



# **Common Nail Diseases and Disorders**

# Content *Common Nail Diseases and Disorders*

Nail techs need to be knowledgeable about the nail and skin conditions they encounter in the salon. This guide discusses the causes and treatment options for six conditions, along with advice on what can and can't be done in the salon.



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# What Is Allergic Contact Dermatitis?

**T**HE BODY has a fascinating way of protecting us. A blister will develop to protect burned skin; the heart pumps faster to respond to exercise; the body sweats to cool us off. Sometimes, the protective response of the body is to become sensitive, causing a reaction when we don't want it to. We sneeze from pollen; our eyes itch from being around cats; our skin becomes irritated (and then we become irritated) when we walk through poison ivy. These reactions are the body being hypersensitive to its environment.

"There are two types of hypersensitivity: immediate-type hypersensitivity and delayed-type hypersensitivity," says Dr. Peter Schallock, assistant professor of dermatology at Harvard Medical School. An example of immediate-type would be hives or the throat starting to close. Delayed-type could be a rash or other reaction on the skin, and it might take hours or even days to appear. "If a client were to react to salon products," says

Dr. Schallock, "delayed-type hypersensitivity is the more likely response."

Contact dermatitis is an example of hypersensitivity. Literally defined as "inflamed skin," dermatitis appears in a localized area as a rash, small blisters, swelling, or redness. Contact dermatitis has two categories of distinction: irritant contact dermatitis and allergic contact dermatitis. Irritant contact dermatitis is caused by a substance that is likely to cause a reaction in nearly anyone who is exposed to it in large quantities.

Allergic contact dermatitis is caused by your body coming into contact with an allergen and reacting. It's the body's immune system being hypersensitive to a foreign agent. "The body may come into contact with the allergen through direct contact, such as touching, or through airborne contact, such as an allergen landing on the skin," says Dr. Schallock. When the allergen comes into contact with the skin, redness, swelling, a rash, or blisters develop, creating an

**Caused by allergens that come into contact with the skin, allergic contact dermatitis often clears up on its own when sufferers avoid the offending agent.**

## ● What Is Allergic Contact Dermatitis?

itchy, irritated area on the skin. If the exposure is brief and then removed, the reaction will clear on its own.

Nearly anything can be the cause of allergic contact dermatitis, because each person's body responds differently to allergens. So, jewelry, plants, lotions, glues, polish, acrylics, wool, gasoline, perfume, metals — the list goes on and on — could cause the skin to react and swell in one person, but be completely benign to another. Another complexity of allergic contact dermatitis is that a person could have been in contact with a substance — a lotion, detergent, salon products — for years with no reaction and then suddenly develop a reaction without explanation.

"Once a reaction develops, it's a permanent reaction," says Dr. Bruce Robinson, a clinical instructor of dermatology at Mt. Sinai Hospital who also has a private practice in New York City. This can make it difficult to assess the cause because many times nothing has changed except the body's reaction. It often takes a bit of detective work, says Dr. Robinson.

A dermatologist will need to do a patch test to determine the cause of the reaction. A patch test is when a doctor tapes allergens directly to the skin and leaves them there for 48 hours. The doctor will then remove the allergens and assess the skin. Another assessment is made 48 hours later to see if the skin develops

a reaction. However, even a patch test may not reveal the cause of the allergic contact dermatitis, in which case, a process of elimination begins as doctor and patient together try to determine the cause.

Treatment for contact dermatitis begins by avoiding the allergen. However, topical creams are also prescribed to clear up the condition and to ease the itch. "Left untreated," Dr. Schalock explains, "allergic contact dermatitis tends to become less inflamed, red, and bubbly. The skin gets thicker and more scaly." Sometimes the thickened skin will split and cause painful fissures. In these severe cases, says Dr. Schalock, an oral prednisone may be necessary.

**A word of caution: Though unlikely with allergic contact dermatitis, if a client ever responds with hives or shortness of breath instead of a simple surface reaction of a rash, discontinue services until a doctor has determined the source of the reaction.**

### What's a Tech to Do?

The job of the nail tech is to beautify nails, and there are many options available to do the job well. Even if a client comes into the salon with a reaction on her skin that you suspect is allergic contact dermatitis, there should be no harm in providing the service, says Dr. Schalock. Techs should be particularly careful that no product, including lotions or soap, come into contact with the irritated area on the skin.

