

## *Raynaud's Disease*

Raynaud's Disease is one condition that has a history of becoming a hot topic during the cold winter season.

This winter season has been no different to other winters where we see more people walk in through the doors of our clinic with Raynaud's disease.

Moreover, reduced physical activity amidst this lockdown causing deterioration of overall cardiovascular health and blood flow can also be held responsible for further increasing one's susceptibility to develop this condition or suffer a recurrent episode.

Hence, the importance of exploring this condition has risen even higher than ever before.

Raynaud's disease is also commonly known as Raynaud's Syndrome or Raynaud's Phenomenon.

It is a condition surrounded by home-remedies and old-wives-tales and everyone who experiences/suffers from it has their own hacks, tips, and tricks. The aim of this article will be to explore the condition in a bit more depth and endeavour to navigate through a few myths surrounding this condition.

### *So, what happens in Raynaud's disease?*

Raynaud's is a condition where the hyperactivity of blood vessels to cold temperature causes the tiny blood vessels in our extremities called capillaries to contract and narrow (aka vasoconstriction/vasospasm) which further leads to reduced blood flow to the tissues of our extremities such as toes and fingers-tips (Temprano, 2016).

### *Types of Raynaud's disease?*

Raynaud's disease is mainly categorised as either *Primary Raynaud's (aka Raynaud's Disease)* or *Secondary Raynaud's*.

**Primary Raynaud's:** Cause is not known. Underlying hereditary issue is suspected to be passed on from parent to child.

More commonly seen to be symmetric/bilaterally (i.e., effecting toes or fingers of both limbs) and can be elicited by cold temperatures and even emotional stress. Often multiple digits will be affected.

**Secondary Raynaud's** caused because of other ailment/s such as underlying autoimmune, vascular and/or connective tissue disorders (The American Association of Rheumatology, 2021).

If the pallor is extending more proximally beyond the joints of the toes or fingers (metatarsophalangeal joints and metacarpophalangeal joints respectively) then the

involvement of other large blood vessels can be suspected and is more likely to be Secondary Raynaud's.

### *Common Signs & Symptoms*

Generally, the extremities of the body are affected and commonly seen in toes and fingers but other regions such as nose tip and ear can also be affected.

Some common signs & symptoms include pale (aka blanching), waxy-white or purple discolouration of skin (aka "wax finger"), sometimes pale with mildly bluish discolouration (aka cyanosis), temperature cold to touch, and pain can be present. Sometimes abnormally reddish discolouration (aka erythema) can be seen when perfusion is restored (Linnemann & Erbe, 2015).

Worsening of skin integrity/quality can also be commonly seen.

Symptoms can be worse in cold mornings especially when those feet touch cold ground surface after enjoying the comfort and warmth of the blanket overnight. However, the symptoms can be present at night as well when lying flat on bed and when the blood-flow is not getting its usual help from the gravity to reach feet and toes.

The severity can really vary on a case-by-case basis but can be severe enough to cause ulcers and gangrene and other infections as poor blood-supply starves the tissues and cells of the oxygen and nutrition it needs to survive (Lee & Park, 2018).

In the following image purple discolouration can be seen on the distal aspect (apices) of the 3rd and 4th digits.



## *How Can a Podiatrist Help?*

### **Diagnosis:**

Speedy and accurate diagnosis can be the key to not only successful outcomes with Raynaud's disease but also prevent worsening of other medical conditions which can manifest with similar signs & symptoms to Raynaud's disease and sometimes even coexist at the same time along with Raynaud's.

A podiatrist can help through conducting assessments facilitating speedy diagnosis. Some such assessments include:

*Toe Pressure Test:* As this condition affects smaller blood vessels (capillaries) more, a "toe-pressure" test can be conducted to assess the blood flow to the toes smaller blood vessels. Moreover, this test can also be very useful when diabetes is also present as a comorbidity. This is because in diabetes the high blood glucose levels can calcify the bigger blood vessels, hence assessing uncalcified smaller capillaries gives reliable results.

*Doppler Test:* This test is somewhat similar to an ultrasound test but allowing us to listen to your blood flowing and pulses. Oftentimes, we can learn a lot simply by listening!

*Hands On Physical and Vascular Assessments:* the value of "hands-on" clinical tests is oftentimes undervalued in the era of modern medicine and technology. But from anecdotal experience it is my opinion that certain clinical tests can also aid in further narrowing of diagnosis and sometimes even help us identify the category of Raynaud's.

### **Treatment:**

As previously mentioned, there are myriad of interventions to help with this condition and almost everyone suffering from it has their own regimen found to be effective for them.

The treatment can range from simple lifestyle modifications, gentle lukewarm-water foot baths, paraffin wax bath, topical patches, topical creams, otc (over the counter) oral supplements and some dry needling techniques (Goundry, Bell, Langtree & Moorthy, 2012).

In very severe cases, specialist intervention, pharmacological oral treatments and invasive procedure might be required.

Our strong advice is not to self-treat when it comes to this condition and seek professional medical help.

Self-treating can lead to poor diagnosis and less focussed treatment with poor results. Moreover, potential for worsening of other underlying conditions if undiagnosed.

## *What Can you do In the Meantime?*

Warm woollen socks in bed and around the house can help.  
Seek and follow professional advice tailored to you.

## Common Mistakes to Avoid:

Some common mistakes associated with this condition and often happening due to self-treatment:

- Burns caused by trying to warm feet using hot water, heater, etc (especially when protective sensation in feet is reduced (ie in cases of numbness))
- Footwear changes without professional opinion leading to more falls and other musculoskeletal and skin issues.
- Over the counter skin patches- potential to cause blood pressure issues)
- Potential side effects from topical creams.

\*Please note that the purpose of this article is solely to promote public health awareness. Information from this article is **not** to be used for self-diagnosing and/or self-treating. Please seek professional medical care for your concerns.

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