

وسهلا



أهلا

يُمنع أخذ السلايدات بدون
إذن المحرر واي اجراء
يخالف ذلك يقع تحت طائلة
المسؤولية القانونية
جميع المعلومات للاستخدام
التعليمي فقط

الأستاذ الدكتور يوسف حسين

كلية الطب - جامعة مؤتة - الأردن

دكتورة من جامعة كولونيا المانيا

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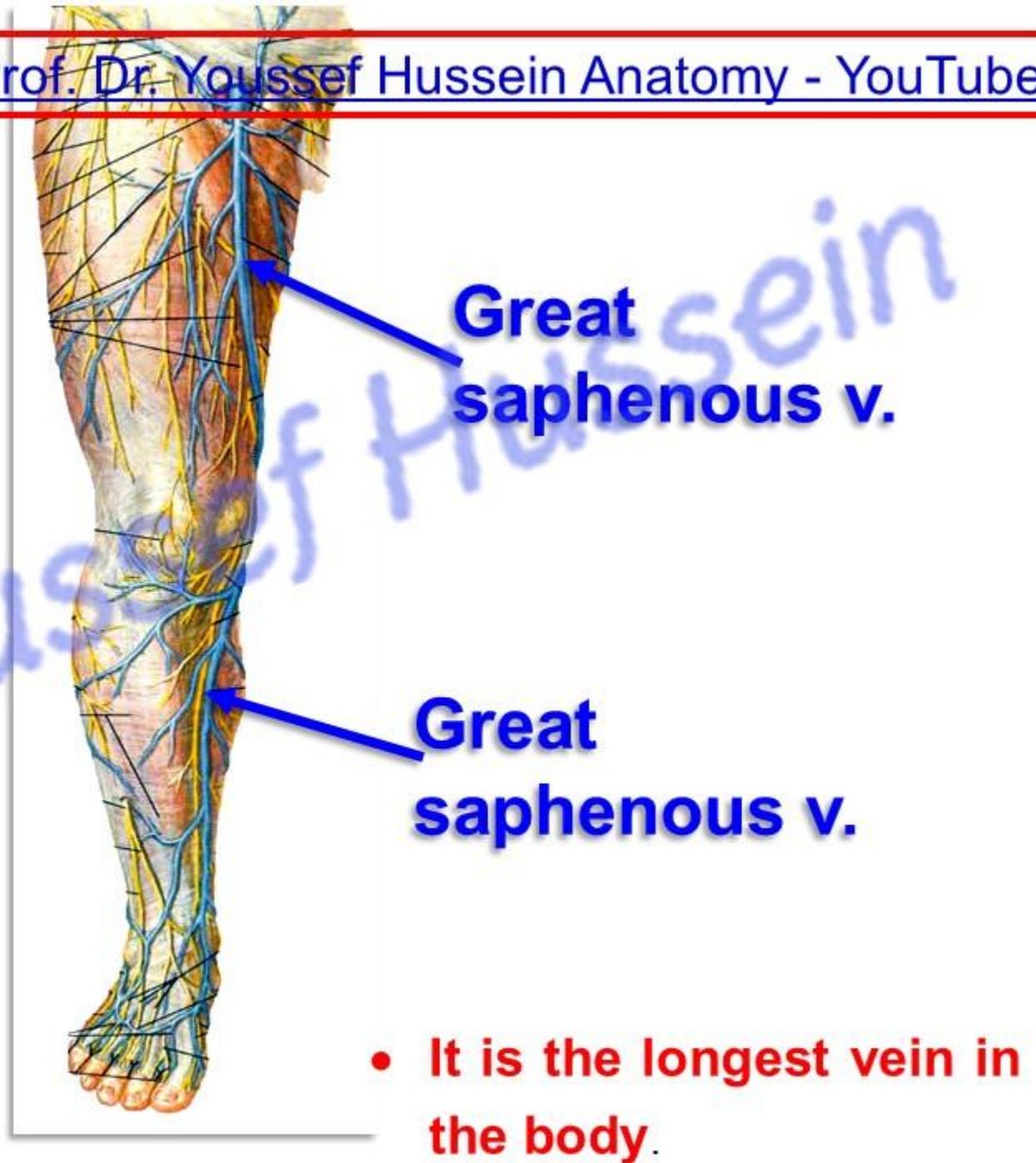
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Great saphenous vein