In some cases, a tech will develop allergic contact dermatitis herself from coming into repeated contact with the allergens at the salon. When this happens, she can often continue working by wearing

a protective barrier, such as gloves and long sleeves, to prevent the product from coming into contact with her skin. She may need to research product ingredients to determine the cause of her reaction and then find a product that doesn't contain the offending ingredient.

It may be that a client develops allergic contact dermatitis from certain salon products. She could report itching, small blisters around her cuticles, possibly even some scabbing as the blisters burst then heal between appointments. It's also possible for dermatitis to appear on other parts of a client's body, such as the face, for example. This comes from the product being transferred from the nails to the face

through touching.

When a tech realizes a client has developed a reaction to a product in the salon, she can advise the client to visit a dermatologist to try to determine the specific cause of the allergic reaction, such as an epoxy or a particular ingredient. In the meantime, remove the enhancement product, offer the client natural nail services, and wait for the reaction to clear. Once the skin is clear and healthy, it is safe to try different products for enhancement services to see which work on the client without a reaction. Ideally, says Dr. Schalock, a tech will be able to find something that works for the client while a dermatologist finds out what is causing the allergic reaction. ●

# What Are Beau's Lines?



**Unattractive lines that run horizontally across the nails, Beau's lines present an excellent opportunity for techs to showcase their skills.**

**B**EAU'S LINES appear on the nails as horizontal ridges or grooves. The French physician Joseph-Honoré-Simon Beau is credited with the name because he was one of the first to document the relationship between physical "tells" or indicators and systemic (whole body) health problems. When the body suffers a trauma — internally or externally — there is often evidence of the trauma on the nails. Beau's lines are an example of the body producing evidence of a systemic problem.

Beau's lines are caused when the body stops producing nail cells for a period of time, anywhere from a day or longer. When the body starts producing those cells again, the nails begin to grow. As the nail grows out, Beau's lines will appear on the nail and techs will be able to see where the nail's development was affected. Most commonly Beau's nails can be traced back to a high fever or an infection, but other systemic problems can also be the cause. Patients who under-

go chemotherapy, for example, can develop Beau's nails, because the chemicals can cause systemic trauma.

"On the other hand," says Dr. Robert Brodell, M.D., a professor of Internal Medicine at Northeastern Ohio Universities College of Medicine, "local trauma can also stun the nail matrix and the same Beau's lines can be produced on only one nail." Local trauma is caused by an external force, such as a hammer, a nail being crushed, or some other memorable and painful event. Techs may have seen Beau's lines on a nail without realizing the lines are actually a medical condition. Often the client can remember the incident that caused the local trauma, so techs may not have given much thought to the lines. Most techs understand that though the nail matrix was damaged, the subsequent ridge or groove will eventually grow out.

When the issue is a systemic problem instead of a local trauma, Beau's lines can

appear on multiple nails, and may even show up on toenails. Techs can identify Beau's lines because they are not only visible, they add the texture of a ridge or groove to the nail. "Remember," says Dr. Brodell, "there is a palpable horizontal defect in the nail plate. It's not just a band of discoloration."

When Beau's lines appear on the nails, clients will naturally be alarmed. Clients can see and feel the change in their nails and they may fear the condition is permanent — especially when multiple nails are affected. If Beau's lines appear on a client who has nail enhancements, the client may even think her nail tech is to blame for the defect, citing vigorous filing or another external factor. Clients may even think they have developed an allergic reaction to the product and ask to have their nails removed. Techs can be confident that Beau's lines are entirely harmless. Clients may worry that their nails are "going bad" says Dr. Brodell, but Beau's lines present no danger to the client at all. As the healthy nail grows out, the lines will grow out also, and techs will eventually be able to file them off when they reach the free edge.

