Home Treatment for Nail Fungus Infection

Fight
nail fungus
Grow
natural nails

by:
Nancy White
TABLE OF CONTENT

■ CHAPTER 1................................. 02
  INTRODUCTION

■ CHAPTER 2................................. 04
  THE NAIL AND THE FUNGUS

■ CHAPTER 3................................. 07
  HOW DID IT GET UNDER MY NAILS?

■ CHAPTER 4................................. 09
  WHO IS MOST AT RISK?

■ CHAPTER 5................................. 10
  WHO IS NEXT ON THE LIST?

■ CHAPTER 6................................. 12
  THE EFFECTS OF NAIL FUNGUS

■ CHAPTER 7................................. 14
  HOW DO I KNOW I HAVE IT?

■ CHAPTER 8................................. 16
  HOW DOES IT LOOK?

■ CHAPTER 9................................. 20
  MEDICAL TREATMENTS

■ CHAPTER 10............................... 26
  HOMEOPATHIC AND HOME REMEDIES

■ CHAPTER 11............................... 38
  PREVENTION
CHAPTER 1: INTRODUCTION

I don’t know if it ever happened to you, but it did happen to me recently and I thought I should do something about it.

I met this guy, you see, a nice guy. A very nice guy.

Living in the big city and being a professional woman, it’s not easy to meet a guy. Working brutal hours, rushing home to my very nice apartment and being greeted by... my cat, is not exactly the life I’ve dreamed of. So when a co worker suggested I should meet her recently divorced brother, I was more than game. We met at a small restaurant, the four of us, and the conversation flowed. He was nice and charming and very appealing in the casual elegant clothes and sockless loafers. We hit it off and continues the conversation in the corner bar until we were kicked out at closing time. As we reached my apartment it was a shame to end such a wonderful, funny and stimulating evening. I invited him in.

We had another glass of wine, the music was playing, we snuggled on the sofa and he took off his shoes.

Like the needle on an old turn-table coming to a halt with a screech, the music in my heart stopped suddenly.

His toenails were discolored, raised and thick. Most of them. Suddenly he didn’t look so elegant anymore, he looked -- unkempt.

Knowing a little bit about nail fungus I could see the three tall tales of infection. I also knew it is transferable and very hard to get rid of. No way am I letting this guy between my sheets.

The poor guy. I don’t believe he has seen such a turn in a woman’s mood. Or maybe he did, after all he was divorced... He was out the door, with his shoes on, in a matter of 15 minutes.
What a shame, I thought to myself. What a shame. It is treatable, I knew that much. It takes a long time, but treatments work! Why didn’t he take care of it? By the look of his condition it wasn’t a new thing.

Call me shallow, but it took the magic out of the moment. Starting a relationship by trying to ‘fix’ your new partner is not a recipe for success.

While I was still thinking about the guy I did some research and this E book is the result. Maybe it’ll help some guys out there (yes, guys. Guys are 50% more susceptible to fungus toenail infection or by its medical name – Onychomycosis – than girls), seek medical help or treat themselves. And it can help those women who contracted this infection on their fingernails because of frequent hand washing, unsafe manicures and pedicures and artificial nails.

Nail fungus infection is transmittable from one person to another, either directly or with the help of an intermediary. It is one of those conditions that titers on the edge between cosmetic and medical condition. While it is persistent and sometimes very hard to get rid of, if you are otherwise a healthy person, definitely curable and most of the time, reversible.

This condition tends to be overlooked because it is painless, until it gets so bad that it starts to hurt. By then, the whole nail is infected and more drastic measures have to be employed to get rid of it.

You should not wait for the nail to grow out to get rid of the fungus. It won’t go away be itself. You don’t need to “live with it” either. You don’t need to be ashamed of your nails and avoid social gatherings that require you to be barefoot. All you need to do is use one of the treatment included in this book.
CHAPTER 2: THE NAIL AND THE FUNGUS

To understand what exactly goes on under our nails, it's important to understand what are the elements involved;

The Nail

Our nails are made of a protein called Keratin, similar to the protein our hair is made of. Even though we think of nail as dead tissue without sensation, it is not. Not to all that is. For some it continues to be a breeding ground. Nails grow, in an average healthy adult, in the rate of about 1 cm every 100 days. Fingernail finish their life span in 3 to 6 months, while toenails that are bigger and thicker, grow out completely in 12 to 18 months. This is important to remember when talking about successful results and why treatment takes such a long time.

A new, healthy nail has got to grow from beginning to end, in a normal shape for the treatment to be considered successful. The shape, the color and the thickness of the nails have been used as a diagnostic tool for many years. Blood circulation problems or low oxygen levels are only two of the conditions that manifest themselves in the shape of our nails. If the nails have deep horizontal grooves, brittleness, splitting,
white spots or lines, clubbing or loosening, it might be an indication of the condition of other body parts. If your nail changes shape or thickness without a known cause, you should have it checked by a doctor.

The nail plate, the hard and translucent part, is connected with tissue to the nail bed. That is where the tiny blood vessels are, and the ends of the nerves. As anyone who got whacked on the tip of his finger or toe (and who among us didn’t?) can attest – this is quite painful.

The nail grows from the white crescent at the base of the nail under the cuticle called (Lunula). Deformations in the Lunula will translate to deformation of the entire nail. Our nails are a very efficient barrier against infections. In the case of Onychomycosis (nail fungus) this barrier works against us by shielding the infected area from external medications and providing a sheltered ground for the fungus.

**The Fungus**

What a name! Just from the sound of it, it feels like something you do not want to come in contact with. Yet fungus is all around us. Different families of fungus are in the soil, in the grass and on the floors of showers and locker rooms. Pets can bring it home from a walk and so can, and do, the humans. If conditions are ripe the fungus will grow.

It might come as a shock to you to realize that we eat it as well: mushrooms are a form of a fungus, the yeast we use in baking is a form of a fungus, same yeast as in beer making... Yes my friend, the beer you drink was made with the help of fungus.

