

PRINCIPLES OF WOUND REPAIR SURGERY

FLAPS OF THE LEG (& LOWER EXTREMITY)

DESIGN & EXECUTION

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arimedica.com

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Muscle Flaps

Gastrocnemius

Soleus

Deep compartment

Anterior & lateral compartments

Fibula

Fascial & Neural Flaps

Saphenous

Popliteal

Sural

Random & Small Vessel Flaps

Random flaps

Geniculars

Perforators

Special Topics

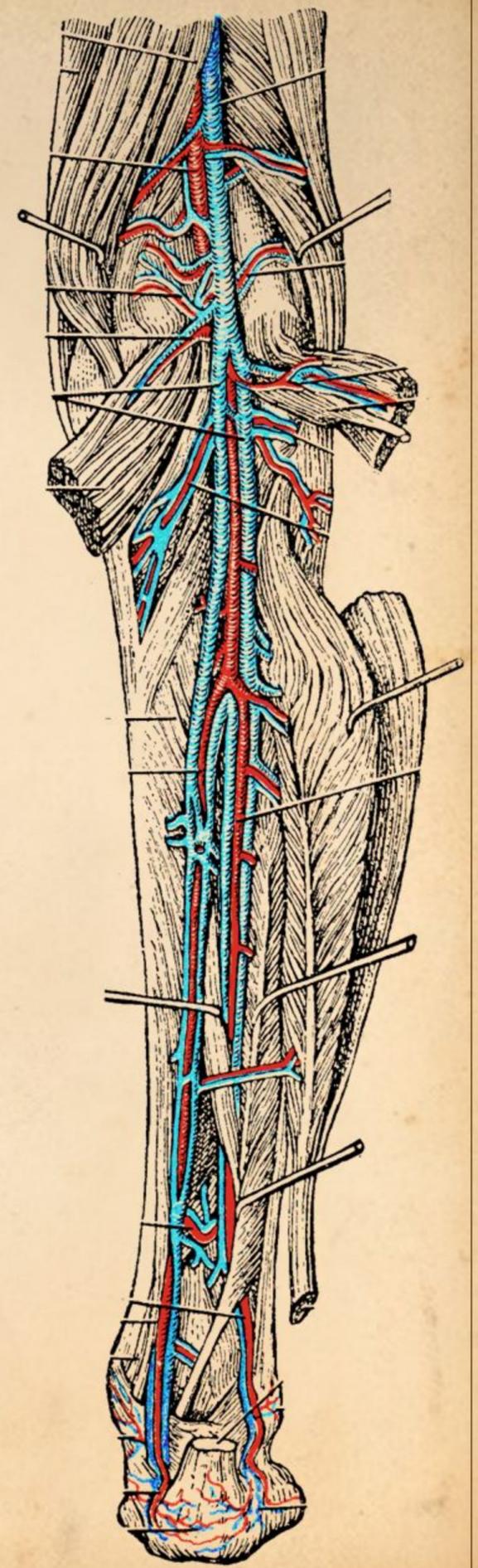
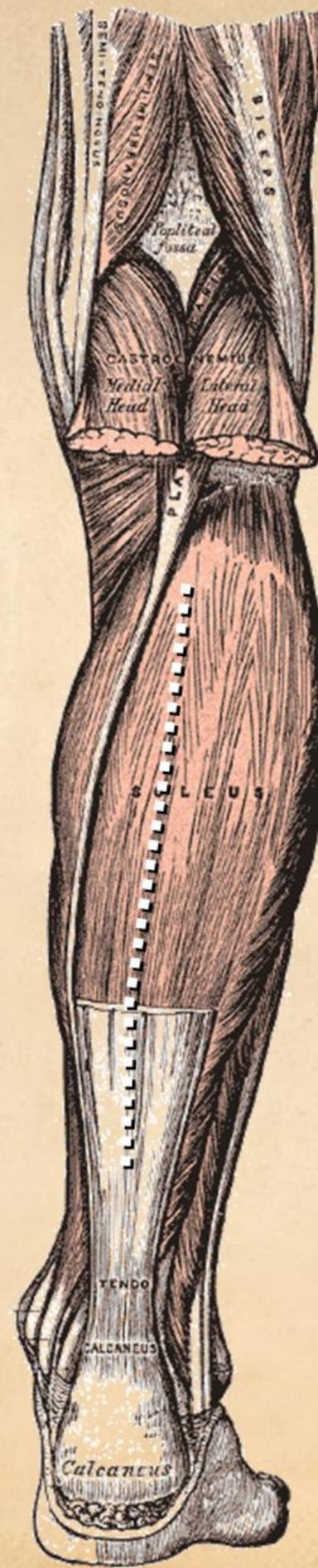
Composite pedicles and territories

