



Fundamentals of Lower Limb Management

Fran Russell & Martha Williams

Tissue Viability

DAY 1

AIMS AND OBJECTIVES

By the end of this training, participants will be able to...



Describe the key anatomy and physiology of the vascular and lymphatic systems relevant to leg ulceration and oedema.



Recognise and explain the main risk factors and underlying causes contributing to leg ulcers and oedema.



Perform a comprehensive, holistic assessment of a patient presenting with lower-limb wounds or oedema



Identify and address factors that contribute to delayed healing and poor clinical outcomes.



Discuss how patient experiences, beliefs, and clinician attitudes influence engagement, concordance and overall care quality.



Carry out a structured holistic vascular assessment, including interpretation of findings, to determine ulcer aetiology.



Apply local clinical pathways and best-practice guidelines to ensure timely, evidence-based management.

Timetable

1

09:00 – 10:30 Anatomy and Physiology, Circulatory and Lymphatic Systems, Lymphoedema



10:30 – 10:45 Break

2

10:45 – 12:15 Vascular Assessment, Diagnosis & Aetiology, Risk Factors for Delayed Healing



12:15 – 12:45 Lunch

3

12:45 – 14:15 Holistic Assessment & Management



14:15 – 14:30 Break

4

14:30 – 16:00 Local Pathways

DAY 2 AIMS AND OBJECTIVES



Perform a manual Doppler assessment accurately, identify pedal pulse types, and **calculate** an Ankle Brachial Pressure Index (ABPI) to

REMEMBER

Demonstrate effective, evidence-based application of below-knee **Clinistretch** and **K-Two** bandaging for venous leg ulceration, and

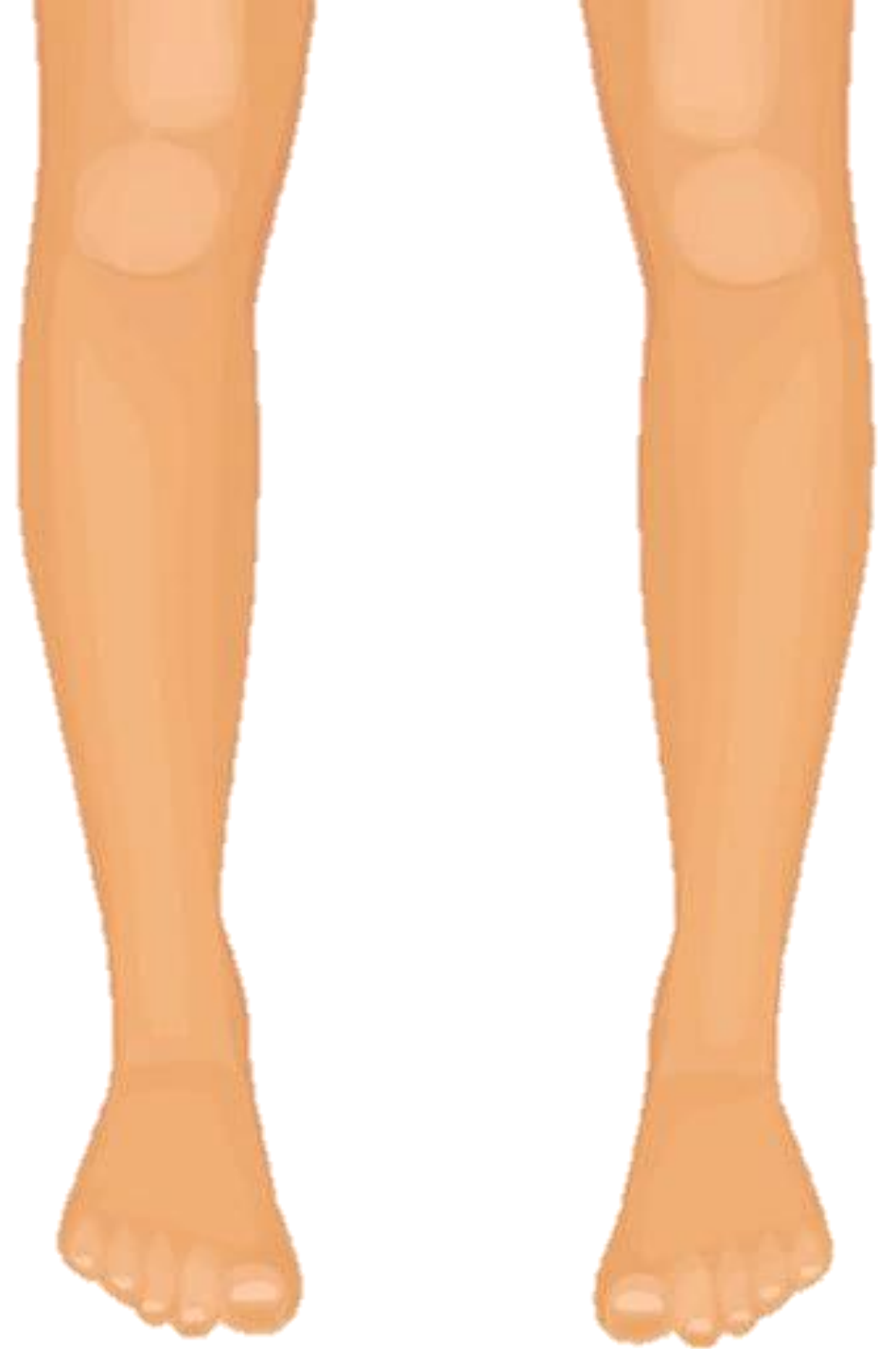


Thigh-high Clinistretch bandaging for chronic oedema, including **stump and toe bandaging** techniques.

Please bring
your manual
dopplers and
sphygms to day 2!



Question: What is a leg ulcer?



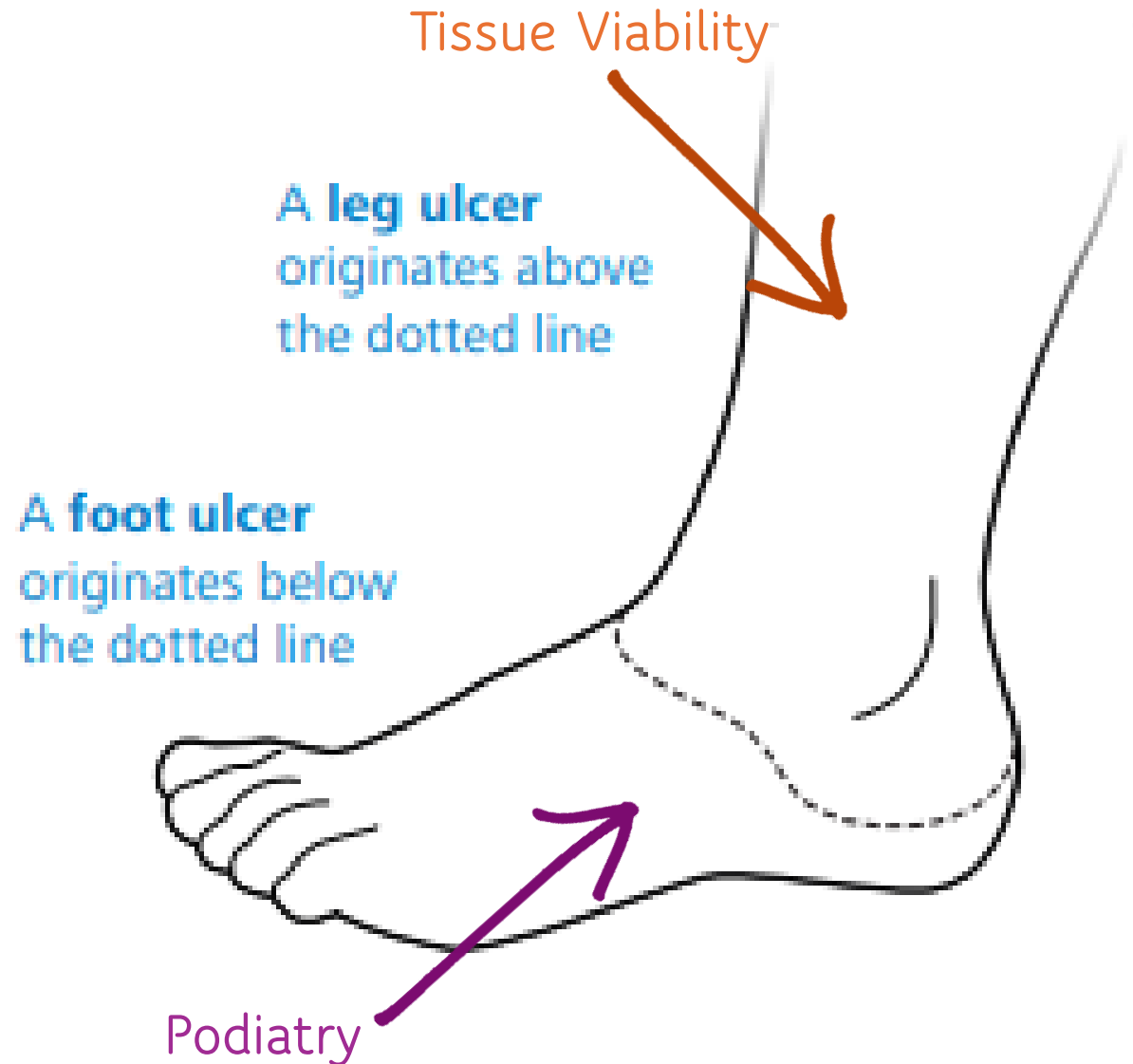
An open wound between the knee and just above the malleolus (ankle joint), which has been present for at least two weeks.

Ulceration is the breakdown of the skin, often caused by trauma or surgery



What about wounds on the feet?

- Podiatry are foot specialists and so tend to lead on care of foot ulcers (any wound below the ankle bone)
- Diabetic patients with foot ulcers should be urgently referred to Podiatry
- If a patient has wet, oedematous toes, a referral to TV may be required for stump bandaging and joint care

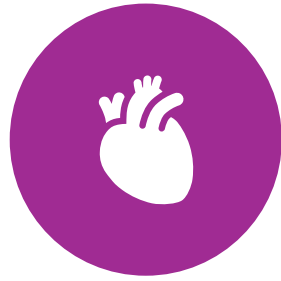


Why are we here today?

The Statistics...



1.5% of the UK adult population (**730,000** people) have **leg ulcers**.



1 in 500 adults have **venous leg ulcers** (**1 in 50** in those over **80** years old)



33-60% of all ulcers are chronic and persist for **more than 6 weeks**

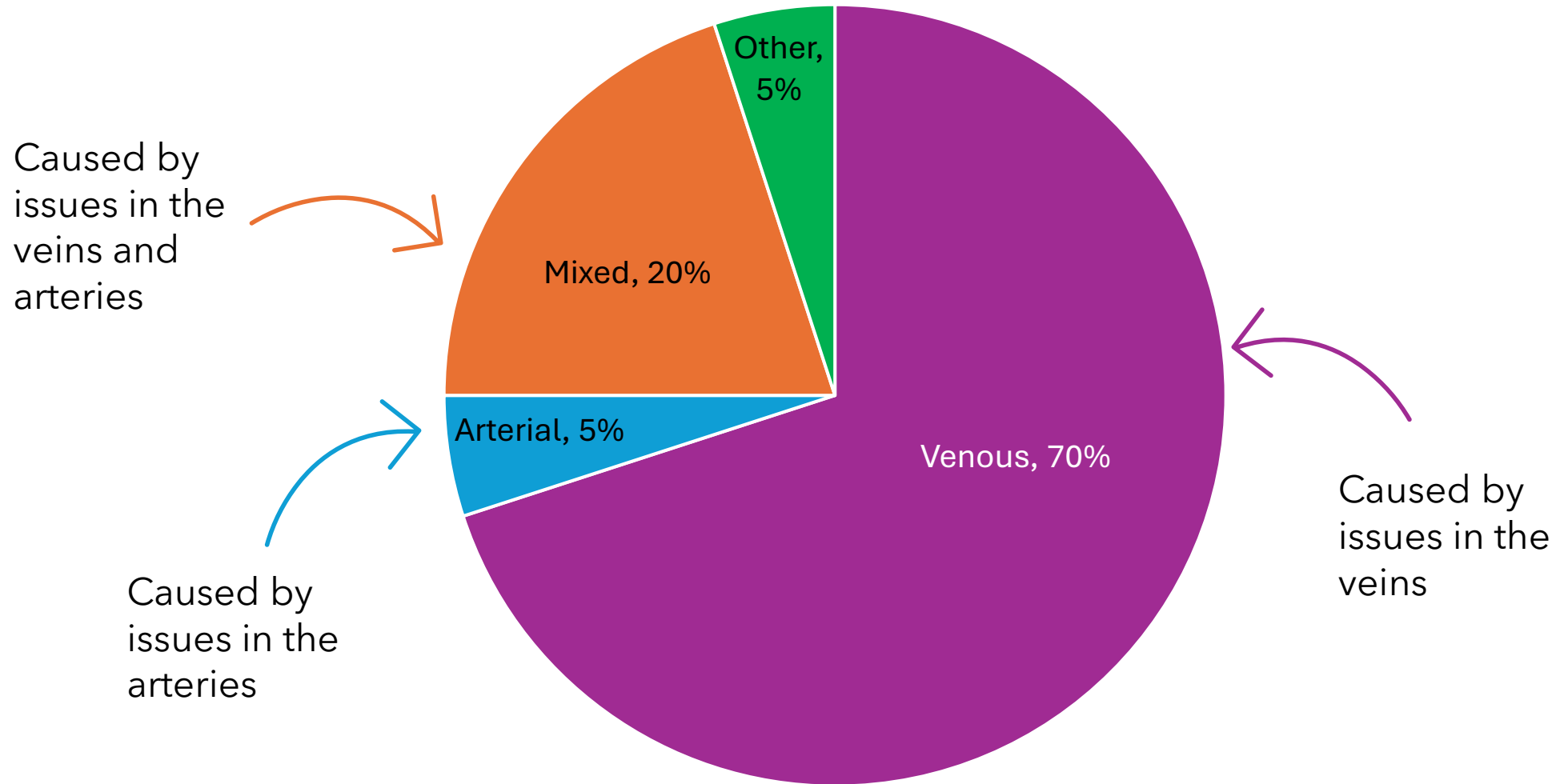


40-60% of community nurses' clinical time is spent on **wound care**.



Leg ulcer care costs the NHS **£3.1 billion** every year

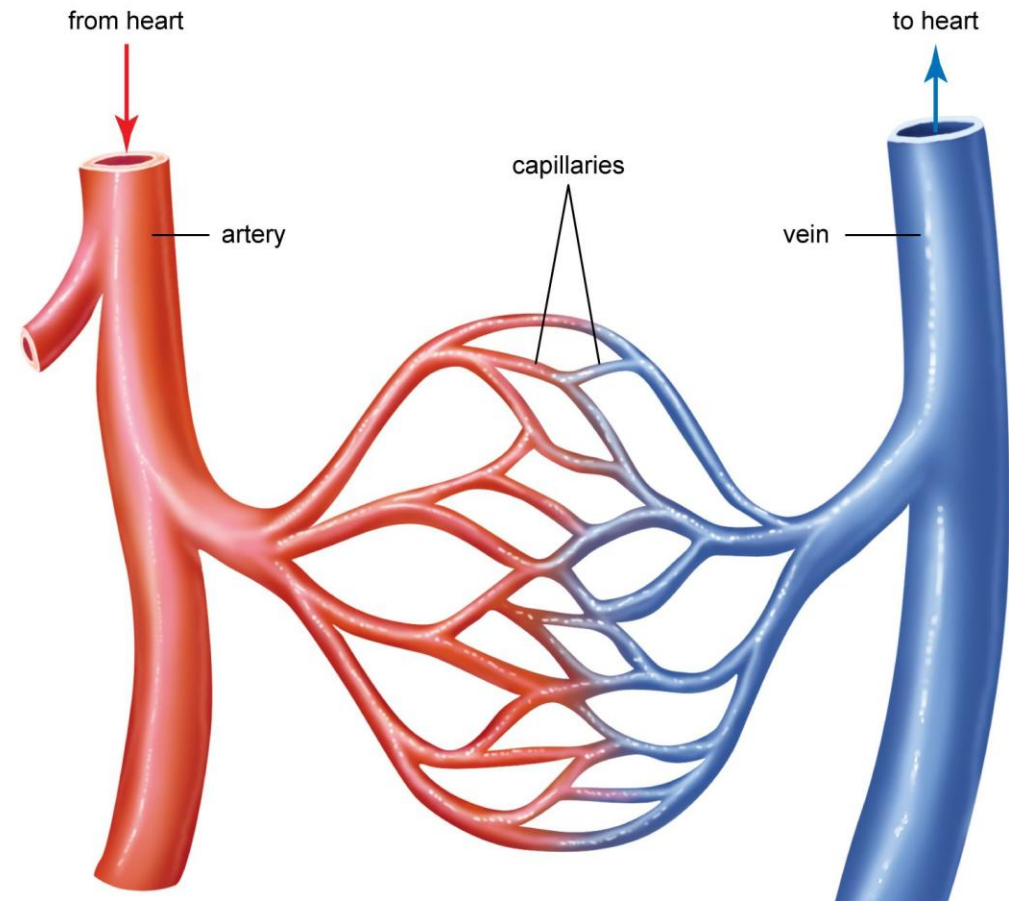
Causes and prevalence of leg ulcers



What is the circulatory system?