Fungus (or fungi as they are called in plural) are microscopic organisms that do not need sunlight for their existence. In fact, sunlight, just like for Count Dracula, is the
enemy. What they do need is a dark, moist and warm place, like the dough in the bowel you just covered and will double in size in two hours, for one kind of fungus, or, and that is the purpose of this book, in such a place as between your toes and between the nail plate and the nail bed for another kind of fungi. So get used to the fungus in your life. It's not all bad. But the one under your nails is.

Nail infections are usually caused by a family called Dermatopytes. A close cousin in this family likes to cause a condition we commonly call Athlete's Foot. In fact they are such a close family that the Athlete's Foot branch might help the under nail fungus family branch find a residence near by - in your toes. Mold, another kind of fungi, can cause under nail infections as well. So can the yeast (Candida family).

When fungus finds his way into your body through small cuts and splits in nails, the body can sometimes fight it off. But sometimes it can't do it fast enough. The fungus finds a fertile ground under your nail, protected from the sunlight. It feeds on enzymes we have in our body and takes residence. When the body doesn't fight it off, an infection starts which the fungus doesn't mind at all.

Fungus is part of nature, part of the organisms that surround us. But when it takes hold and an infection starts, it's time to take action.

And sooner the better.
CHAPTER 3: **HOW DID IT GET UNDER MY NAIL?**

Fungus enters the human body through small cuts and abrasions and especially through openings in the nails when the nail bed is exposed.

If you had a nail trauma or a separation of the nail from its bed, you have to be aware of the dangers and treat it properly to avoid fungus infection. I know there are men out there who after banging the hammer on their thumb will, very bravely, drill a hole in it with heated metal to release the pressure. Although it is the right action to take, it is done in the wrong place. If not done properly and antiseptically, you increase your chances of fungal infection. Another example? Something heavy fell on the toe. The nail got chipped and is bleeding slightly from the edge. No big deal. Wrong. Putting this foot inside a sock and a closed toe shoe, will almost ensure that fungus will start to grow.

When you bang your toe against a chair or a doorway and the nail lifts a bit... It hurts for a long time but eventually stops. Make sure you wash and disinfect the nail and then dry it properly. Another way for the fungus to get in is when you have an ingrown toenail that is not treated by a professional. Women beware; your pedicurist is not always a professional and the tub of water you soak your feet in has to have a disposable liner. A tub that contains fungus spores can transfer those to tender places after nail and cuticle treatment.

The fungus finds a fertile breeding ground in the bed of the nail and begins to grow, feeding on the moist environment and the lack of sunlight. With time the fungus multiplies, embedded in the nail plate, and makes it thicker. The nail will develop white spots that spread.

The fungus takes hold at the base of the nail and will often make the skin around the nail red and irritated. Eventually it develops into an infection.

The reason why most people fail to diagnose and treat the problem must have
something to do with the fact that fungus nail infection is not painful. The pain, or rather a discomfort, might start when the whole nail is infected and thick and it’s painful to put pressure of that toe or fingernail. Then it requires much more complicated treatment.

Another reason might be due to the fact that the infection develops slowly, very slowly. We get used to the way our nails look and sometimes fail to see the difference.
CHAPTER 4: WHO IS MOST AT RISK?

Nail fungus infections occur more often in men than in women and tend to infect people over 60 more than younger people, probably due to diminished blood circulation and the fact that nails grow slower and thicker the older you get. But there are some medical conditions that make a person more susceptible to fungus infection:

- Immune Deficiency. When the immune system is depressed, as in the case of HIV positive, Leukemia, Lupus and other immune deficiency conditions the body finds it hard to fight the infection. Organ transplant recipients have a high risk of contracting fungus infection because of the medications they are taking.

- Diabetes. With poor circulation in the lower limbs that is associated with diabetes, there is an increased chance of contracting nail fungus infection. About 30% of them will get the fungus in their life time.

- If you have Psoriasis or other skin conditions, this is one more thing you have to worry about.

- Other fungal infections like Athlete’s Foot which presents itself as a redness, or white film between the toes and the skin become flaky and itchy.

- Heavy than usual perspiration, especially in the feet.

The infection itself can cause other complications that go beyond the infected area and presence of bacteria that causes Cellulitis, a serious skin infection, can complicate treatment.
CHAPTER 5: WHO IS NEXT ON THE LIST?

For those of us who are otherwise healthy there are some environmental conditions that can make us more susceptible:

- **Nail Trauma.** That is true for the fingernails as much as the toenails. Unattended nail trauma, where the nail is separated from its bed, is the primary cause of fungus nail infection.

- **Ingrown nails,** when the nail penetrates the skin around it and it is difficult to see the edge of the nail, is another form of nail trauma. The minor cases of ingrown toe nail involve only a depression that leave a mark on the skin, sometimes permanently. The severe cases of ingrown toe nail involve a repeated penetration of the nail into the skin. This causes an inflammation that gets red and painful. That is the place where infections start and it provide a good breeding ground for the fungus.

Most ingrown toe nail problems are caused by improper trimming of the nail. When the nail is cut too short on the sides or when a spike is left that penetrates the skin when wearing tight fitting shoes, the problem gets exacerbated. Ingrown toenails can be caused by hereditary as well. The shape of the nail you have been born with can make you prime candidate for nail fungus. Tight shoes for wide feet just adds to the problem.

- **Cutting the nails too short,** biting nails and otherwise causing cuts or openings for the fungus to settle in.

- **Environmental conditions** that are favorable to nail fungus. If you work outdoors in hot and humid weather and you have to wear closed-toe shoes, you should change your socks in the middle of the day. Especially if you work in a profession that can lead to nail trauma (such as construction in Florida, for example).
- **Washing hand frequently.** Working or having a hobby that demands hands to be washed frequently. Health professionals and restaurant workers experience episodes of infections at the sides of the nail. They go away with treatment but keep reappearing. Most likely there's a fungus infection there as well.