Popliteal-gastrocnemius-soleus

Reverse design & distal based

Veins

BKA - anterior & posterior compartments



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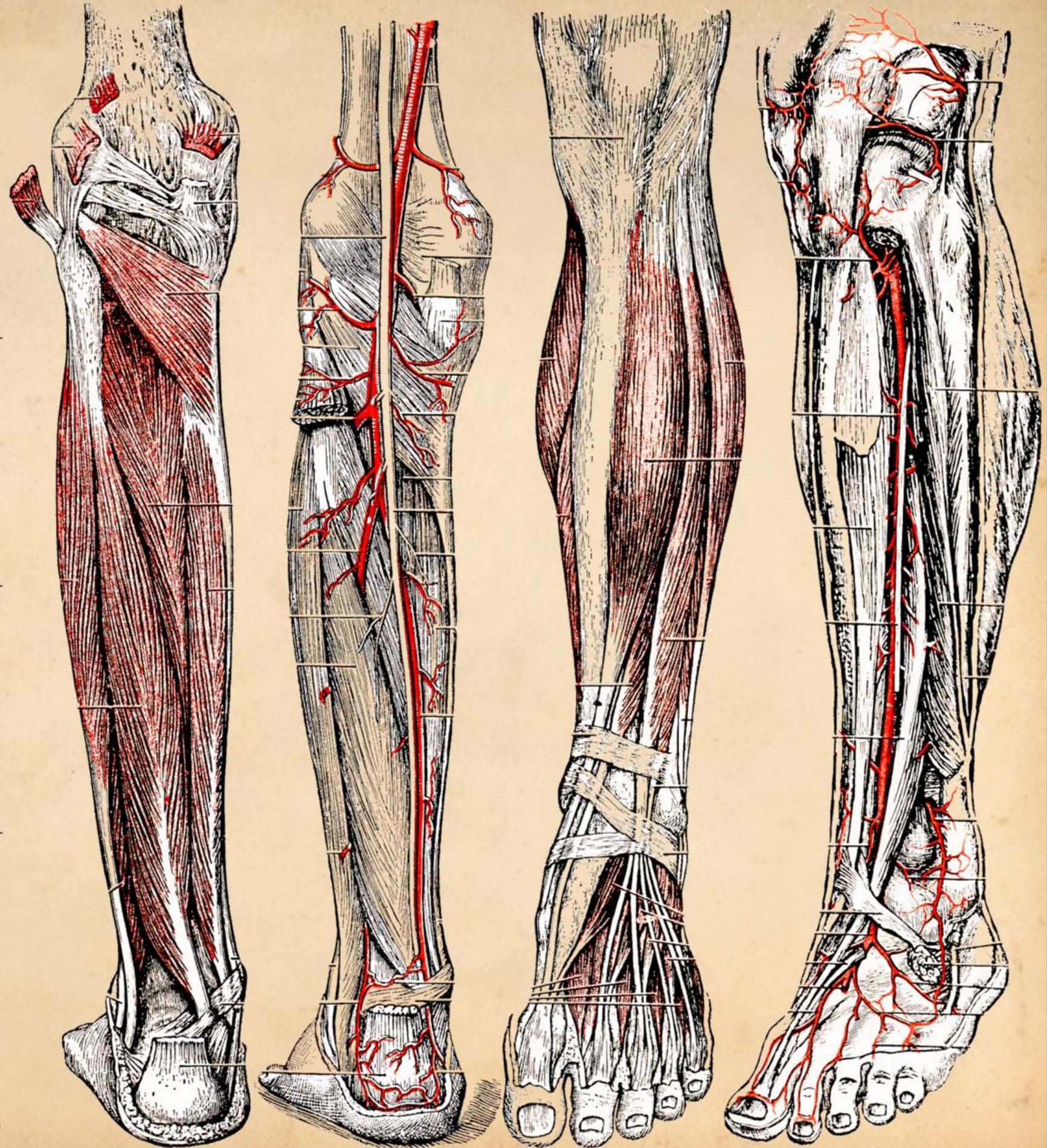
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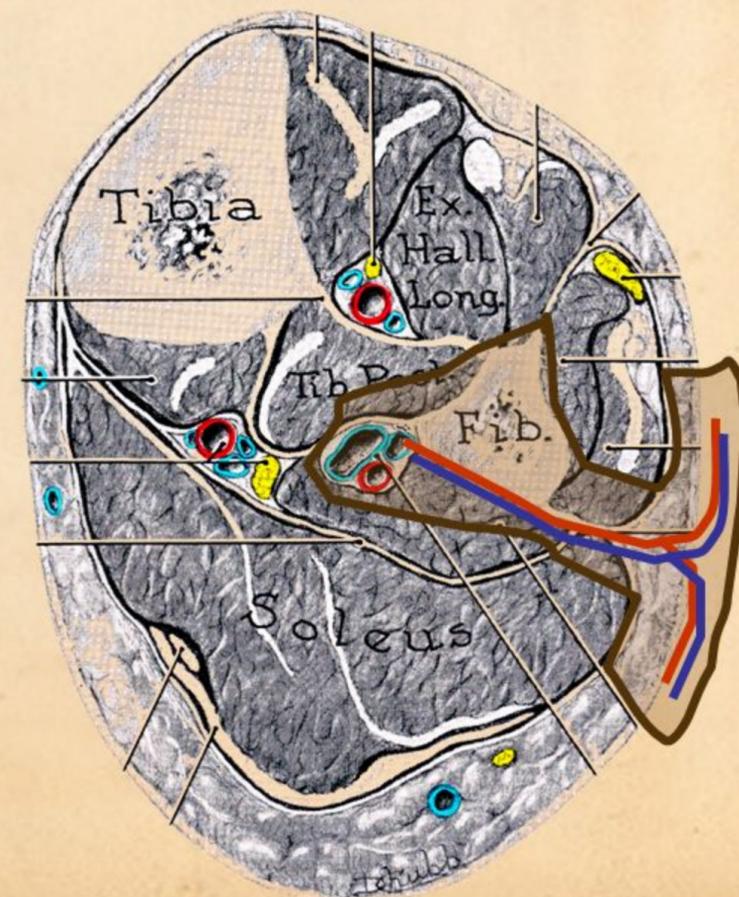
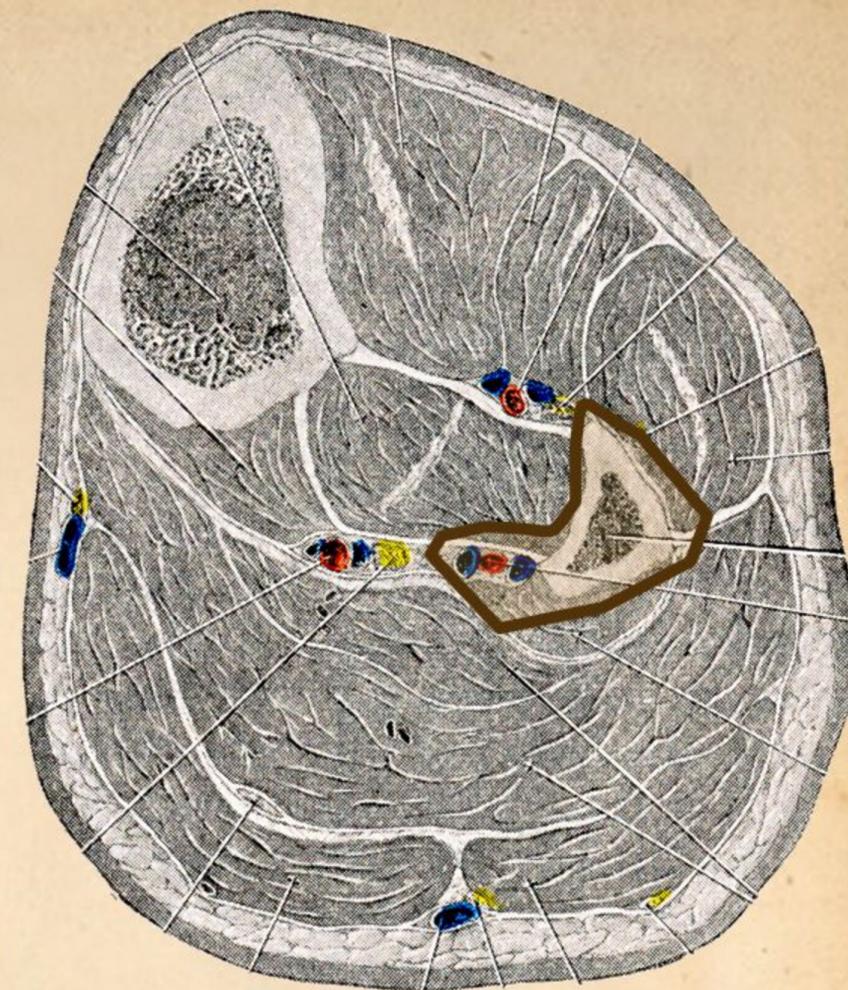
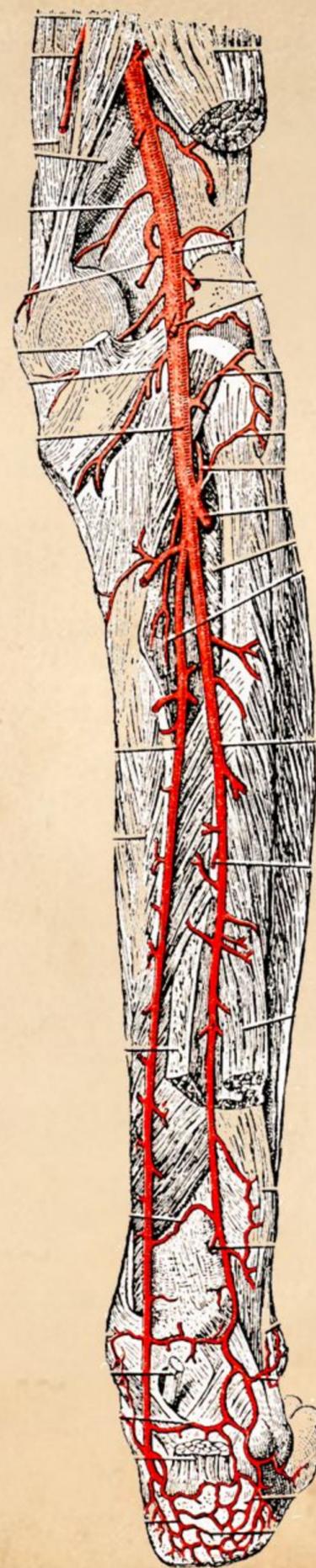
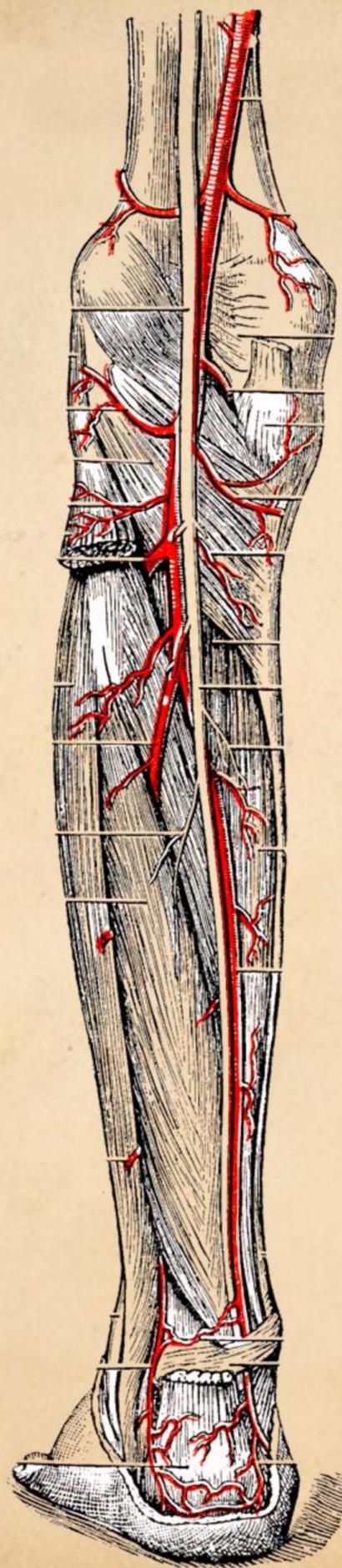
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General Design