It comprises of the:

- **Heart** – pump mechanism
- **Arteries** - supplying oxygenated blood to tissues and organs
- **Veins** – returns deoxygenated blood back to the lungs and heart
- **Capillaries** - the intersection between arteries and veins



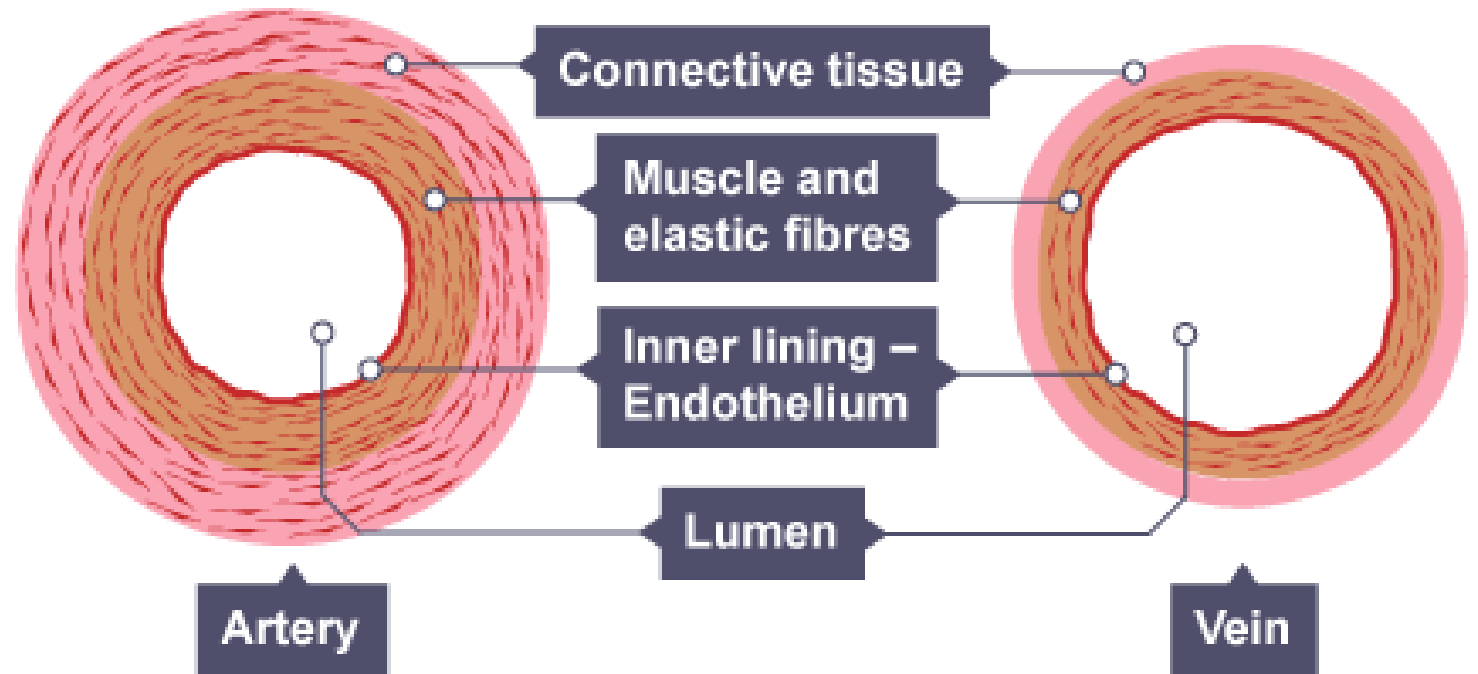
Characteristics of bloods vessels

Arteries:

- Carry blood at high pressure
- Small lumen
- Thick, muscular wall

Veins:

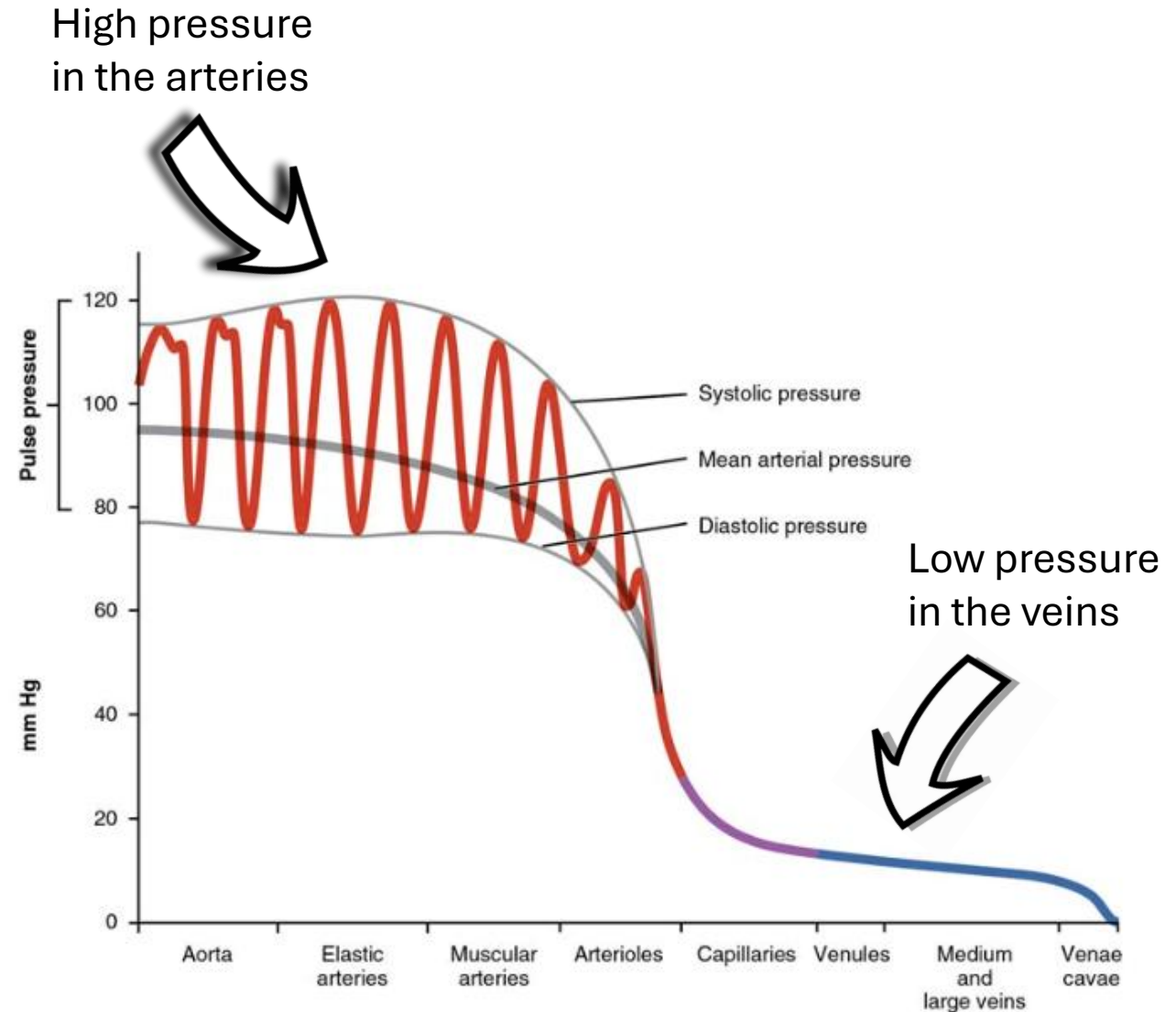
- Carry blood at low pressure
- Big lumen
- Thin walls



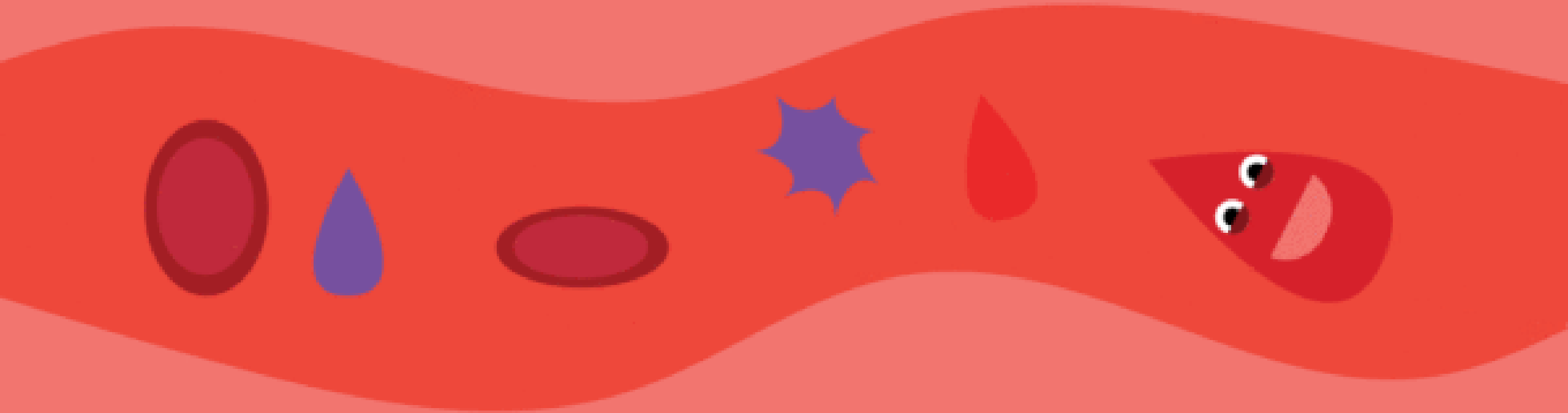
What about **GRAVITY**



- In our legs, the blood flow in the veins is more sluggish due to low pressure and gravity.
- By the time the blood has gone through the arteries, capillaries and into the veins, the initial pressure that was exerted on it when the heart contracted has now diminished.



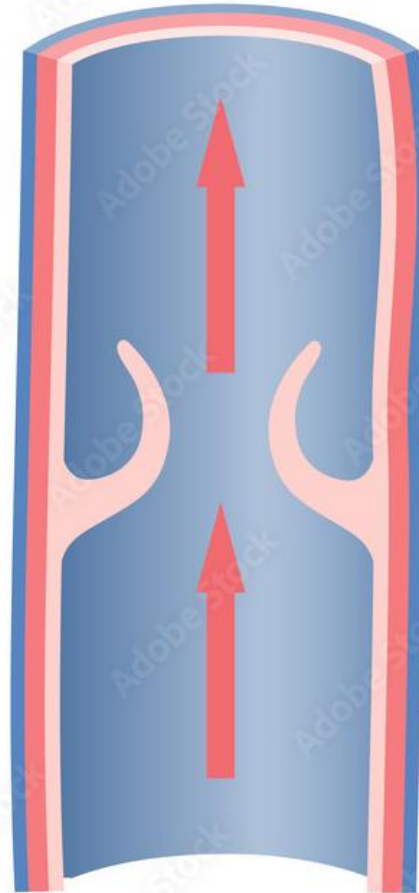
To return blood, veins need to carry blood upwards against gravity.



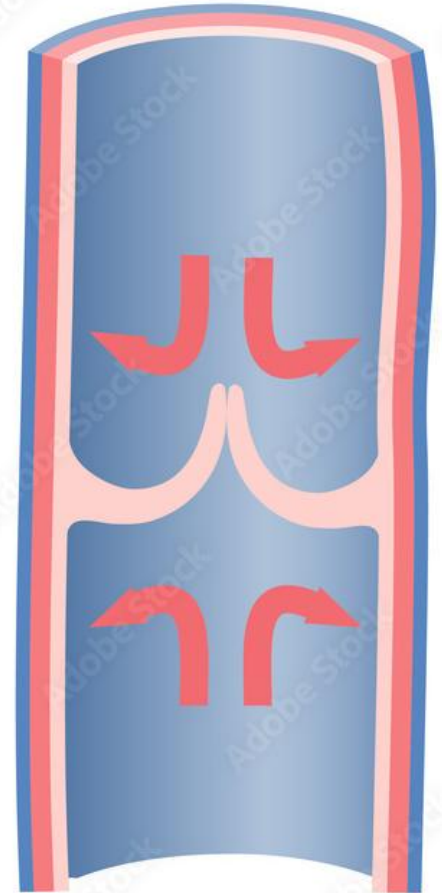
Question: What do you think helps this along?¹⁴

Valves

- Most veins in the lower limbs contain valves which open and close to prevent backflow of blood, also known as reflux.
- The valves open in one direction only to keep blood flowing in the right direction



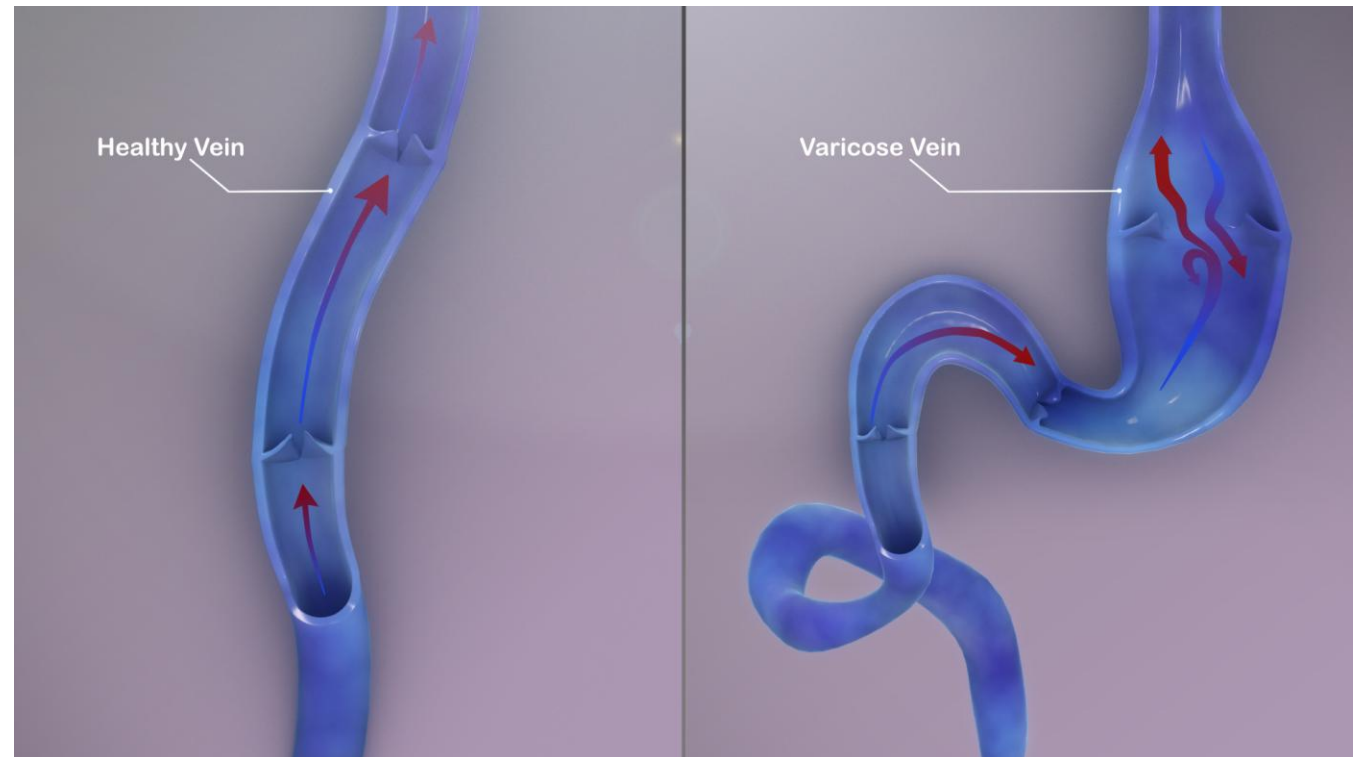
Valve open



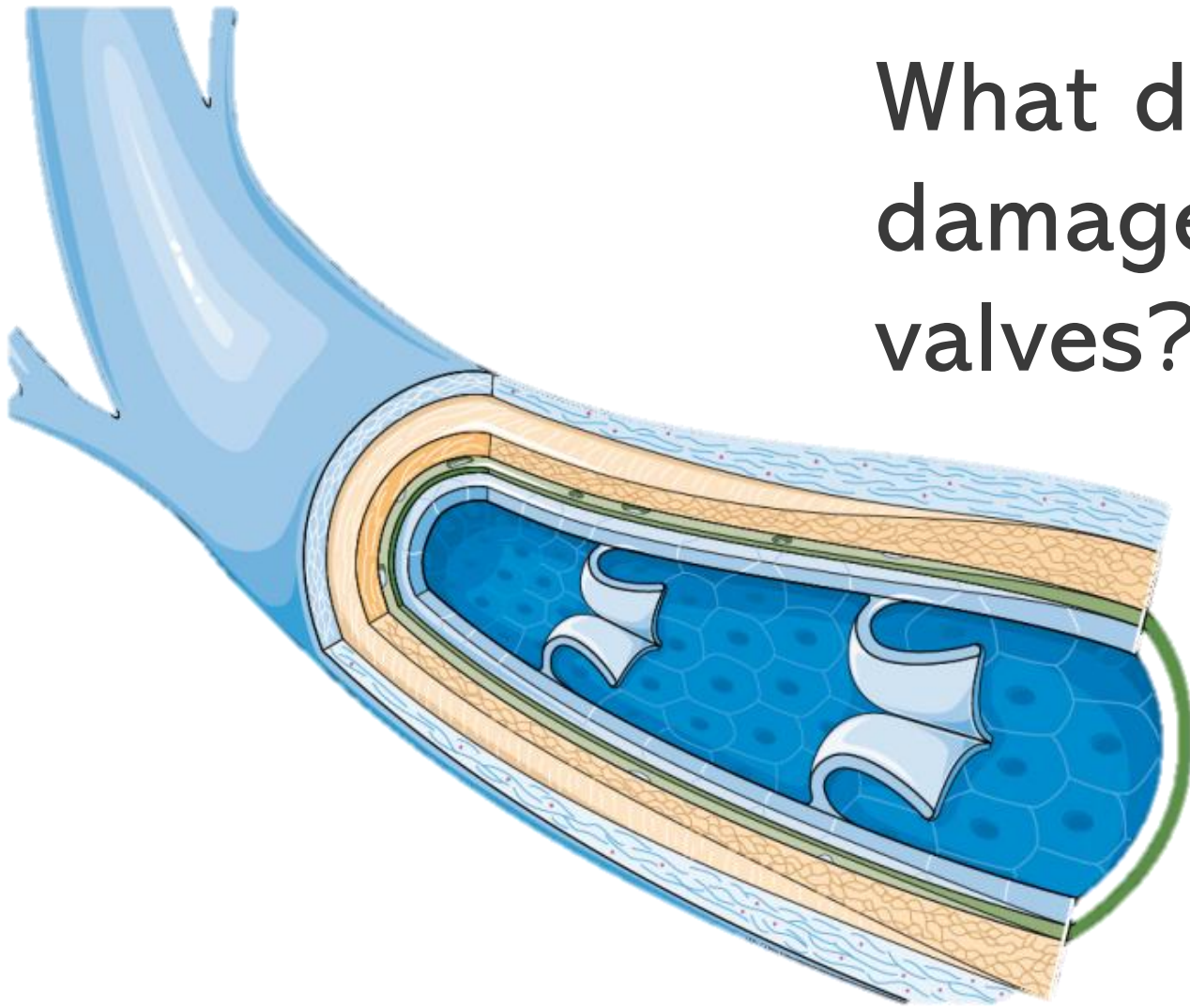
Valve closed

What can go wrong in the veins?

- When the veins become damaged the valves within are unable to close and return the blood back to the lungs and heart. This results in venous reflux and venous hypertension.
- Prolonged venous hypertension leads to leakage of proteins and fluid into the skin, creating inflammation and subsequent tissue breakdown, a venous leg ulcer.



What do you think causes damage to the veins and valves?



