

# Guide to Treating Nails in Ectodermal Dysplasias

Treating nail problems, even in people without ectodermal dysplasias, can be difficult because there are very limited therapies available.

Like the hair, nails are made up of dead protein. Medications will treat secondary infections but will not correct the inborn nail defects. On rare occasions, nail problems may be severe enough to interfere with daily activities and cause pain or recurrent infection. In these cases, a dermatologist (or in the case of toenails, a podiatrist) may need to surgically remove the nail.

## Absent or Irregularly Shaped Nails

The only potential treatment, if desired, is the application of artificial nails. Artificial nails work well for some people, who are often very pleased with their appearance. Aside from the cost of the products, and that of professional application if used, is the potential for irritation of the surrounding skin, allergic reactions and further damage to the nail.

These complications are most commonly related to the chemicals that are used to adhere the artificial nail to the skin. If these problems develop, discontinue the use of artificial nails. They will often improve with time.

## Nail Grooming

Several measures will help keep nails healthy.

- Avoid heavy

exposure to water and detergents. If frequent hand washing is unavoidable, wash hands with a face towel moistened with cool water instead of using harsh soap and running hands under hot water.

- Wear protective gloves lined with cotton if prolonged contact with water and detergents is necessary.
- Apply an Ointment-based moisturizer to the nail itself, the cuticle, and the skin surrounding the nail to reduce some of the dryness, brittleness, or cracking. Gently rub moisturizer into these areas for several minutes.
- Eat protein. Contrary to popular opinion, dietary supplements such as calcium, gelatin, and vitamins do not thicken or strengthen nails. Protein is the most important dietary ingredient for healthy nails. Protein-deficient or extremely low-calorie diets may result in improper formation of both nails and hair. For people on severely restricted diets, some excellent, well-tolerated sources of protein

include peanut butter, grains, fish, and tofu.

- Keep the nails short and trimmed smoothly.
- Thick Nails
- Thick, crumbly nails may indicate an infection and should be examined by a physician. This is especially true if the skin around the nail is swollen, red, tender, or if it drains a yellow colored material.

Thickened nails may be thinned with a variety of techniques.

- Filing is effective, but must be done frequently. Thick nails can be filed with the fine pumice used by beauticians for pedicures. Pumice can be purchased from most beauty supply companies. It is most easily done after soaking. Begin with a fine metal file, progressing to even finer grains to provide the smoothest possible finish. Apply a moisturizer after filing.

The logo for the National Foundation for Ectodermal Dysplasias (nfed) features the lowercase letters 'nfed' in a stylized font. The 'n' is purple, 'f' is blue, 'e' is orange, and 'd' is teal.

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- Apply a topical cream. A cream that contains urea (Carmol 20 or Nutra Plus), or stronger preparations available only by prescription (Carmol 40) will also soften and thin the nail plate. These products work best if you apply a protective coat of zinc oxide ointment first to the surrounding skin. Then apply the urea cream to the nail plate. Cover with tape or plastic wrap and leave in place overnight. In the morning, gently wash away the softened debris and apply a moisturizer.

### Loose Nails

If the “white” part of the nail tip enlarges farther into the “pink” part of the nail than it should, this is a sign that the nail plate has come loose from the nail bed. The space under the separated nail is a reservoir for bacteria, fungus and yeast, all of which can cause infection and further damage.

If this nail separation occurs, it is essential to care for nails gently:

- To cleanse, use warm water soaks.
- Cleaning under the nails with sharp tools likely will make the problem worse.
- Keep the nails trimmed back almost to the attached edges of the finger tips
- Apply moisturizer frequently.

### Discolored Nails

- When nails have a green-black discoloration and an unpleasant odor, bacterial infection may be present. If this occurs, treat by doing the following:

- Soak the nails for 10 to 15 minutes twice a day in a solution made of 1 tablespoon white vinegar and 1 quart of water.
- Trim the nails frequently.
- If these simple measures fail, see a physician.
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### Curved Nails

Nails can be curved and grow into the skin, causing irritation and ingrown nails. To treat...

- Keep the nail and surrounding skin soft with application of a moisturizer daily.
- Trim the nails straight across, not rounding the edges.
- Keep the nails slightly longer than the end of the fingers or toes, if this is possible.
- Do not wearing shoes, tights, pantyhose or socks, that are too tight which can worsen this problem and cause further irritation.
- You can also gently apply dental floss or small wisps of cotton from a Q-tip or cotton ball under the edge of the nail that will help lift it up slightly and reduce the irritation and discomfort.
- If the curved nail is a significant problem, nail surgery with a dermatologist or podiatrist may be necessary. They can remove a portion of the nail or the entire nail if necessary. If this becomes a recurrent problem, they can apply a chemical to the nail matrix after the nail is removed so that it does not grow back.

### Special Note

*Information on treatment in this article is given as a guide to what might be expected or recommended by physicians who are consulted by our families. It is important for you to understand that the statements are generalizations about a large number of the ectodermal dysplasias, and no absolute recommendations are made or implied. Trust the physicians whom you consult to do the right things, but also be an advocate for yourself or your child. The mention of any “brand name” drug is presented as an example only and must not be interpreted as endorsement of a specific product or brand by the National Foundation for Ectodermal Dysplasias or its Scientific Advisory Council.*