Muscle only

Muscle and skin (pedicle)

Muscle and skin (island)

Composite multiple muscle, fascia, skin

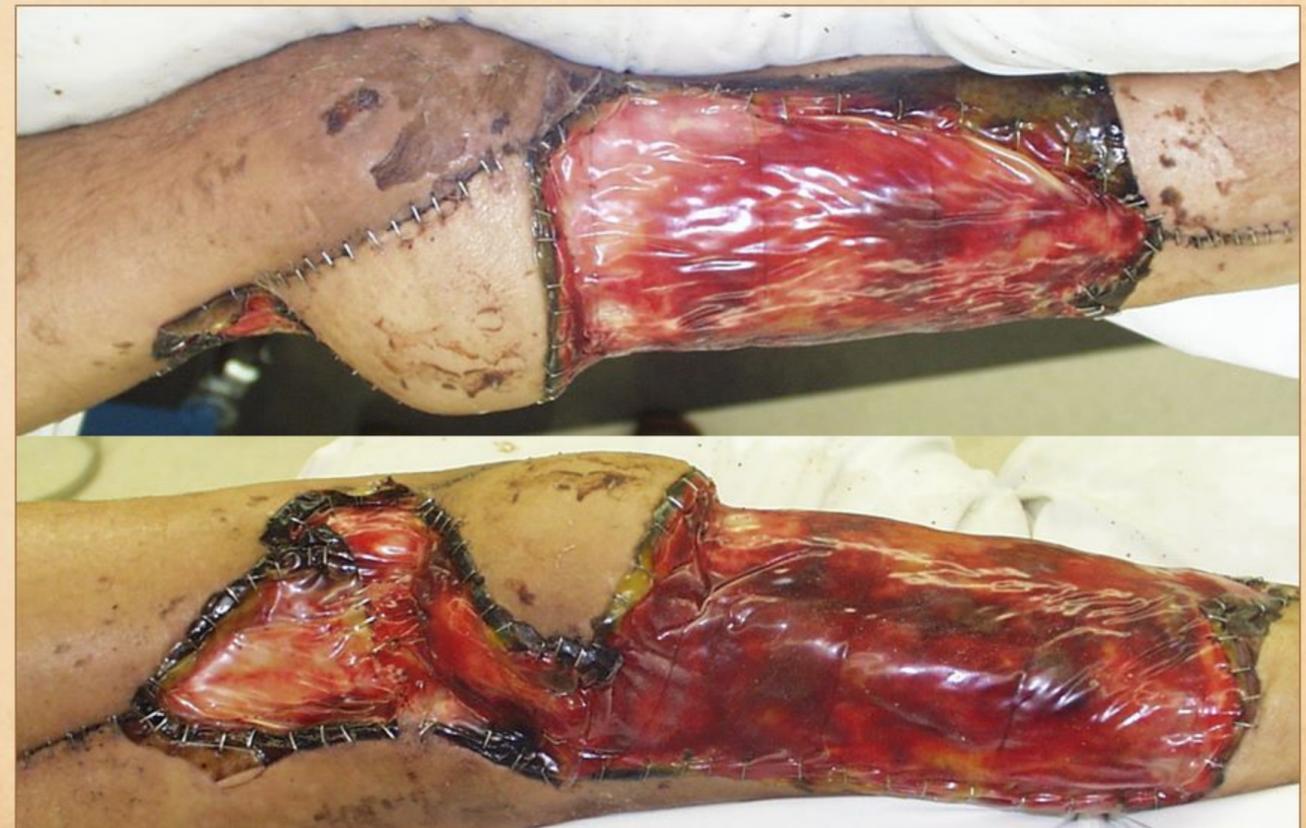
The Pedicle

Vessels only island

Preserve muscle origins

Preserve mid-popliteal fascias

Preserve skin pedicle



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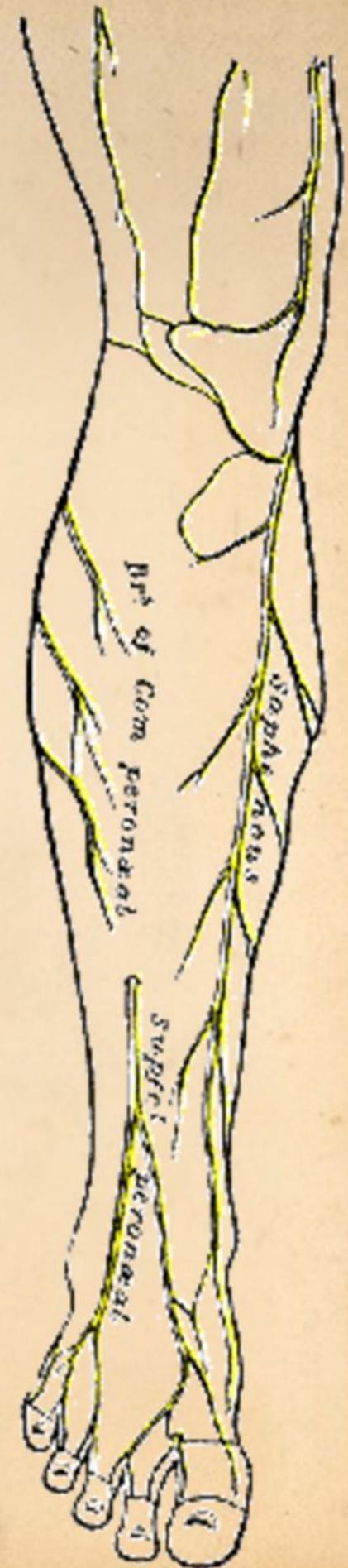