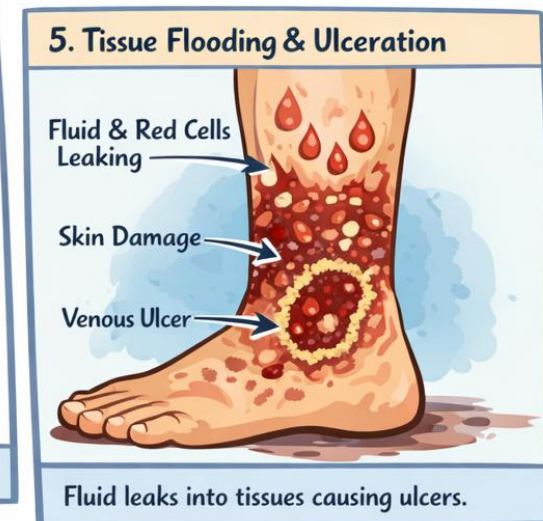
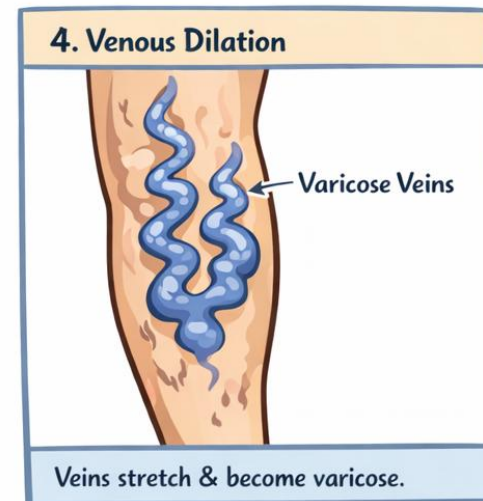
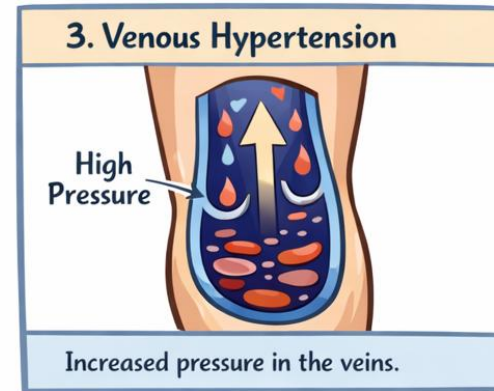
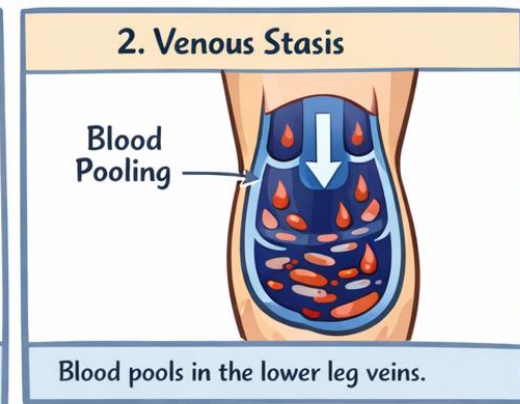
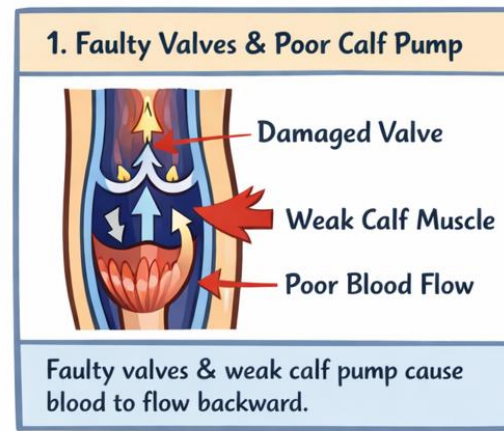
Venous disease affects **1 in 20** adults and is **progressive** so will **not** resolve if left **untreated** and can lead to **venous leg ulceration.**

(Patel and Surowlec, 2024)

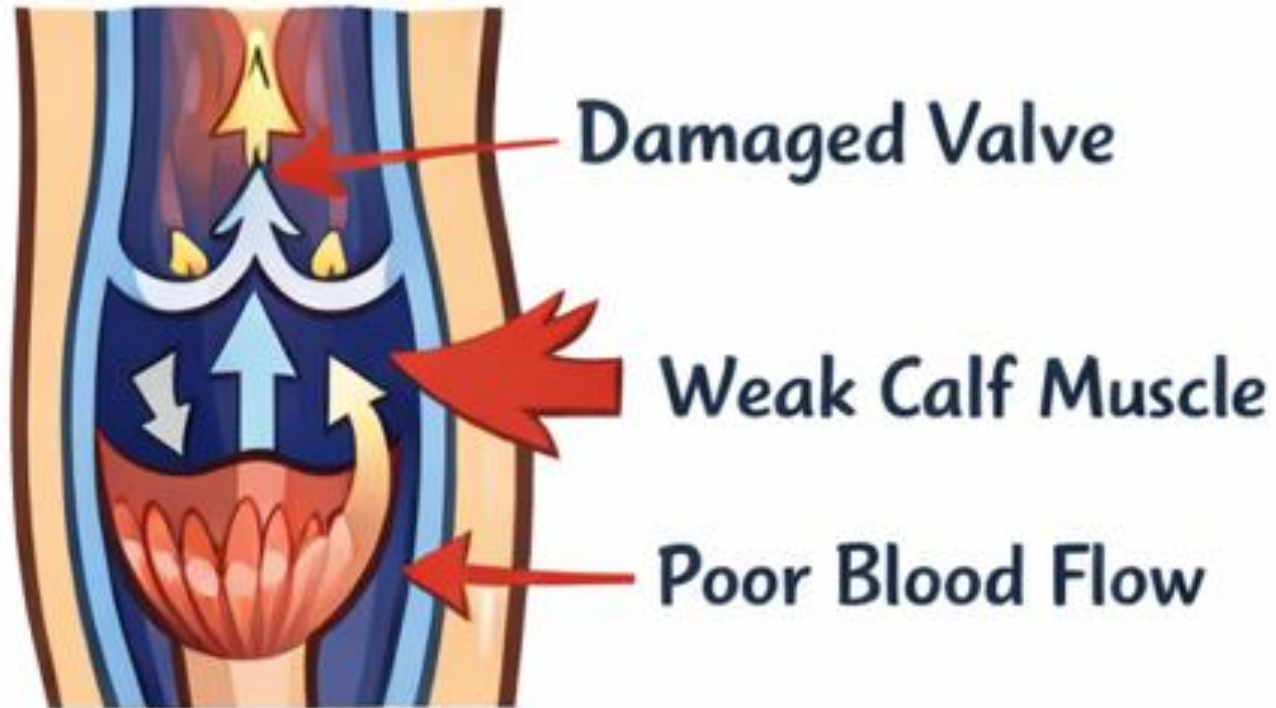


How does a leg ulcer develop?

Chronic Venous Insufficiency (CVI)



1. Faulty Valves & Poor Calf Pump



Faulty valves & weak calf pump cause blood to flow backward.

2. Venous Stasis

Blood
Pooling



Blood pools in the lower leg veins.

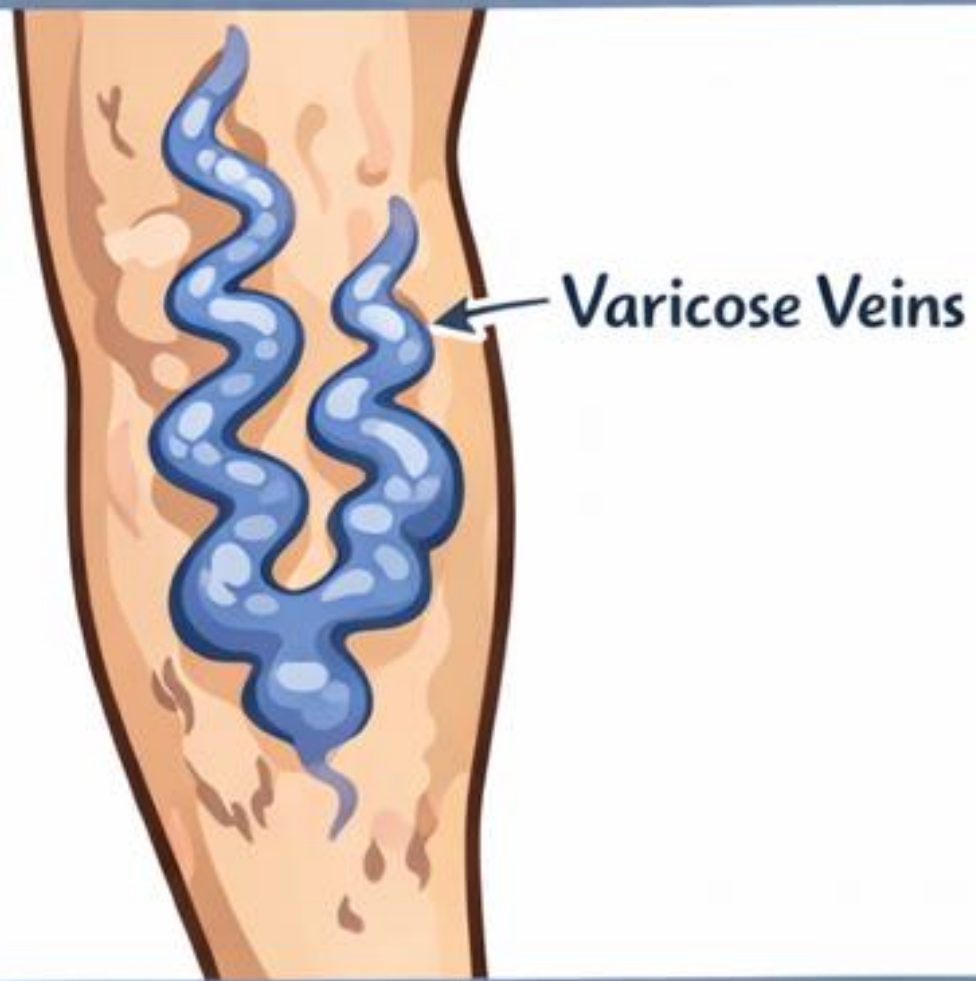
3. Venous Hypertension



High
Pressure

Increased pressure in the veins.

4. Venous Dilation



Veins stretch & become varicose.

5. Tissue Flooding & Ulceration



Fluid leaks into tissues causing ulcers.

'60-80% of individuals affected by CVI develop venous leg ulcers'

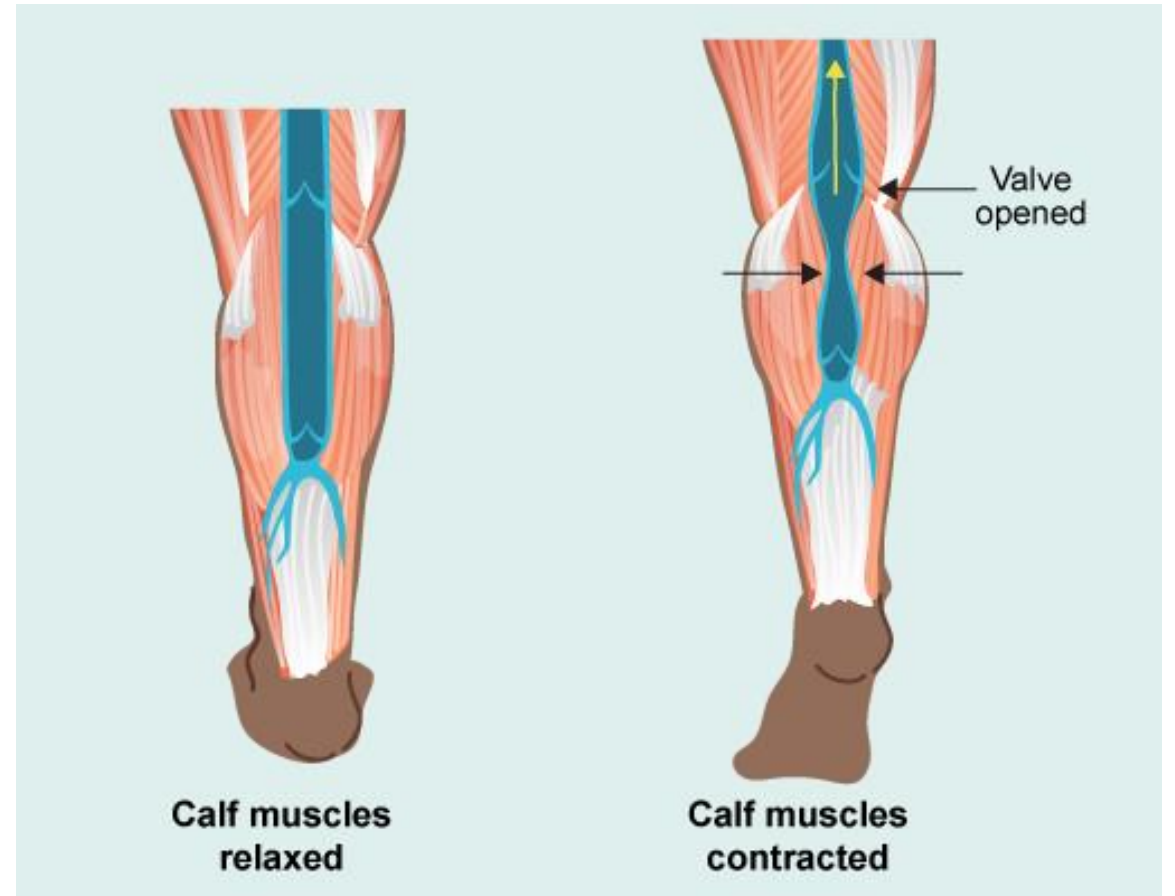
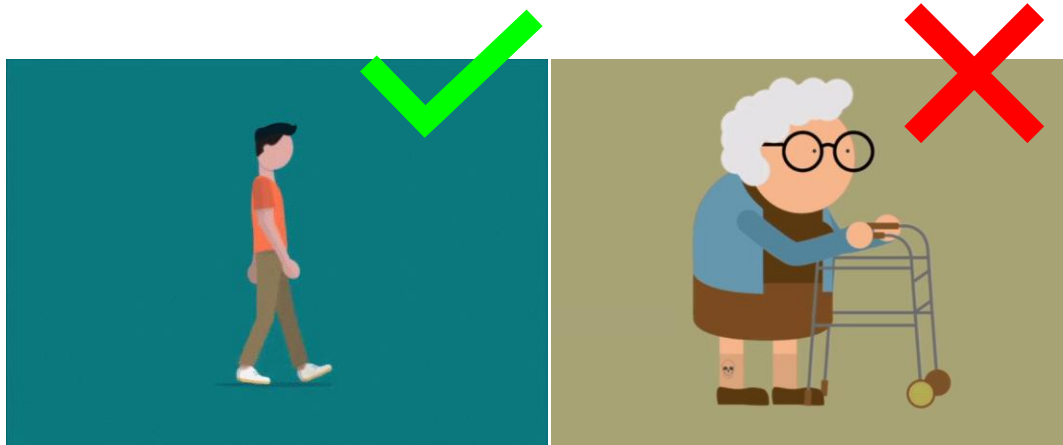
(Nelson and Adderley, 2016)

Question: What can we recommend for patients who have chronic venous insufficiency (CVI)?



Calf and foot muscle pumps

- When a muscle contracts it gets shorter and wider squeezing the veins like a pump, increasing blood pressure driving blood towards the heart.
- Deep veins are responsible for 90% of venous return through action of muscle pumps (Messiner, 2005; Vuolo, 2009).
- Regular exercise speeds up the wound-healing process in older adults by as much as 25% (Emery and Wagner, 2005).



Lower limb exercises

Age UK

- In person/online classes
- Seated exercises
- Mind & Body – Tai Chi, Yoga & Pilates
- Stay Strong & Steady – risk of falls
- Big, Bold & Balance – Parkinson's
- Videos on YouTube
- Free DVD

Legs Matter

- Online simple exercise videos
- How to use a TheraBand for fixed ankles
- Lower Limb exercise leaflet
- Lower leg wound/ lymphoedema exercise records



If you experience joint pain, low back pain or you are concerned please discontinue. However do not be surprised if you experience a pulling tight sensation in the muscle you are working, that is to be expected if you have been immobile. If you find the exercise painful stop and discuss with your clinician at the next opportunity.

ANKLE MOBILISATION

- Sit on a chair up straight with your feet flat on the ground
- Raise your leg up and roll your feet in a circle as demonstrated on the picture
- With your leg up, point your toes down and then point your toes towards your chest as demonstrated on the picture



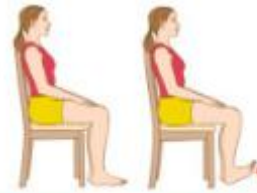
HEEL RAISE

- Sit on a chair up straight with your feet flat on the ground
- Raise your heels upwards, while keeping your toes on the floor
- Lower your heels back to the ground
- Once comfortable doing this exercise press down onto your knees and bring your leg up against the resistance of your hands



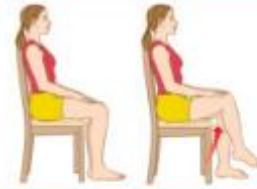
TOE RAISE

- Sit on a chair up straight with your feet flat on the ground
- Raise your toes upwards, while keeping your heels on the floor
- Lower your foot back to the ground



KNEE RAISE

- Sit on a chair, up straight, with your feet flat on the ground
- Raise one knee at a time up towards your chest
- Lower your foot back down to the ground



LEG RAISE

- Sit up straight with your back well supported and your feet flat on the ground
- Straighten your leg out
- Lower your leg back down in a controlled way do not just let it drop
- Once comfortable doing this exercise press down onto your knees and bring your leg up against the resistance of your hands



Content for this leaflet kindly provided by AgeUK

Find out more about the campaign and how you can get involved legsmatter.org



LOWER LEG WOUND EXERCISE RECORD

- Keeping a record allows you to celebrate the successes and can motivate you to improve your overall wellness
- Ensure you have a safe space before you start
- Ensure you take pain relief if needed before commencing your exercise routine

Day	Seated exercises	TheraBand exercises	Walking	Other exercise in the park/garden	Time	Comments
Mon						
Tue						
Wed						
Thu						
Fri						
Sat						
Sun						
Weekly increases						
Next week goals						

Have fun and smile, you've got this 😊

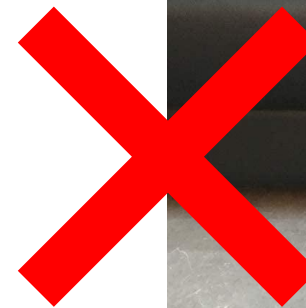
Content for this leaflet kindly provided by AgeUK

Get the lowdown at legsmatter.org



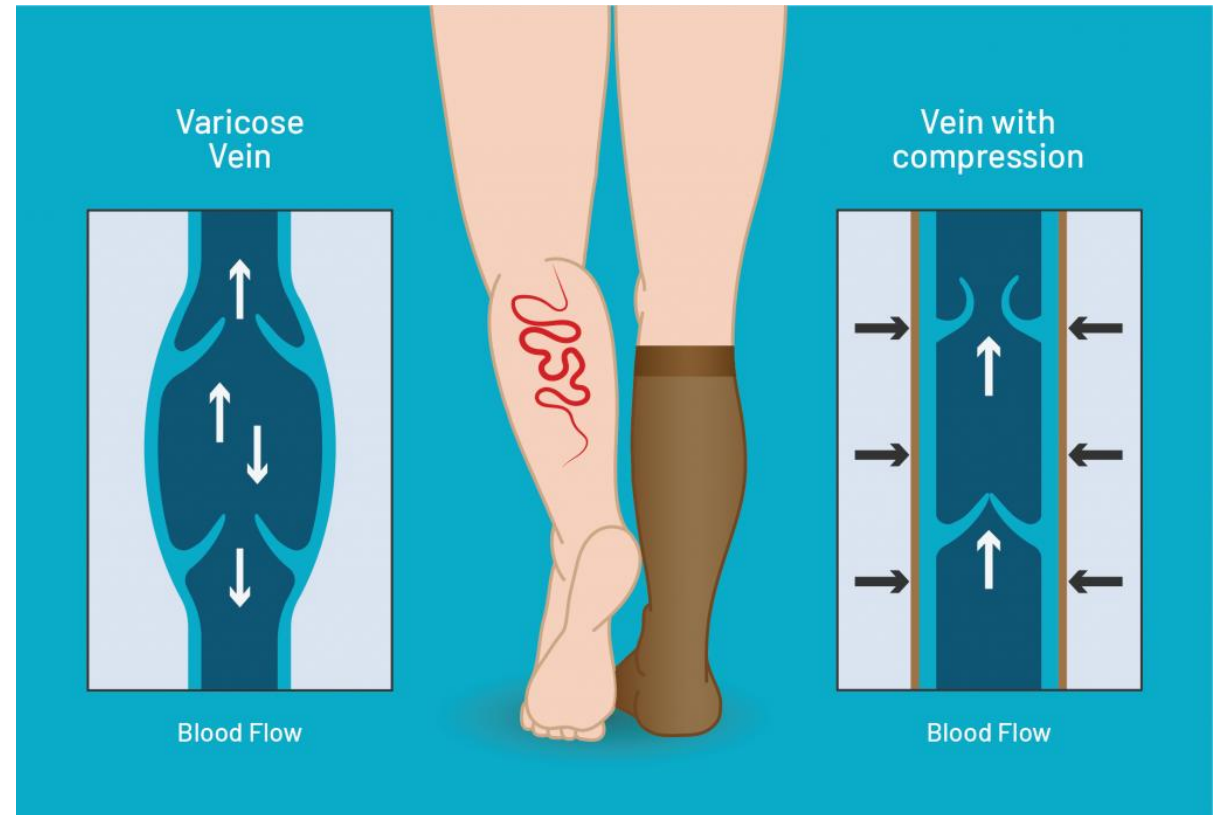
Leg elevation and sleep in bed overnight

- When not exercising, elevate legs as much as practical to help reduce aid venous drainage from the limb.
- Sitting with legs dependent might cause swelling and make compression bandaging feel uncomfortable.
- Sitting in a chair with legs on a foot stool will not help as there will continue to be venous hypertension in the foot, and the position puts additional pressure on the sacrum and buttocks, increasing the risk of pressure ulceration.
- Leg elevation will need to be at the same level as the head in order to facilitate blood circulation.



