Ohio State Research News: New Therapy Breakthrough

By Lynn Wunderman
Editor

This may be the big breakthrough for Raynaud’s sufferers: Dr. Nicholas Flavahan, a researcher at the Dorothy M. Davis Heart and Lung Research Institute at Ohio State University, published a study earlier this year in the journal Molecular Pharmacology that is of great interest to Raynaud’s sufferers.

His research study focused on the body’s blood vessels and how they interact with norepinephrine - a chemical produced by the body to maintain blood pressure - and Alpha-2A receptors, proteins found on the surface of cells in the blood vessels. Flavahan states that “our bodies continuously use norepinephrine and these receptor proteins to control blood flow and to maintain blood pressure...For instance, when we stand up, blood pools in our lower extremities. The body then uses norepinephrine and receptor proteins to maintain blood pressure so that we don’t faint.”

As stated in a press release from The Ohio State University Medical Center, the study revealed that when the temperature of cells decreases, another type of receptor protein - Alpha-2C receptors gets involved. The Alpha-2C’s move to the surface of the cell and start interacting with norepinephrine, thus causing blood vessels in the extremities to constrict when they are cold. This reaction works to send blood to our vital organs for protection in times of stress and exposure to the cold. For Raynaud’s sufferers, our reaction is extreme, meaning little or no blood travels to our extremities for a concentrated period of time. The result is painful, and - under very severe conditions - can do permanent damage to our blood vessels.

What Flavahan learned is that by preventing the interaction between norepinephrine and the Alpha-2C receptors, the skin’s blood vessels no longer constricted when exposed to cold temperatures. Flavahan is quoted as saying targeting the function of the Alpha-2C receptors “should be a great therapy for Raynaud’s Phenomenon. Because we only use them when we’re cold, blocking their function should have little or no side-effects.”

Dr. Nicholas Flavahan

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(Continued on page 4)

Toasty Apparel Breakthroughs

Believe it or not, 10% of wounded casualties in W.W.II and the Korean War were related to cold injuries, such as frostbite, trench foot, and hypothermia. An article this past March in the Wall Street Journal states that whole military campaigns have been lost because of cold injuries. The same article reported tremendous advances for keeping people warm in frigid weather. Thanks to the military and the growing outdoor industry, technology is finally being focused on keeping G. I. Joe both warm and dry - something he couldn’t do with natural fibers like cotton and wool.

Over the last 25 years, we’ve advanced from polypropylene, to Gore-Tex to Polartec. Here are a few examples of more recent inventions:

- Battery-Operated Jacket - Developed by North Face Inc. This $499 jacket has battery-operated heat panels controlled on demand through a small unit in the pocket.
- Polar-Loft - A synthetic material developed by Capital Garment Co. It keeps you warm by mirroring the long, hollow fibers of polar bear fur.
- Auto-Response Thermals - Insulation created by Gateway Technologies Inc. It automatically stores and releases heat in response to skin temperatures (yummmm...).

But be careful. Don’t be mislead by exaggerated claims like “good to minus 20 degrees”. Comfort is a personal state, as we frosties can testify better than most people. Use good judgement, and these new duds can help keep you toasty!
I was diagnosed with Raynauds Disease ten years ago, at which time I was instructed to keep warm, wear gloves and stay out of the cold. That was not bad advice, but over the next 10 years I have found other ways to improve the blood flow and control my body temperature:

- Controlling Stress
- Meditation
- Tai Chi & The Martial Arts
- Chi Gong

Through the daily practice of Tai Chi, where I became aware of my internal energies, I learned to control the blood flow to my fingertips and actually stop an attack from occurring. This happened at an early stage of my Tai Chi/Chi Gong training.

I would like to share my experiences with others who are afflicted with Raynauds Phenomena at our next meeting. Please feel free to contact me via the Raynauds Association Website if you have any questions.

Sincerely,

Kathy Laskowski

Site Traffic

Since the launch of our web site in March 2001, the traffic has been amazing! We've received 145 contact forms, and much more in general e-mail correspondence. That's an average of 3 to 5 inquiries per week. Considering the lull over the summer months, we've had some very busy weeks in peak season!

The site has resulted in adding over 130 new members to our roster, and they now come from all around the world, including:

- The U.S.
- Canada
- Australia
- New Zealand
- The U.K.

This past week I had an inquiry from a newly diagnosed patient in Italy. Anyone out there speak Italian? We need a translator!

In being more accessible to members everywhere, we've been able to:

- Help members seek the right type of specialists.
- Educate those who are newly diagnosed on Primary vs. Secondary Raynaud's and the value of being tested to confirm/refute the presence of a more serious connective tissue disease.
- Gain the attention of researchers and aid them in recruitment for clinical trials.
- Connect young sufferers with their peers to discuss lifestyle issues one-on-one.
- Assist students with college papers on the subject of Raynaud's.
- Educate members on the pros and cons of treatments, medications and surgical procedures (like sympathectomies) - along with alternative mind/body techniques (like Tai Chi and Biofeedback).

After corresponding and speaking with so many of you, one thing is clear: We learn from each other. Raynaud’s is still a mystical condition that the medical community has yet to fully understand. Until they do, please continue to send me your questions and successful strategies, as it allows me to share the learning with others across the globe.
Summer may be approaching, but it’s always a good time to scout for products that keep us warm and toasty all year long. Here are some new ones to report:

**ThermaCare Heat Wraps** — These are newly developed by Proctor & Gamble who markets the product as a muscle relaxer and pain reliever. The wrap is a large adhesive strip, filled with small versions of the disposable heat packs you can find at ski and outdoor shops in the winter. It’s a great idea - acting like a mobile heating pad. I haven’t used them yet, but can only imagine the pleasure of a ready-to-wear warm compress across your back or neck on a really cold day. They’re sold at most any drug store. For more information, go to [www.thermacare.com](http://www.thermacare.com) or call 800-323-3383.