### **What's A Tech To Do?**

Because Beau's lines are the result of systemic problems or local trauma, there is nothing techs (or clients for that matter) can do to prevent them

from developing. However, once Beau's lines appear, techs can begin by educating the client about this condition. Ask the client if she has had any infection, fever, or illness in the past number of months. Remember, it will take a significant amount of time for Beau's lines to grow out from the matrix enough to be visible, so a fever last week isn't going to result in visible Beau's lines this week. Shock or a traumatic event can affect the body in strange ways, so don't dismiss any explanation the client suggests. For example, Beau's lines have been documented in the case of heart attacks and malaria. They have also been documented in divers and climbers, who have experienced the pressure of a severe change in altitude, which can disrupt the production of the nail cells.

Let the client know that her body has experienced a trauma, and the lines are simply evidence that the body had a problem. Show her the healthy nail that is growing at the cuticle behind the Beau's lines. Let her know that as the healthy nail continues to grow, the lines will grow out and will eventually be filed off. "Normal nails are produced and the Beau's line grows out over time," says Dr. Brodell. It's unlikely that multiple rings of Beau's lines will appear on a client's nails without her being aware that her body has undergone either local or

systemic trauma. However, if techs see Beau's lines recurring in the same client without the client being able to identify the reason, insist the client see her doctor to troubleshoot the cause.

Nail enhancements are the ideal solution to the appearance of Beau's lines, because nail products such as acrylic or gel can fill in the grooves and smooth out the nail. However, there is a caution here. Be aware that all angles of the ridged or grooved nails need to be prepared well so oils will be removed entirely before product is applied. It's possible that without proper prep, an air pocket could develop in the groove of the lines, which could lead to trapped water and an infection. Diligence and thorough cleansing of the nail plate are required.

Clients will most likely need colored product or polish, since the lines will likely be visible through a clear or pink product. For natural-nail clients, apply a thin coating of product to the entire nail to even out the deformed nails. As the nail grows, the Beau's line will grow out, and the product will grow off. For existing enhancement clients, perform services as usual, suggesting colored acrylic, gel, or polish as necessary. Clients will be thrilled that you not only relieved the concern over their nails, but you also made them beautiful again. ●

# What Are Spoon Nails?



**Spoon nails are a common nail abnormality that can be easily overlooked because the mildest cases are hard to recognize. But be observant; early detection can alert clients to the early stages of a more serious medical condition.**

**W**E'VE ALL heard that the fingernails are the windows to our health. This means nail technicians may be the first to notice signs of health problems in clients. Your professional perusal could alert clients to conditions they wouldn't ordinarily take note of. Of course you can't make an actual diagnosis, but if you see something abnormal, you can urge your client to see her doctor.

A good case in point is with an abnormality called koilonychia, or spoon nails. Spoon nails are a condition where the nail bed is flat or concave and dips or waves are visible on the surface of the nail. The dips and waves are actually in the nail bed — but since the natural nail is attached to the bed, the abnormality affects the nails. This condition is often harmless to clients, but it could be an indication of a more serious health problem. By being aware of the overall health of each client's nails, you'll have a baseline to refer to if you suspect a client has developed spoon nails.

In mild cases of koilonychia, nails appear to have a wavy texture — just a soft roll to the nail plate. The nails will be healthy and strong, and the surrounding skin won't be compromised. In more severe cases, the nails have a spoon-like indent in the middle, and the center of the indent will be deep enough to hold a few drops of water. Often the nail is split vertically down the center. At times, the sides of the nails flare out, the skin under the nail can become very dry, cracked, or split, and the hyponychium can thicken.

The causes of spoon nails vary. The condition can be hereditary. When this is the case, multiple nails will be affected with some sort of a concave dip. The indent will grow out, but the new nail will have the same indents. Sometimes spoon nails are due to a client continually picking, biting, or rubbing her nails. When that is the case, only the nails the client has damaged will show signs of koilonychia. The damaged nail will grow out and a healthy nail will grow in its

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place if the client hasn't damaged the matrix (root) of the nail when she picked.

Severe trauma to the matrix of the nail can also cause koilonychia. This is probably the easiest form of spoon nail for the tech to identify, because only one nail will be damaged, and the client will be able to remember an isolated incident when it happened (since more than likely it caused severe pain). In this case, the nail may or may not grow back normal. If the nail begins to split as it grows out, suggest the client see a doctor before continuing to cover the nail with an enhancement. The split nail could trap bacteria or fungus, and applying product over the area may cause harm.



