor digitorum longus.


Peroneus longus (cut)
Peroneus brevis
Extensor digitorum longus
Peroneus tertius
Peroneus longus tendon (cut)
Tibialis posterior
Flexor digitorum longus
Flexor hallucis longus

Main Arteries and Nerves of leg and feet:

Femoral artery	It is the largest artery that brings oxygenated blood to the entire lower extremity. **Branches** include: superficial epigastric artery, superficial circumflex iliac artery, superficial external pudendal artery, deep external pudendal artery, deep femoral artery, descending genicular artery
Arteries	**Hip and thigh:** femoral, gluteal (superior, inferior), obturator, deep femoral, descending genicular arteries **Knee and leg:** popliteal, superior genicular (medial, lateral), inferior genicular (medial, lateral), tibial (anterior, posterior), anterior malleolar (medial, lateral), fibular/peroneal arteries **Ankle and foot:** malleolar (anterior, posterior) arteries, dorsalis pedis artery/dorsal artery of the foot, plantar arteries (medial, lateral), tarsal arteries (medial, lateral), arcuate artery, dorsal metatarsal arteries, deep plantar arch, plantar metatarsal arteries
Veins	**Superficial venous system:** superficial dorsal network, plantar venous networks, marginal veins, metatarsal veins -> small/short saphenous vein -> popliteal vein and great/long saphenous vein -> femoral vein **Deep venous system:** digital veins, metatarsal veins -> deep plantar and dorsal venous arches -> tibial (anterior, posterior) and fibular veins -> popliteal vein -> femoral vein
Nerves	The nerves of the lower limb stem from the lumbosacral plexus. **Hip and thigh:** femoral, saphenous, femoral cutaneous (lateral, posterior), sciatic, obturator, gluteal (superior, inferior), cluneal (superior, medial, inferior) nerves **Knee and leg:** genicular (superior, middle, inferior), common fibular/peroneal, superficial fibular/peroneal, deep fibular/peroneal, tibial nerves **Ankle and foot:** dorsal digital nerves, proper plantar digital nerves, lateral dorsal cutaneous nerve, plantar (medial, lateral) nerves


Sciatic nerve
Lateral cutaneous nerve of calf
Common peroneal nerve
Peroneal tunnel
Deep peroneal nerve
Peroneus longus muscle
Branch to tibialis anterior muscle
Superficial peroneal nerve
Branch to Extensor digitorum longus muscle
Branch to Peroneus brevis muscle
Branch to Extensor hallucis longus muscle
Branch to Extensor digitorum brevis muscle
Lateral cutaneous nerve of calf
Sural nerve
Saphenous nerve
Superficial peroneal nerve
Deep peroneal nerve

Chapter 7

Manicures

The manicure definition is a cosmetic treatment, where the beautician will work on the hands by shaping the nails, trimming the cuticles, sometimes often painting of the nails, application of different treatments like paraffin wax and massage.

Manicure times should take approximately 25 minutes to 30 minutes. The more practice you get, the faster you will become at performing the service on time and efficiently. It is very important to master the art of manicures to create accomplished and desired results the clients will be happy with.

In the beginning you will start with the basic steps, and then you can learn more advanced spa treatments.

Tools Used in Manicures

The basic tools you will need to learn manicures will be a very simple list of items. Regardless of all the hype in new tools and advertisement, a good manicurist only needs the basic to perform the art of beautifully enhancing the hands and nails of the clients

You will need.

- Nail Files
- Nail Buffer
- Cuticle Nippers
- Cuticle pusher
- Nail trimmers
- Soaking Bowl

Products used during a basic manicure

- Soaking warm water
- Cuticle Remover cream or gel
- Cuticle oil
- Massage cream
- Base coat
- Topcoat
- Nail Polish
- Table liner

- Disposable non-woven towel
- 2 pieces

Service procedure:

The Service should always start with the consultation, during consultation you should ask:

- What type of manicure
- Shape and length of nail preference
- Nail Polish color if applicable
- Your station should be set up and ready with all the tools and products required.

