



PHYSIOLOGY TEAM 432

Here is the mistakes and their corrections

- They were mainly in lecture 12 and 13
- We re-edit lecture 11 due to “alignment” problem

If you find another mistakes please contact:
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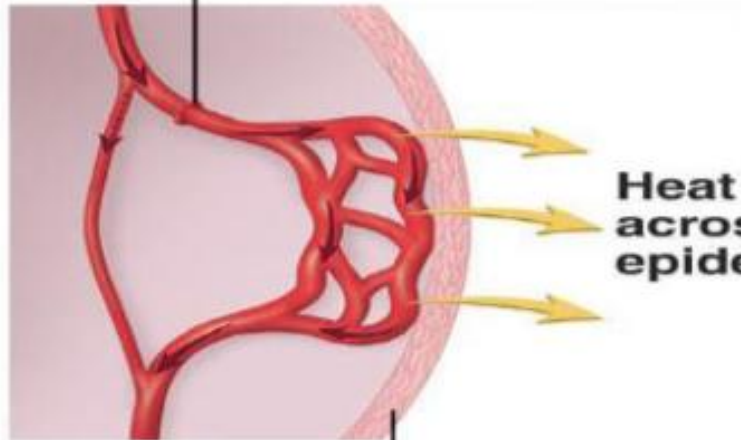
Effect of Salt Intake on the body

| Increased Salt Intake | Decreased Salt Intake |
|---|---|
| Increased extracellular volume | Decreased extracellular volume |
| Increased arterial pressure | Decreased arterial pressure |
| Decreased renin and angiotensin | Increased renin and angiotensin |
| Decreased renal retention of salt and water | Increased renal retention of salt and water |
| Return of extracellular volume almost to normal | Return of extracellular volume almost to normal |
| Return of arterial pressure almost to normal | Return of arterial pressure almost to normal |

Increased

Temperature regulation

**Blood vessel dilates
(vasodilation)**



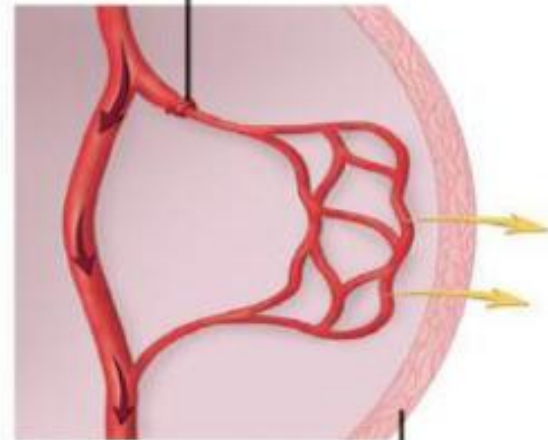
**Heat loss
across
epidermis**

Epidermis

Increased heat loss

(a)

**Blood vessel constricts
(vasoconstriction)**



Epidermis

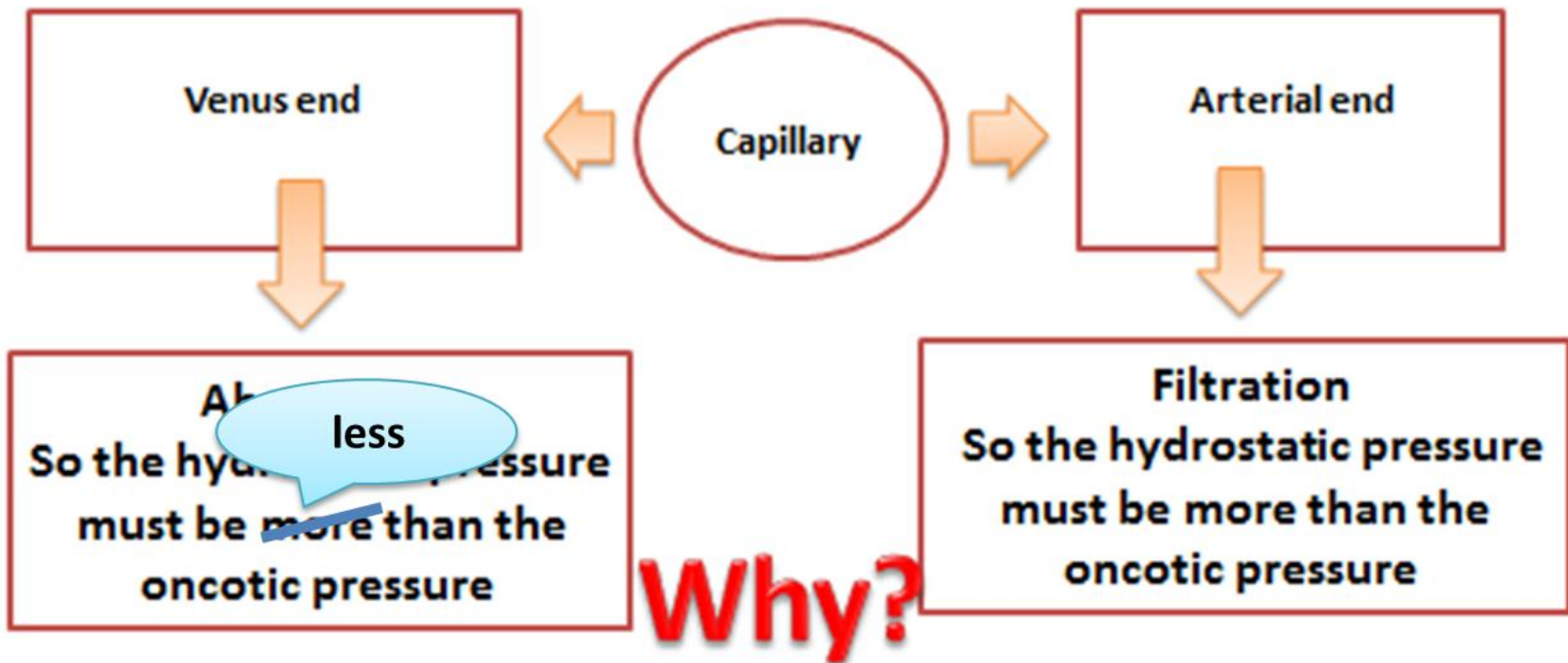
Heat conservation

(b)



| | (A) | (B) |
|-------------|---------------|------------------------|
| sphincter | contracts | relaxes |
| blood flow | decrease | increase |
| excess heat | conserve heat | get rid of excess heat |

Continue....



Because ...

The hydrostatic pressure excluding blood, through the gaps (pores) between adjacent endothelial cells in capillaries to extra cellular fluid ECF (in interstetium) to reach cells

Whereas the oncotic pressure it tend to drag fluids back to the center of capillaries.

Arteriolar end

Venus end

Forces tending to move **fluid outward**:

Capillary hydrostatic pressure 30 mmHg

Negative interstitial fluid pressure 3 mmHg

Interstitial fluid colloidal osmotic pressure 8 mmHg

Outward force 41 mmHg

10 mmHg



3 mmHg

8 mmHg

21 mmHg

No change

Forces tending to move **fluid inward**:

Plasma colloidal osmotic pressure 28 mmHg

28 mmHg



Net Force:

$41 - 28 = 13$ mmHg

This is an outward force helping filtration at arteriolar end.

$28 - 21 = 7$ mmHg

This is an inward force helping reabsorption at venular end.

Problem with the alignment

the hydrostatic pressure is more than the oncotic pressure in the arteriolar end => filtration

The opposite 😊