- **Shoes that are too tight** and prevent air circulation. Those shoes create a dark, humid and sweaty environment.

- **Socks that do not absorb sweat,** especially in combination with tight shoes.

- **Standing barefoot in a locker room or other public shower.** The floor of a shower, especially the corners, are prime growing beds for fungus. It can be brought in by someone carrying the fungus, breed and prosper to infect many.

- **Sharing nail clippers or nail files** that have not been disinfected. Tiny fungus spores can live on them and transfer to the next person, especially if there's a small opening.
CHAPTER 6: THE EFFECTS OF NAIL FUNGUS

Although seen by many as only a cosmetic problem it can sometimes lead to more severe conditions and infections that go beyond the toe or finger. If you are in the risk group you should check your toe nail periodically to make sure they are in good condition. On the cosmetic side, having nail fungus may create situations that prevent you from living your normal life and doing whatever you choose to do. Shame may preclude some from participating in social activities or prevent them from taking a job that require dealing with the public if the fungus is in the fingernail. Covering the nail with nail polish will only make the situation worse. Now it is really dark under your nails and medication cannot penetrate.

You are not alone. According to the latest statistics between 8% to 10% of the American population suffer or had suffered from some form of nail fungus. That is about 35 million people in the US alone. In Finland, for example, the rate is even higher – almost 13%.

More men are affected by the fungus than women – up to 50% more, and about 25% of all the incidents involve people over the age of 60. Several reasons have been given in regard to the age issue; poorer circulation that comes with age, poorer eyesight that can hinder proper hygiene, stiffness of bones and muscles that prevent the person from bending down and nail trauma caused by all those conditions. The slowing in growth of body cells a in an older person causes a longer healing time from cuts and infections and maintains a favorable breeding ground for the fungus.

Thank God that the children are the least infected of all the age groups. On the other end of the scale, nearly 26% of diabetics reported fungus infections in their toenails. Another interesting statistics; There are 6 cases of toenail fungus to 1 case of fingernail fungus infection. The less visible it is, the more people tend to procrastinate before getting treatment.
Look at this chart. It shows the degradation of an untreated nail from the bottom right corner to the top left. What stage is your fungus infection?
CHAPTER 7: HOW DO I KNOW I HAVE IT?

Now that we know who we are dealing with, a microscopic organism that likes moist and dark places, here are some typical signs of the infection:

- **White or yellow spots** on the nail that do not go away and look as if they appeared from under the nail is the first indication that you might have contracted nail fungus. Not all spots were born alike, but a Podiatrist should be able to tell.

- **The spots become larger** and cover more of the nail. They don't grow out and disappear. Nail fungus can start very slowly. Spots on the nail can linger for a very long time. Eventually, almost the whole surface of the nail becomes white, yellow or even brown or black.

- **The nail becomes thicker** and has a somewhat abnormal shape. It can be raised, angled or crooked.

- **The nail turns brittle and flaky.** It becomes harder to trim the nail and it disintegrate with the cut.

- **There's an unusual odor.** Debris that is caught under the nail contribute to the foul odor coming from the toes. I'll leave that to your judgment what is an unusual odor for your own feet.

- **The nail flakes** in some sever cases, leaving holes and breaks in the nail plate, sometimes by the white crescent at the base of the nail (Lunula).

- **The skin around the nail becomes red and inflamed.** That is an indication that an infection is present.

- **Putting pressure on the toe becomes painful.** Shoes that were comfortable
once are now rubbing against the toenail.

- **The symptoms do not go away with time.** The more the nail grows, the more the infection spreads and become severe.

If one of your nails has most of those symptoms, treatment should start right away. Unfortunately people do not notice the first stages and seek treatment only after the fungus has overtaken the whole nail. Immediate treatment can stop the progression before it will require long months of treatment. Toenail fungus can spread from one toenail to the other and infect the whole foot. It can also spread to other members of the family using the same shower, towels, shoes or socks.
CHAPTER 8: HOW DOES IT LOOK?

Well it's not a pretty sight and no two nails are alike. In general nail fungus infections are classified by the family of fungi that took hold under the nail and by the area of the nail affected first. The pictures you are about to see represent severe cases. Wanted you to see how it will look like if you will not get it treated.

**Proximal Subungual Fungus**

This kind of fungus starts at the base of the nail (the Lunula) and spread outward as the nail grows. This infection is more common in people with depressed immune system. Some vascular diseases and diabetes may also result in this kind of fungal infection.

Note on the picture on the left where the nail crumbled and created an opening that allows moisture to collect and feed the fungus.
**White Superficial Fungus**

In this kind of nail fungus, infection starts on the surface of the nail and spread both ways. Note how the edges are breaking off if the nail is not trimmed short.

**Distal Subungual Onychomycosis**

The most common infection starts at the edge of the nail where debris from the dead keratin adds to the separation of the nail from its bed, allowing moisture to penetrate and linger, adding to the growth of the fungus.

In most cases the infection is caused by fungus from the Dermatophyte family. It may be confined to one side of the nail or start there and spread to involve the whole nail bed.

**Yellow colored Nails**

When nails become yellow and different in shape, it is not always a clear sign of fungal infection. Other conditions such as psoriasis and eczema can cause the nail to change color.
Not every yellow nail is an indication of fungus infection. That is why it is important to get an expert’s advice before you start with medication that will do nothing for the nails but can harm the rest of your body.

**Blue Nail Syndrome (Subungual Hemorrhage)**

Blue nail is usually caused by nail trauma that broke blood vessels under the nail. Blood accumulated between the nail plate and the nail bed and can cause separation. Release of the blood right after the trauma and before the blood had a chance to coagulate is recommended. It should be done in an antiseptic environment and extra attention should be given the holes that were drilled in the nail plate to release the pressure. If done in a home setting and not sterilized properly, fungus can enter through the puncture and embed itself in the affected area.