A poor diet can also cause spoon nails. When a person's diet lacks iron, she becomes anemic. Anemia is a major cause of spoon nails. This is where the keen eye of the tech can help alert a client to a deeper problem. Techs who

notice a normally healthy nail begin to pit in the middle or flare at the edges can gently ask clients if they've ever been tested for iron deficiency. If the client isn't aware of an iron deficiency, but complains of being unusually tired, suggest she see her doctor to get her iron tested.

A final, though rare, cause of spoon nails could be a systemic problem, such as lung or heart problems, or even cancer.

The treatment for koilonychia varies for every patient. Doctors will evaluate the nail and get a patient's history to determine the cause of the disorder — whether it's hereditary, dietary, a result of trauma, or systemic. The doctor may opt for no treatment, knowing the deformed nail will grow out; she may recommend an iron supplement, or she may order more tests to determine if there is a deeper cause. Treatment can also include an emollient that softens the nail and the surrounding skin to prevent splitting and cracking.

### **What's a tech to do?**

Dr. Parker Gennett, a podiatrist in Vestal, N.Y., suggests techs have clients with spoon nails get a baseline exam. Be aware that when koilonychia is in the advanced stages, it is possible for bacteria to get lodged in the split nail or in the open, cracked skin. Sometimes trapped bacteria or fungus will

turn the area yellow or green. Do not apply product over any compromised skin or over a spoon nail that is cracked in the middle, regardless of whether any discoloration is evident. Water can easily get trapped and bacteria can grow, even with careful preparation. Protect yourself and the client by refusing to apply product when a spoon nail and the surrounding skin is cracked.

Dr. Gennett warns against applying an enhancement to beautify a toenail affected with koilonychia. Because toenails are likely to be covered with shoes, and they are evaluated less frequently, they are at a greater risk to trap water and develop an infection.

Once the doctor has determined there is no risk involved in enhancements, techs can apply an overlay to even out and correct the concave nail. Be sure to prep the area that is indented carefully — it's easy to miss a spot on an uneven nail, and that puts the client at risk for lifting. During the application step, be sure to press firmly on the concave area, filling in completely the small dips of the nail. When that area grows out to the free edge, you will notice the acrylic is thicker where the client's nail was concave. With careful prep and application, techs can make wavy, uneven spoon nails look like they have beautiful natural curves. ●

# What Is Onycholysis?



**Onycholysis may look scary, but fortunately, a separated nail can re-attach itself. Nail techs can do their part by offering gentle, soothing services that help prevent further irritation to the affected nail.**

**WHAT IT IS:** Onycholysis, or separation of the nail plate from the nail bed, may look painful, but thankfully isn't in most cases. In this condition, the nail acts as a lever, prying itself away from the skin.

Onycholysis has been linked to multiple mechanical and chemical causes as well as skin and systematic diseases and the medications used to treat them.

The good news is that most nails re-attach in time with proper diagnosis and correction of the cause. Once the diagnosis is made and the client is treated, it can take anywhere from three to six months for the nails to re-attach, depending on the extent of the lifting. Toenails may take twice as long.

Depending on the cause, the nail may collect thickened skin underneath the edge of its nail plate and the nail surface may become deformed with pits or

indentations.

Onycholysis is usually painless, as the separation occurs gradually. Pain may occur if the nail is further detached from the nail bed as a result of trauma or if an active infection sets in.

A bacterial or yeast infection may develop in the space under the nail. "Once that space opens up you can develop any kind of infection underneath it," says Doug Schoon, vice president of science and technology for Creative Nail Design. "An area has opened that's normally been clean and closed."

That infection can turn the loose portion of the nail a white, yellow, or green shade. Generally, if the infection appears to be green, it's a bacterial infection and if it appears to be white it is a yeast infection. This has to be controlled before the nail will re-attach. The nail can only take so much damage without being perma

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nently deformed; if it has gone too far the nail changes may be permanent. And in some cases the nail won't be able to re-attach.

Accompanying skin irritations may be a sign of contact or allergic dermatitis, which is marked by dry, chapped skin or patchy, red, scaly, and inflamed skin.