Great saphenous vein

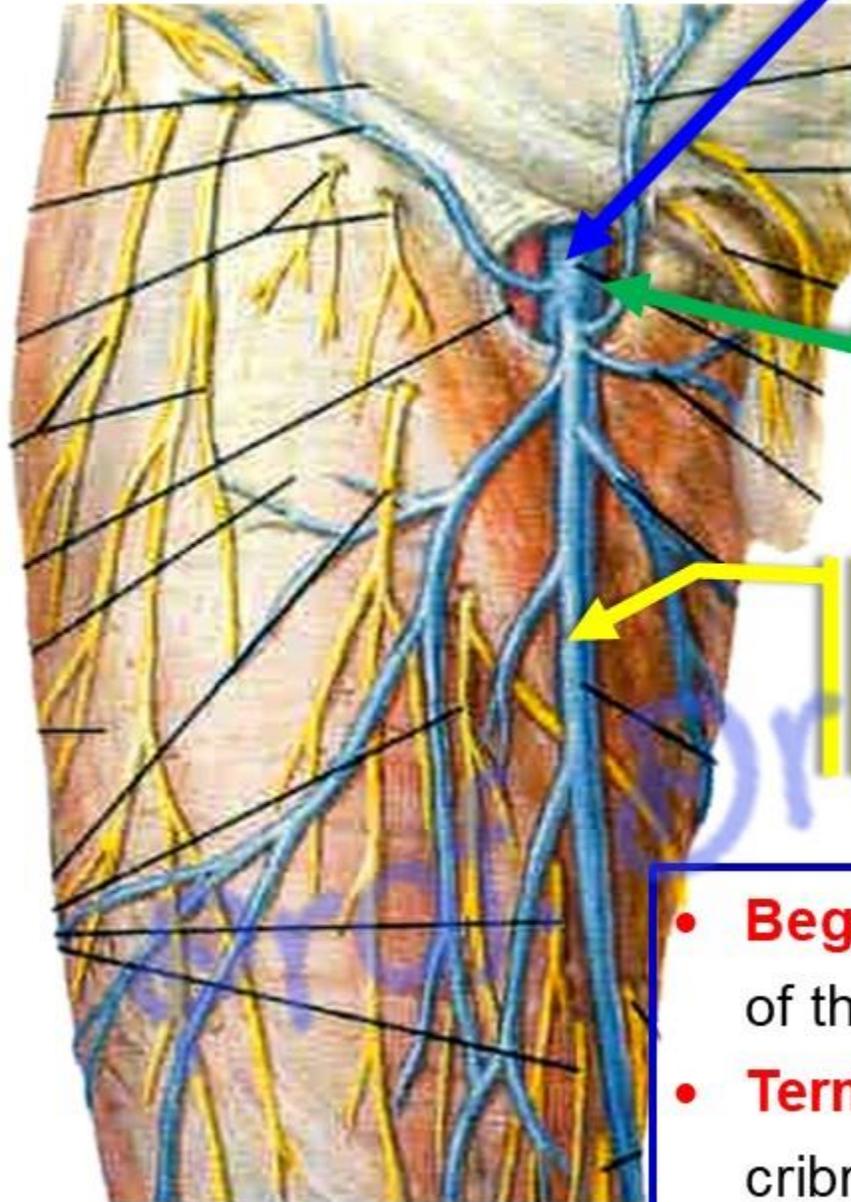
- Beginning.
- Termination.
- Course.
- Surface anatomy.
- Tributaries.
- Sites of perforating veins.
- Normal and abnormal venous return.

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- It is the longest vein in the body.