**Paronychia**

Although acute Paronychia is usually caused by bacteria and treated with antibiotics, it is most likely caused by a yeast or fungus infection. This condition presents itself as a swelling and reddening of the skin around the nail. When drained, pus is released and the redness subsides. The problem is that it keeps coming back. This condition affects mostly people who have to wash their hand frequently. The constant water use weakens the bond between the nail and the cuticle that protects the edges while soaps eliminate all the protective oils from the skin. Anti fungal medication has to be used in order to get rid of the infection.
Ram’s Horn Nails (Onychogryphosis)

And I’ve saved the worst for last. Ram’s Horn Nails is a condition that can be hereditary or the result of years of neglect after nail trauma. Nails grow very thick, while one side on the nail grows faster than the other, resulting in curved, grooved nails that look more like horns than nails.

Most of the pictures of this condition show long toe nails. People have just given up on fighting with their nail clippers and let the nails grow out of shape.

Scary, isn’t it? What strange shapes our bodies manage to manufacture! But before you get discouraged, read on. There are numerous ways to get rid of this tenant and make sure he’ll never come back.
CHAPTER 9: MEDICAL TREATMENTS

Now take a deep breath. Although it might take some time, it is definitely possible to cure nail fungus infections and get rid of the embarrassing and deformed nails. Since not one medication treats every kind of fungal infection, your first step is a laboratory test.

The test is done by examining a nail clipping, first visually, under a microscope to ensure the presence of fungus, and then it is put into a culture that will determine the family your fungus belongs to. That might take up to a month and is sometimes quite complicated. A reputable laboratory should be used.

To make it clear, the objective of the treatment, and the reason it sometimes takes a long time, is to ensure complete eradication of the fungus.

One of the most bothersome results of an incomplete treatment is the rapid reoccurrence of the fungus. Either because the fungus family diagnosis was mistaken or because the fungus became resistant to that form of treatment. Not until the nail is fully grown in a normal fashion, can a victory be declared.

The treatments are painless. They last a long time and some of them have unwanted serious side effects. Careful consideration has to be given to the method employed, and weighing the benefits against the risks should be considered.

Possible treatments:

- **Over the counter medication**: creams and lacquers.
- **Prescription medication** taken orally.
- **Surgery**
- Laser treatments

- Homeopathic and Home remedies.

I will tell you all I know about these treatments, the benefits, the risks and the costs of a complete treatment. I'll start from the easy to the more complicated and end with my favorite treatments – home remedies that have been proven to work and have a substantial number of formulas and testimonials to the effectiveness of the treatment.

**Over The Counter Medications**

There are about a dozen over the counter fungus treatments. Unfortunately most anti fungal creams, such as Lamisil AT, are meant to cure Athlete's Foot not toenails fungus infections, regardless of their cute cartoonish characters in television ads. The nail plate protects the fungus and does not allow the medication in those creams to penetrate.

However, there are a few over-the-counter lacquers and drops that the manufacturers claim do manage to do that.

**Amorolfine (Loceryl)** has been successful in treating fungus infections from the Dermatophyte, yeast and mold families. It is applied to the nail and the skin around it and forms a clear protective film that is water resistant and administers the medication slowly and constantly for a prolonged time (a week). It has to be applied regularly until the nail has grown out which might take 12 to 18 months.

A cream form of this medication exists to treat superficial fungus infections like Athlete's Foot. Trimming of the affected nail has to be done by a professional, once a month. There are no side effects to that treatment, aside from sensitivity to the medication that can cause irritation.

This lacquer can be effective in the beginning stages of fungus nail infection and is meant mainly for the toenails since this medication is poisonous if swallowed, even by mistake by putting the infected fingernail in the mouth or when preparing food.
Curanail Nail lacquer (5% Amorolfine)

This nail lacquer is aimed at mild to moderate fungus infections. Curanail can destroy a wide range of fungus and prevent the spread from one nail to the other. It should be applied once a week and let dry for 5 minutes. Treatment might continue for 9 to 12 months for toenails. There are no recorded side effects and the treatment has shown to be effective on 85% of fungal infections of the fingernail and 76% infection of toenails. Those suffering from immune system deficiency or diabetes should consult their physician before starting on this medicine. It is mostly used in the UK.

Fungisil is the most known medication to treat nail fungus. The manufacturers claim it stops the growth of fungus and kill the existing one. Application period is twice a day for an average of 4 months and has to be followed religiously. User feedback shows that Fugisil stands out from other topical applications. Can you commit to twice a day treatment for 4 months? What if you skip an application or two? That will be a good excuse for the producing company when you'll claim it did not help.

Barielle Fungus Rx - manufactured by the company that deals with health and beauty products. This product is meant for people with mild to moderate fungus conditions. It is specially formulated to stop the spread of fungus to other nails and to the skin around it and kills the bacteria that is often present in nail fungus infections. It contains Tolnaftate and active ingredients that are FDA approved and have been clinically proven to be an anti fungal solution. It is applied with a dropper, twice a day and because it is such a gentle solution might takes many months to eradicate the fungus.
Prescription oral anti-fungal medication

The first generation of oral medication has been around for many years. Griseofulvin or Ketoconazole were successful in treating the infection but the relapse rate was very high. Between 70% to 85% of patients reported reoccurrence of the fungus. Treatment lasted a long time, sometimes up to 18 months and created some serious side effects. Constant monitoring of the internal organs was needed to make sure there is no damage to the liver. The current generation of oral medications, Terbinafine and Itraconazole, are more effective in curing nail fungus infection and preventing reoccurrence.