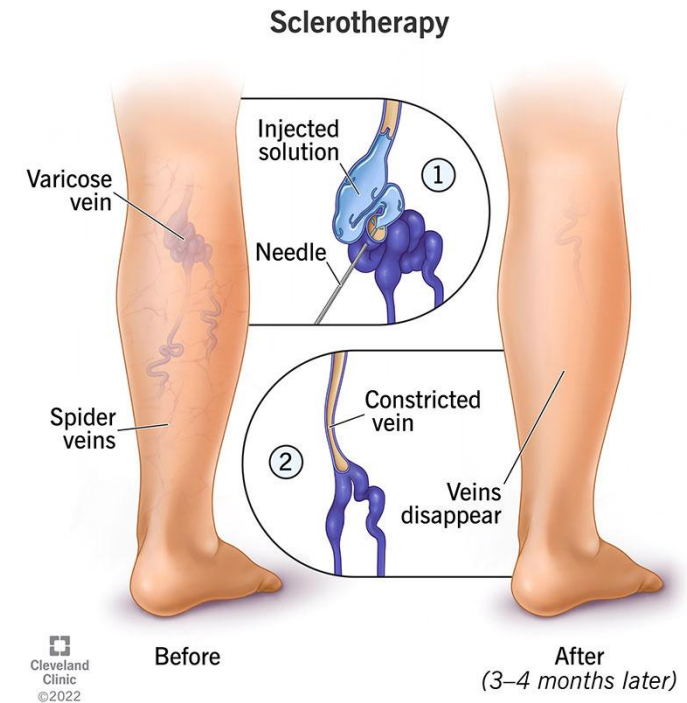
How can compression help?

- Compression therapy is regarded as the cornerstone of VLU treatment, especially for healing (Atkin, 2025)
- Early intervention with appropriate compression can significantly reduce healing times and lower the risk of ulcer recurrence (Atkin, 2025)
- The gold standard treatment for VLU is the application of compression therapy, which promotes venous return, reduced venous pressure and minimises stasis (Bullock and Manias, 2022)
- Compression works by applying external pressure on the skin, thus compressing the veins.
- This force helps to improve the function of the valves within the veins, which reduced the amount of fluid that leaks out of the veins and into the tissues.
- Compression also supports the muscles, which helps to create a force to push blood through the venous system.

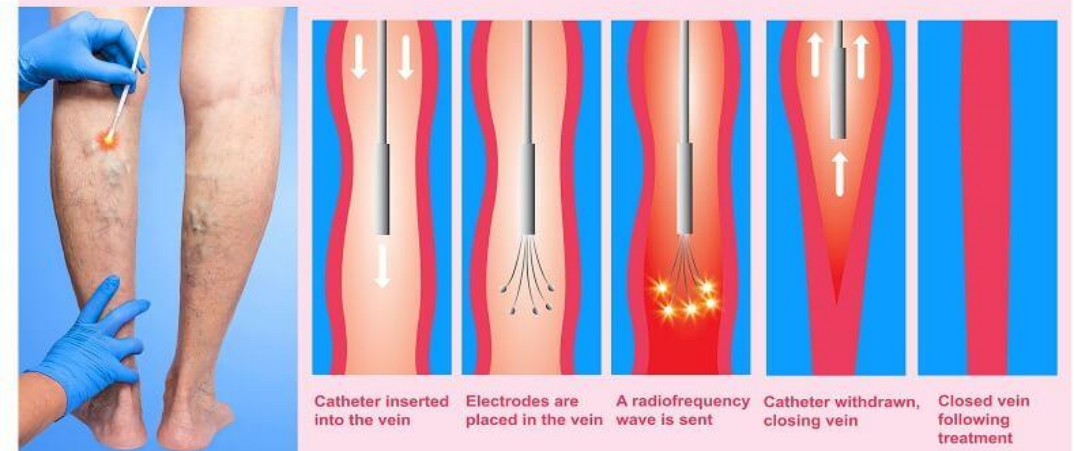


Referral to Vascular

- **Sclerotherapy** - involves injecting a solution into abnormal veins to make them collapse and fade away, primarily used to treat spider veins and varicose veins.
- **Venous ablation** - treats varicose veins and venous insufficiency by closing off damaged veins, typically using heat (from radiofrequency or laser) or other methods like chemical agents



VARICOSE VEINS TREATMENT WITH RADIOFREQUENCY ABLATION or OBLITERATION



NHS
Buckinghamshire, Oxfordshire
and Berkshire West
Integrated Care Board

OUH (Oxfordshire University Hospital)
Vascular Clinic Lower Leg Ulcer
Referral Form

Referral Template for referrers in Oxfordshire.

V [1] EMIS Web
Approved by BOB ICB [September 2024]
Approved by BBO LMC [September 2024]
Published [October 2024]

*EMIS Template
TVD010 – Vascular
Referral Form (for
venous leg ulcer
clinic ONLY)*

This referral form is specifically designed for patients with chronic, non-healing lower leg ulcers, focusing primarily on the management of venous ulcers located below the knee and above the ankle. The service is nurse-led, with specialist nursing interventions forming the core of the treatment model. However, it is important to note that the clinic offers comprehensive care, which includes input from vascular surgeons as required.

For patients with urgent conditions, such as acute critical limb ischaemia with rest pain and tissue loss/ulceration, there is an established pathway for emergency referral. These cases should be directed to the on-call 24-hour vascular registrar via the switchboard at 0300 304 7777.

Patient information leaflets – Legs Matter

Venous leg ulcers

An ulcer is a wound or sore that hasn't healed within two weeks. There are several types of ulcers you can experience on your legs or feet. Venous leg ulcers are the most common type of leg ulcer.

WHAT'S COVERED?

- Overview
- Symptoms
- Causes
- Diagnosis
- Treatment
- Prevention
- Outlook
- Harm
- Resources



legsmatter.org

THIS LEAFLET IS TALKING ABOUT:

Venous hypertension / insufficiency

Tired, throbbing and painful legs can be a sign of problems with our veins.

WHAT'S COVERED?

- Overview
- Symptoms
- Causes
- Diagnosis
- Treatment
- Prevention
- Outlook
- Harm



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THIS LEAFLET IS TALKING ABOUT:

Varicose veins

Varicose veins can make our legs painful, heavy, itchy and swollen.

WHAT'S COVERED?

- Overview
- Symptoms
- Causes
- Diagnosis
- Treatment
- Prevention
- Outlook
- Harm
- Resources



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Haemosiderin staining

Haemosiderin staining is a brown or rust discolouration of the skin around the lower leg.

WHAT'S COVERED?

- Overview
- Symptoms
- Causes
- Diagnosis
- Treatment
- Prevention
- Outlook
- Harm
- Resources



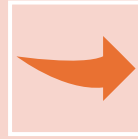
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LEGS
MATTER!

LEGS
MATTER!

LEGS
MATTER!

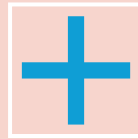
LEGS
MATTER!



Atherosclerosis

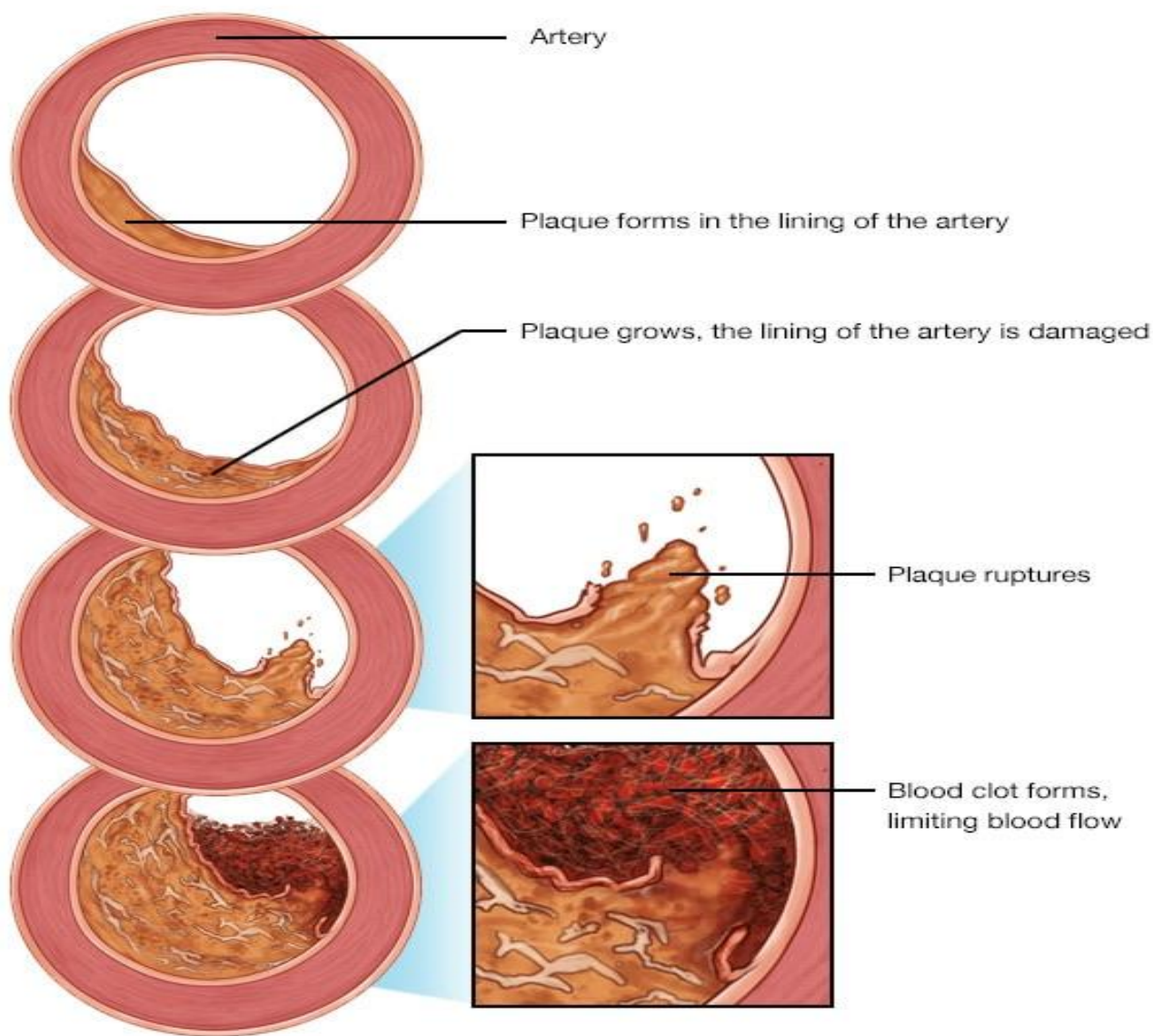


Stenosis

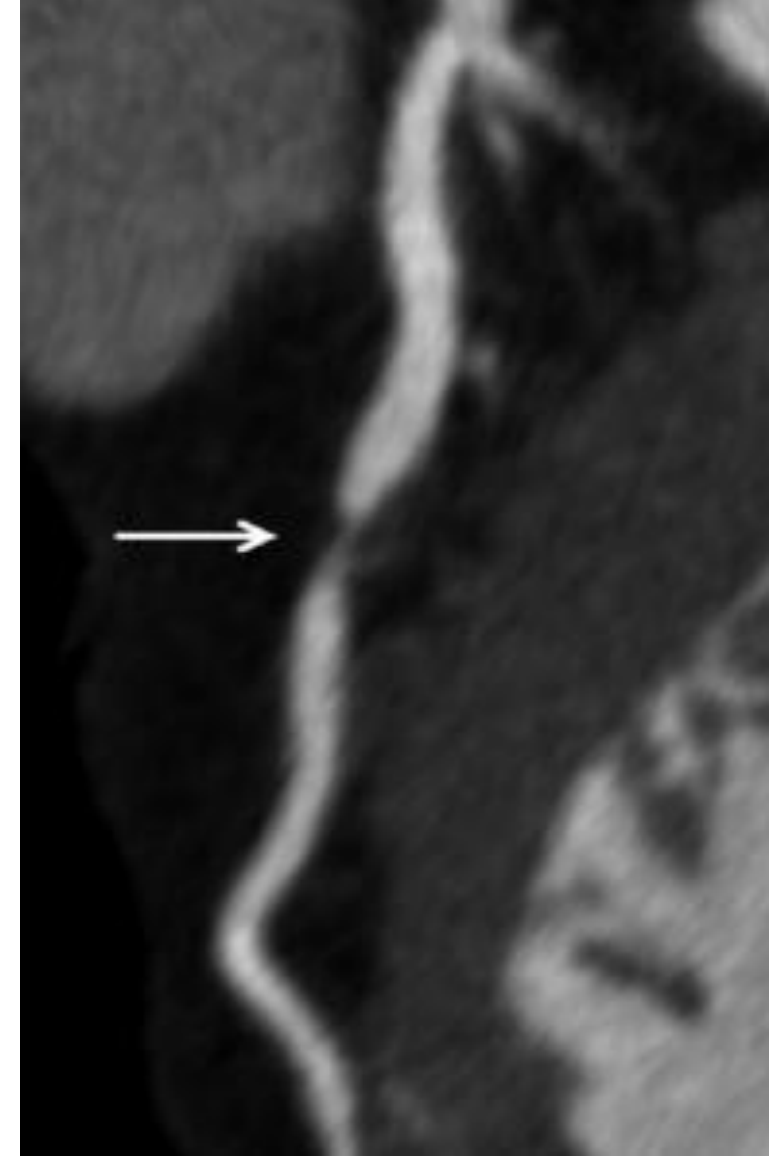


Calcification

But blood flow is at high pressure in the arteries... so what can go wrong?

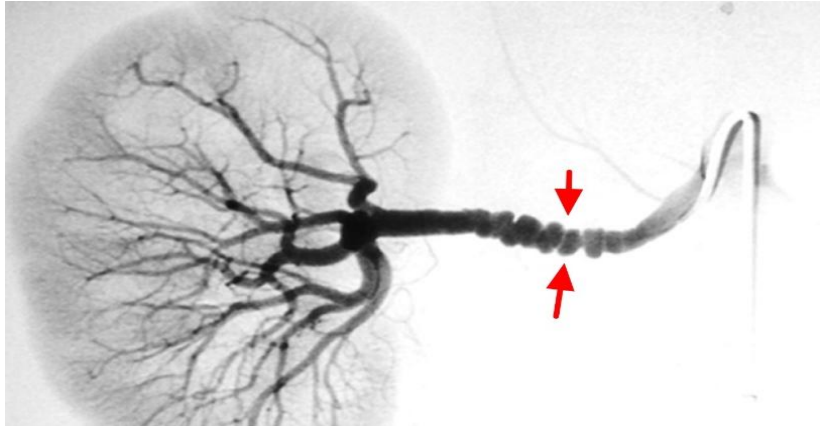


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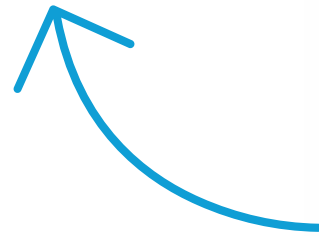


ATHEROSCLEROSIS

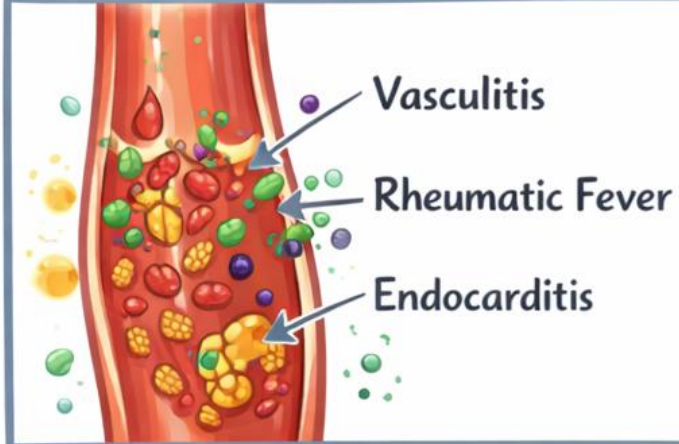
BUILD-UP OF FATS, CHOLESTEROL, FIBRIN, CELLULAR WASTE PRODUCTS AND OTHER SUBSTANCES WITHIN THE WALLS OF THE ARTERY



Fibromuscular dysplasia of the renal artery - abnormal cell development and irregular thickening of muscle wall of renal artery