Termination



Femoral vein

Saphenous opening

Great saphenous vein

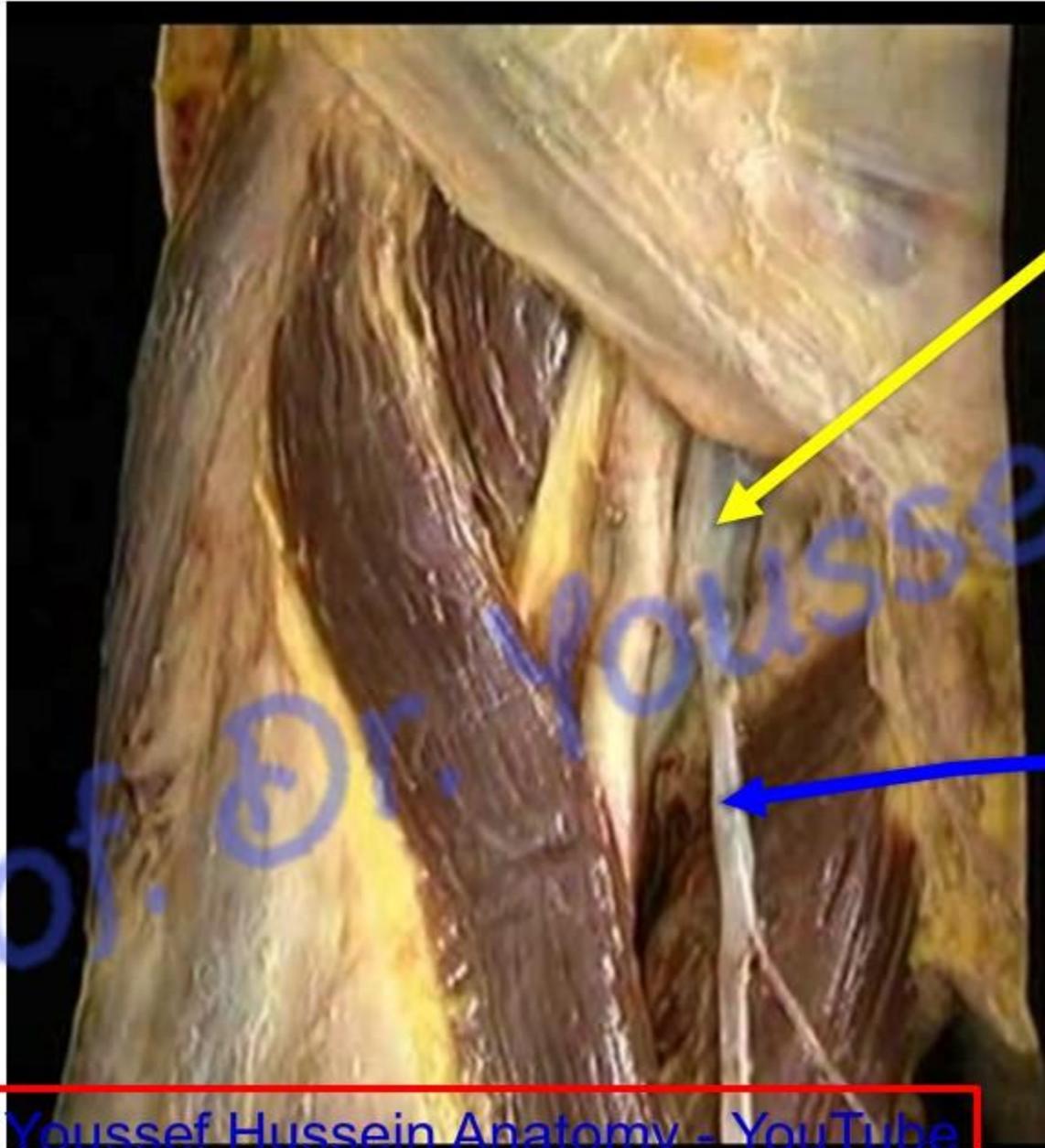
Beginning

Dorsal venous arch



Dorsal digital vein of big toe

- **Beginning**, on the dorsum of the foot by the union of Medial end of the dorsal venous arch and Dorsal digital vein of the big toe.
- **Termination**, it hooks the saphenous opening, piercing the cribriform fascia to end in the femoral vein.