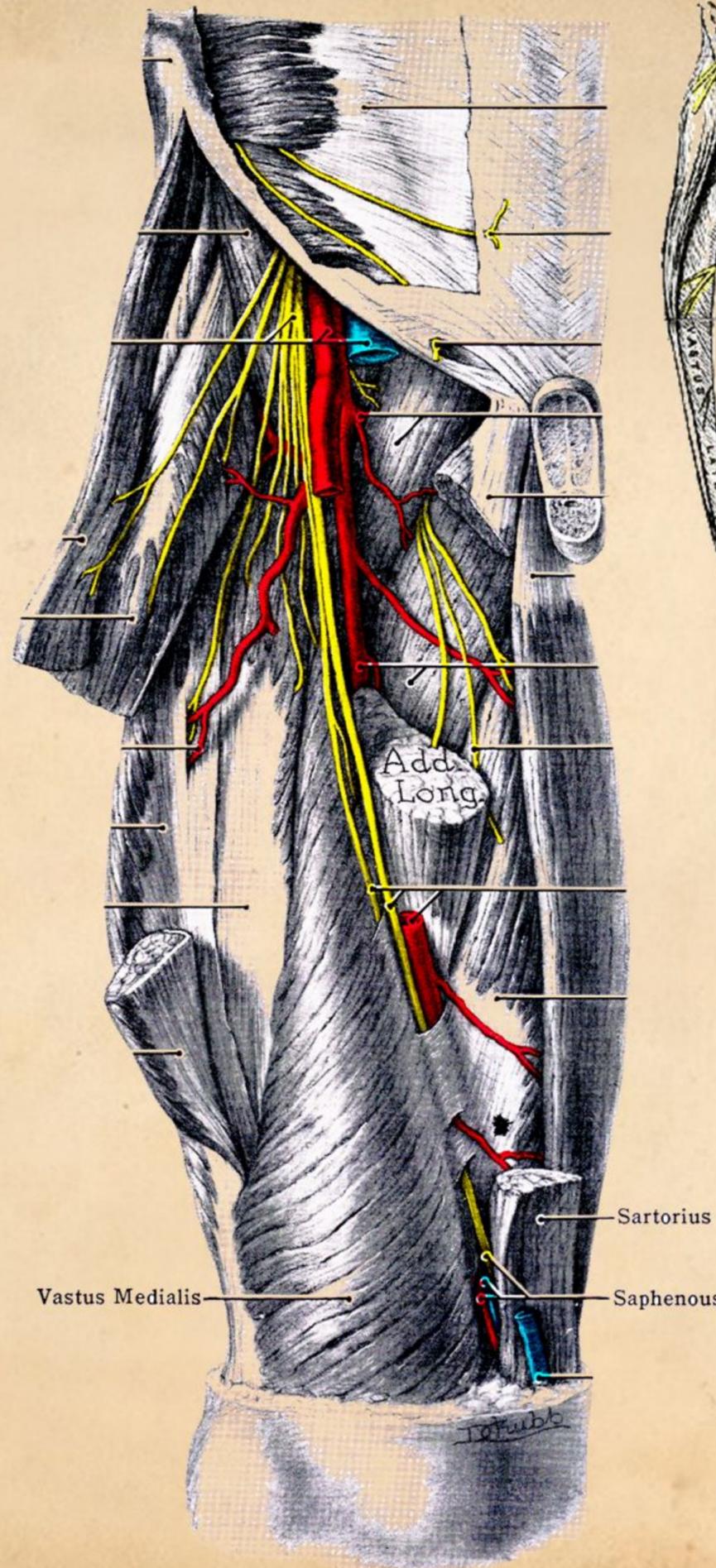
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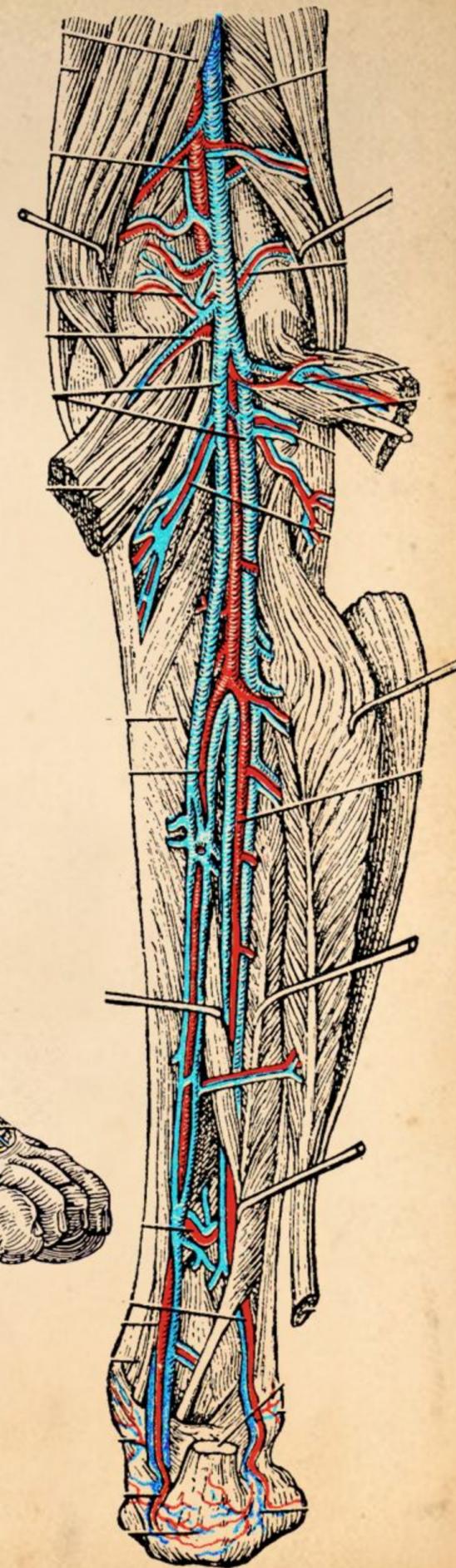
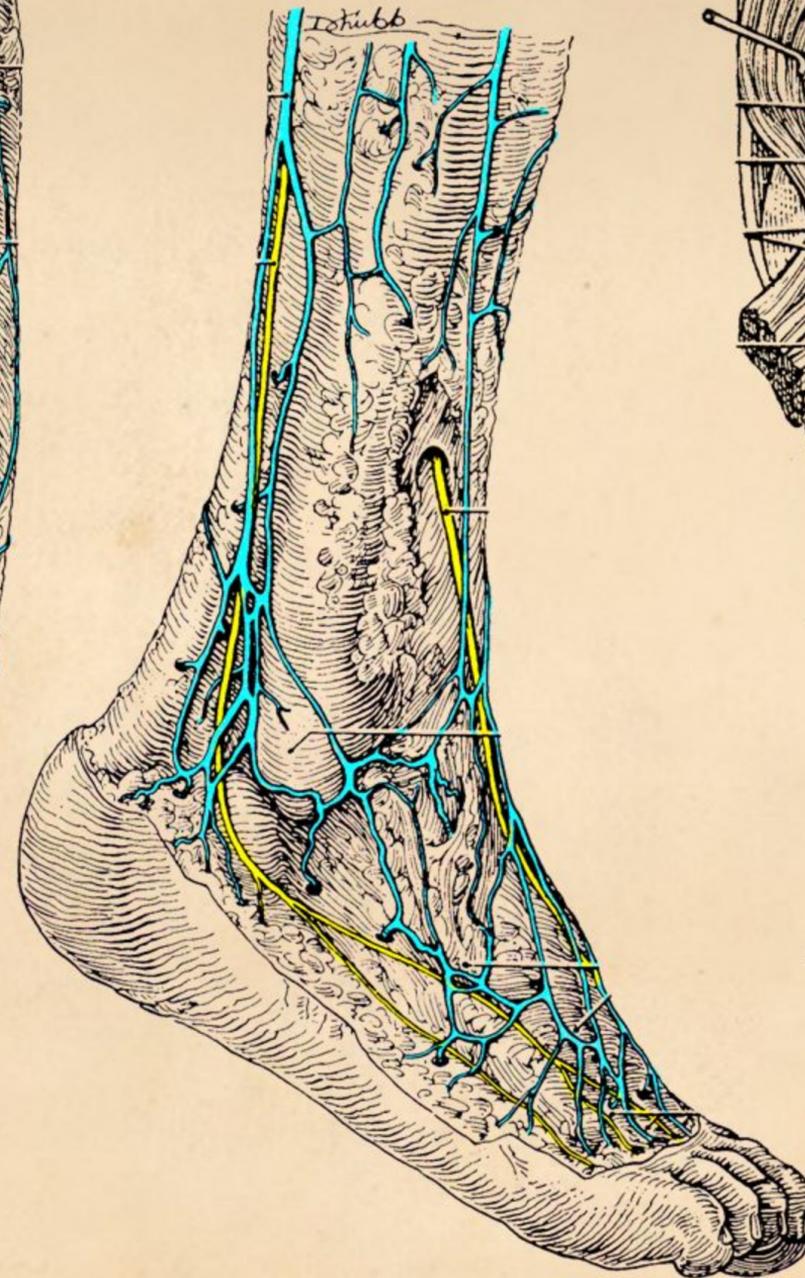
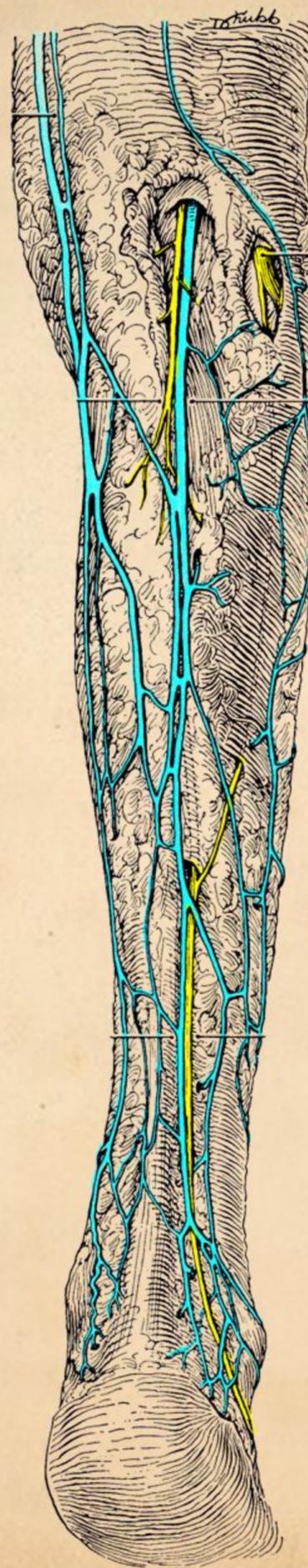
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General Design

