A finger ulcer or sore can be the most painful complication of Raynaud’s for many people with this disorder. Some of these unlucky individuals may develop several painful ulcers simultaneously on both hands. Even small ulcers can be very painful, can last a long time and can be very difficult to heal. Severe ulcers can become infected or -- in extreme cases -- can lead to loss of a fingertip. For these reasons, it is helpful to know what causes them and what you can do about them.

The following information refers primarily to those with secondary Raynaud’s, and may not be a concern to the majority of Raynaud’s sufferers (i.e., those with primary Raynaud’s).

What Causes Finger Ulcers?

1. **Ischemia:** This is the medical term for poor arterial circulation of oxygenated blood. People with diseases such as scleroderma almost always have poor arterial circulation to their fingers. Episodes of finger ischemia - Raynaud’s phenomenon -- develop when scleroderma damages arteries, making them unusually sensitive to cold exposure, anxiety, vibration, certain medications or other events. Small muscles in the walls of damaged arteries in the forearm and fingers may tighten down on the artery and stop blood flow. Usually, the episode begins with sudden loss of color and paleness of the finger as the circulation of oxygenated blood through the artery stops. It is then followed by a dark blue or purple discoloration, pain, numbness and sometimes tingling. As the episode resolves, the finger may become unusually red and tingle as oxygenated blood rushes back into the arteries to the fingers. Frequent or prolonged episodes of Raynaud’s phenomenon, in these cases when the Raynaud’s is secondary to another disorder, deprive tissues of the finger of oxygen and this can cause an ulcer to develop or can lead to poor healing of an ulcer that has already formed.

“Determining the most likely cause of a finger ulcer is the first step in preventing and treating these painful complications of Raynaud’s. The location of the ulcer is often a clue.”

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**Summer Air Conditioning Survival**

By Lynn Wunderman

Suffering from summer office frostbite? You’re not alone. A survey by the International Facilities Management Association in Houston ranked “being too cold” as the No. 1 office complaint. Most of us have probably gotten by with a spare sweater in the office for the summer, or taboo space heaters hidden under our desks to combat the overhead air vent breezes.

I’ve read lots of explanations and excuses for icicle-like temperatures in the summer: everything from the Department of Energy’s rule of thumb following the 1973 oil embargo (68 degrees in winter, 78 degrees in summer), to the guidelines set by the American Society of Heating, Refrigeration and Air-Conditioning Engineers, a trade group in Atlanta suggesting thermostats be set between 68 to 76 degrees during winter, and between 72.5 to 80 degrees in summer.

I don’t know about you, but I’ve never lucked out to sit in a building with either of these options. Feels more like the low-to-mid 60’s at my company—how about yours? I am fortunate to have a private office, and can therefore shut off my vents and close my door to get warm when the cool air is flowing freely. But not everyone has that luxury.

But have faith—statistics may come to our rescue. A study by Cornell University last year documented warmer office temperatures yield more productivity—finally offering real ammunition to fight back. Summer sweater wearers of the world unite!
Another member success story to share with fellow frosties:

Tina in Queensland Australia has had very good success with acupuncture. She tells us:

“I have been having trouble with my feet, hands, nose circulation for years; finally found out I have Raynaud’s disease. I am currently having acupuncture which is really helping a lot. Still having a few problems, but so much better. Suggest others do the same.

I am still having ongoing acupuncture twice-a-week. Of course my hands still hurt and are cold, but the circulation seems much better and they aren’t turning blue/white/red, etc. as much now.

Tina says she’s happy to have you contact her directly for learn more about her procedures and how it’s helped. You can contact her at: tinabiglips@hotmail.com

Please send your tips and ideas to lynn@raynauds.org, or use the contact form on our web site: www.raynauds.org.

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**DISCLAIMER:** The Raynaud’s Association does not endorse the drugs, treatments or products reported in this newsletter. Each patient’s needs and experiences may vary. Member tips and product reviews are not clinically-based reports. So please review all treatment options with your doctor and use caution in exploring new products.

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**Member Connections**

Lynn in Wisconsin would like to connect with fellow frosties. You can contact her at DrgnFlyOne@wi.rr.com.

Anyone wishing to connect with other Raynaud’s members, ask questions or share success stories, send your requests to: Cold Cuts, Raynaud’s Association, Inc., 94 Mercer Avenue, Hartsdale, NY 10530, or e-mail lynn@raynauds.org.

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**Q&A**

Following is an answer contributed by **Dr. Thomas Lehman** of our Medical Advisory Board to a question asked by one of our members:

**Q:** For the last month, I have been on Motrin for a sprained rotator cuff and my Raynaud’s has been much worse. Could there be a correlation between Motrin and Raynaud’s?

**A:** As for Motrin and Raynaud’s there is no known association. This is a very interesting question. If I were the patient I would stay away from Motrin for a couple of weeks and see what happens then perhaps try it again to see if the association is real for me or was just a coincidence.

**Editors note:**
Keep in mind that the above guidelines are generalized, and won't be 100% accurate for every patient. Please consult your physician on questions regarding any specific prescription or OTC drugs you’re taking.

Submit your questions to: lynn@raynauds.org, or use the contact form at www.raynauds.org.