Femoral vein

Great saphenous vein in the femoral triangle

Patella

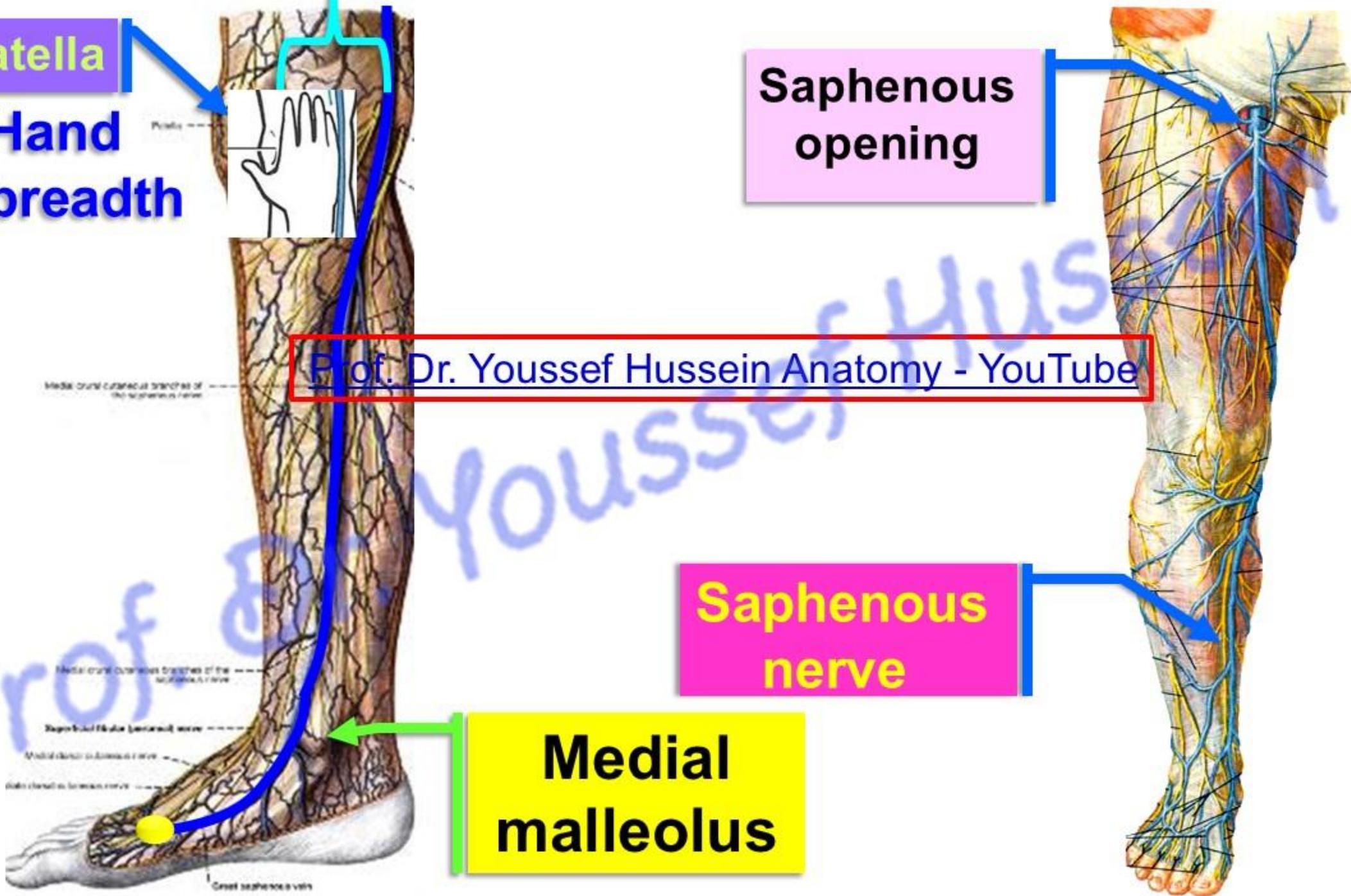
**Hand
breadth**

**Saphenous
opening**

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**Saphenous
nerve**

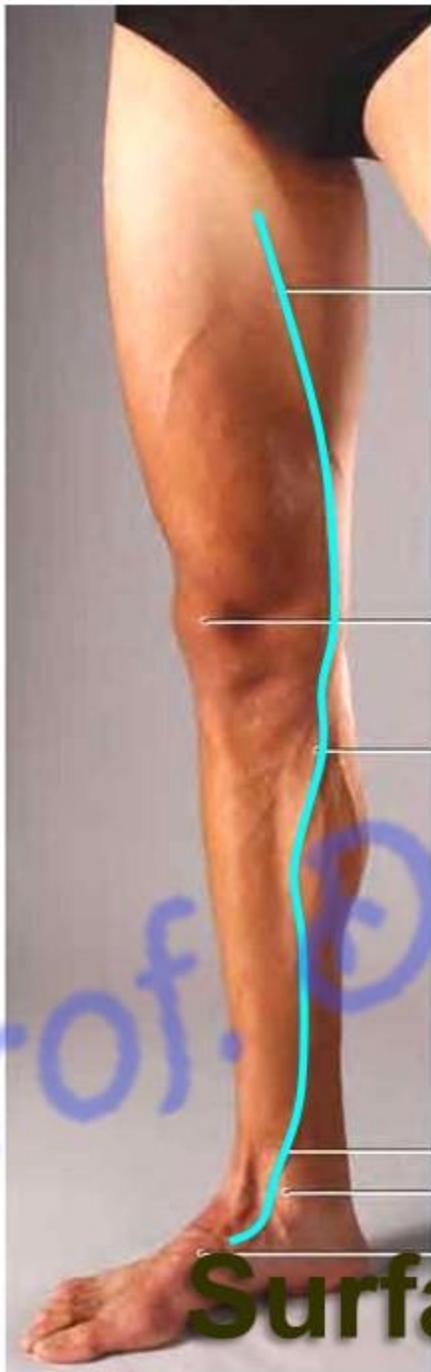
**Medial
malleolus**



Great saphenous vein

- **Course,**

- It passes posteriorly on the medial border of the dorsum of the foot.
- The vein ascends to the leg **infront of the medial malleolus.**
- It continues up on the medial side of the leg.
- **Hand's breadth behind the medial border of the patella.**
- Along its course on the dorsum of foot, infront the medial malleolus and medial side of the leg, it is accompanied by **saphenous nerve.**
- It ascends to the thigh, it deviates laterally to reach the saphenous opening (About 1.5 inches below and lateral to the pubic tubercle).
- **It hooks the saphenous opening and piercing the cribriform fascia to end in the femoral vein**