"Many nail techs tend to overfile nails," says Schoon. "In the old days they were taught to rough up the nails so product would adhere better, but today's products are high quality and don't require that. This technique creates excess friction, which can burn the sensitive tissue of the nail beds."



Over-vigorous manicuring around the eponychium and under the free edge can also cause the nail plate to sepa-

rate from the nail bed. Even typing and finger tapping can take a toll on nails. Because they appear so strong, it's easy to forget that nails can be vulnerable to certain types of injury. But even tiny traumas can, over time, result in onycholysis.

"There's not a whole lot that keeps the nail plate attached to the nail bed," says Schoon.

"You can easily break the hyponychium seal. Any repeated pressure or injury can have a zipper effect on the torn skin under the nail plate and cause even more detachment." Chemical overexposure in manicures or nail tip application, nail enhancement products, allergic contact dermatitis to nail hardener or adhesives used to attach nail tips, psoriasis, or even prolonged immersion in water can also cause the nail plate to separate from the nail bed.

Fingernails aren't the only ones that take abuse. Toenails spend much time in shoes that can be too small or too big and also take abuse from active sports such as running. When the free edge extends beyond the fingertip or end of the toe, the nails take the brunt of the pressure. Over time, this can result in separation of the nail plate from the nail bed.

Other minor traumas include habitual finger sucking, nail biting, and using the nails as tools. A blunt trauma to the nail such as getting a finger

smashed in a window or door can also cause onycholysis.

Older people may also suffer more from onycholysis because their skin and nails aren't as strong as they used to be and the attachment between the nail plate and nail bed isn't as strong as it once was, says Schoon.

**How To Treat It:** Treatment for onycholysis varies and depends on its cause, but eliminating the predisposing cause is the best treatment.

Clients should avoid trauma to the affected nail (or nails) and keep the nail bed clean and dry. They should also avoid exposure to contact irritants and keep their hands out of water as much as possible. If the client is planning on putting her hands in water she should wear light cotton gloves under vinyl gloves. Nails should be kept short and neatly clipped.

Schoon advises against removing the separated nail with nippers or any other implement. "If you do, you're performing a medical procedure and nail techs aren't licensed for these procedures," he says. If you think a client has onycholysis immediately refer her to her physician for diagnosis and treatment.

Because so many things can cause onycholysis, your client's doctor may examine her to check for other skin conditions or medical problems

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such as thyroid disease. If a fungal infection is suspected, the doctor may clip the nail and should scrape a sample of tissue from beneath the nail plate for laboratory testing. "This is the only way to prove that a fungal infection is the culprit," says Schoon.

Depending on the underlying cause your client's doctor may prescribe medication to treat the cause.

Considerations for Nail Techs: If more than one of your clients suffers from onycholysis,

you may want to take a look at how you are performing your services. You may be filing too aggressively or manicuring too vigorously.

Before you begin a service, especially on a new client, ask her about her lifestyle. If she works in an office environment and is often typing you can suggest she keep her nails no longer than fingertip length. The same thing goes for clients who love to garden or take part in an activity that can put stress on their nails. Shorten artificial enhance-

ments to reduce trauma. If you remove the enhancements you may worsen the onycholysis.

If you're servicing a client with onycholysis, avoid injuring the affected nail, and keep the nail bed dry. "Whatever the nail tech does, she should be as gentle as possible," advises Schoon.

Do not apply nail enamel or polish remover or any other chemicals that may further irritate the nail. ●

**Symptoms:** Nails suffering from onycholysis are usually marked by an opaque section of nail that stands in contrast to the healthy pink of an attached nail.

**Causes:** Although a number of factors can cause onycholysis, Schoon says the number-one cause is physical trauma.

# What Is Pseudomonas?



**Oh, that dreaded feeling that comes over a tech when she picks up a client's hand and spots her green nemesis.**

**PSEUDOMONAS** is the name given to a common, run-of-the-mill bacterium that announces itself to nail clients by turning their nails green. Most of the time, the nail bed and the nail plate do not provide a sustainable environment for these bacteria to grow. There are times, however, when conditions are perfect, and happy bacteria make a home either on top of the nail bed and under the natural nail, or on top of the natural nail and under an enhancement. Advanced cases will appear as dark green or even black spots on the nail. This is not mold.