Infection & Inflammation



Vasculitis, Rheumatic Fever, Endocarditis

Increased Age



Arterial Wear and Tear

Congenital Anomalies



Fibromuscular Dysplasia

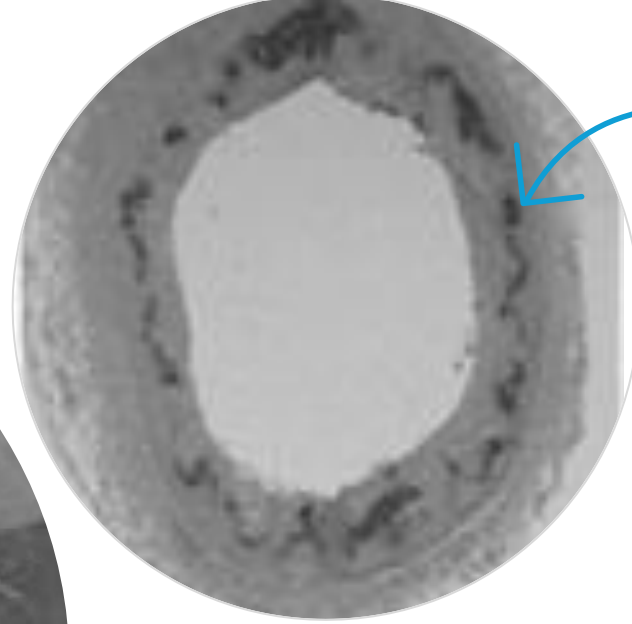
4. Spasms



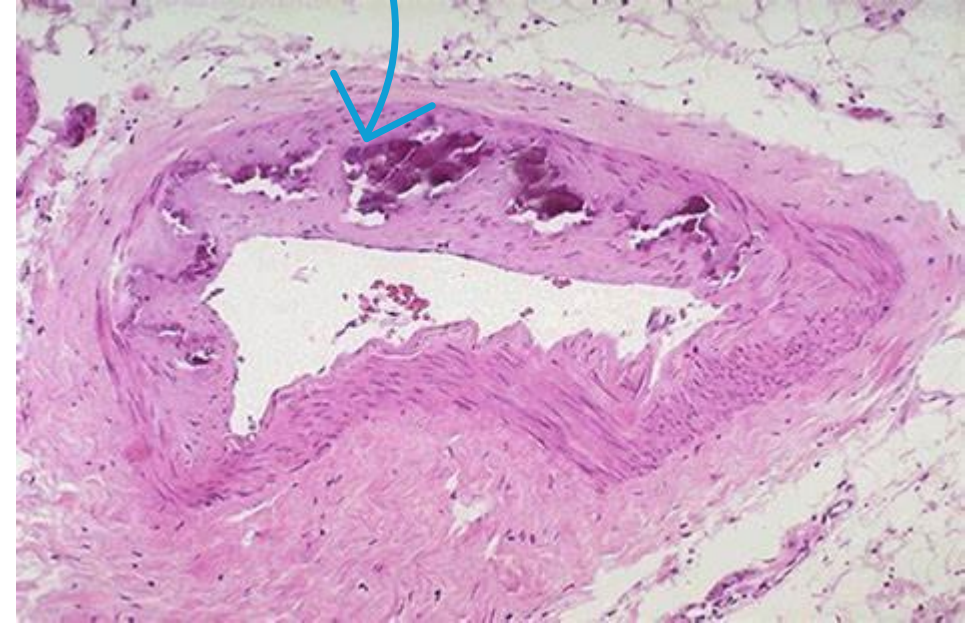
Angina: Coronary Artery Spasm

STENOSIS

NARROWING/OCCCLUSION OF ARTERIES



Calcium deposits



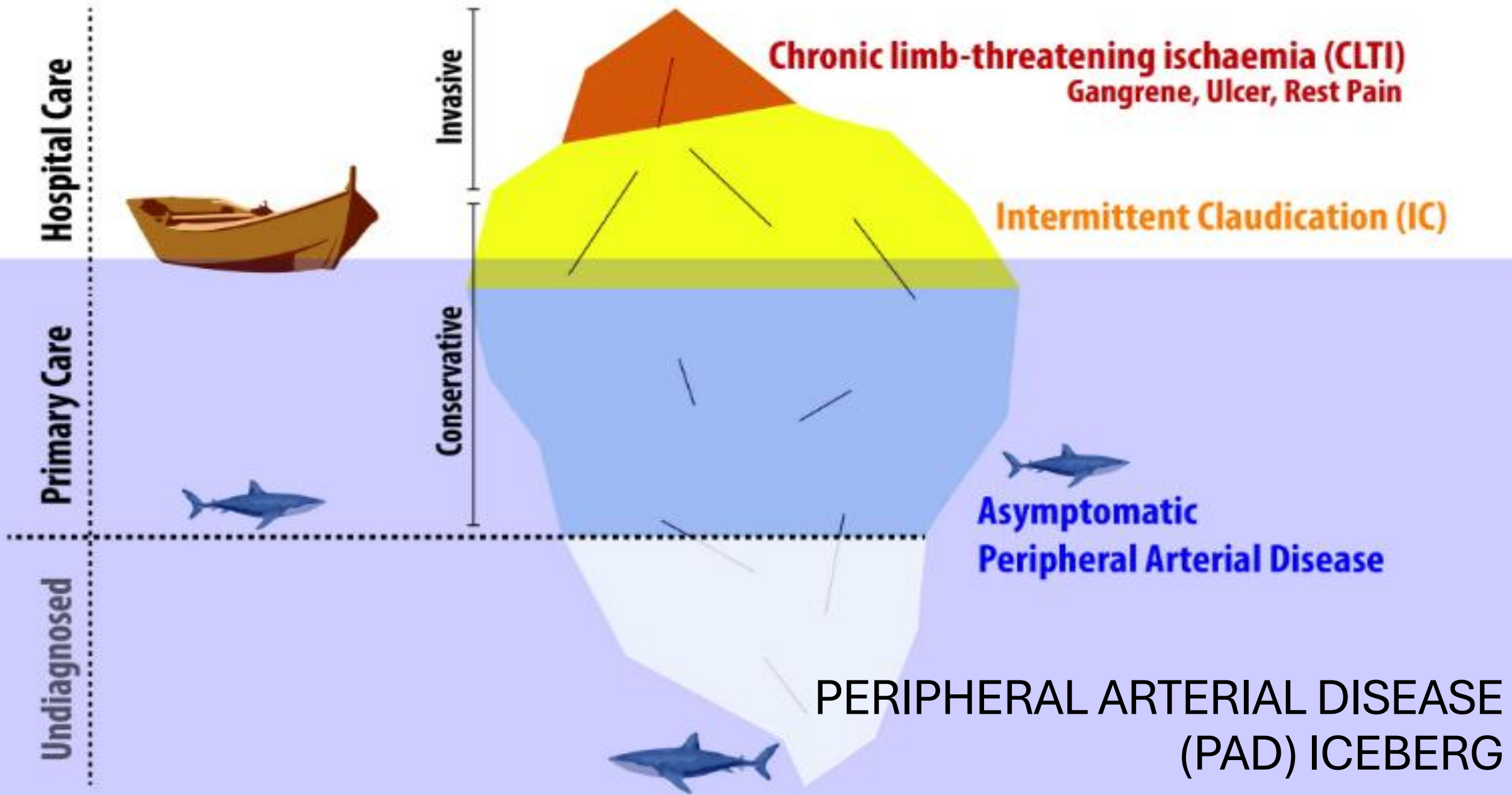
MEDIAL WALL CALCIFICATION

STIFFENING OF THE ARTERY WALLS & BUILD UP OF CALCIUM DEPOSITS WITHIN THE MEDIAL WALLS

What does this mean?

- Narrowed arteries reduce blood flow to the legs and feet.
- This is known as peripheral arterial disease (PAD).
- The arteries then compensate by dilating to preserve blood flow (arterial hypertension).
- Blood flow shifts to smaller arteries (collateral flow).
- But smaller arteries carry less blood than bigger arteries.
- Reduced blood flow to tissues = tissue damage and death (ischaemia)





Chronic limb-threatening ischaemia (CLTI)
Gangrene, Ulcer, Rest Pain

Intermittent Claudication (IC)

**Asymptomatic
Peripheral Arterial Disease**

**PERIPHERAL ARTERIAL DISEASE
(PAD) ICEBERG**

Hospital Care

Primary Care

Undiagnosed

Invasive

Conservative

Question: What can we recommend for patients who have peripheral arterial disease (PAD)?



Patient information leaflet on arterial leg ulcers – Legs

Lifestyle changes

- Smoking cessation
- Regular exercise
- Weight loss for elevated BMI
- Heart-healthy diet
- Control blood sugar if diabetic
- Keep blood pressure well-managed

Exercise for intermittent claudication (NICE, 2020)



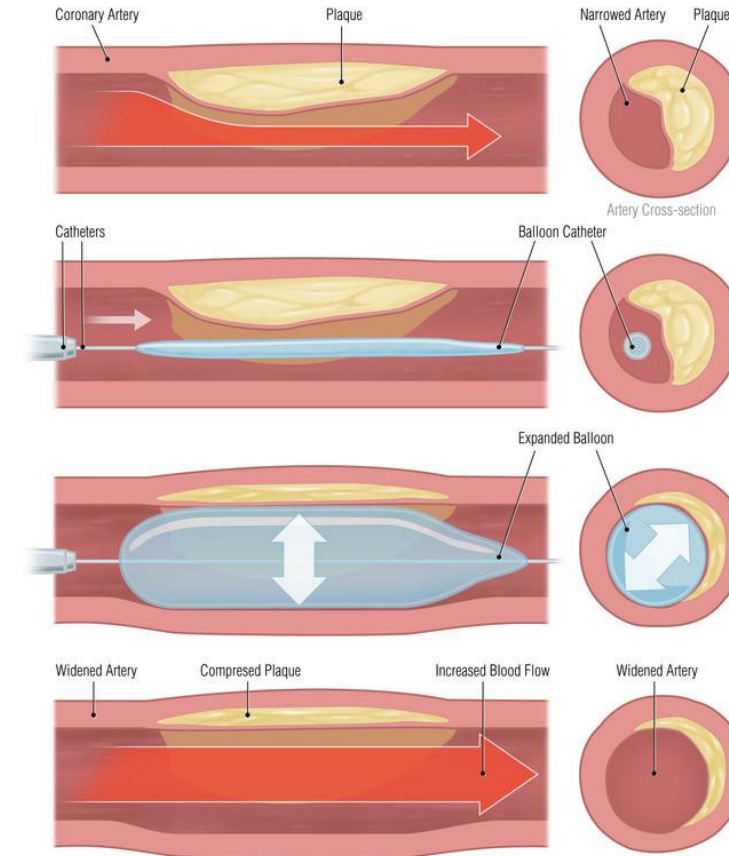
Medications

- **Antiplatelets** – medications like Aspirin and Clopidogrel prevent blood clots.
- **Statins** – lower cholesterol, which helps slow atherosclerosis.
- **Vasodilators** – medications like Cilostazol can help reduce claudication (leg pain) by improving blood flow.
- **Anti-hypertensives** – (e.g. ACE inhibitors) lowers systemic hypertension, less strain on already-damaged valves



Referral to Vascular

- **Angioplasty and stent placement** – a balloon is used to open narrowed arteries, and a stent may be inserted to keep the artery open.
- **Bypass surgery** - a new pathway is created to re-route blood around a blocked artery, improving flow to the legs.
- **Thrombolytic therapy** – in some cases, medication can be directly administered into a blocked artery to dissolve a blood clot.



Activity - What are the risk factors for venous and arterial disease?

Venous
risk
factors



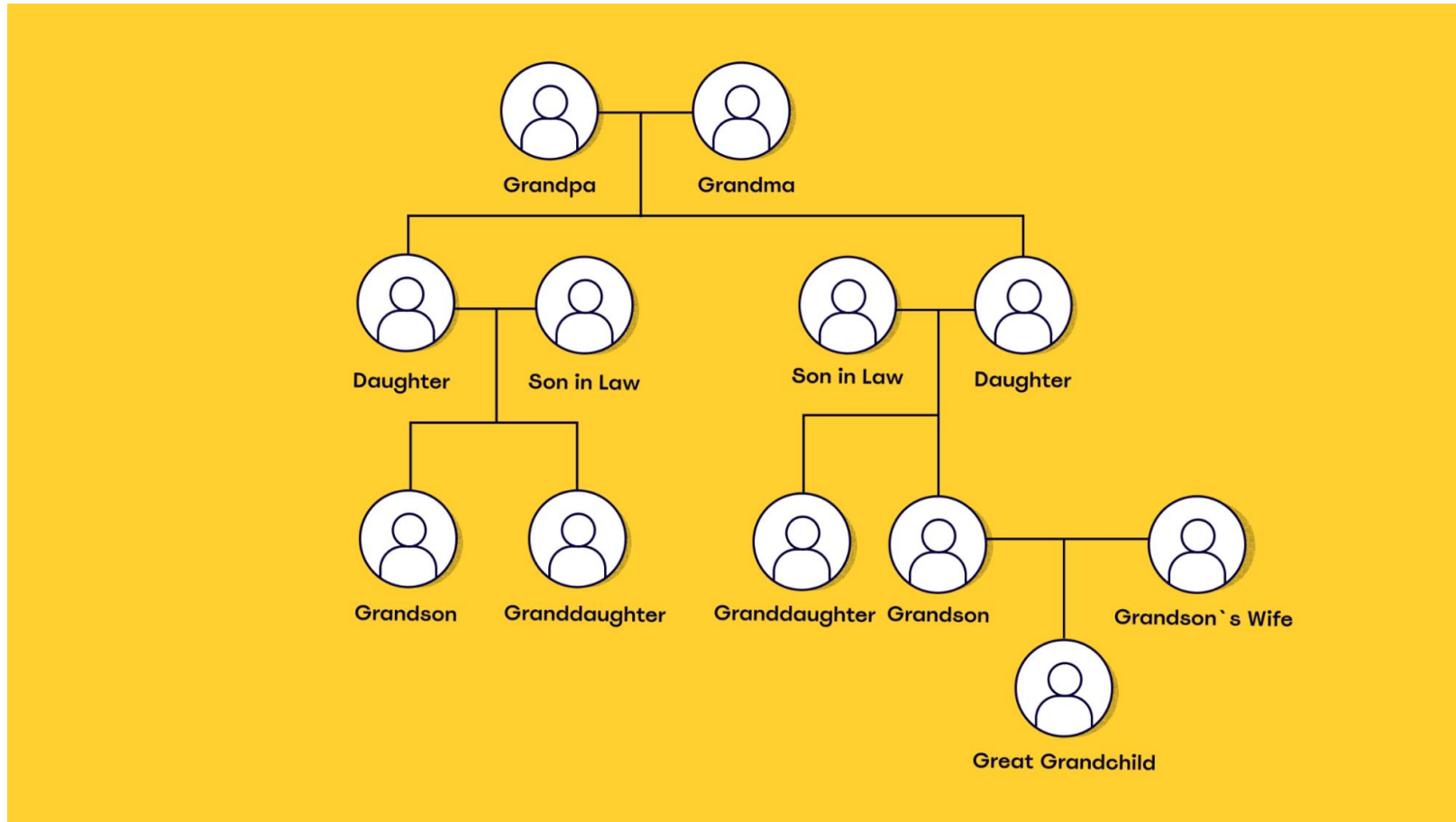
Venous and
arterial risk
factors



Arterial
risk
factors



Family history/genetic predisposition



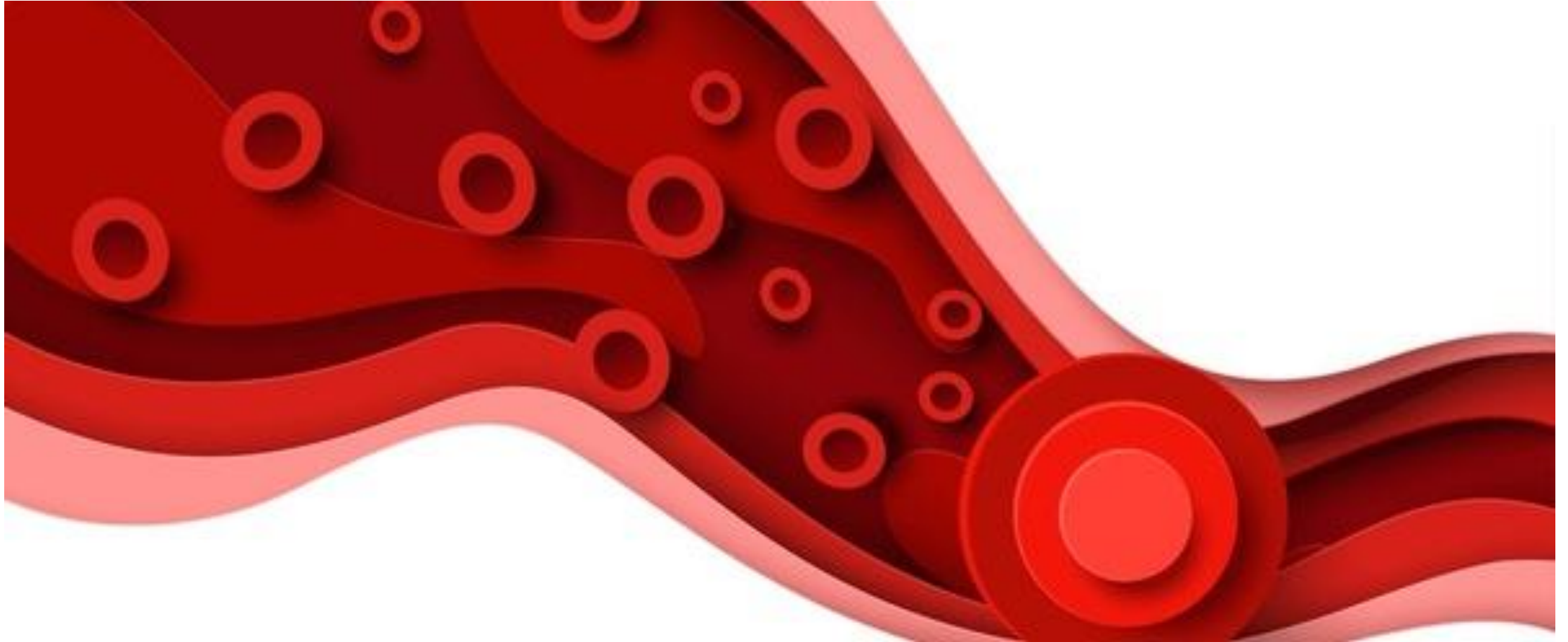
Advanced age



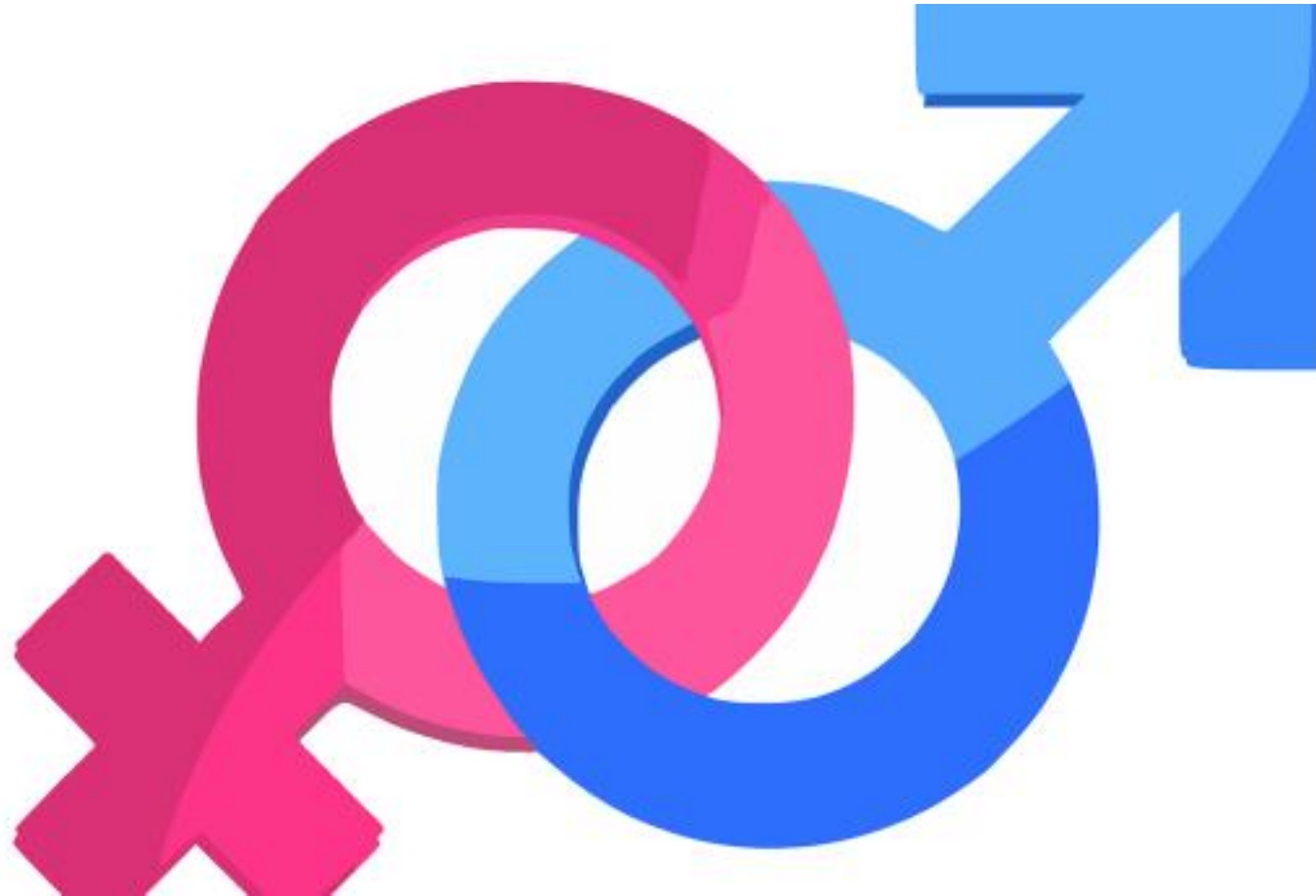
Trauma or injury



History of deep vein thrombosis (DVT)