Manicure and Pedicure contraindications

- Diabetes
- Lupus
- Psoriasis
- Eczema
- Fungus
- Athlete's foot
- Broken skin
- Dermatitis
- Pregnancy (no massaging on the feet)
- Cancer treatments
- Photosensitive Medications that could make the skin bleed and brittle (Accutane clients need to wait one year to get treatments)
- Warts
- Some nail polishes, gels or extensions are not suitable for pregnancy.
- Any skin abnormality

Steps for Basic Manicure 25 minutes

1. File the nails of the right hand.
2. Apply cuticle remover.
3. Soak the tips of the fingers on the bowl.
4. Start filing the nails of second hand.
5. Apply cuticle remover.
6. Remove the right hand from the bow and proceed to soak the second hand.
7. Wipe the cuticle remover from the cuticles one finger at a time.
8. Push the cuticle on each finger gently and remove the cuticle.
9. Once all cuticles are removed apply cuticle oil to all the nails
10. Remove second hand from the soaking bow and repeat.

11. Once both hands are done with the cuticle process, remove all dirty towels, put the dirty tools in a tray, clean the table area and while the client chooses the nail color, proceed to the sink to disinfect the tools and dispose of all dirty elements.
12. Come back to the table and start the hand massage.
13. After the hand massage remove all residue of cream and oil from the nail plate with nail polish remover
14. Apply topcoat starting with one hand and then the other.
15. Apply nail color.
16. Apply topcoat.
17. Instruct the client to wait 10 minutes before grabbing purse, keys etc.

Steps for a Spa Manicure 35 minutes

1. There should be wet towels rolled on the hot towel cabinet.
2. File the nails of the right hand.
3. Apply cuticle remover.
4. Soak the tips of the fingers on the bowl.
5. Start filing the nails of second hand.
6. Apply cuticle remover.
7. Remove the right hand from the bow and proceed to soak the second hand.
8. Wipe the cuticle remover from the cuticles one finger at a time.
9. Push the cuticle on each finger gently and remove the cuticle.
10. Once all cuticles are removed apply cuticle oil to all the nails
11. Remove second hand from the soaking bow and repeat.
12. Apply a small amount of hand exfoliator on one hand and do an exfoliating to the hand's fingers and wrists.
13. Repeat the second hand.
14. Bring one towel from the hot cabbie and cover the hands with the hot towel applying gentle pressure.
15. Use the wet towel to remove all the exfoliator from the hands leaving them clean and ready for the massage.
16. Remove all dirty and wet towels and dirty implements and while the client choses the color proceed to the sanitation station to sanitize your elements,
17. Perform a Massage
18. Remove residue of oils from the nail plates and proceed to the varnishing of the nails.

19. Complete the manicure following the same steps from the standard manicure.

Note: It is important to always remove all dirty sharp tools out of the way before the massage. It is important to clean the area and have a dry table base before the massage and is important you clean and soak your tools for 20 minutes before the next service, by doing these steps you will always have sanitized tools to practice on each other!
When working at a Spa, you will be asked to bring 2 set of tools to make sure you are always able to have clean tools, as the clients will be booked back-to-back. While at school you will develop the habit of sanitizing your tools right before the massage. Good habits start from the beginning!

Pedicure Tools

Added to all the tools from the manicure, there will be 2 more items on the set, one will be a foot file and another a toe nail trimmer, for thicker nails, tools will vary in shape and form. Foot graters are not allowed in Spa's by the health department however disposable foot files, stainless steels foot files are allowed.



Steps of a Basic pedicure 40 minutes

Make sure you have the station ready to go before the client is sitting at the chair, this is very important to be able to service on time!