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**Medical Advisory Board**

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# Treatment of Finger Ulcers

<table>
<thead>
<tr>
<th><strong>Prevention</strong></th>
<th><strong>Goal</strong></th>
<th><strong>Treatment</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Prevent ischemia</td>
<td>Avoid Raynaud's attacks</td>
<td>Keep body and hands warm. Minimize anxiety. No smoking! Avoid certain beta blocker, migraine and decongestant medications.</td>
</tr>
<tr>
<td></td>
<td>Reduce arterial damage</td>
<td>No smoking! Possibly anti-oxidants.</td>
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<tr>
<td></td>
<td>Avoid clotting</td>
<td>Low dose aspirin.</td>
</tr>
<tr>
<td>Prevent dryness</td>
<td>Avoid fissures</td>
<td>Minimize hand washing and exposure to soaps and solvents. Frequent application of moisturizers. Take care to avoid dryness if using paraffin baths.</td>
</tr>
<tr>
<td>Prevent trauma</td>
<td>Avoid skin damage</td>
<td>Minimize opportunities for injury due to activities, such as gardening. Wear comfortable gloves or adhesive dressings for added protection.</td>
</tr>
</tbody>
</table>

## Treatment

<table>
<thead>
<tr>
<th><strong>Ischemia</strong></th>
<th><strong>Reduce Raynaud's</strong></th>
<th>Direct vasodilators such as calcium channel blockers, topical nitroglycerin. Sympathetic nerve block. Digital artery sympathectomy.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Improve blood flow</td>
<td>All measures listed above. Digital, ulna or radial artery reconstruction: selected cases only.</td>
</tr>
<tr>
<td></td>
<td>Reduce clotting</td>
<td>Low dose aspirin. Rarely, other anticoagulants.</td>
</tr>
<tr>
<td><strong>Trauma</strong></td>
<td><strong>Reduce trauma</strong></td>
<td>Careful ulcer care. Custom protective hand splints. Specialized ulcer care.</td>
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<td></td>
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<tr>
<td><strong>Infection</strong></td>
<td><strong>Eliminate</strong></td>
<td>Antibiotic cream/ointment. Oral/intravenous antibiotic. Surgical debridement: selected cases Severe cases: amputation.</td>
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<tr>
<td></td>
<td></td>
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</tr>
<tr>
<td><strong>Calcification</strong></td>
<td><strong>Eliminate</strong></td>
<td>Careful ulcer care. Remove nodular deposits: very selected cases only. Severe cases: amputation.</td>
</tr>
</tbody>
</table>

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Finger Ulcers: What Causes Them? What Can be Done About Them?

Over time, damage to arteries in the fingers combined with Raynaud’s phenomenon thicken the artery wall and reduce the channel left for blood to flow through. At this stage, arterial circulation is poor even without an episode of Raynaud’s phenomenon. In some cases, the sluggish circulation leads to blood clotting, further reducing blood flow and worsening ischemia.

2. Trauma: Damage to the tissues of the finger with a bruise, cut or puncture can lead to a temporary sore or ulcer even in people who do not have Raynaud’s. When the skin is pulled tightly down over the fingertips and joints of the fingers, as it is in scleroderma, the tension of the skin on the ulcer makes it much harder for the body to draw the edges together and heal over the ulcer. For this reason, people with scleroderma have much more difficulty healing traumatic ulcers even after only minimal injury to the skin. Combine trauma, tight skin and ischemia and you have the ingredients for a very troublesome finger ulcer.

3. Xerosis: Dry skin is more subject to trauma as well. Dry skin cracks and fissures more easily than usual, leading to sores and ulcers that may heal poorly for all of the reasons mentioned above.

4. Infection: Bacteria generally do not cause a finger ulcer to develop, but can rapidly worsen an ulcer that has started due to dryness, trauma or ischemia. Staphylococcus bacteria cause most infections of ulcers.

5. Calcification: Some patients with secondary Raynaud’s develop calcium-containing nodules at the fingertips or near the joints. The nodular deposits tend to migrate to the skin, open up and drain in a small ulcer that can be painful. Many of these slowly resolve over months with careful protection of the ulcer and avoidance of infections.

What Can Be Done About Them?

Determining the most likely cause of a finger ulcer is the first step in preventing and treating these painful complications of Raynaud’s. The location of the ulcer is often a clue. Ulcers on the fingertips are usually caused primarily by ischemia. The fingertip is where the arteries are the smallest and most subject to damage, narrowing and clotting. Ulcers in this location may start without any trauma or problems with dryness, although these two factors may be initiating events. Ulcers on the knuckles are usually caused primarily by trauma, with skin dryness and tightness as well as ischemia being aggravating factors. People with scleroderma often have such tight skin that the fingers cannot be straightened. The knuckles become the most prominent and easily bruised region of the finger and where an ulcer is very likely to start. Common sense tells us that treating ischemia is most likely to help ischemic ulcers and avoiding trauma is most likely to help traumatic ulcers. The table on page 3 lists different measures that could be taken to deal with painful finger ulcers. The simplest actions used for the mildest ulcers are listed first, and more complicated actions for the most severe ulcers listed last.