Mold is a fungus; green spots are bacterial — and the bacteria “pseudomonas” that causes the majority of green nails can be present almost anywhere — on plants and animals, in soil, even in water. Because these bacteria are so prevalent, people can develop green nails from a pseudomo-

nas infection even if they don't have nail enhancements. All it takes is for the skin under their nail to be compromised and then exposed to the pseudomonas bacterium.

Given that green nails can develop even without enhancements, techs need to be vigilant about thoroughly cleaning their implements, all salon surfaces, their own hands, and the hands and nails of their clients. Careful cleaning and disinfection of the nail surface is essential before applying product. Otherwise, techs could unknowingly trap bacteria between the product and the natural nail. When product is applied over a nail plate that holds pseudomonas bacteria, “it creates a nearly oxygen-free environment — which these bacteria just love,” says Doug Schoon, chief scientific advisor at CND. “They eat the oils and excrete an extremely dark substance. This is what we see when the nail turns green.”

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Schoon reminds us that green spots are not caused by moisture. "That's like saying a flower will grow because you watered the ground every day. Of course that won't happen unless flower seeds were in the ground," he says. So in the case of the pseudomonas bacteria causing green spots under nail product, the cause is always one of two things: either these bacteria were on the nail plate when the product was applied (due to dirty implements or poor prep), or product adhesion was insufficient. When adhesion is insufficient, pseudomonas bacteria can find their way under the product through a chip, crack, or lift. Even the most experienced tech can be counted among pseudomonas victims. The reason for this is that even after careful preparation, clients can be exposed to these bacteria while sitting in the salon. "For example," says Schoon, "if a client touches her nails to her face and the nail plates aren't re-cleaned," her chances of infection have increased.

The treatment for green nails is to remove the enhancement, and trim, clean, and disinfect the nail to kill the pseudomonas bacteria. Some doctors

will suggest a 1% acetic acid treatment, an antibiotic, or an antifungal cream. There was a time when techs were taught to treat the nail to remove a green spot. Some techs may even remember the days we were told to reapply product over the stain left behind from a green spot. Those days are gone. "If a nail is infected, it's out of your hands," says Schoon. "The client needs to be under a doctor's supervision."

### **What's a tech to Do?**

Prevention is the best treatment. The first step in prevention is a clean environment and proper application. Protect yourself and your client by holding to industry standards. Short cuts can result in infection.

Next, educate your clients about nail care. During a client's first appointment, instruct her not to pick, pry, or glue her nails. Don't wait until she has glued a cracked or broken nail to tell her about trapped bacteria and green spots. When a client glues the nail, she increases the risk of trapping bacteria under the nail.

If a green spot appears on the nail, techs can't treat the infection. "Green spots are considered to be a medical disorder," says Doug Schoon, "and not something nail technicians are allowed to treat." Refer the client to a doctor. Techs may want to remove the product from the nail, but if the nail has an infection, techs are legally bound to avoid any form of treatment. If you nick the skin while removing the nail, you could worsen the infection. If any of your implements came into contact with the infected nail, immediately clean and disinfect it, wash your hands, your client's hands, and the surface of your work area.

The natural nail underneath the enhancement will likely be stained, with colors ranging from a dull green to an unsightly black, and it could be soft from being moist; do not apply polish or product over the nail to hide the color until the client has seen a doctor and the infection is completely clear. Once treated by a doctor, the stained nail will eventually grow out, and a soft nail will "harden" back up as it's exposed to air. ●

**Pseudomonas [sue-de'mo-nus] n: a common household bacteria that thrives in many environments, including water and moist soil. It is the main culprit of the unwelcome phenomenon known to nail techs as "green nails."**

# What Is Onychatrophia?



**“Atrophy” is simply the wasting away of a part of the body. The same thing can happen to nails.**

**M**ANY PEOPLE are familiar with the concept of atrophy. The word is commonly used in reference to a condition that affects the elderly, someone who has had an extended hospital stay, or someone who lives a sedentary life. “Atrophy” is simply the wasting away of a part of the body. Many times a person’s muscles are described as having been “atrophied.” This means the muscles have decreased in size, weakened, and have generally lost the ability to perform as expected.