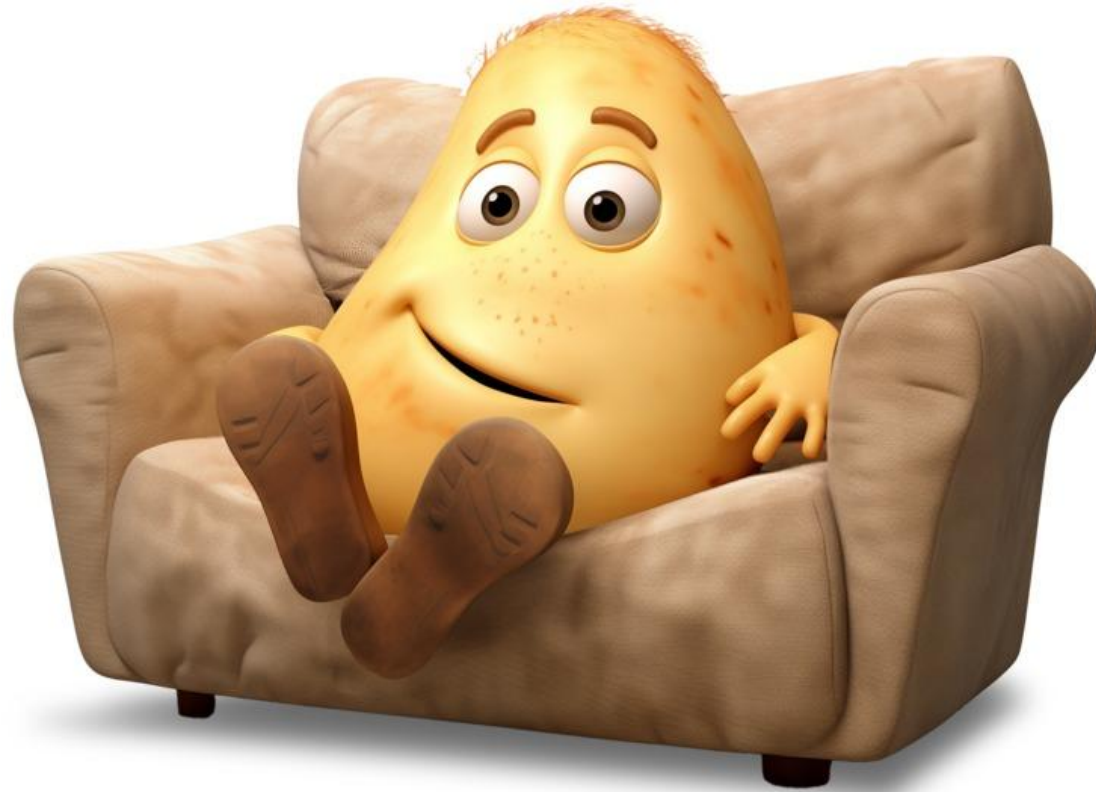
Biological sex



Obesity and poor diet



Physical inactivity



Prolonged standing



Smoking



Diabetes



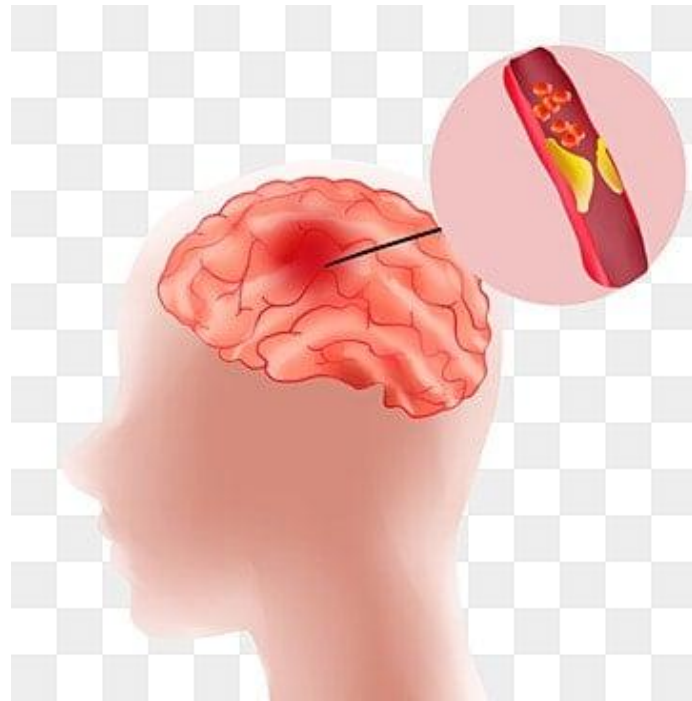
High blood pressure



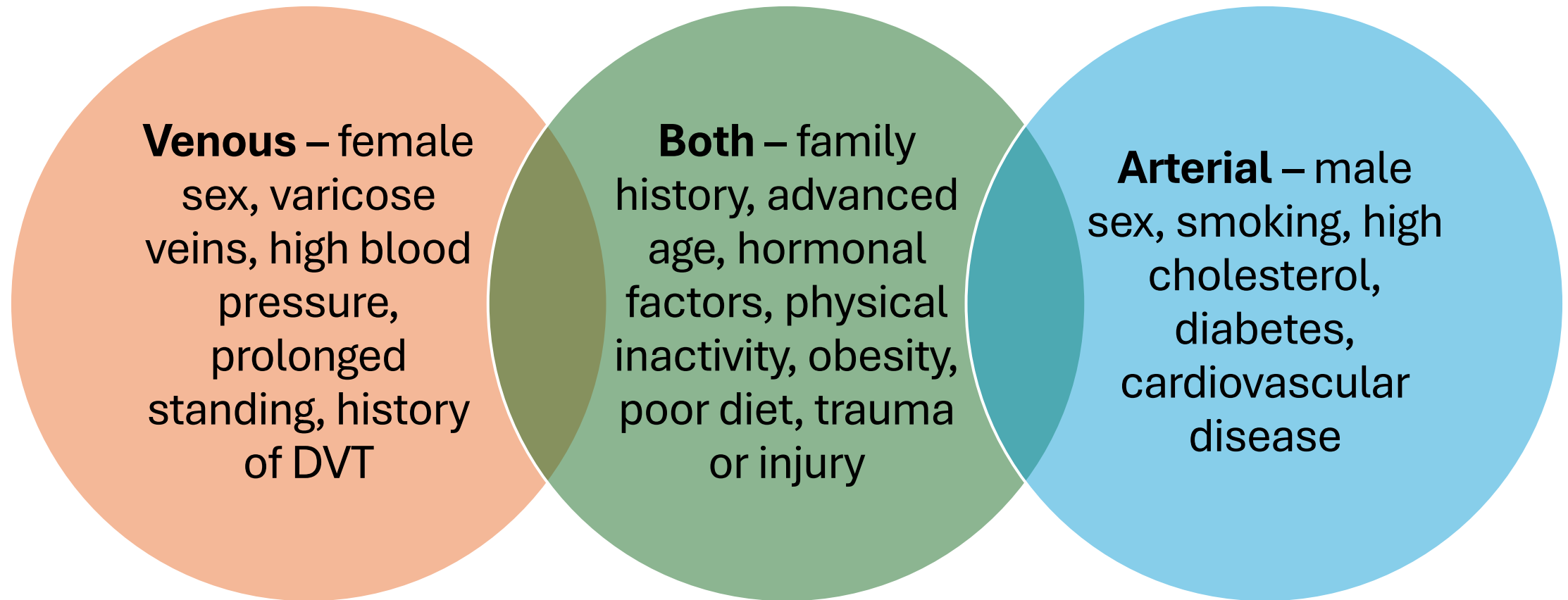
High cholesterol



Cardiovascular disease



Summary of risk factors for venous and arterial disease



Activity: Pass the Paper – Reducing Arterial & Venous Risk

- **Time:** 5 minutes
 - **Aim:** Identify practical actions healthcare professional can take to reduce arterial and venous risk
 - Each group has one sheet of paper. At the top, write one risk factor from the list.
 - **Rounds:** Each round lasts 1 minutes. Groups write as many actions as possible that HCPs can take to reduce or manage that risk.
 - After 1 minute, groups pass the paper to the next team. The next team reads what's written and add new ideas.
 - Repeat for 4 rounds.
 - **Close:** Read out key actions from each paper.
- Obesity and poor diet
 - Physical inactivity
 - Current smoker
 - Hormonal factors
 - Long period of standing
 - Diabetes
 - High blood pressure
 - High cholesterol
 - Cardiovascular disease

Key message

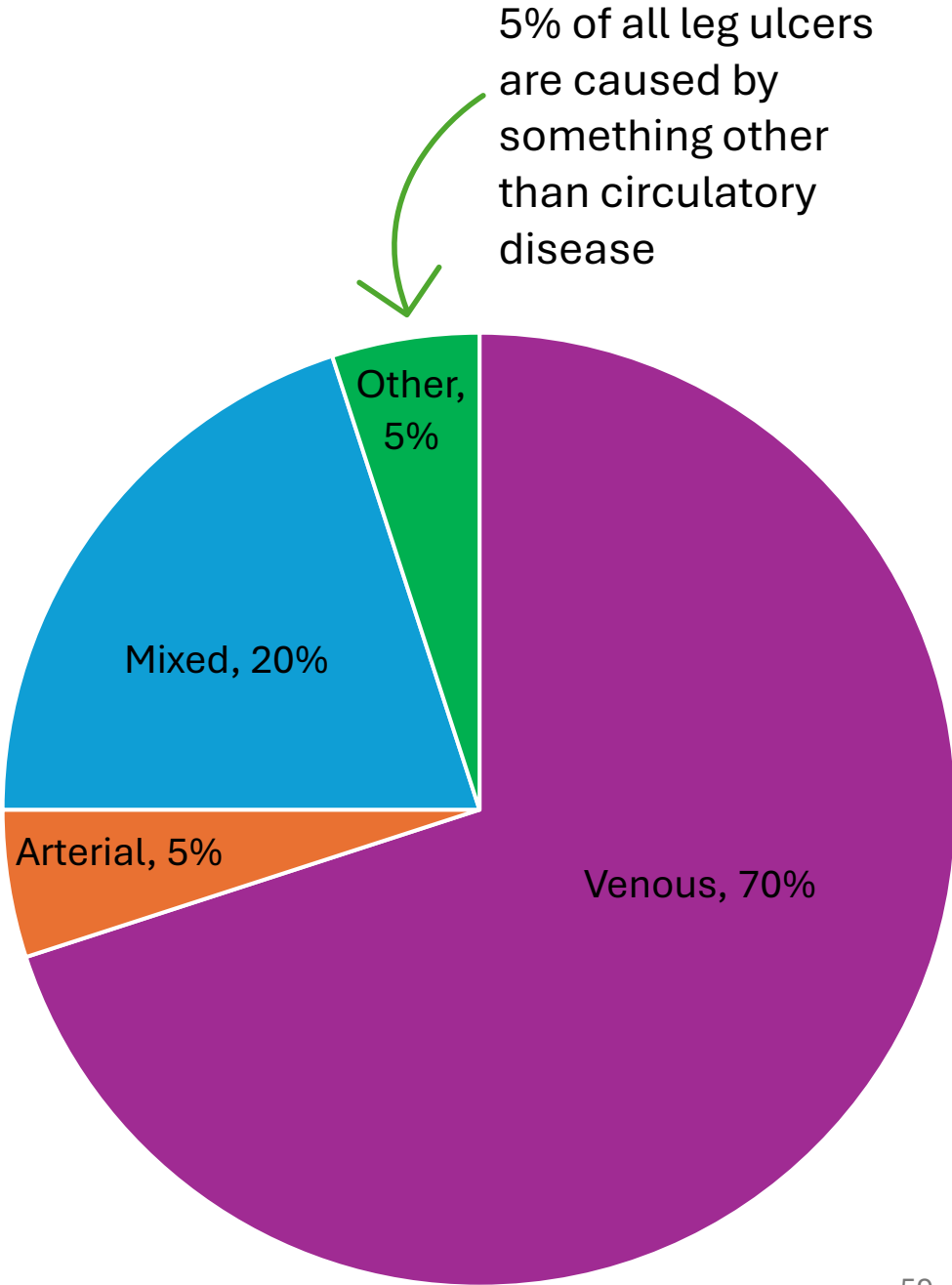
- Small, consistent actions by healthcare professionals can significantly reduce vascular risk and improve outcomes

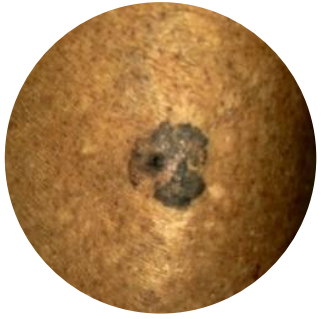
Other things to consider...

- Studies show an association between chronic kidney disease and PAD.
- People of African descent and Hispanic people have a higher risk of developing PAD.
- High levels of stress are also a contributing factor to PAD.
- Intravenous (IV) drug use damages the veins and leads to increased risk of CVI.



Other types of leg ulcers and skin conditions





A



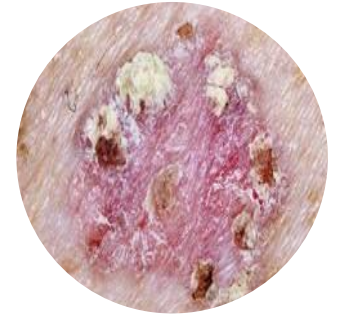
B



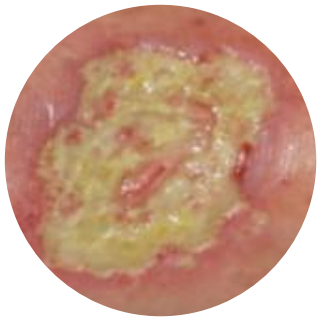
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D



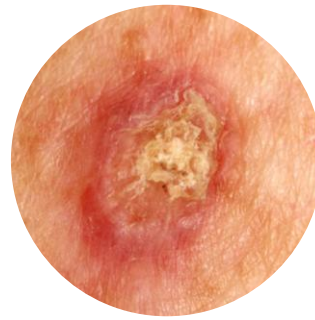
E



F



G



H

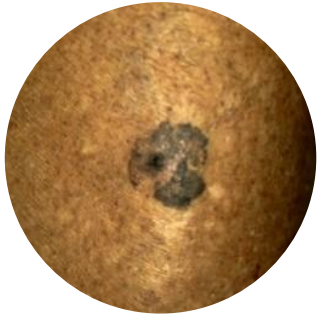


I



J

⁶⁰ Which of these looks abnormal and why?



SCC



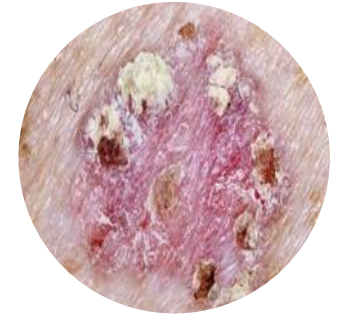
Marjolin's
ulcer



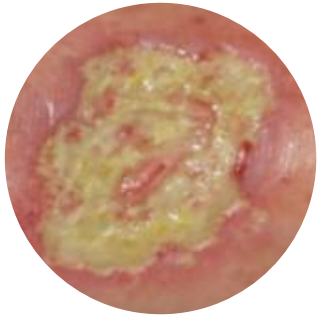
Vasculitis



Calciphylaxis



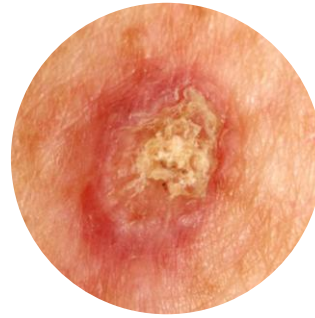
Bowen's
disease



Martorell
ulcer



Sickle cell
ulcer



SCC



Pyoderma
gangrenosum



Bullous
pemphigoid

All of these ulcer are abnormal!

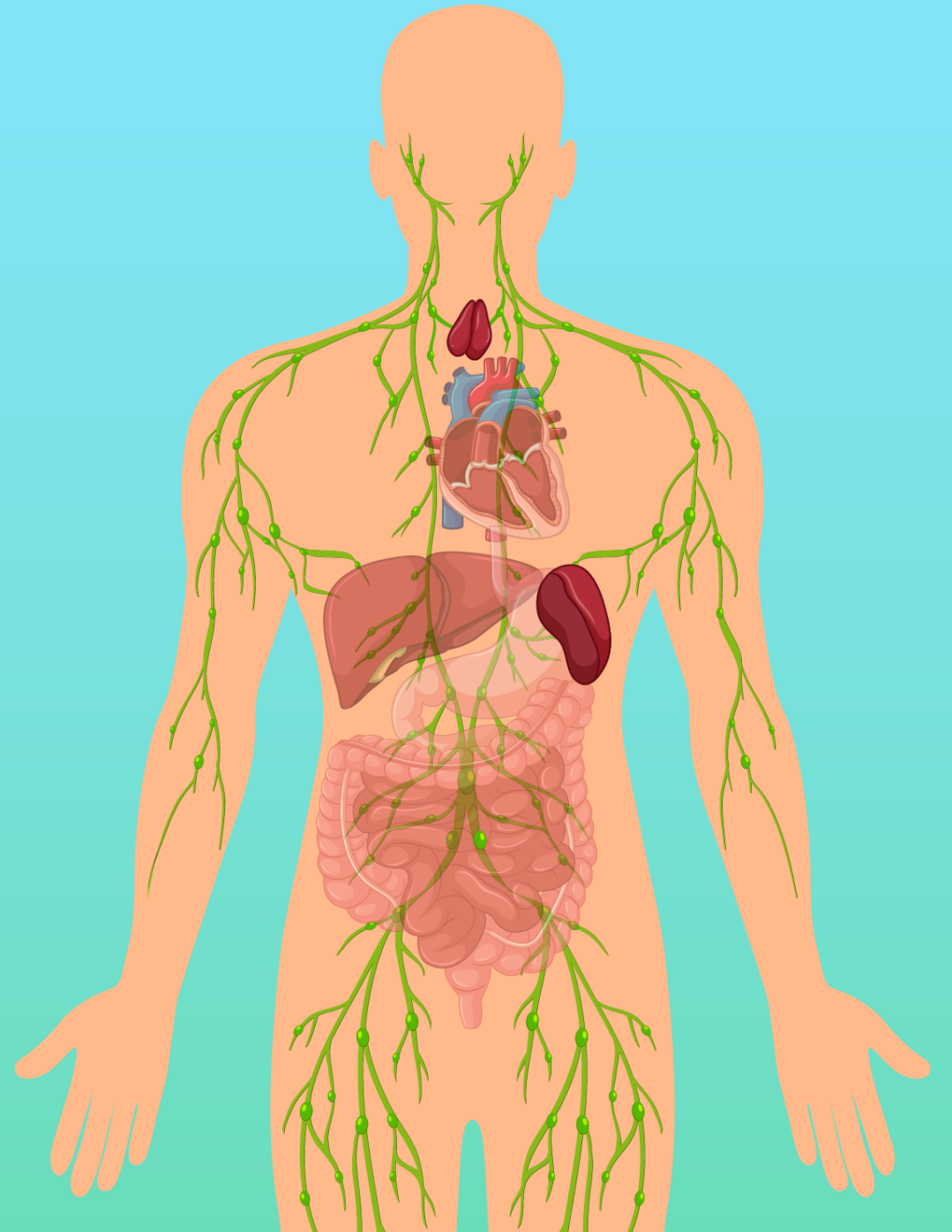
Don't panic!

- You do not need to know all these different type of abnormal ulcers!
- You just need to be able to identify when something isn't following a normal healing trajectory and know how to escalate it!