1. The client will have time all the way to the end to be choosing the color, provide the client with the color options.
2. File the nails of the right foot toes.
3. Apply cuticle remover.
4. Soak the foot on the foot basin.
5. Repeat with the second foot.
6. Remove the first foot from the basin and pat dry.
7. Remove the cuticle remover one toe at a time push back the cuticle and trim cuticles.
8. Spray the Callus remover and proceed to file the calluses.
9. Apply foot scrub and scrub foot and cuticles.
10. Put foot back on the basin and wash it, remove the foot and dry.
11. Apply cuticle oil.
12. Proceed with the same steps on the second foot.
13. Once both feet are clean and place on a clean towel proceed to sanitation station and take the dirty water away.
14. Proceed to Massage
15. Remove residue of oils from nail plate
16. Put on the disposable slippers on client.
17. Separate the toes with tissue or toe separators.
18. Proceed to nail polish procedure.
19. Allow nail polish to dry 10 minutes.
20. Client can take the slippers with them if they are in a rush.

Note: It is important to always remove all dirty sharp tools out of the way before the massage. It is important to clean the area and have a dry table base before the massage and is important you clean and soak your tools for 20 minutes before the next service, by doing these steps you will always have sanitized tools to practice on each other!
When working at a Spa, you will be asked to bring 2 set of tools to make sure you are always able to have clean tools, as the clients will be booked back-to-back. While at school you will develop the habit of sanitizing your tools right before the massage. Good habits start from the beginning!

Steps of a Spa Pedicure

For this pedicure you will need to wet hot towels from the towel cabbie

1. File the nails of right foot apply cuticle remover and soak foot.
2. Repeat with second foot.
3. Take the right foot out and pat dry
4. Spray callus remover and file the calluses.
5. Scrub the foot and put the foot back on the basin washing all scrub away.
6. Repeat the same with the second foot.
7. Take both feet out of the basin and dry them making sure you do not remove the cuticle cream form the cuticles, this will be worked later.
8. While the feet are dry and on a clean surface, take the basin and all dirty tools away and proceed to sanitation.
9. Take the 2 hot towels from the cabbie.
10. Apply a thin layer of the peppermint cool mask to the feet.
11. Wrap each foot with the hot towels.
12. Proceed to work on the cuticle.
13. Once cuticles are all clean and trimmed using the same towels remove all mask and residues leaving feet clean and soft
14. Apply cuticle oil.
15. Proceed to massage.
16. Remove all oil residue from nail plate and proceed to end the pedicure with the same steps from the standard pedicure instructions.

Basic Hand Massage

1

Relaxer movement of wrist. At the beginning of the hand massage, place the client's elbow on a cushion covered with a clean towel or on a rolled towel. With one hand, brace the client's arm in the wrist area with your nondominant hand. With your other hand, hold the client's wrist and bend it slowly and gently—but with a firm touch—fully back until it stops, and then forward until it stops, 5 to 10 times, until you feel that the client has relaxed.

1



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2

Joint movement of fingers. Lower the client's arm, brace the arm at the wrist with the left hand, and with your right hand (or dominant hand) start with the little finger, holding it at the base of the nail. Gently rotate fingers to form circles. Work toward the thumb, about three to five times on each finger.

2



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3

Circular movement on palm. This is effleurage, a light stroking motion that relaxes and soothes. Place the client's elbow on the cushion or towel near the center of the table and your elbows on the table at the sides of it. Put your thumbs in the client's palm and rotate them in a circular motion up the center, over to and down the sides, moving in opposite directions. The circular movements should start from the bottom center of the hand and move out, up, across the underside of the fingers, and back down to the bottom, center, in a smooth pattern of altering movements of each thumb over the palm. This pattern becomes rhythmic and relaxing. You can feel the client's hands relax as you perform these movements. Effleurage movements must be smooth and gentle, even predictable, to induce relaxation. After performing the relaxation movements, move to the following effleurage movements.

3



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4

Circular movement on wrist. This is a form of friction massage movement that is a deep rubbing action. It is very stimulating. Hold the client's hand with both of your hands, placing your thumbs on top of the client's hand and your fingers below. Move your thumbs in a circular movement in opposite directions from the client's wrist to the knuckle on back of the client's hand. Move up and down, three to five times.