**Terbinafine (Lamisil)** – The adult dose is 250 mg daily for 12 weeks for toenails, and 6 weeks for fingernails. The medication has to be continued, for one week a month, for the next 4 months. This treatment has a failure rate of 20%-30%, which is very high, especially when you take into account the side effects. People with liver problems should not take this medication. The cost of this treatment is about $300 per course, and you should add the lab fees for monitoring your liver and kidney functions. There are generic medications available for about $40 a month. Take this medication, in consultation with a doctor only after you have tried other, less strong medications and they failed. This medicine is not to be taken lightly.

**Itraconazole (Sporanox)** - This oral medication is prescribed to be taken one week per month for two to three months, but can cause interaction with wide spread medication such as pain killers, antibiotics and asthma medication. The side effects may include skin rash, headache, high triglycerides and elevated liver function. Again, the benefits of this medication have to be weigh against the serious side effects it may cause. Only is severe cases on nail fungus this medication should be used. You should be aware that is you are a woman who’s on a contraceptive pills, this medication might reduce the effect of the contraceptives. Kidney, liver or heart patients should avoid taking this medication. This medication can cause numbness or pins and needles sensation in the extremities.
Ciclopirox (Penlac 8%), is a lacquer that attacks different parts of the fungus growth cycle. The most common side effects are shape change, ingrown toe nail and irritation of the surrounding skin. With daily application it might take up to 48 weeks for the results to be evident. The results of this treatment are not very encouraging. In studies, only 12% achieved a completely clear toenail.

Diflucan is another oral medication that treats fungal infections of the mouth, lungs, skin and bladder. It is often used as a preventative measure to stop toenail infection even if there is no sign of the infection. The biggest problem with this medication, and women should keep it in mind, is that this medication may cause harm and defects in the unborn children. A friend of mine took this medication for 3 months when she found out she is pregnant. Although wanting another child very much, she succumbed to the pressures of the doctors and had an abortion. The medication can cause some less severe side effects; allergic reaction, swelling of the throat, abdominal pains, nausea and vomiting have been recorded. I would stay away from a medication that can cause deformities in a new born.

Surgery
Surgery is not recommended as a treatment for nail fungus and is reserved for severe cases only, when the entire nail is removed to allow access to the nail bed. Ingrown nails that have become painful and hard to reach have to be treated by a medical professional. Improper treatment may lead to infections and nail fungus. At times local anesthesia can be applied and antibiotic medication has to be taken orally or through creams. If conventional treatments do not help, a surgical intervention might be needed (called partial nail avulsion). In this procedure a part of the nail is removed and the exposed nail matrix will be burnt with Phenol. The nail will grow narrower than before but the nail will be fungus free. This procedure is usually performed in a doctor's office under local anesthesia.
Laser
Laser treatments are relatively new procedures to treat for nail fungus and are very expensive. Those who administer those treatments claim they can eradicate the fungus in one treatment, but clinical studies have not been done yet to back their claim.
The laser, known by its name PinPoint FootLaser is FDA approved to be used in dermatology and cosmetic procedure as well. It requires a 40 minute procedure, is painless and does not have any side effects. It's been used for a short time, about a year only, and the owners of the laser clinics say the success rate is 88%. Since the information comes from the people that profit from the treatments, this information might be tainted. Improvement is apparent when the nail grows out normally and the infected area is trimmed.
CHAPTER 10: HOMEOPATHIC AND HOME REMEDIES

This is my favorite part. Natural home remedies offer the possibility of prolonged treatment without the risk of harmful side effects. Most of the home remedies are made of simple everyday items that don't come even close to the price of prescription medication or over-the-counter lacquers. Some of the methods have been used for many years by different cultures and have been passed down from generation to generation. Natural treatment can be combined with other, stronger oral treatments, to shorten the follow-up period and eradicate all the fungus. There are many successful combinations for eliminating nail fungus, all you have to do is find the one that works for you. Corn meal, vinegar, hot water and hydrogen Peroxide and some of the ingredients used. Herbs can be used to soak the infected nail, and exposure to heat and sun can help as well. Other ingredients that are used in home remedies are apple cider that is taken orally to ensure a yeast-free environment in the entire body and essential oils which have the known properties of being anti-fungal. Boosting the overall immune system with herbs like Echinacea, and using preventive measure will ensure that the fungus is gone for good.
Homeopathic treatments:

**Zeta clear** is a homeopathic solution, which is FDA registered, that costs about $60 for 2 months supply. It is used by sufferers who need something stronger than the home remedy but do not want the side effects brought about by prescription oral medication. It is applied by dabbing it on and under the nail and should destroy the environment that helps fungus thrive. It contains Tea tree oil, Almond oil and Jojoba oil. Lemon grass oil and vitamin E oils are absorbed by the body through the nail. Clove oil which is an herbicide helps in destroying fungus and preventing it from reappearing. This solution has to be applied morning and night with a small brush and the visible signs of fungus should be gone within 3 weeks, with another 3 months of application to prevent the fungus from reappearing.

**Futspa Nail Drops**
Is another natural product that comes in a form of drops to treat toenail fungus. It contains natural oils such as Tea tree oil, Lavender oil and thyme in a base of castor oil and are known anti fungal, anti bacterial, anti viral, anti inflammatory agents. It can also be used in a soak to prevent other kinds of fungus from taking hold. Two applications a day is what the manufacturers recommend and as the others they have a money back guarantee.

I always wondered about those medical money back guarantees. How do you prove it did not work?

**Nail-Rx** – costs about $38 for one month supply and is used on mildly infected nails. Made of 100% natural compounds, essential oils and anti fungal agents. Tea tree oils in combination with Lavender and Lemon Grass make is smell pretty good. The addition of Clove Oil enhances the preventive properties of the solution. It can takes over two months of continued use to see results and the treatment has to be continued to prevent reoccurrence of the fungus along with preventive measures.
**Leucatin**

Another topical solution that is homeopathic is Leucatin the ingredients include Almond oil, Echinacea, Ginger root, Jojoba oil and Tea tree oil. Their advertisement claims to clear fungus in only 7 days but there are no clinical studies to back that fact up. They do offer a money back guarantee.