- Fascia only
- Skin and fascia (pedicle)
- Skin and fascia (island)

The Pedicle

- Vessels only island
- Skin leash

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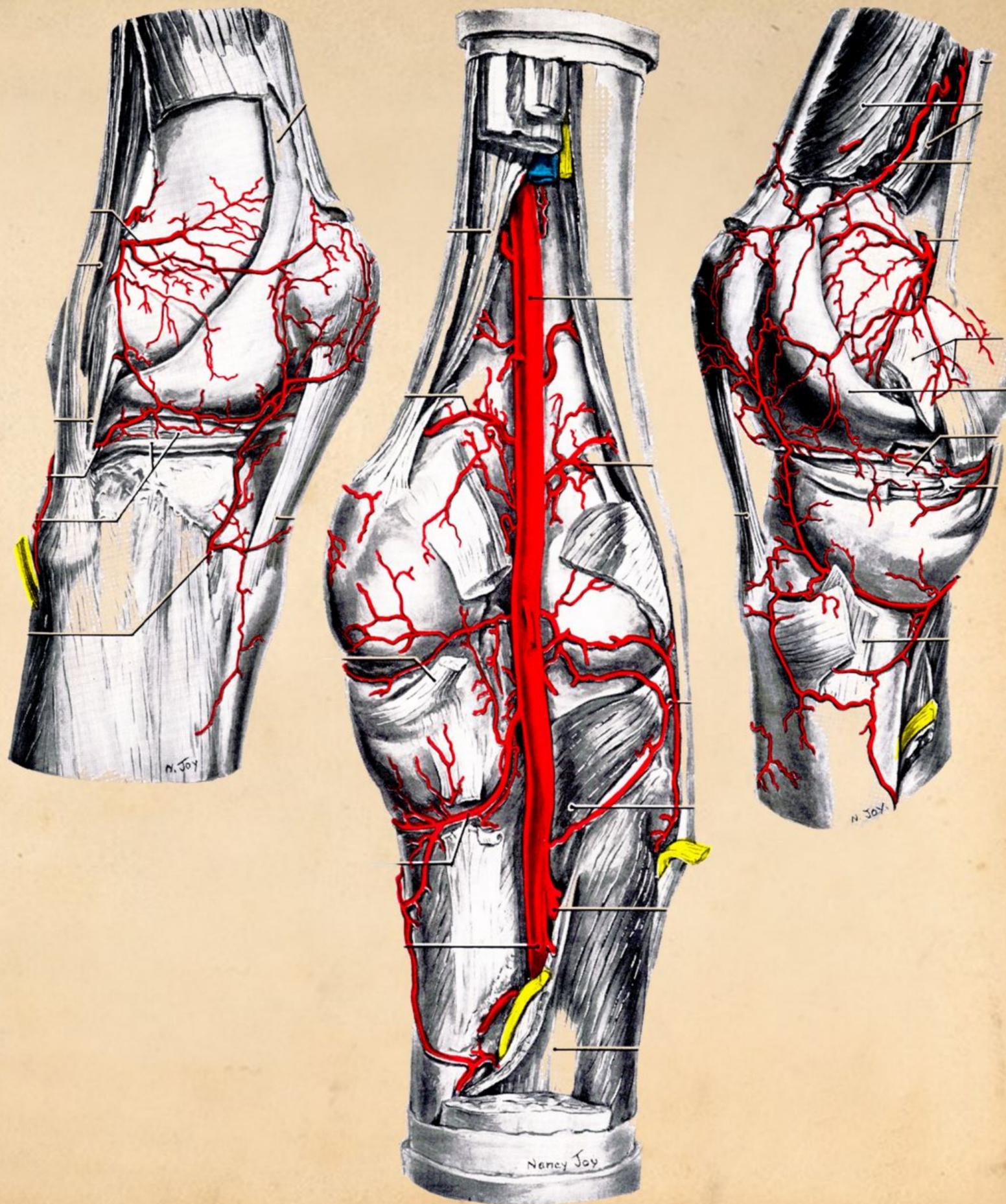
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General Design