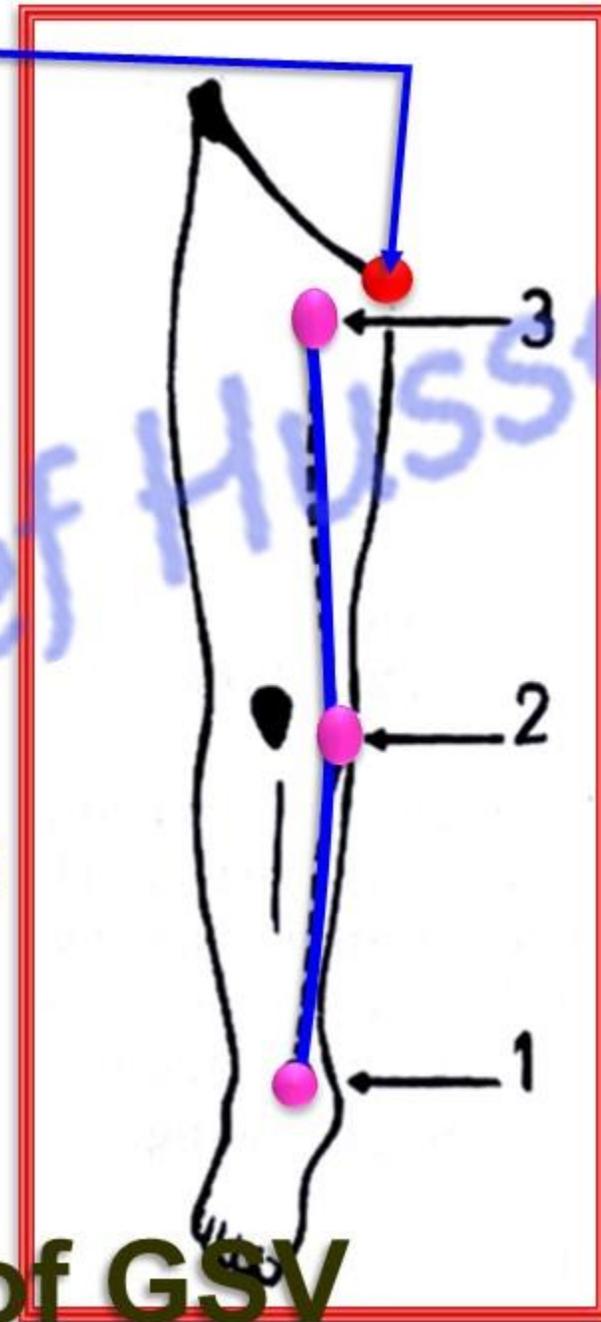
Pubic tubercle

**3-4 cm below
and lateral to
pubic tubercle**

**Hand breadth
behind medial
border of patella**

**In front of medial
malleolus**

Surface anatomy of GSV



Tributaries of great saphenous vein

Superficial **circumflex**
iliac vein

Superficial
epigastric vein

Superficial vein
from front of the
thigh

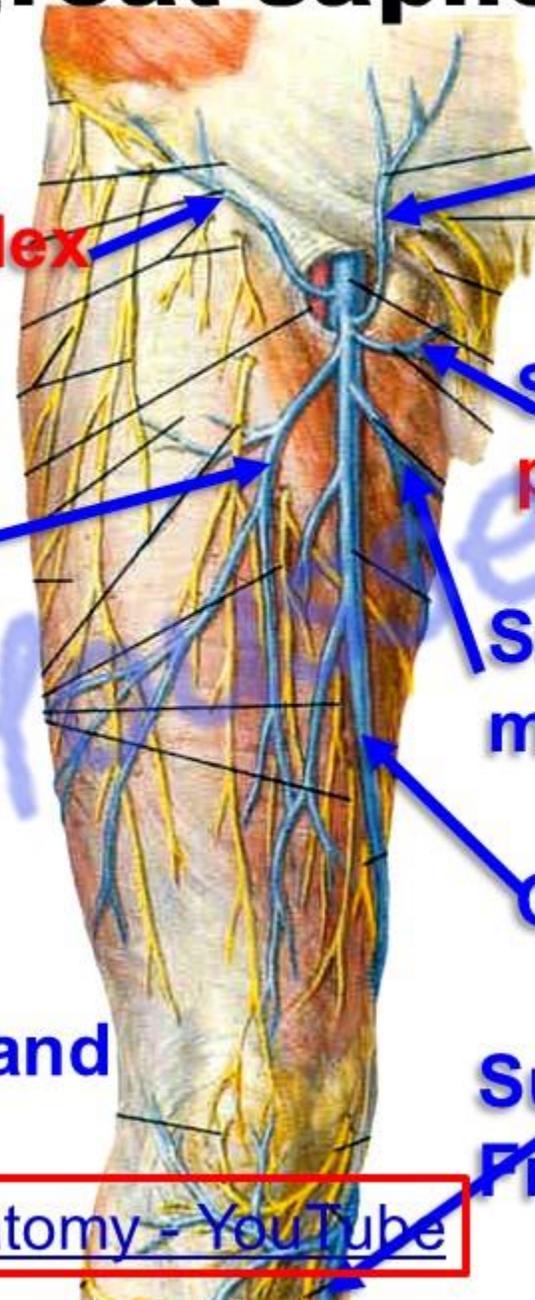
Superficial **External**
pubudal vein

Superficial vein from
medial of the thigh

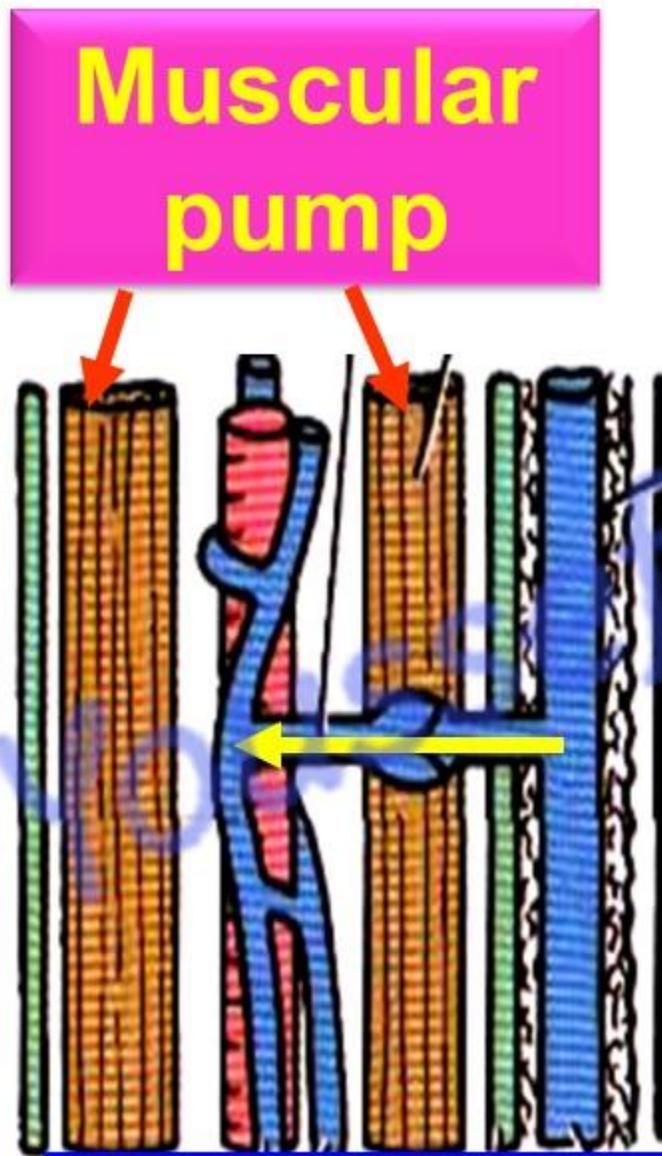
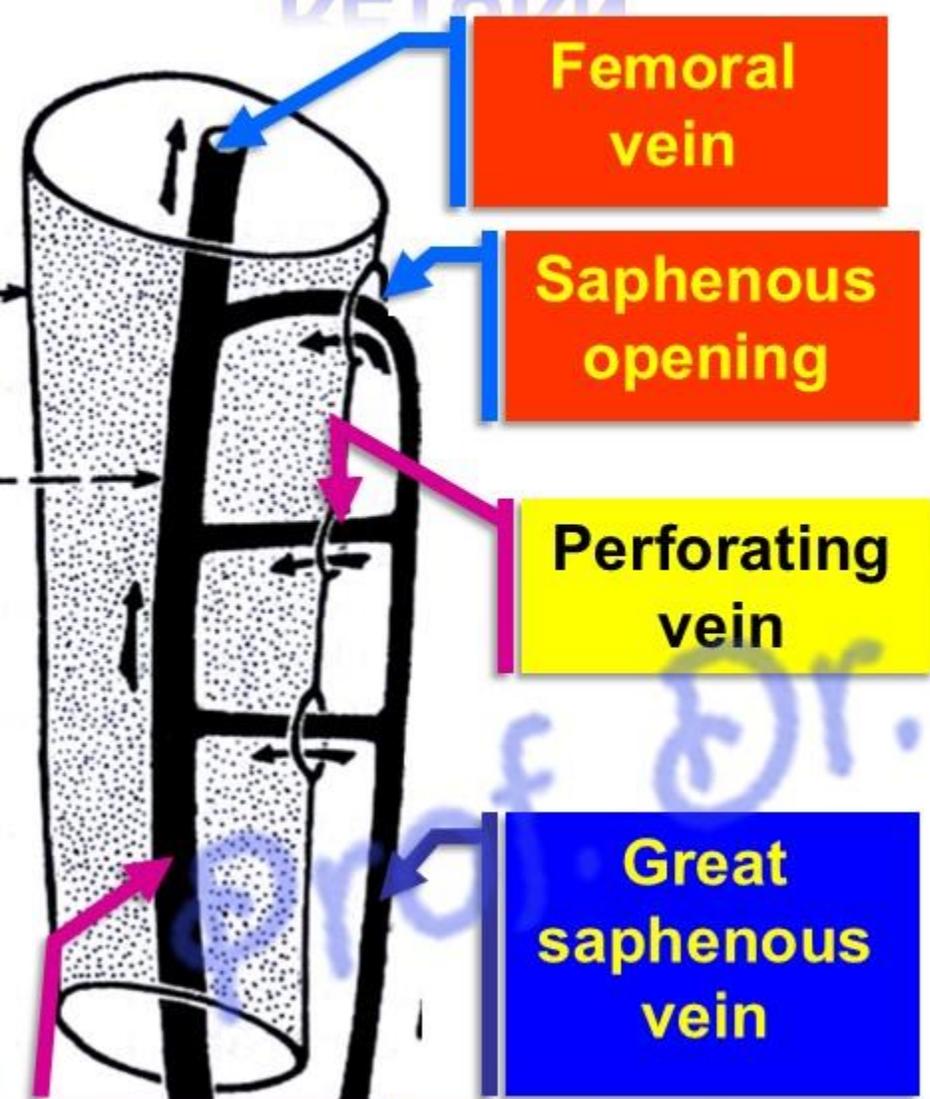
Great **saphenous** v.