Containing almost the same ingredients as other homeopathic solutions it is hard to understand how this treatment can be affective in such a short period of time. From what I read, it looks like a hoax.

There have been complaints about the business practices of the company that supplies Leucatin. Those who tried to get their money back encountered almost a nonexistent customer service.

**Natural Home Remedies**

If you read what has been written so far, you can draw your own conclusions. If you haven’t, let me summarize it for you; using medications has either some nasty consequences with potential severe side effects, or it does not work properly and the infection keeps coming back. With those options, a cosmetic flaw that can be hidden inside a shoe, is not such a big problem. The fungus wins and goes untreated.

There's another way - home remedies.

Home remedies seem to be the most popular and the best way to go to get rid of nail fungus. It is a process that takes time, weather you use medication or not. To ensure complete eradication of the fungus we are talking about months of treatment, sometimes even years.

Since those treatments are going to takes a long time anyway, why not use everyday items and treat the infection the same amount of time, but without harmful chemicals and side effects?

And the cost, my friends, is nothing to laugh about. The ingredients in home remedies are cheap. Cheap and within anyone reach. These are the ingredients from our kitchen and bath that take part in curing nail fungus:
Tea Tree oil. - All the homeopathic treatments, without fail, use Tea Tree oil because of its natural anti fungal and anti bacterial properties.

Vinegar – Vinegar is one of the less appreciated ingredients in our kitchen. Vinegar can brighten laundry, can break oils and can absorb odors. With all those benefits, no wonder it is one of the most oft used elements in home treatments for fungus.

Apple cider vinegar is a known yeast combatant. Some dieticians recommend drinking a tablespoon of it every day on an empty stomach to maintain the correct balance of bacteria and yeast in our bodies.

Hydrogen Peroxide – has been found to help the Keratin grow again and eliminate bacteria that is often attaching itself to the fungus and feeding off it. It is sometimes used in combination with apple cider.
**Oil of Oregano** – Has known anti bacterial and anti fungal properties. It destroys the organisms that caused the infection and it strengthens the immune system. Oil of oregano has been proven to destroy Candida (yeast) caused infections. Not all oregano oils are the same. Look for the one that is marked P37. This one has shown the best results.

**Oil of Lavender** – has therapeutic elements of calming and soothing, not only infected areas but the soul as well.

**Turmeric** – is known to have curative properties, and is added to pastes or soaks water. The method used in home remedies is to create an environment that the fungus does not like and cannot survive in. Remember fungus likes moist, dark and warm places and an alkaline environment. Acidity is the main enemy, so all the home treatments aim to provide that kind of
atmosphere and slowly kill the fungus.

**Vinegar soaks**

Apple cider is good and so is any other store bough white vinegar. Soak the infected nail for about 20 minutes, up to 3 times a day in a mixture of one part vinegar and two parts water. Yes, here lies the problem – can you spare almost an hour and a half a day to soak your feet? If you can’t, maybe a soaked bandage around the infected toe or fingernail can do the trick. Stay with it as long as you can stand the smell. The biggest problem with this method is the time frame involved. It is a slow process that doesn’t kill the fungus, just stops it from multiplying. Make sure that you dry your feet well after the treatment, with your own towel that no one else is using.

**Listerine Soaks**

Yes, the mouthwash that meant to kill bacteria in the place it is most abundant – in the mouth can work also on killing bacteria in other parts of the body. Soaking the infected nail in Listerine will not cause any side effects, but if a toenail is involved might get costly (Listerine is not cheap to begin with). The alternative method is to brush on some of the Listerine on the infected nail and let it dry, a few times a day. If you can fill an empty nail polish bottle that has been thoroughly cleaned, you can carry it with you and apply it whenever you have a chance. The effectiveness of Listerine has not been proven in clinical tests but the anecdotal information is quite convincing. Use the whitening kind, which is a clear liquid not the green, blue or orange ones. You might end up with nails the color of the Listerine.

**Vicks VapoRub**

Yes, Vicks VapoRub – A product that has been found to have an alternative use on top of being a product to ease symptoms of the common cold. Mostly used on toenails to prevent accidental internal use. Using a cotton swab or a cloth, it is applied directly on the infected nail at night before bedtime. It is recommended to wear cotton socks while you use this product to prevent staining the sheets and allowing the entire rub to be absorbed overnight. A mild side effect is a discoloration of the nail, but the nail is discolored anyway by the fungus. This is a relatively new discovery and there is not much concrete proof to the effectiveness in a clinical study, but it becomes more and more popular.
Acidophilus Beer Soak

Probably the least known of the home therapy methods, it involves soaking the infected nails in a bowl of beer, 3 times a day for half an hour each time. Acidophilus is a bacteria that aids the immune system fight fungal infections. Those are the organisms that are turning milk into yogurt. The beer used has to be dark beer or stout (Guinness is the most common) and acidophilus sachets can be bought in a health food store. The beer mixture is done by using 1 liter of beer and 1 liter of vinegar and a half of a sachet. Once the mixture is made it can be used up to 3 days before a new solution has to be made. Feet have to be soaked for half an hour until the toenail is softer.

The problem with this method, as I see it, is twofold; the amount of time it takes per day to sit with your feet in beer and the price of Guinness!
This treatment comes out of the UK of course.
The soak has to be done every day and skipping a few days might set the treatment timeline back. It might take up to 6 months of consistent treatment. Even when the nail starts to grow looking normal the treatment has to be continued to ensure a complete eradication of the fungus.

As with all home remedies time and patience are important.

