

NURS 821
Vascular and Cardiac Disorders

Vascular Disorders
Lecture 6, Part 3

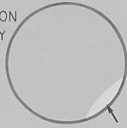
Arterial Disorders

Atheromatous Process

- Irritable focus
- Calcium vascular increase may relate to decreased bone density
- Progesterone prevents smooth muscle build-up inside CA

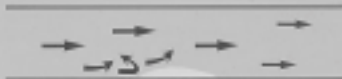
Arterial Cross-section of Atheroma Initiation

CROSS SECTION
OF AN ARTERY



AREA OF MECHANICAL STRESS
CAUSED BY: STRESS, SMOKING,
HYPERTENSION, CHRONIC
HYPERLIPIDEMIA, IMMUNE
MECHANISMS.

Plaque Disrupts Laminar Blood Flow



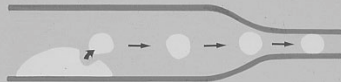
THE SMALL PLAQUE DISRUPTS SMOOTH
"NON-WETABLE" SURFACE OF ARTERY.
THIS "ROUGH SPOT" CAUSES INCREASED
TURBULENCE WITH RED BLOOD CELL
HEMOLYSIS AND CLOT FORMATION.

Enlarging of Plaque

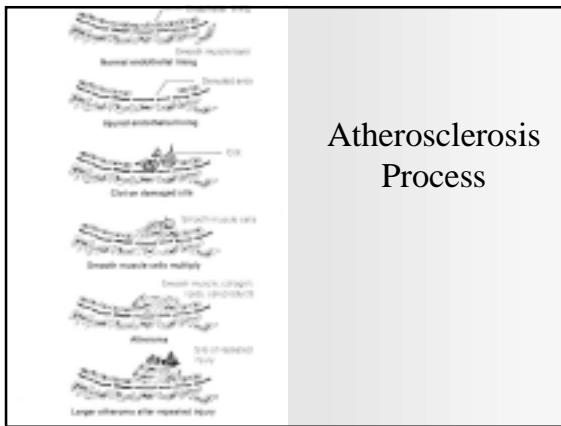


THIS PLAQUE CONTINUES TO GROW AND
MAY BE COMPOSED COLLAGEN, MUSCLE
CELLS, CALCIUM, LIPIDS, COAGULATION
FACTORS, PLASMA COMPONENTS.

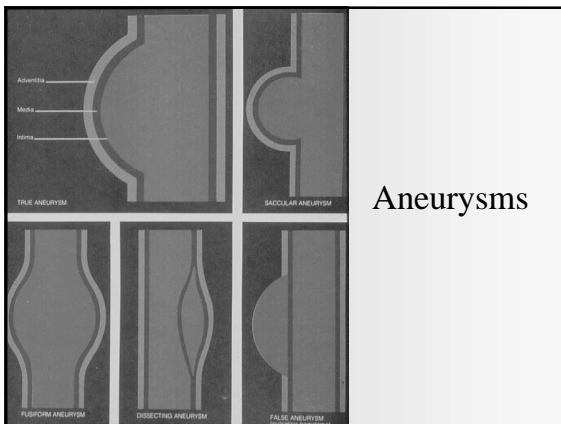
Embolization and Obstruction



PIECES OF THESE PLAQUES (THROMBI) CAN BREAK OFF AND TRAVEL THROUGH THE ARTERIES (EMBOLUS). THIS EMBOLUS TRAVELS UNTIL IT BECOMES LODGED IN A SMALLER ARTERY/ARTERIOLE. THIS MAY BLOCK OXYGENATED BLOOD CAUSING ISCHEMIA AND EVENTUALLY LEAD TO INFARCTION.