The same thing can happen to nails. Whether the result of damage to the matrix, which would affect only one nail, or a larger health issue, which could affect all 20, the nails can atrophy. When a nail is atrophied, it loses its healthy look, begins to shrink in size, and may eventually wither away altogether. Unlike muscles, however, the nail can’t regain its vitality and health. Once a nail atrophies, a condition known as onychatrophia,

the condition is not reversible. “Onychatrophia is a scarring process,” says Dr. Philippe Abimelec, a dermatologist from Paris, France, who specializes in hair and nails. Similar to a scar on the skin, once the damage is done, the nail won’t recover.

Nails are known to be an indicator on a person’s overall health. Many times, systemic health issues cause nail problems such as splitting, yellowing, and clubbing. Similar to these indicators, onychatrophia also is evidence of a larger health problem. Because it’s a secondary effect, not a primary condition, onychatrophia can be the result of a wide range of health problems. Some of these issues include trauma, such as burns or damage to the matrix, genetic conditions, diseases, vascular problems, thyroid issues, skin diseases such as lichen planus, Stevens-Johnson syndrome, and Lyell’s syndrome, among others, says Dr. Abimelec. “There may be itching at the initial stage,

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which I often a result of the disease that induced it," says Dr. Abimelec. Other than that, onychatrophia is not likely to cause pain or discomfort.

There are varying degrees of onychatrophia. A person may have only one nail that has partially atrophied but will never worsen because the condition that caused it was identified and treated early. On the other hand, sometimes the primary cause is ongoing and damage to the nails is so severe a person may lose all her nails. Though the condition affects both men and women, it is not limited to adults. Children and infants can be born with, or suffer from, diseases that cause nails to atrophy.

Doctors can determine if a nail has atrophied simply by looking at it, says Dr. Abimelec. "You will see a nail remnant, nail destruction, and nail absence," he explains. Doctors will treat the condition that caused the atrophy, but no treatment is available to improve onychatrophia. The reason for this is that the problem isn't in the nails; onychatrophia is characteristic of a larger problem and cannot be treated in isolation. At times, a patient may respond to treatment and recover from the larger health issue. However, though the cause is removed, once the nails have atrophied they will not return to normal.

### Onychatrophia: awasting away of the nail

#### What's a tech to do?

Unfortunately, onychatrophia gives the nail an unattractive appearance. Because many people are unfamiliar with onychatrophia, the condition can be confused by the casual observer with a fungus. The unsightly nail may lead the sufferer to seek out a nail tech to cover what remains of the nail, and the tech will likely be eager to help. However, while it's tempting to imagine all the ways enhancements could improve the look of atrophied nails, Dr. Abimelec cautions techs about applying product over the damaged area. "It is not recommended, since there is no more nail," he says.

Before you dismiss enhancements entirely, though, suggest that the client visit a doctor to confirm that the nail has atrophied. A tech can suspect onychatrophia, but not diagnose it. You want to help the client exhaust all options before giving up hope for the full recovery of the nail. A doctor will be able to identify onychatrophia, determine if there is fungus present, or confirm the skin surrounding the nail is not compromised or susceptible to infection. In addition, a doctor might identify a larger health issue that is damaging the client's nails.

If the nail is clean, free from infection, and sturdy enough to hold an enhancement, techs may be able to work with the client and a dermatologist to

come up with a compromise on ways to beautify the nail. It may be that enhancements can be applied to a nail without harm, even only for a short time, such as for a special event, but a technician won't want to make that decision without the opinion of a doctor.



Even in the case of a natural nail manicure or pedicure, certain risks are inherent when you work on nails that have atrophied. Since the nail is likely to be thin and damaged, the tech is likely to buff the surrounding skin while caring for the nail. This could irritate or tear the skin, leaving it open to infection. Techs should proceed with caution, using common sense and protecting themselves and their clients by working within the scope of their license. Take this opportunity to strengthen your relationship with a local podiatrist or dermatologist, and work together with the client to arrive at the best possible solution. ●