Superficial vein from front and
medial of the foot

Superficial vein from
Front and medial of the leg



NORMAL VENOUS RETURN



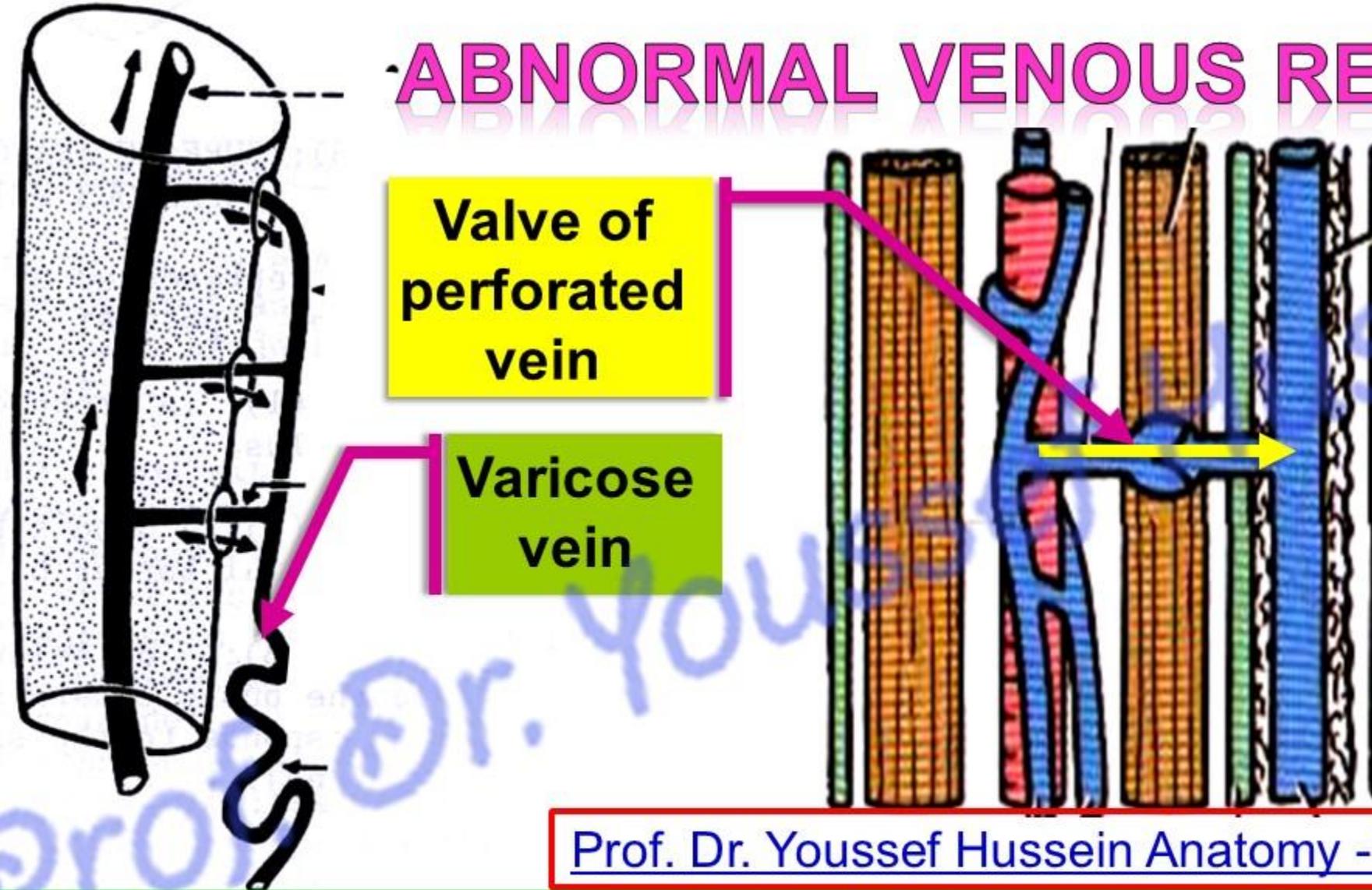
The normal venous return of great saphenous vein to A- Deep vein through perforating veins B- The femoral vein

