



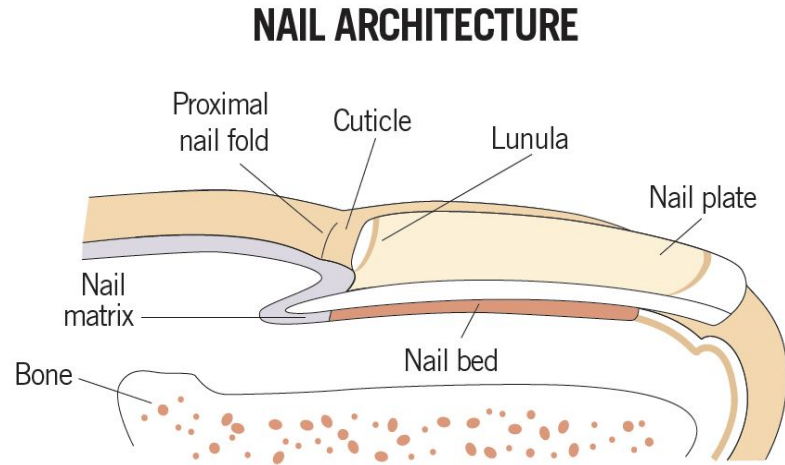
Nails and Cuticles

Banares, Castro, Francisco, Judan, Ilagan, Santos



Characteristics of Skin Area

- Thin plate of nonliving keratin designed to protect the tip of the finger and toes
- Produced by group of cells designated as the nail matrix that lies approximately one-quarter inch below the visible nail.
- Nail matrix cells are formed at birth and cannot regenerate following injury.
- One of the most important structures adjoining the nail from a dermatologic standpoint is the cuticle (rubber gasket forming a watertight seal between nonliving nail and skin of the fingertip)



Skin care needs

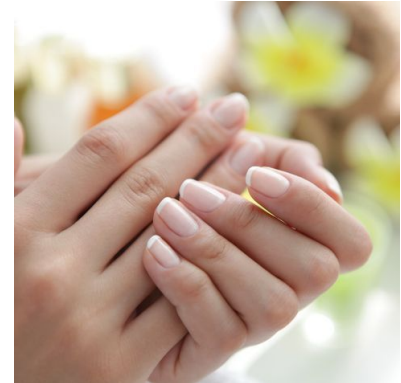
- Nail and cuticle must be moisturized to prevent disease.
- Can be moisturized along with the hands but there are some key differences.
- Nails are nonliving, thus, any dehydration damage inflicted is permanent.
- Remoisturizing the nails can be minimally enhanced with **urea** and **lactic acid**.
- Water is the main plasticizer of the nail plate and it should not be removed with aggressive cleansing.



wikiHow to Stop Your Cuticle Skin from Peeling

Hygiene needs

- Most important way to keep the nail healthy is to leave the cuticle **undisturbed**.
- Nail is designed to take care of itself, and any manipulation interferes with the perfect design
- Hand hygiene and nail hygiene are taken care of simultaneously with good hand washing
- The most common infection that affects the nail is known as **PARONYCHIA** (infection of the skin surrounding the nail to include the cuticle)
- Moisturization
- Water is the main plasticizer of the nail plate, should not be removed



Basic Cosmetics Formulation

Nail Polish

1. Film former - Harder products on nails, provides shine (Nitrocellulose)
2. Plasticizer - prevents chips and cracks
3. Solvents (Ethyl acetate, toluene)
4. Pigments - Use suspending agents or clays (bentonite)
5. Nail Hardeners (Formaldehyde)
6. UV Stabilizers (Benzophenone)



Nail Polish Remover

1. Acetone - to remove sparkly nail polish
2. Non-acetone -for nail extensions, e.g. ethyl acetate

Raw Material	%v/v	Use
Acetone	53.0	Solvent
Water	19.5	Solvent
Ethyl Acetate	17.4	Solvent
Isopropyl myristate	5.0	Cosolvent
Mineral Oil	3.0	Moisturizer
Lanolin Oil	2.0	Moisturizer
Fragrance	0.1	For fragrance
Colorant	q.s	For color