Mechanics & geometry

Blood supply

Skin, fascia, composites

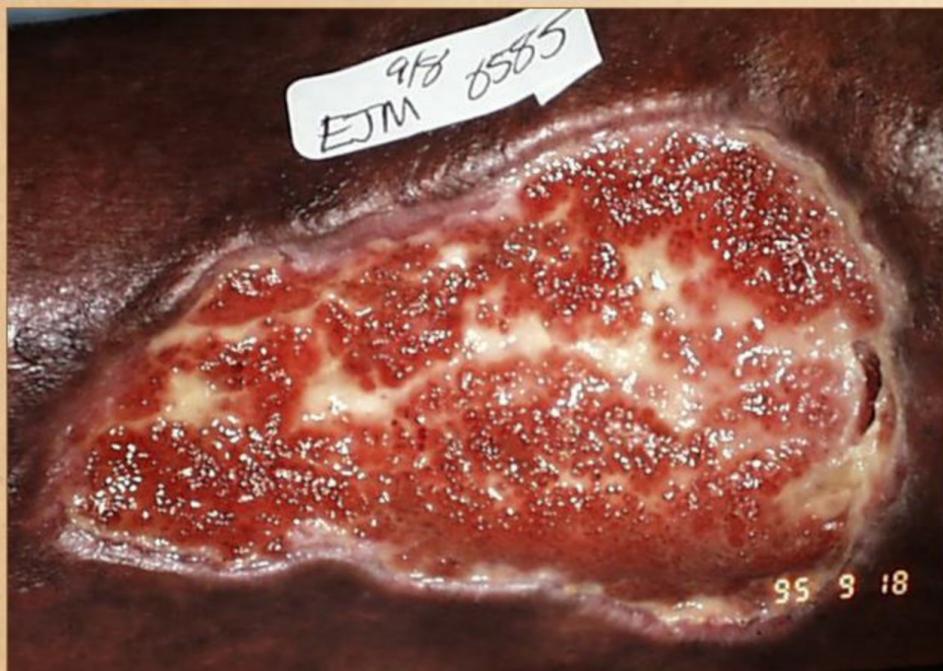
The Pedicle

Length / width

Perforators & planar vessels

Angiosomes & watersheds





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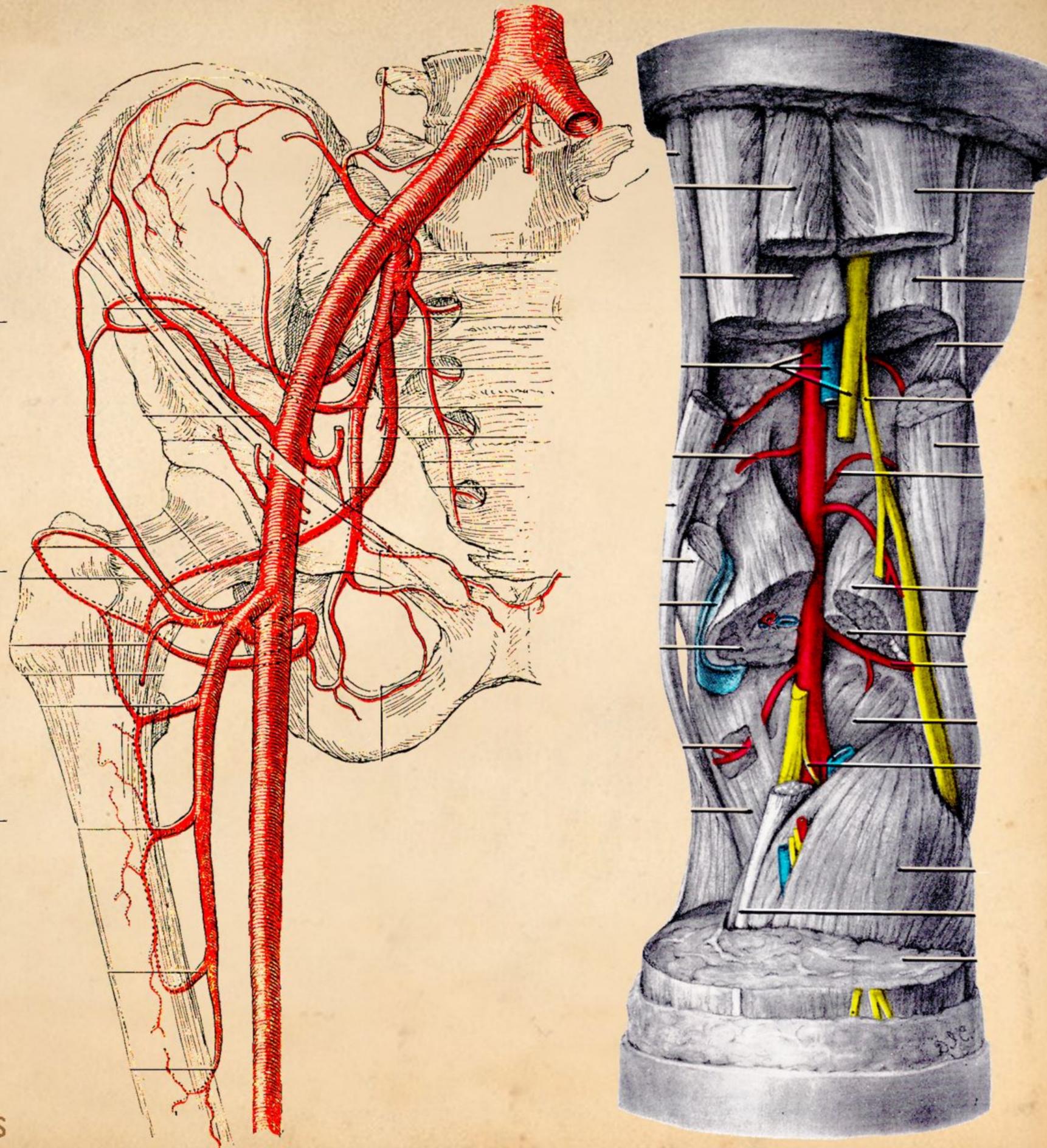
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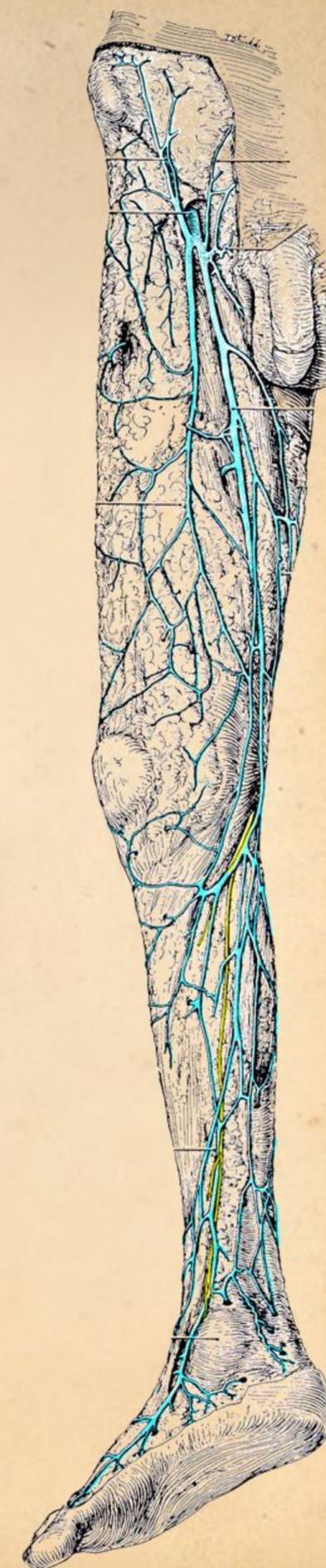
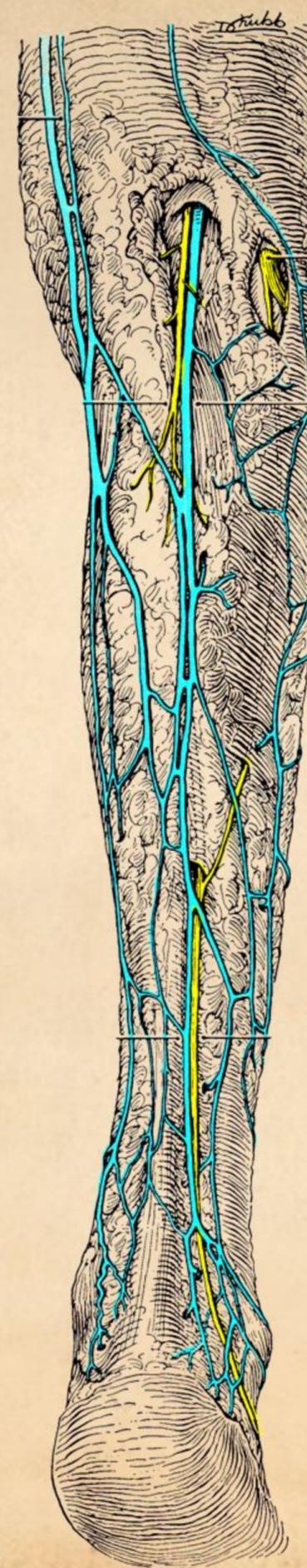
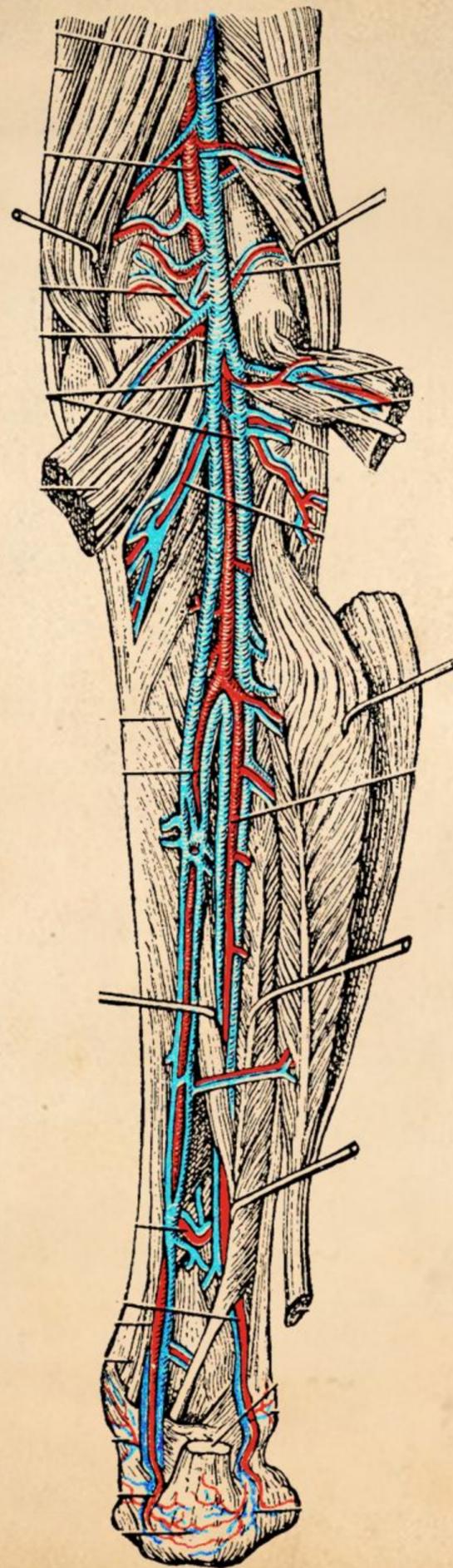
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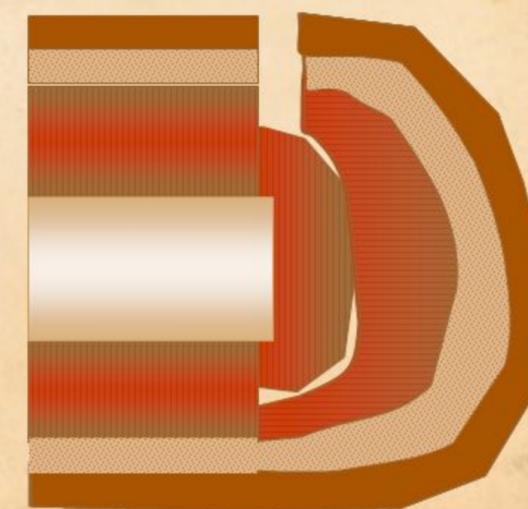
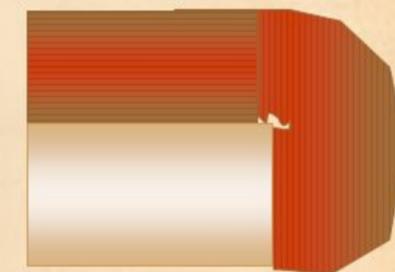
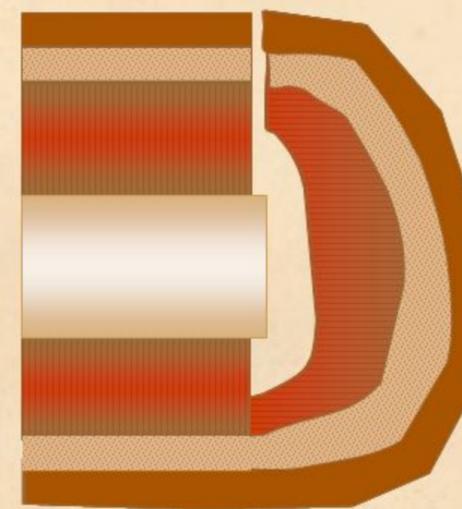
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Medial & Adductor Thigh Flaps