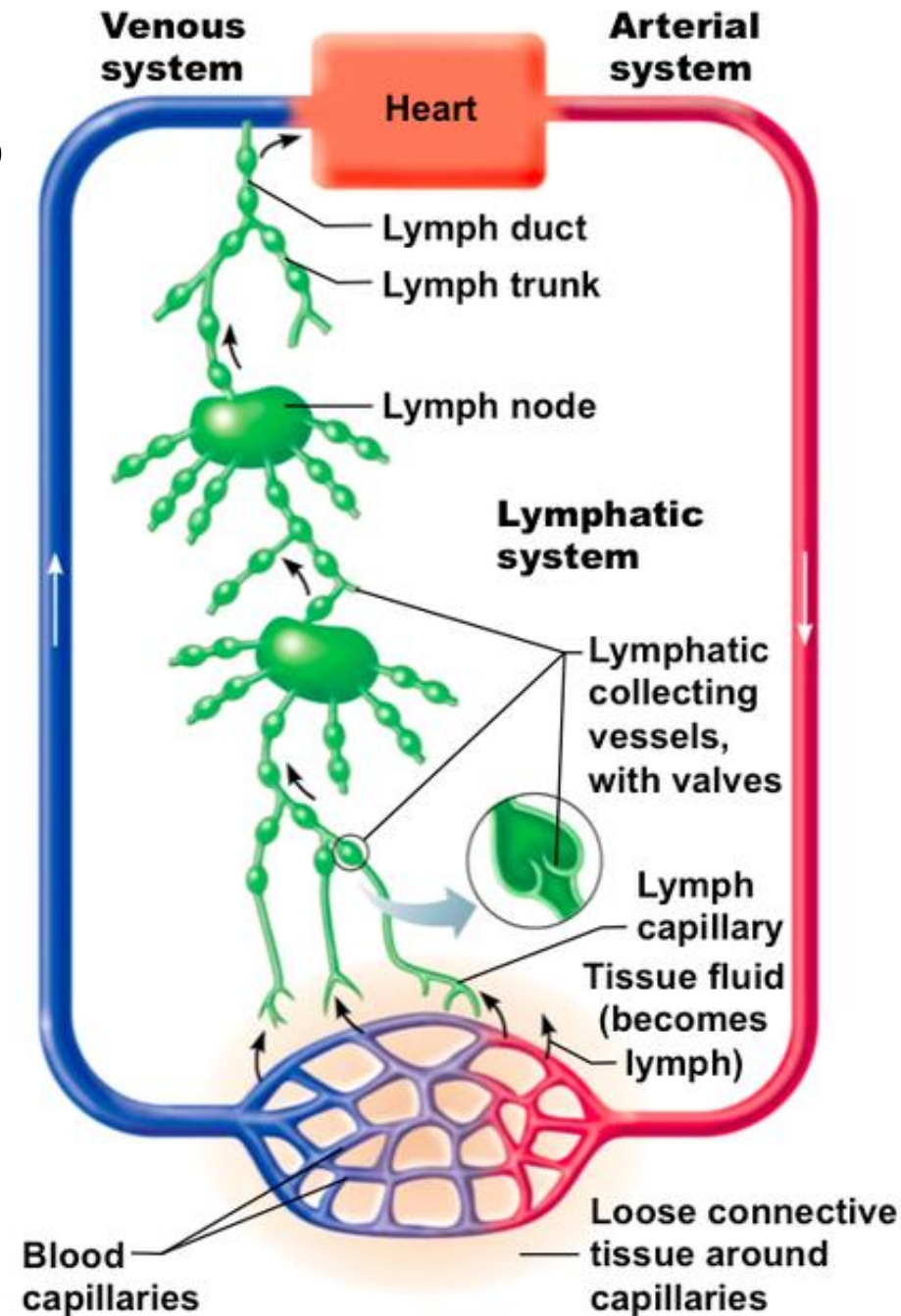
What about the...

LYMPHATIC SYSTEM



What is the lymphatic system?

- The lymphatic system is a network of vessels and glands throughout the body that helps fight infection and remove excess fluid.
- It is responsible for collecting all fluid in the tissues and returning it to the circulatory system.



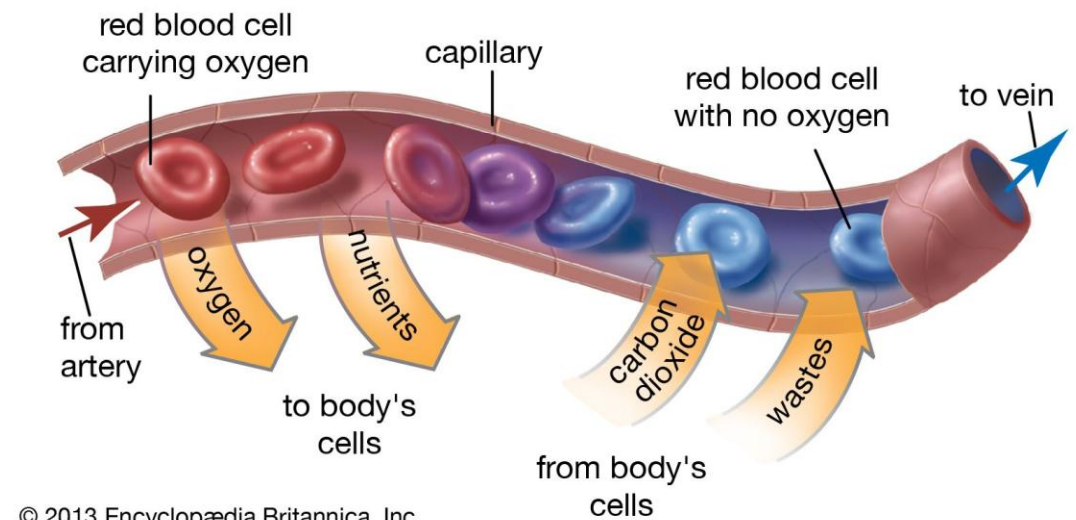
How does the lymphatic system work?

- 20 litres of plasma (liquid part of the blood) flow out of tiny pores in the thin walls of the capillaries.
- Imagine water seeping out of a sponge... where does this liquid go?



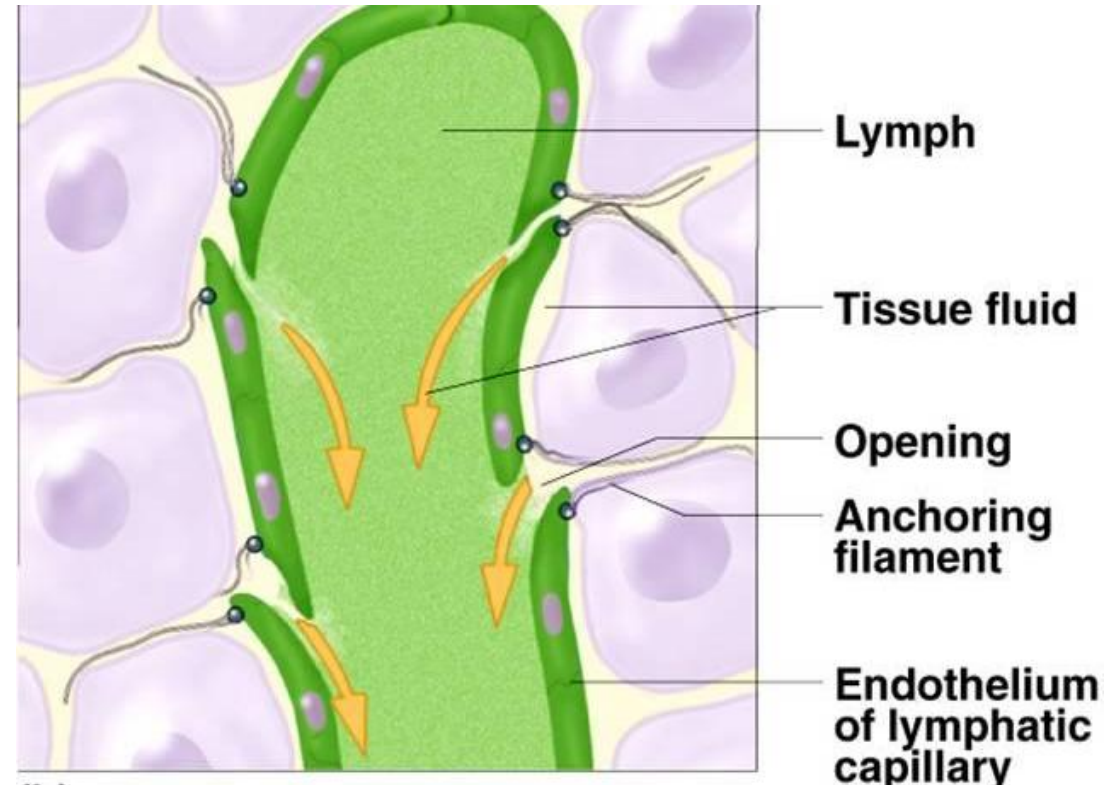
How does the lymphatic system work?

- It delivers oxygen and nutrients to the tissues surrounding each capillary.
- The tissues hungrily soak up all the nutrients while leaving behind waste.
- The waste stays behind in the lymph fluid.



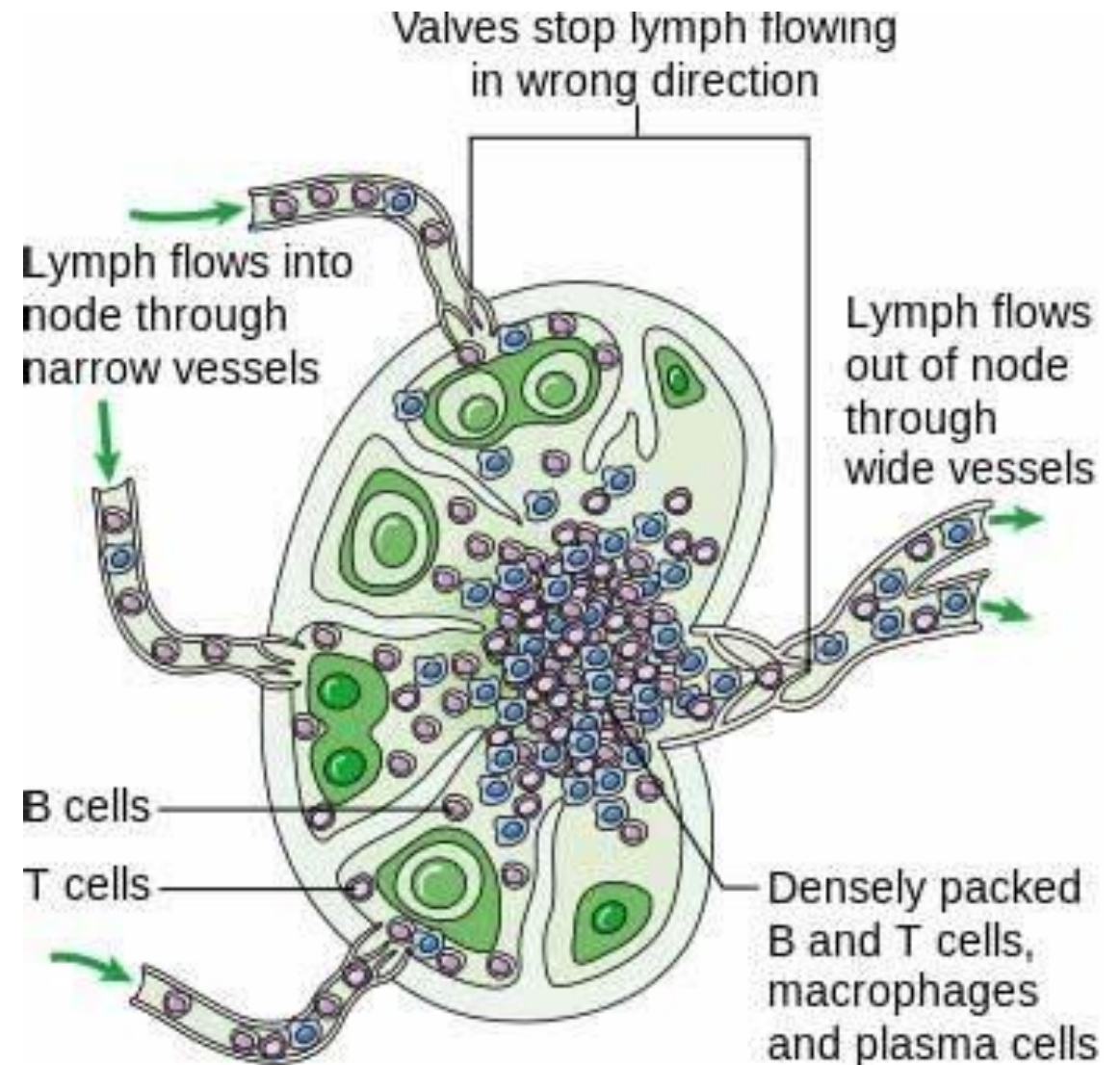
What are lymphatic vessels and what do they do?

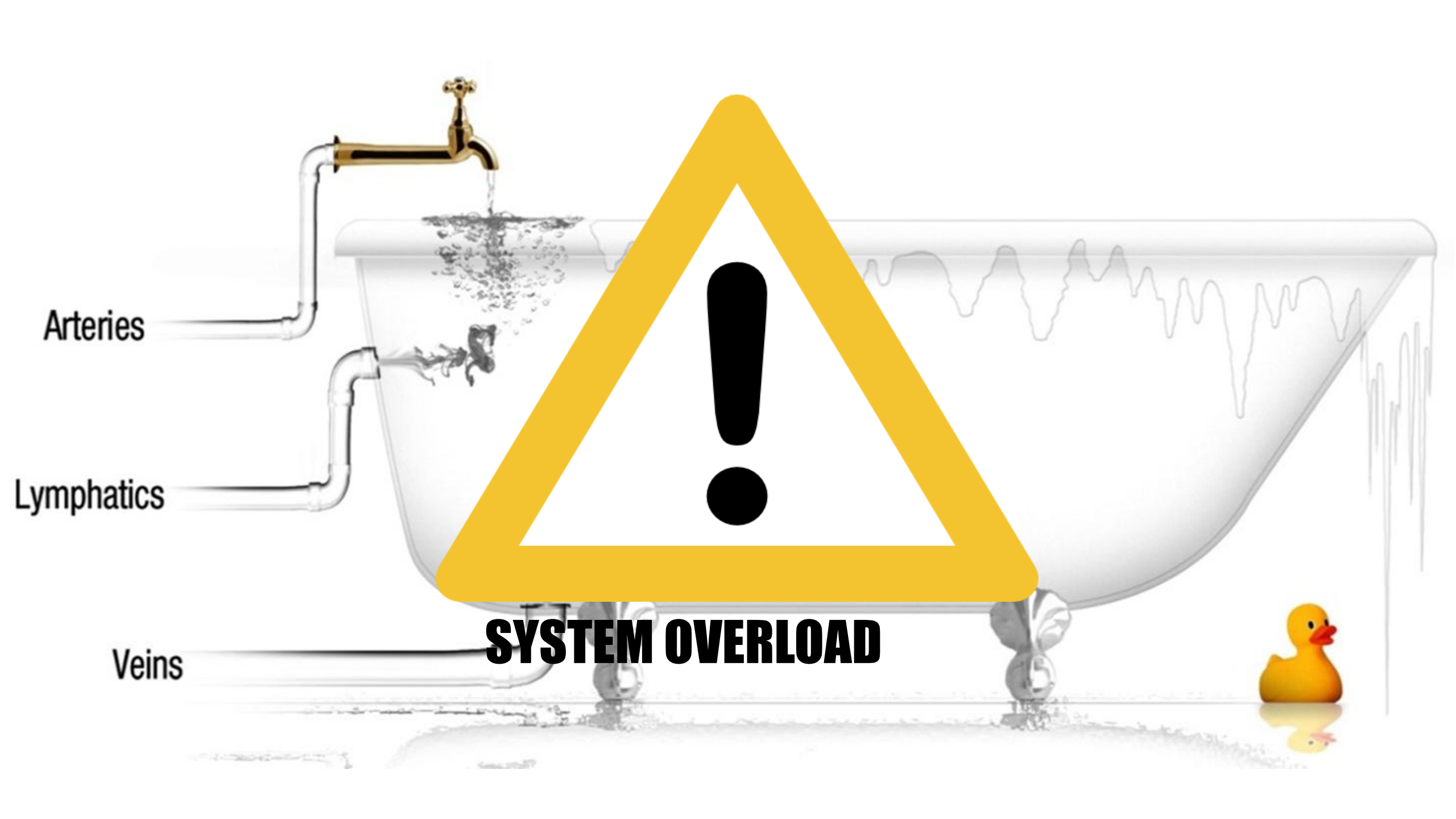
- **Thin-walled tubes** throughout the body collect excess fluid (lymph) from tissues and return it to the bloodstream.
- Anchoring **filaments connect the** lymphatic vessel to surrounding tissues.
- **Movement of these tissues** pull on the anchoring filaments, helping fluid move into the lymphatic vessels through openings.
- These vessels contain **one-way valves** that keep lymph moving the right way.
- Lymphatic vessels then pass lymph through lymph **nodes of filtration**.



What are lymph nodes and how do they work?

- **Bean-shaped glands** that monitor and **filters/cleanse lymph** as it filters through them.
- Clear out **damaged cells** and **cancerous cells**.
- Store **lymphocytes** and other immune system cells that attach and destroy harmful substances like **bacteria**.
- There are about **600 lymph nodes** scattered throughout the body.
- You may be able to feel some lymph nodes through the skin in areas like the **armpits, groin or neck**.





Arteries

Lymphatics

Veins

SYSTEM OVERLOAD

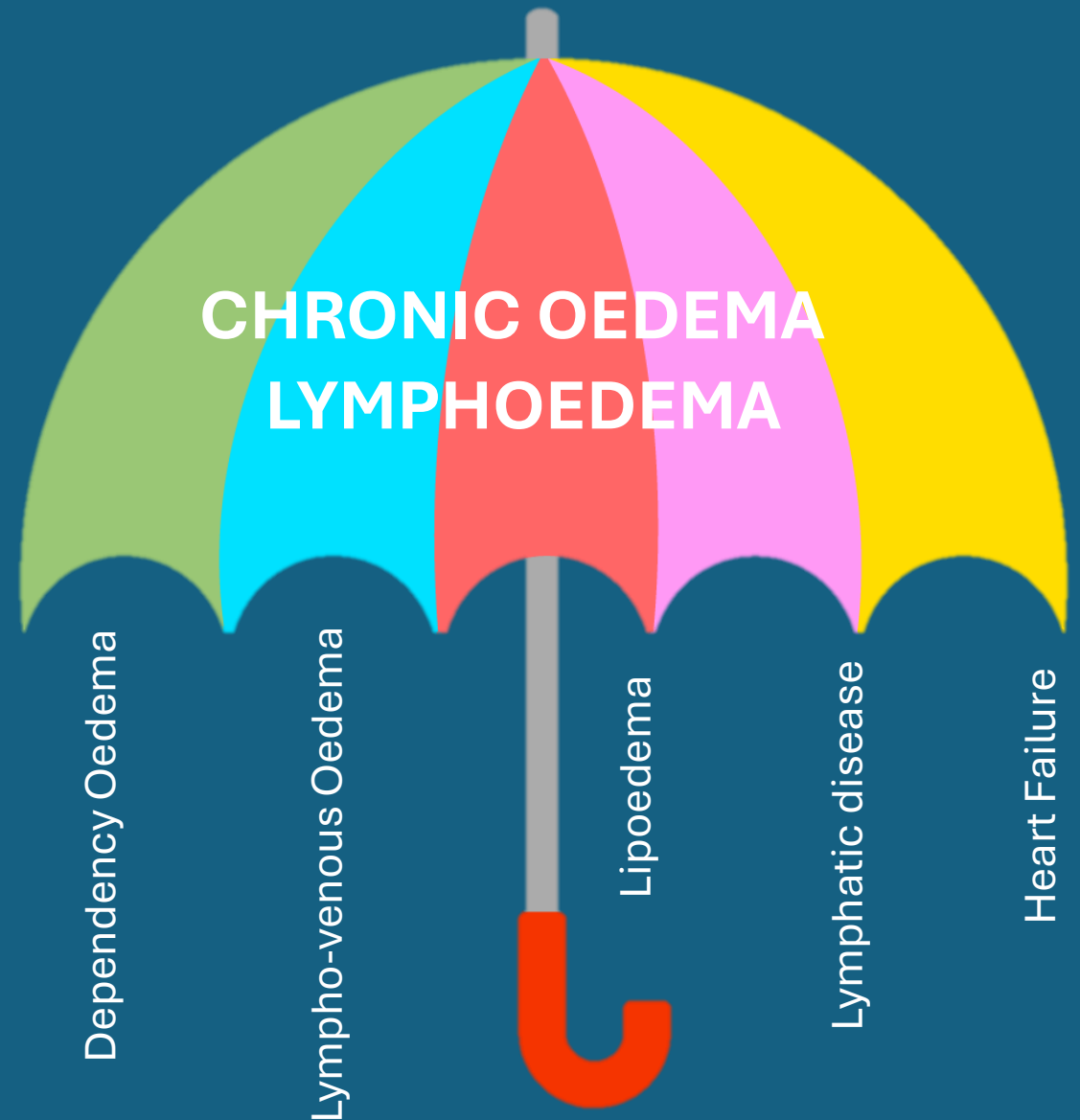
This results in... acute oedema

- Present for < 3 months
- Soft, pliable, pitting
- Temporary swelling
- Reduces with elevation and exercise
- Associated with sprains (inflammatory response leads to increase vessel permeability)
- Can be caused by venous reflux, physical inactivity and long periods of standing
- May become chronic without treatment...