4



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5

The last time you rotate up, wring the client's wrist by bracing your hands around the wrist and gently twisting in the opposite directions. This concludes the hand massage usually performed in the Basic Manicure.

5



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6

Effleurage of the arm. Holding the wrist firmly but gently, glide your hand up the arm from wrist to elbow with your palm and fingers on the skin; make sure there is enough lotion on the skin to allow a smooth glide of the hand. Cup your movement fingers around the arm, moving up with slight pressure on the skin with your fingers, thumb, and palm to induce relaxation, and then move back to the wrist area with a lighter pressure on the skin. Perform this gliding several times. When finishing a movement each time at the top of the arm, rotate the hand to the underside of the arm while pulling the hand back toward you. Now move to the underarm and perform the same movement. Press forward, then at the end, release the pressure, gently rotate the hand to the top of the arm, and pull it lightly back toward the hand.

6



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7

Friction movement on the arms. A friction massage involves rubbing the muscles against each other. Put the client's arm on the table, palm up with fingers toward you. Your fingers should be underneath the arm, stabilizing it. Rotate your thumbs in opposite directions, starting at the client's wrist and working toward the elbow. When you reach the elbow, slide your hand down the client's arm to the wrist and rotate back up to the elbow three to five times. Turn the client's arm over and repeat three to five times on the top side of the arm.

7



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8

Wringing/friction movement. Place the arm horizontally on the towel in front of you, with the back of the hand facing up. Place your hands around the arm with your fingers facing the same direction on the arm and gently twist in opposite directions, as you would wring out a washcloth, from wrist to elbow. Do this up and down the forearm three to five times.

8



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9

Kneading movement. Kneading (pétrissage) is a squeezing motion that moves flesh and muscles over the bones beneath in opposite directions, stimulating and increasing blood flow. Place your thumbs on the top side of the client's arm so that they are horizontal. Move them in opposite directions, from wrist to elbow and back down to the wrist. Do this three to five times.

9



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10

Rotation of elbow. This is a friction massage movement. Brace the client's arm with your left hand and apply lotion. Cup the elbow with your right hand and rotate your hand over the client's elbow. Do this three to five times. Take care to be very gentle and not to hit the nerve in the elbow that often is referred to as "the funny bone"—this can be very painful to the client. To finish the elbow massage, move your left arm to the top of the client's forearm. If the elbow condition shows that it needs exfoliation, it must be done after the massage. Apply a scrub and rotate it around the elbow, remove, and then apply lotion to remoisturize.

10



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11

Finger pulls. Gently slide both hands down the forearm from the elbow to the fingertips, as if climbing down a rope. Then, holding the hand with your nondominant hand, move to the finger tip, and with your thumb on top and your pointer finger arched below, gently grab and pull the finger down to the tips. Perform on each finger, little finger to thumb. Perform the movement down the forearm and do finger pulls three to five times on each arm and hand. Understand that this movement should not be performed on clients who have severe arthritis. If elbow exfoliation is needed, perform it now, then perform the final movement below after remoisturizing the elbow. Slide the moisturized hands toward the hands and perform the final movement.

11



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12

Final movement. After you've performed the finger pulls, lay both of the client's hands palm down on the table, cover them with your own hands (palm down), and gently press them three times. Gently lift your palms, leaving your finger tips on the base of the hand. Then, with a light-as-a-feather touch, pull your fingers from the back of the hands down the fingers and off the tips of the fingers. Perform two to three times. The client learns quickly that this final movement, called "feathering off," is the end of the massage.

12



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Foot Massage

1

Rest the client's heel on a footrest or stool and suggest that your client relax. Grasp the leg gently just above the ankle and use your other hand to hold the foot just beneath the toes; rotate the entire foot in a circular motion.