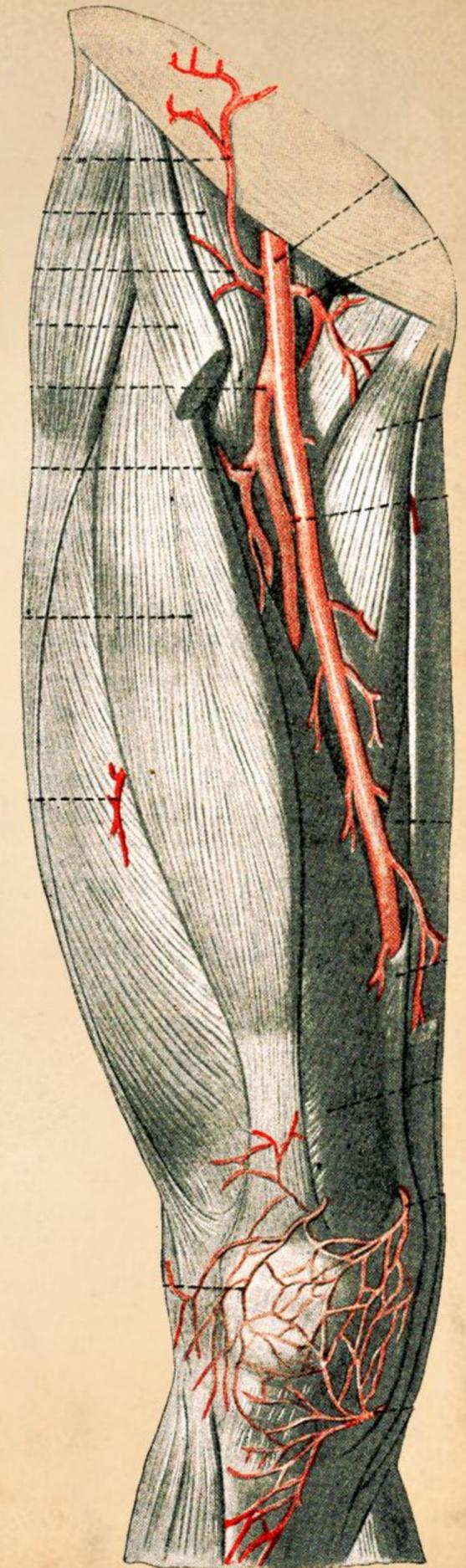
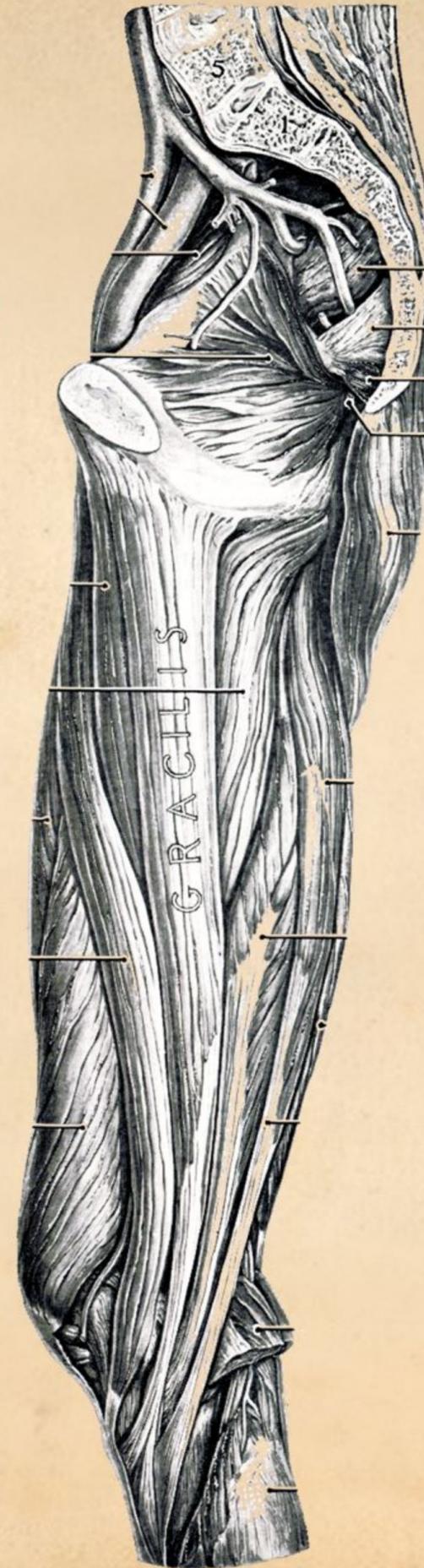
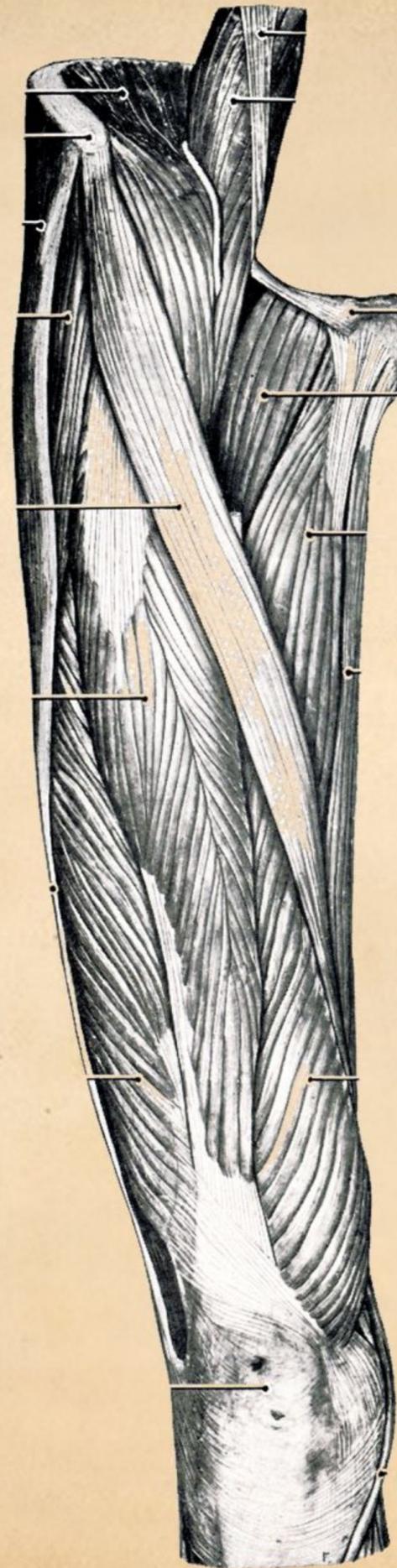
Gracilis
Semitendinosus
Semimembranosus
Adductors