Chronic oedema / Lymphoedema

- Used to describe a group of conditions
- Present for more than 3 months
- Not resolved by elevation or diuretics
- Used interchangeably with the term 'Lymphoedema' - in every case of chronic oedema there will be some impairment of lymphatic drainage.



1. Lymphovenous oedema

- Occurs when there is a combination of lymphatic and venous dysfunction.
- Veins cannot effectively return blood to the heart, leading to increased pressure (venous hypertension) and fluid leakage into surrounding tissues
- Causes include: DVT, severe varicose veins, phlebitis, trauma, CVI, obesity, immobility.



2. Dependency oedema

- Swelling that occurs in the lower parts of the body.
- Arises when gravity causes fluid to pool in these area.
- Fluid naturally accumulates in the lower extremities due to gravitational pull, particularly when standing or sitting for long periods.
- Normally seen in individuals who are immobile or have limited mobility.
- Extended periods of immobility, such as sitting in a wheelchair, can exacerbate fluid accumulation.



3. Lymphatic disease/Lymphoedema

- Chronic swelling of the limbs due to a failure of the lymph drainage system to remove interstitial fluid.
- Primary Lymphoedema – congenital deficiencies (born with a defect to lymphatics)
- Secondary Lymphoedema (as a result of damage to the lymphatics). For example:
 - Radiotherapy
 - Surgery – orthopedic, removal of lymph nodes
 - Extensive burns
 - Tumor blockage
 - Infection – Filariasis, cellulitis, insect bites
 - Inflammatory conditions E.g. rheumatoid arthritis, dermatitis, eczema
 - Skin grafts



Lymphatic filariasis
elephantiasis

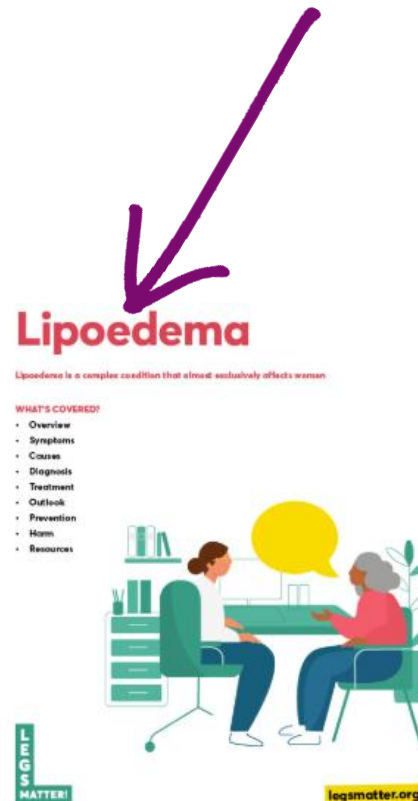


4. Lipoedema

- **Chronic condition** characterised by an **abnormal buildup of fat** primarily in the lower body, particularly in both legs.
- Predominantly affects **women**, develops around **hormonal changes**
- Can cause **pain, tenderness** and **bruising** to skin.
- Unlike regular fat, lipoedema fat is **resistant to diet and exercise**.
- Typical **‘bracelet effect’** with no/minimal oedema in feet and hands
- **Lipo-lymphoedema** may develop due to long term impact on lymphatics
- Often lead to further **complications** if left untreated.

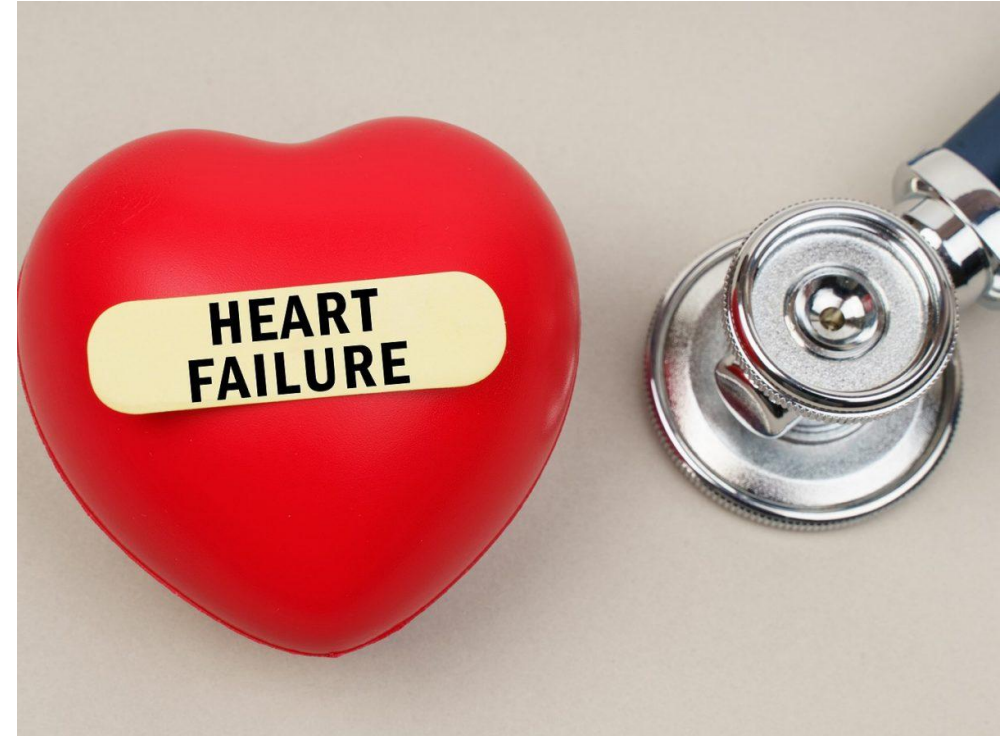


Patient information leaflet on arterial leg ulcers – Legs Matter



5. Heart Failure

- The location and severity of the swelling can be an indicator of how severe the heart failure is.
- Some types of oedema, such as pulmonary oedema, are a medical emergency. This causes fluid to accumulate around the lungs.
- However, the most typical type of oedema people with heart failure experience affects the lower legs and feet.
- The heart muscles cannot pump blood as effectively as they should with heart failure.
- The heart lacks the necessary force to propel the blood through the arteries and back through the veins, leading to increased pressure in the blood vessels.
- This increase pressure forces fluid out of the blood vessels and into the surrounding tissues, resulting in oedema.



All types of chronic oedema can result in...

- Protein-rich oedema causing non-pitting tissue which becomes firm and fibrotic
- Skin changes – some of these are reversible but some are no!
- Increased risk of associated infection.
- Can be managed or maintained but not cured!



What are the statistics?

- A study by Moffat et al (2019) reported a prevalence of 3.93 per 1000.
- However, data from referrals to the National Lymphoedema service in Wales reveals a prevalence of 6 per 1000.
- This data suggests that lymphoedema affects between 200,000 and 420,000 people of all ages in the UK.
- However, Lymphoedema is not recognised and diagnosed by many, therefore these figures may not be an accurate representation of the problem...
- A study by Gaskin (2017) found that the Leicester GP database showed 10% of patients requiring leg care also had oedema.
- But a local DN audit revealed that 59% of patients have oedema!



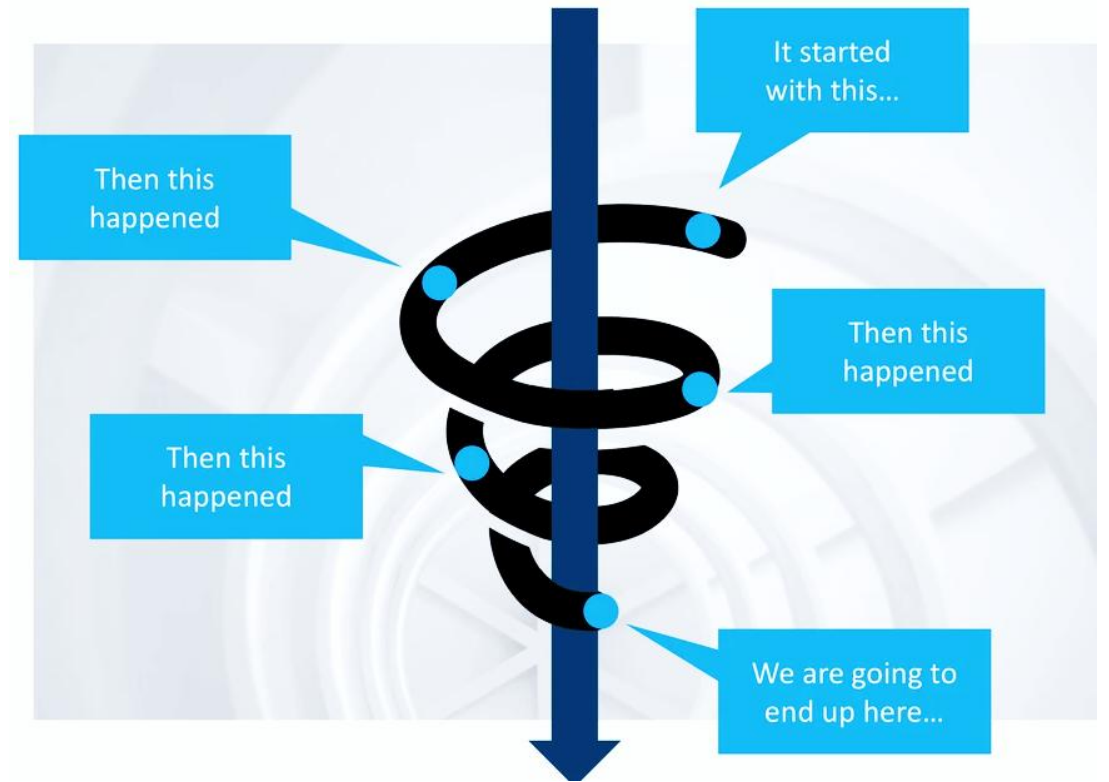
What are the oedema predictions for the future?

People with chronic oedema in Oxfordshire	2014	2030 (estimated using AI)
Under 65	2,026	~2,350
Over 65	1,186	~1,850
Over 85	457	~830
Total	3,699	~6,030

- Growing ageing population with more complex comorbidities – frailty, obesity, CVI-lymphoedema overlap, reduced mobility and cardiac disease
- Overall increase ~63% from 2016
- Even if total numbers look “manageable”, clinical complexity and workload will rise disproportionately
- The evidence is clear! There is going to be a significant increase in the incidence of chronic oedema in the population of Oxfordshire.

Why is this important? The downward spiral...

- If left untreated chronic venous and lymphovenous disease will progress along a continuum of increased swelling and chronic inflammatory skin changes.
- It is essential that early venous and lymphovenous disease is recognised, and appropriate treatment is initiated, to slow and control progression.



Let's step into someone else's shoes for a moment...

Imagine these are your legs.

How do they feel?
How do they look?
How easy is it to move around with them?
How easy is it to clean them?
Are they painful?

Take a minute to imagine how they would impact on:

Your life at home
Your relationships – partner, children
Your job
Your recreational activities
How you feel about yourself?





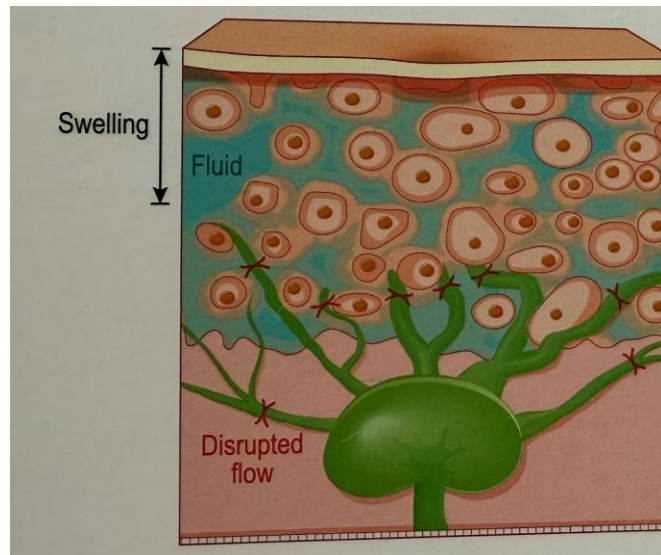
A VOLUNTEER PLEASE!

What can we
recommend for
patients who have
oedema?

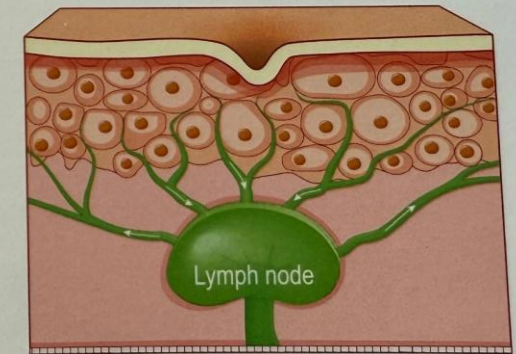


How can compression help?

- Primary treatment method to reduce oedema and improve lymphatic drainage.
- When the lymphatic system is compromised, pressure within the system causes the vessels to dilate and results in backflow of lymph into the tissues.
- The external pressure created when compression is applied, moves fluid from the tissues into the initial lymphatics, increasing lymph transport.
- Where there is lymphatic failure, compression will help to push fluid through the tissues towards the lymphatic system to ensure efficient drainage.



Unhealthy lymphatics



Healthy/compressed lymphatics

Other important things to consider..

'The four pillars of oedema treatment' (BLS, n.d.)



Exercise



Leg elevation



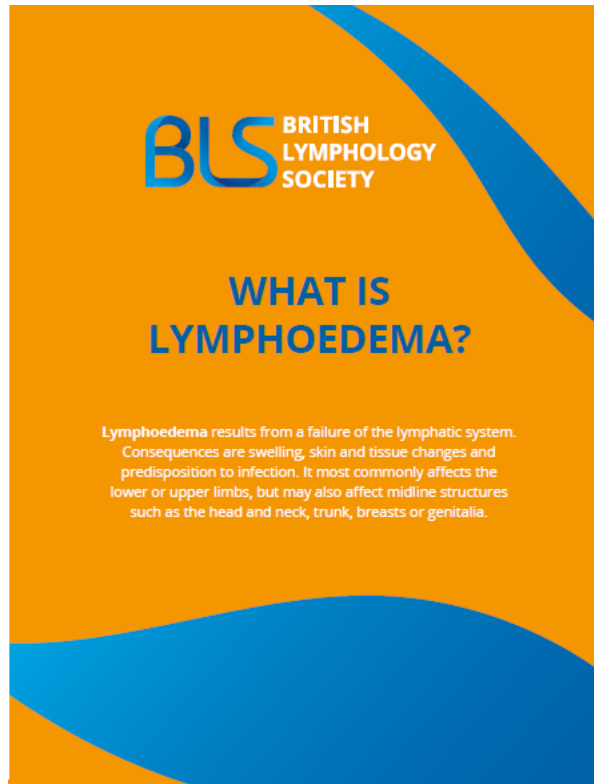
Dietary changes



Skin care



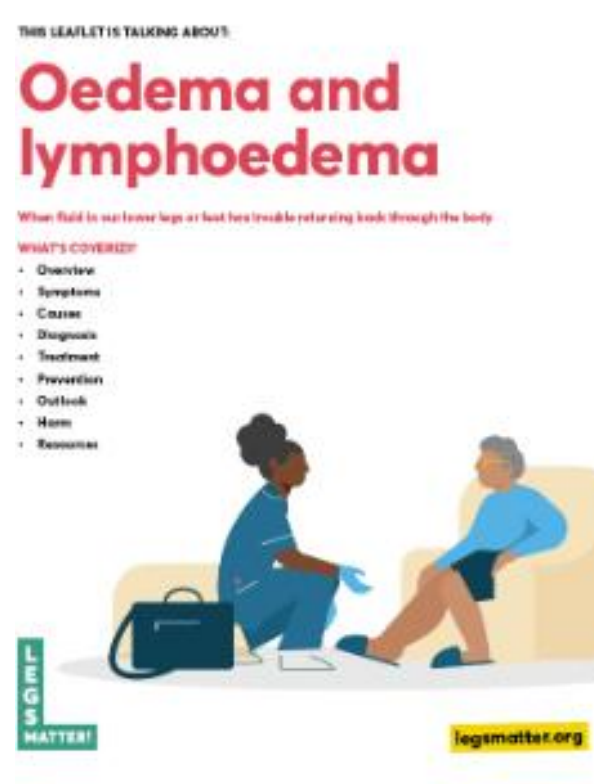
Oedema/ Lymphoedema Patient information



BLS BRITISH LYMPHOLOGY SOCIETY

WHAT IS LYMPHOEDEMA?

Lymphoedema results from a failure of the lymphatic system. Consequences are swelling, skin and tissue changes and predisposition to infection. It most commonly affects the lower or upper limbs, but may also affect midline structures such as the head and neck, trunk, breasts or genitalia.



THIS LEAFLET IS TALKING ABOUT:

Oedema and lymphoedema

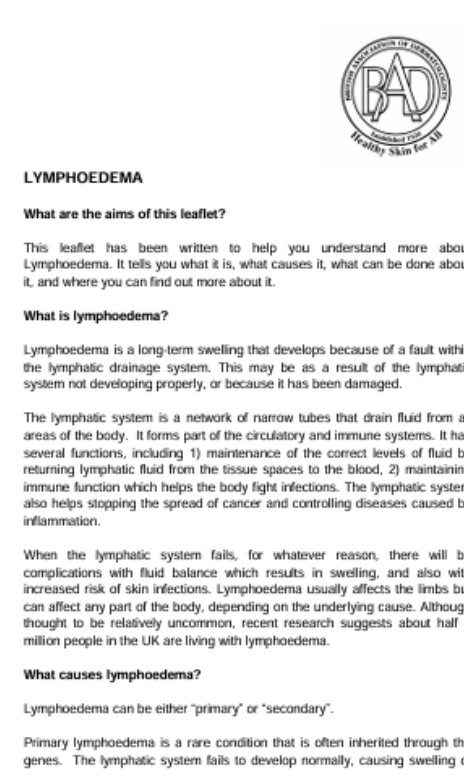
When fluid in our lower legs or feet has trouble returning back through the body

WHAT'S COVERED?

- Overview
- Symptoms
- Causes
- Diagnosis
- Treatment
- Prevention
- Outlook
- Home
- Resources

LEG MATTER!

legsmatter.org



BRITISH ASSOCIATION OF DERMATOLOGISTS
Healthy Skin for All

LYMPHOEDEMA

What are the aims of this leaflet?

This leaflet has been written to help you understand more about Lymphoedema. It tells you what it is, what causes it, what can be done about it, and where you can find out more about it.

What is lymphoedema?

Lymphoedema is a long-term swelling that develops because of a fault within the lymphatic drainage system. This may be as a result of the lymphatic system not developing properly, or because it has been damaged.

The lymphatic system is a network of narrow tubes that drain fluid from all areas of the body. It forms part of the circulatory and immune systems. It has several functions, including 1) maintenance of the correct levels of fluid by returning lymphatic fluid from the tissue spaces to the blood, 2) maintaining immune function which helps the body fight infections. The lymphatic system also helps stopping the spread of cancer and controlling diseases caused by inflammation.

When the lymphatic system fails, for whatever reason, there will be complications with fluid balance which results in swelling, and also with increased risk of skin infections. Lymphoedema usually affects the limbs but can affect any part of the body, depending on the underlying cause. Although thought to be relatively uncommon, recent research suggests about half a million people in the UK are living with lymphoedema.

What causes lymphoedema?

Lymphoedema can be either "primary" or "secondary".

Primary lymphoedema is a rare condition that is often inherited through the genes. The lymphatic system fails to develop normally, causing swelling of



k f X HU

Donate

Professionals ▾ Cellulitis ▾ Childhood Lymphoedema ▾ G

What Is Lymphoedema



BREAK TIME!