1



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2

Hold the foot and move the other hand to the dorsal surface of the foot. Foot massage requires a firm touch (although not one that causes pain): firmness can prevent sensation on ticklish feet. Place the base of your palm of that hand on top of the foot behind the toes. (The tips of your fingers do not touch the skin; lift them away.) Slide up to the ankle area with gentle pressure of the palm and heel of your hand. Repeat three to five times in the middle, then on the sides of the dorsal surface of the foot. Ever so slightly, lift the palm each time to return to the initial position of the slide after reaching the ankle.

3

Keep one hand in contact with the foot. Slide the other hand and place the thumb on the plantar surface of the foot with the fingers gently holding the dorsal side of the foot. Now transition to the next movement: slide the other hand to the same position on the foot, opposite side. Move one thumb in a firm circular movement, moving from one side of the foot, across, above the heel, up the medial side (center side) of the foot to below the toes, across the ball of and back down the other side of the foot (distal side) to the original position. Now move the thumb of the other hand across and up the outside of the foot, then down to its original position. The base of the thumbs through to the pad of the fingers should be in contact with the skin throughout the movement. Your nails must not touch the client's skin.

3



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4

Alternate the movements of the thumbs in a smooth, firm motion. Repeat several times. This is a very relaxing movement.

5

Perform the same thumb movement on the surface of the heels, rotating your thumbs in opposite directions. Repeat three to five times.

6

Place your one hand on top of the foot, cupping it, and make a fist with your other hand. The hand on top of the foot will press the foot toward you while your other hand twists into the instep of the foot. This helps stimulate blood flow and provides relaxation. Repeat three to five times. This is a friction movement. The bottom of the foot is the only place a friction movement is performed in manicure and pedicure services.

6



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7

Transition your hands, then start with the little toe by placing the thumb on the top of the toe and arching the index finger underneath it. (Your palm is facing up.) Push the fingers and thumb in that position back to the base of the finger, then rotate the thumb and finger in a circular, effleurage movement until the index is arched over the top of the finger with the thumb underneath. Pull the finger and thumb toward the end of the toes.

7



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8

Hold the tip of the toe, starting with the little toe, and make a figure eight with each toe. Repeat three to five times on each toe and then transition to the next one. After the last movement on each toe, gently squeeze the tip once, then transition to the next one. You must have sufficient lotion for this to be comfortable and relaxing.

8



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9

Now, return your hands to the position described in #4, and repeat Steps 3 and 4.

10

Repeat all the movements on each foot as many times as you wish, adding other movements that you like to perform, then move to the other leg/foot.

11

Every massage, whether a pedicure or body massage, must end. To make the end special, to provide a signal for experienced clients that the massage is ending, and to provide a "release" from the client, feathering, which is a traditional release in massage, was developed in many forms. One designed for pedicures follows. At the end of the previous movement, in a smooth transition, place both of the client's feet onto the footrest, or on another stable surface, and move your palms to the top of the feet with your fingers toward the leg. Press your entire hand three times slowly onto the feet. (This should not be a hard press, just a firm push.) Maintain each press for 1 to 2 seconds. After the last press, lift your palms slightly, but maintain contact with the feet with your fingertips. Now gently pull your hand toward the tips of the toes with a feather-light touch of your fingertips. (Do not allow your fingernails to touch the skin.) Pull completely off the end of the toes. Perform the final feather off movement only once, then allow the client to relax a minute or two before moving to the next step of the pedicure.

11



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12

Once the massage of both feet is completed, you may move forward in the pedicure procedure. If you are performing a luxury pedicure, do not perform the feather off movement; slide your hands to the leg and move on to the leg massage after Step 10.

13

Place the foot on the footrest or stabilize it on your lap, then gently grasp the client's leg from behind the ankle. Perform effleurage movements from the ankle to below the knee on the front of the leg with the other hand. Move up the leg and then lightly return to the original location. Perform five to seven repetitions, then move to the sides of the leg and perform an additional five to seven repetitions.

13



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14

Slide to the back of the leg and perform effleurage movements up the back of the leg. Stroke up the leg, then, with less pressure, return to the original location; perform five to seven times. Each pedicurist will design her own effleurage movements. They must be relaxing and in a routine used on every client. LO9

14



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