Atherosclerosis Process



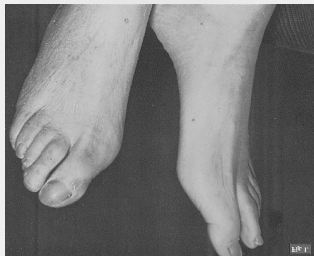
Aneurysms

Peripheral Arterial Occlusive Disease

Peripheral Arterial Occlusive



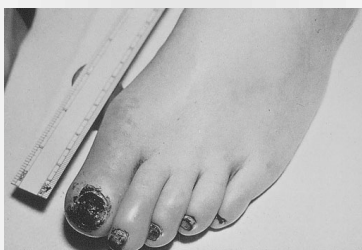
Pallor Due to Elevation



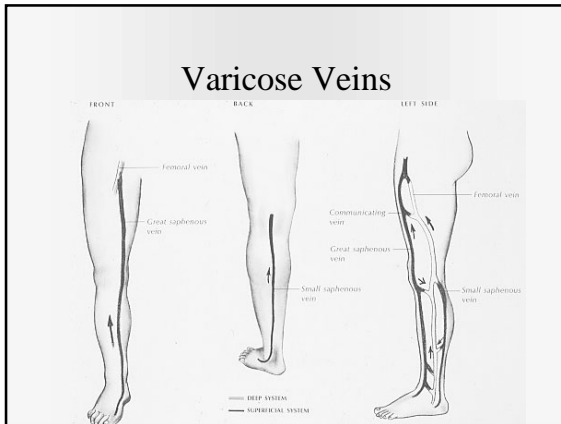
Postural Reactive Hyperemia

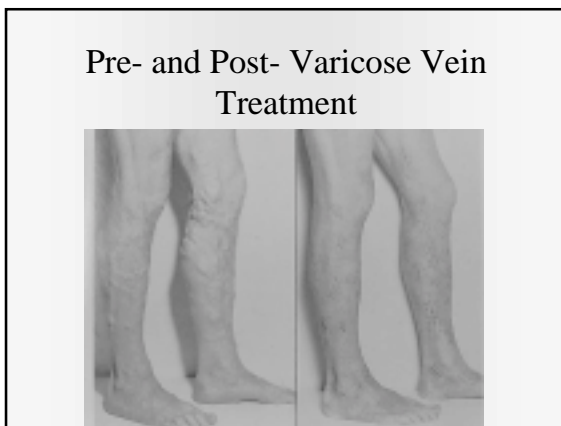


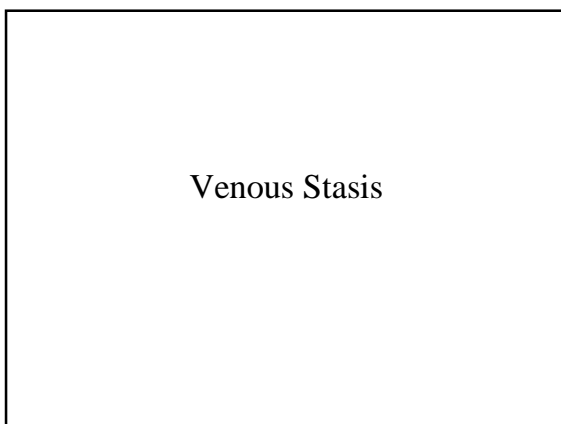
Gangrene



Venous Disorders







Venous Stasis Ulcer



Hemosiderin Deposition



Comparison of Arterial and Venous Insufficiency

CHRONIC ARTERIAL INSUFFICIENCY (DISEASE)	CHRONIC VENOUS INSUFFICIENCY (DISEASE)
Pulses Decreased or absent	Normal, though may be difficult to feel through edema
Color Pale, especially on elevation; dusky red on dependency	Normal, or cyanotic on dependency
Temperature Cool	Normal
Edema Absent or mild	Present, often marked
Skin changes Thin, shiny, atrophic skin; loss of hair over foot and toes; nails thickened and ridged	May show brown pigmentation around ankles, known dermatitis
Ulceration If present, involves toes or points of pressure on feet	If present, develops at sides of ankles
Gangrene May develop	Does not develop