Collateral Territories

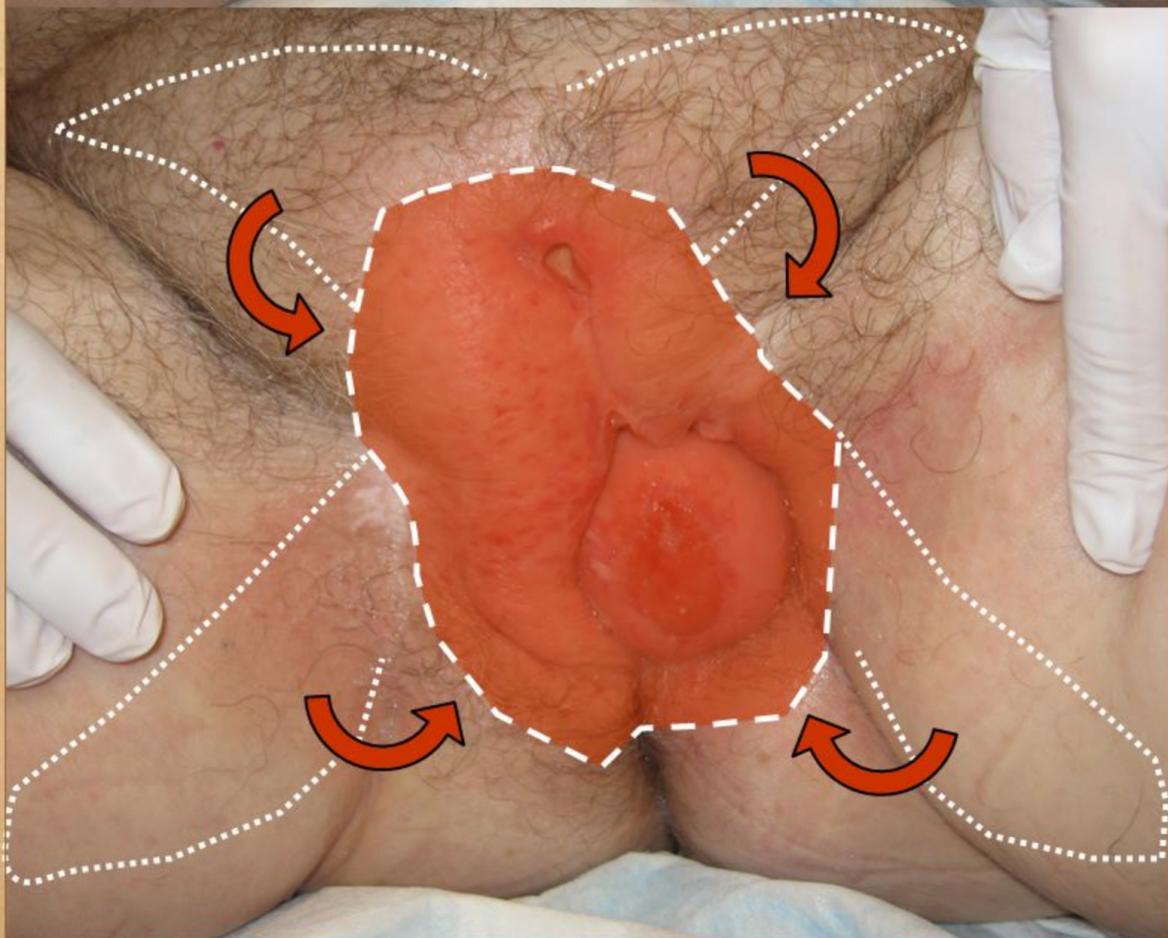
Saphenous
Pudendal
Obturator

Problems & Uses

General reconstruction, thigh & perineum
Ischial pressure ulcers
Perineal & genital recon
Pelvic exenteration & radiation
Inguinal closure
Protect femoral vessels
Free flaps for remote closure
Free flaps for remote reconstruction









Special Topics #2

Test the pedicle

Ditch the stitch

Chop - sacrifice for the greater good

Delay

Manage open areas

Adjunct therapies for survival

Plan B

If it's dead, toss it

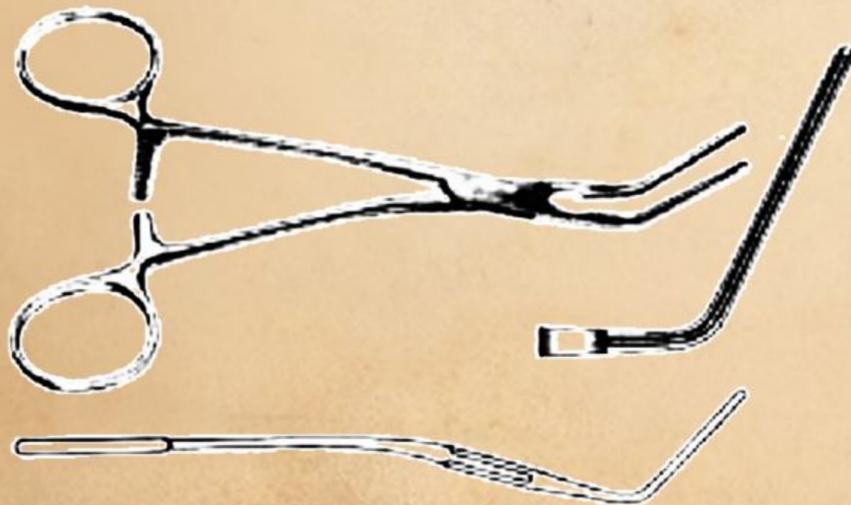
If it doesn't reach, put it back

If it doesn't reach, do something with it

Vascular disease - arterial

Vascular disease - venous

Micro-occlusive disease





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