- Great saphenous vein contains **many valves** along its course, the most important valve at its termination
- **The valves** allow passage of the blood from greater saphenous vein to the deep vein and femoral vein.

- Contraction of muscles leads to pump blood upward and pump blood from superficial veins to deep vein

Deep vein

ABNORMAL VENOUS RETURN



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- **Damage** of these valves (**Valves incompetent**) leads to regurgitation of blood to great saphenous vein resulting **varicose veins** (**the great saphenous vein become dilated, tortuous and engorged with blood**).

STAGES OF VARICOSE VEINS



1. Reticular veins or spider veins

2. Varicose veins or venous nodes

3. Edema of the lower legs

4. Varicose eczema or trophic ulcer

Risk factors

- The two main risk factors for varicose veins are:
 - 1. Family history.** If other family members have varicose veins, there's a greater chance you will too.
 - 2. Obesity.** Being overweight puts added pressure on veins.
- 3. Other things that might increase the risk of varicose veins include:
 - A. Age.** Aging causes wear and tear on the valves in the veins that help control blood flow. Over time, that wear causes the valves to allow some blood to flow back into the veins, where it collects.
 - B. Sex.** Women are more likely to get the condition. Hormones tend to relax vein walls. So changes in hormones before a menstrual period or during pregnancy or menopause might be a factor. Hormone treatments, such as birth control pills, might increase the risk of varicose veins.
 - C. Pregnancy.** During pregnancy, the blood volume in the body increases. This change supports the growing baby but also can make the veins in the legs bigger.
 - D. Standing or sitting for long periods of time.** Movement helps blood flow.

Complications

1. **Ulcers.** Painful ulcers can form on the skin near varicose veins, mostly near the ankles. A discolored spot on the skin often begins before an ulcer forms.
2. **Blood clots.** veins deep within the legs get larger.
3. **Bleeding.** This mostly causes only minor bleeding.
4. **Leg swelling.** Longtime varicose veins can cause the legs to swell.

Prevention

1. Don't wear high heels or tight stockings.
2. **Change how you sit or stand often.**
3. Eat a high-fiber, low-salt diet.
4. **Exercise.**
5. Raise your legs when sitting or lying down.
6. **Keep a healthy weight.**

Treatment:

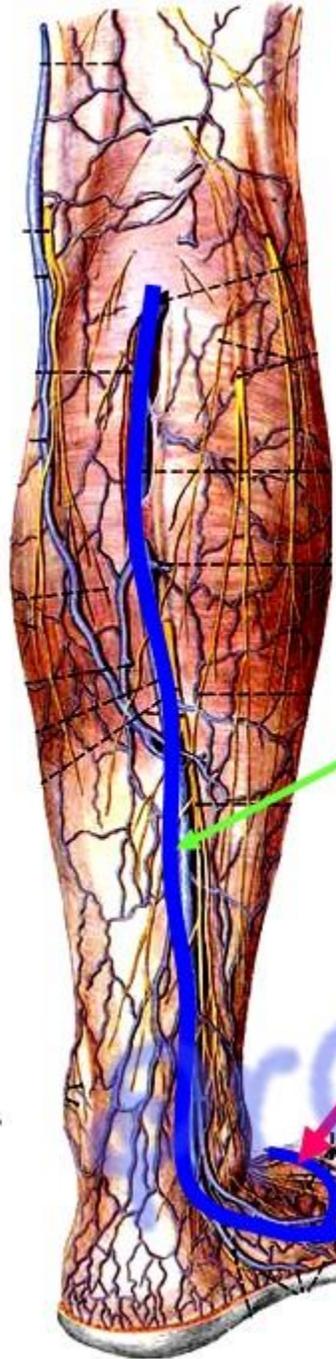
- Self-care measures, Compression stockings, and Surgery

