Paronychia

Paronychia is a common infection of the skin just next to a nail. Treatment usually involves antibiotic medicines for germ (bacterial) infections. Occasionally antifungal medicines for infection caused by a yeast (candida) or a fungus are used. In some cases steroid creams may be needed for the skin around the nail. Occasionally a small operation is needed to drain out any pus which has collected.

What is paronychia?

Paronychia is an infection of the skin just next to a nail (the nail fold). The infected nail fold looks swollen, inflamed and may be tender.

There may also be a small collection of pus in the swelling. The nail itself may become infected or damaged if a nail-fold infection is left untreated.

Paronychia is also sometimes called 'whitlow'.

What causes nail-fold infections?

- **Germs (bacteria).** These tend to cause sudden-onset (acute) nail-fold infections which are painful. A bacterium called *Staphylococcus aureus*, which often lives harmlessly on our skin, is most often the cause.
- **Candida.** This is a yeast (a type of fungus) and is another common cause. Nail-fold infections with candida tend to develop slowly and cause persistent (chronic) infection. They do not cause pus to appear.
- **Other germs (microbes).** These include viruses and other fungi. They are less common causes.

Why do nail-fold infections develop?

Many nail-fold infections occur for no apparent reason. However, the following can increase the risk of germs (bacteria) and other germs getting into the nail-fold skin and causing infection.

**Water**

You are more likely to develop a nail-fold infection if your hands are in water for long periods, particularly with detergents. Some jobs involve having wet hands for long periods of time. Constant washing may damage the nail fold and allow infection to develop. The following are examples of people who might be more prone to nail-fold infections due to their job:

- Cleaners.
- Bartenders.
- Fishermen.
- Beauticians.
- People who wash dishes frequently.
- Dairy farmers.
Injury
A break in the skin allows the germs on the skin to get inside. Examples which make you more prone to infection around the nails include:

- Nail biting.
- Splinters.
- Poor manicure technique - for example, pushing the cuticles back too far with a hard instrument.
- Damaged or diseased nails or nail folds - for example, from skin conditions such as eczema or contact dermatitis.
- Ingrowing toe nails - the nail grows into the skin, breaking it.

Covering
If you use gloves for long periods, or use artificial nails, it can cause a moist, airless condition around your fingernails. This is good for some germs to thrive and cause infection.

What is the treatment for nail-fold infections?

Antibiotics
If your infection is caused by bacteria then an antibiotic may be prescribed. Antibiotics commonly used for this type of infection include flucloxacillin or erythromycin. In a minor infection an antibiotic cream may be all that is needed - for example, fusidic acid cream.

If the antibiotic prescribed is not improving your infection after you have been taking it for a few days, you should see your doctor. Your doctor may take a sample (swab) of the infected area (to determine the actual bacteria causing your symptoms). He or she may also change the antibiotic to a different one.

Draining the pus out
If a lot of pus has collected, and your finger or toe is very swollen, the pus may need to be drained. A small cut is made to allow the pus to come out.

Warm bathing and painkillers
It may also help to soak the affected finger in warm salted water four times a day. Painkillers, such as paracetamol or ibuprofen, often work well to ease any pain.

Treatment for paronychia which lasts more than six weeks
If the problem has dragged on for six weeks or more, it is called chronic paronychia. Chronic means persisting. If this is the case there may be an underlying skin condition. In other cases there can be infection with a yeast or fungus. This is particularly common in those people mentioned above who have their hands in water a lot.

Treatment options include:

- Keeping the hands warm and dry.
- Avoiding anything which might irritate the skin, such as soaps and detergents. Also avoiding injury, eg avoid manicures, finger sucking, nail biting etc.
- Wearing very comfortable shoes if the affected nail is a toenail, to avoid any pressure on it.
- Treating any underlying skin condition.
- Steroid creams, such as hydrocortisone or betamethasone.
- Antifungal creams such as clotrimazole, miconazole or terbinafine.
- Antifungal tablets such as terbinafine or itraconazole.
- An operation to open up the infected area, and keep it open and let it drain and heal over time.
What can I do to stop nail-fold infections from returning?

The following may help:

- Do not bite your nails or pick at the skin next to nails.
- Keep your hands and feet dry as much as possible. Dry well after washing.
- Wear rubber gloves (preferably cotton-lined) if you work a lot with water.
- Do not wear gloves or artificial nails for long periods.

Further reading & references

- Paronychia - acute; NICE CKS, July 2015 (UK access only)
- Paronychia; DermNet NZ

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