**Tea Tree oil compress** – In a study done in 1994 at the University of Rochester, 60% of the patients using Tea Tree oil for six months, in twice a day application, found their nails were healed. For an even better nail fungus remedy, mix tea tree oils with Oregano oil, apply on a pad and tape it to your infected nail. Change the pad twice daily for the next few months.
Combining Tea Tree oil with Lavender oil (half of each) is another treatment that has been used successfully. Swabbing a combination of the oils under the top edge of the nail and around it twice or three times a day is very effective in healing the discolored nail.
Another method is to soak a little ball of cotton and put it under the infected nail before going to sleep. Wear a sock to protect the linen and wash it off in the morning. If the nail is changing to a darker color because of the oil, you can swab it a few times with Hydrogen Peroxide. It should clear the nail out.
**Coconut oil** – Caprylic acid found in coconut oil is capable of killing fungus. The application process is to massage the oil onto the nail 3 to 6 times a day, or soak a pad in the oil and keep it on the infected nail. Wash the nail. Dry it well and apply a new pad.

**Sunbathing** – to disturb the environment the fungus strives in, expose the nail to sunlight a few minutes every day. Wearing sandals (yes, with the infected nail showing) and keeping the feet dry help in the eradication of the fungus. In winter months you can use tanning salons to “sun burn” it. People say they saw improvement in a matter of few weeks.

**Lemon Grass oil and Lemon juice** are other options people have used. Lemon is a natural antiseptic and creates an acidic environment that the fungus dislikes. People say that using Lemon Grass oil turned their nail area black after only a few minutes of using it, which they say, is an indication that the fungus is starting to die.

**Garlic** – is known as a powerful natural antibiotic. You can use a clove of garlic to rub on the infected nail or use garlic oil. Taking garlic internally as well will help fight infections from two directions at once.

**Tried and true home formulas for nail fungus eradication**

The best approach to clearing your nail fungus is to listen to testimonials of people who have used combinations of the above mentioned ingredients. Some of them might sound a little weird, but the people using them swear it works.

**Formula # 1:**

After trying Lamisil, Vicks Vapor Rub and vinegar without satisfactory results, writes one woman, here is what has worked:

- Soak your affected area in a solution made of 50% distilled vinegar and 50% Hydrogen Peroxide, for a short time (a few minutes).
- Wash and dry the area and soak it in a solution of 20% Clorox and 80% water for about 30 seconds.
- Dry the nail and apply Tea Tree oil with Vaseline. Rub it in.
- Do it for three days running.
- Apply Tea Tree oil once a day for the next 2 weeks.
- The fungus will be killed and a healthy nail grew back.
**Formula #2:**
This comes from a woman who is a diving instructor and was hiding her infected toenails in booties so her students would not see them. This, of course, made her toenail fungus infection much worse. She tried Sporanox, Lamisil, vinegar and chlorine without satisfactory results. She cut her nails very short and nothing helped. Until she heard about Vicks VapoRub. She rubbed it on her toenails. Literally within hours, she says, the nasty crusty whiteness was gone, and after a few days the nail looked healthy and pink. Her fungus did not like Vicks.

**Formula #3:**
Here is in more detail, the beer soak. Make a mixture of 1 liter of Guinness beer and 1 liter of white vinegar. Add 50 billion acidophilus bacteria (can be bought in the health food store in packages of billions of bacteria per sachet). Soak your feet for 20 minutes a day before going to bed. The solution can be kept in the refrigerator and reused. Every 3 days add another 50 billion acidophilus. After 9 days the solution is nor effective anymore and a new one has to be mixed. Dry your nails thoroughly and rub in Tea Tree oil mixed with Olive oil. Do it for 30 days or until a healthy nail finishes growing.

**Formula #4**
Soak your infected nail in a mixture of water and apple cider vinegar for 15-20 minutes. Dry the nail thoroughly. Use a hair dryer to make sure the infected nail is completely dry. Put equal amounts of TeaTree oil and Lavender oil on a cotton swab or a cotton ball. Dab it under the edge of the nail and around it, where it meets the skin. Do it 2 to 3 times a day. If there's no improvement within 3 weeks, this method is not for you.

**Formula #5**
Blend a few drops of Oregano oil with a teaspoon of Olive oil. Apply it on the affected area. Keep your nail clean and dry between applications. If the toe nail is infected – wear sandals. Let the nail be exposed to sunlight.
Do it for 3 weeks. If there is no improvement, try another method. Your personal fungus is probably from a different family and is not affected by this treatment.

**Formula # 6**

This formula comes from a man who had toenails fungus for a very long time and never treated it before. This worked for him:
Mix together vinegar, Hydrogen Peroxide and baking soda into a loose paste.
With a rough emery board file the outside of each toenail. Do it with every nail, infected or not. Be comprehensive and thorough.
Wet a cotton ball with rubbing alcohol and squeeze most of it out.
Put the mixture on the cotton ball and apply to all toenails. (Again, infected or not).
Do it at least three times with every nail.
Allow nails to dry for 5 minutes.
Apply Vicks VapoRub heavily. Rub it in until the Vicks disappears. Apply it between your toes as well.
Do this procedure at least twice a day. Within 72 hours you should see a difference in the appearance of the nail.
Keep filing the nails short and sterilize the nail clippers and other instruments you are using to keep your nails clean, with alcohol.

The guy who came up with this regiment swears it works!

**Formula # 7**

Dip a cotton swab in household bleach. Apply it around and under the infected nail, including around the cuticle. Repeat it with another swab on the other foot.
Allow it to air dry
Apply tea Tree oil with a clean cotton swab.
Do it twice daily in the morning and at night.
After three weeks most of the nails will look fungus free.
Make sure to use new cotton swabs every time. Do no dip the swab in the oil after you have touched an infected nail.

Note: I wouldn’t willingly use bleach on my skin, but if you don’t have a problem with that, this method would probably work.
Formula # 8

In a small spray bottle mix 50% Listerine with 50% vinegar.
Spray on toes and let hair dry.
Apply Vicks VapoRub all over the nail and cover it to protect the sheets at night.
Spray the toes twice a day and apply Vicks before going to sleep.
This is, in my opinion, one of the best combinations. The Listerine and the vinegar create an unfavorable environment for the fungus and the Vicks puts in the finishing punch.