• Clinical notes of great saphenous vein

- It is commonly used for **coronary artery bypass** surgery, and the vein should be reversed so its valves do not obstruct blood flow in the **graft**.
- **Saphenous vein Cutdown:** **vein** is not visible in infants, obese people, patients in shock whose veins are collapsed, the great saphenous vein can always be located by making a skin incision anterior to the medial malleolus. This procedure is used to insert a cannula for prolonged administration of blood, plasma, electrolytes, or drugs.
- **Saphenous Nerve Injury:** The saphenous nerve accompanies the great saphenous vein anterior to the medial malleolus, So nerve may be cut during a saphenous vein cutdown, the patient may complain of pain or numbness along the medial side of the foot.
- **The soleus muscle** contains a **rich venous plexus** which drains the superficial veins and pumps it to the deep veins against gravity (**peripheral heart**). **Venous stasis (stagnation)** is an important cause of **thrombus formation** especially with old age, bed rest for long time, sitting for long time, bone fracture or **Venous inflammation (Thrombophlebitis)**



Small saphenous vein



**Small
saphenous vein**

**Dorsal
venous arch**

**Lat. Dorsal
digital vein
of little toe**

**Small
saphenous vein**

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• **Small Saphenous Vein**

**** Origin:** on the dorsum of the foot by the union of the lateral end of the dorsal venous arch with the lateral dorsal digital vein of the little toe.

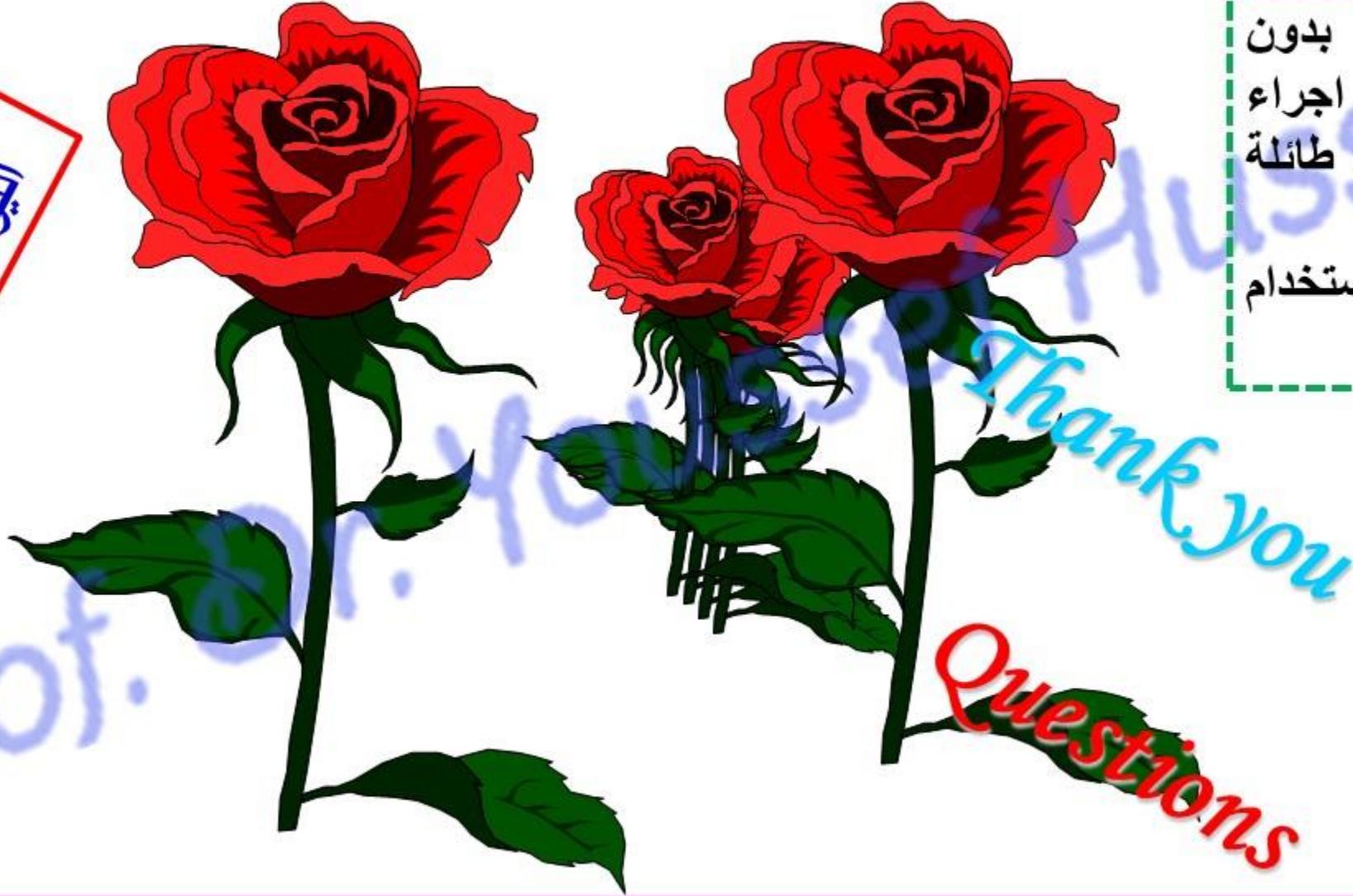
**** Course and relations:**

- It passes backwards along the lateral border of the dorsum of the foot.
- Then, it curves up passing **behind the lateral malleolus** and ascends on the back of the leg.
- About the middle of the popliteal fossa, it pierces the popliteal fascia to **end in the popliteal vein.**
- Along its course it is closely accompanied by the **sural nerve.**

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اليوتيوب د. يوسف حسين



Thank You
Questions

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