**Moist Heat Collar** — If you prefer moist heat (yumm... to the dry heat solution mentioned above, try this microwaveable product that sits around your neck with easy Velcro© closures. The product works much like the Heat Wraps described earlier, but is chemical-free and leak proof. Order item #PC13 for $29.00 from Comfort Corner’s Softspot catalog. Call 800-735-4994, or visit the web site at [www.comfortcorner.com](http://www.comfortcorner.com). Please use mail code #1562186.

**Shearling Gloves** — The French Creek Sheep & Wool Company catalog is full of great items for us frosties. One discovery I made this past season is their shearling gloves. The outer leather is buttery soft, with warm snuggly fleece lining. Order item # F-99121 for $65.00. Specify Men’s or Ladies, size S,M,or L and color (Black or Chocolate). Call 800-977-4337, or visit the web site at [www.frenchcreeksheep.com](http://www.frenchcreeksheep.com). Please use mail code #WAA102.

**Fleece Wrap™ Insulating Holder** — This product is a polartec glove-like device that fits around a bottle, cup, can, or juice box and insulates it to keep it cold or warm. Then it has a pocket-like opening for your fingers to use in gripping, works for either hand, and stretches to fit. Great for keeping the chill off those fingertips! Order direct from HB Bundles at [www.fleecewrap.com](http://www.fleecewrap.com), or call 203-255-4727. They sell for $6.95, or 3 for $18.00. Comes in lots of bright colors, cheerful stripes and patterns.

**Zip-O-Gauge Thermometer** — This is a great concept - a small outdoor thermometer that attaches to your your jacket zipper, sleeping bag, backpack or key ring. I love the description: “Not only is it easy to tell the temperature, it’s easier to grab your zipper with gloves on!” Solves two problems for us frosties. But wait, there’s more: There’s even a wind chill chart on the back. It’s only 2” long and weighs 1/3 of an oz. Order #7889 for $3.95 (3 for $11.00 / 6 for $20.00). Available from the Early Winters catalog. Call 800-458-4438, or visit [earlywinters.com](http://www.earlywinters.com). Be sure to use key code # 33101-1021.

**Powder Mocs** — These shoes were designed by Merrell, the hiking experts, and they have everything we need to stay warm and dry on a wet winter day. Water-resistant, sued pigskin uppers, keep feet dry in the snow and rain. Special Nylex lining insulates feet from the cold, while retaining body heat. The air-cushion midsole is very comfy - like wearing slippers! And the high-traction sole has perimeter cleats for edging around slick curves. And, unlike clodhopper winter duck boots, these shoes look great with jeans and casual pants, so there’s no need to carry extra shoes to the office on messy days. Available from Herrington for $69.95. Specify Ladies item #LS310 (Beige, Black, Brick or Saddle) or Men’s item #LS309 (Beige, Black or Grey) and provide your regular shoe size. Call 800-622-5221, or visit their web site at [www.HerringtonCatalog.com](http://www.HerringtonCatalog.com). Tell them code 1013.

**Hand Cozys** — Linda Jeney brought this item to our attention. Hand Cozys are microwaveable velvet mittens with removable herbal packets (like lavender and anise). She says “Once the mittens are heated, they last quite awhile, and the herbs are quite aromatic...nice.” Available in either Lavender or Sage green from the Nordstrom catalog. Order # 90512 priced at $38.00. Call 800-285-5800, or visit [www.nordstom.com](http://www.nordstom.com). Thanks Linda!
Ohio State Research News

(Continued from page 1)

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His hope is that with such therapy, Raynaud’s will be prevented. All I can add to that is “Amen”. Let’s hope that this research is just the beginning of a story that will have a warm and happy ending for fellow sufferers.

Member Ideas and Inventions

Our members are proving to be quite resourceful. One of my favorite finds is a product sent to me by Charlotte Hewson. She refers to them simply as “mitten inserts”. These are fingertip liners made of polartec that are made to wear over the fingers inside a pair of mittens. Charlotte makes them herself and says when she uses the inserts, she doesn’t have to use the chemical heaters. She was gracious enough to send me a pair, and I agree that they are warm and comfy! If you have an interest in trying a set, let me know. Maybe we can put Charlotte in business!

I received another idea, this time from the 12-year old daughter of a fellow sufferer who designed a special kind of glove to be both useful and accessible for retrieving food items from the freezer and refrigerator. The glove has gripper material on the fingers and palm of the hand, plus a magnet sewn in to keep it handy on the fridge. What a thoughtful and creative daughter! If you like the idea, or have any suggestions for enhancing it, I’m happy to pass along your comments to this young inventor.

A Moment of Silence for Damart

Say good-bye to an old friend. The DAMART company in England is discontinuing its U.S. catalog (sniff!). Many of us have considered DAMART’s extra warm Thermolactyl long undies a staple in our wardrobes for many years. Like many businesses today, sales and profits for the 30-year old catalog have been off the mark for some time. I’ll miss you DAMART! Thanks for your help in getting me through many a cold day.

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Inside This Issue:

- Ohio State Research News
- Site Traffic Update
- Hot Products For Cold Sufferers
- Apparel Breakthroughs