Formula # 9

Make a paste of Turmeric and water.
Apply the paste on the infected nail and let dry.
Wash it off and thoroughly dry your nails.
Eat a lot of probiotic foods such as kefir or yogurt. That will fight the fungus from inside.

Note: This one looks to me too simplistic, but people say it helped them.

Formula # 10

Mix ½ cup warm cider Vinegar with 6 drops of Tea Tree oil.
Add one or more of those essential oils:
2 drops peppermint oil
2 drops thyme oil
1 drop sandalwood oil.
Add the mixture to enough warm water to cover your ankles.
Soak your feet for 15 – 20 minutes.
This is a good formula for those who cannot tolerate undiluted Tea Tree oil on their skin. The other oils will cut down the smell of vinegar.

Formula # 11 - Fungal foot powder.

2 tablespoons of corn starch or unscented talc
15 drops of Lavender oil.
5 drops of peppermint oil.
Put the powder in a Ziploc bag and add the oils. Let sit for 24 hours allowing the oils to spread in the powder. Shake well before the first use and apply on dry feet, under cotton socks.

There are some formulas involving putting yogurt on the nail and letting it dry. I would not dignify it with a quote. The amount of acidophilus in edible yogurt is not enough to make a dent in any fungus, let alone through a thick nail.

There are other formulas involving your own urine. Yes, people will go to that length... I could not recommend it. Pouring urine on your toes is not a habit I want to encourage.

They key to the success of any treatment of nail fungus infection is time. Time and perseverance and dedication.
You don’t have to poison your body with chemicals and you don’t have to spend thousands of dollars on treatments and doctors visits. If the formulas you saw here are not strong enough and don’t change the status of your fungus, try adjusting them or change a formula all together.

Those home remedies have been around for years, before Lamisil was invented. Generations upon generations, in different corners of the world, have developed their own home remedies. The surprising thing is that those home remedies are very similar to one another.

A month of dedication to shock the fungus into oblivion, and a regiment you should keep for the rest of the year. By then you should be able to see a healthy nail growing, pink and thin. Just thin enough to protect the nail bed. And you should actively engage in prevention.
CHAPTER 11: PREVENTION

Although nail fungus infection is not considered a serious disease, it is bothersome and takes a long time to heal. Not all medications work the same on different people and the period of treatment is sometimes measured in years.

As with every other diseases and infections the best remedy is prevention. Some easy to follow tips can reduce the risk of contracting nail fungus infections:

- Keep your feet clean and examine them from time to time. If you see cuts or bruises treat it immediately.

- Do not cut your nails too short. The nail bed is not supposed to be exposed. On the other hand do not let your nails grow too long.

- If you have an ingrown nail, treat it as soon as you can and keep it clean and dry.

- Wear socks made of natural materials, especially if you work in humid conditions. Cotton or silk work the best. Nylon and Lycra threads do not allow moisture to escape.

- Wear sensible shoes that allow air movement if you are going to wear those for many hours. Remember, fungus is looking for a warm, moist, dark place.

- Make sure you are wearing the right size shoes. Shoes that are too tight can cause toenails to grow into the sides of the nails. Shoes that are too small may cause the big toe nail to rub again and again against the same spot, making it susceptible to fungus.

- Do not share towels, socks and shoes. Fungus spores stay on them for some time waiting for a new host. If your friend or family member has nail fungus you can be sure that some of it is on his/her clothes.

- Do not share manicure and pedicure instruments. If you are going to a nail salon make sure they are disinfecting their nail clippers and files between
costumers. If you enjoy a pedicure, make sure the tub you soak your feet in has a liner that is replaced after each use.

- If you suffer any kind of nail trauma, let a professional look at it. It is very tempting to say “It’ll grow out”, but it is not always the case. A small break, cut, hole in the nail plate can lead to treatments that have side effects and take long time.

- Wear flip-flops or sandals in locker rooms and public showers. Those floor are the prime transmitter of nail fungus.

- Treat Athlete's Foot and other skin infections before the fungus will have an extended family reunion under your nails.

Now that you know how a fungus looks like and behaves, and you found the formula that works for you, you can treat it immediately if any signs of fungus reappear. Make sure you treat your body from the inside as well; eat right, not too many sugars (yeast loves sugar) and plenty of probiotic foods.

You are embarking on a journey that will lead you to a fungus free nails. As with any other journey, and in life in general, it is not only the destination that matters, but the journey itself. Hopefully, reading this book will enable you to choose the formula that works for you, a formula that will have no side effects and will make you healthier rather than making you sicker.
This research is just the beginning and does not hold all the information about nail fungus infections. This subject fills volumes of medical and Podiatric books. Hopefully you are now in the state of mind that will drive you into treating your nails and further interest and research might be beneficial.

It's time to take those toes out of the shoes and be happy to expose them to the world. No more planning, avoiding and feeling embarrassed. Life is stressful enough without thinking about your toenails. Get rid of the fungus for good and have one less thing to worry about.

Good Luck!
REFERENCES

<http://naturalcurereviews.com/remedy60-2-toenailfungus.html>


<http://www.nailfungusremedies.org/cure-fingernail-fungus.html>

<http://www.cure-nailfungus.com/>

<http://content.nejm.org/cgi/content/extract/360/20/2108>

<http://www.sciencedirect.com/science?_ob=ArticleURL&_udi=B82YB-4WD9RXK-7&_user=10&_coverDate=06%2F30%2F2009&_rdoc=1&_fmt=high&_orig=search&_sort=d&_docanchor=&view=c&_searchStrId=1214134228&_rerunOrigin=scholar.google&_acct=C000050849&_func=srch_0221&_version=1&_urlVersion=0&_userid=10&md5=de3f7ccec0584bb36564a23d146398c9>

<http://www.epinions.com/msg/show~threads/cat_id~10/id~4934/forum_id~201>


<http://www.fingernailfungus.org/>


