# **TOPIC: RENAL PHYSIOLOGY - OVERVIEW**

# **Renal Physiology - Overview**

◆ Nephrons carry out \_\_\_\_\_ physiological processes:

	1. Glomerular Filtration	2. Tubular Reabsorption	3. Tubular Secretion
Function	Create	Reclaim substances from filtrate.	- Maintain and acid-base homeostasis.
			- Remove toxins from blood that were not filtered.
	Blood	Selective transport of	The '' of reabsorption.
Process	forces water and solutes out of capillaries, into capsular space.	substances to bloodstream.	Active transport of substances from bloodstream to renal tubule.
	Glomerular capsule.	proximal tubule and	Proximal tubule, distal tubule, and
Location		nephron loop.  - Some in distal tubule and collecting duct.	duct.

◆ Kidneys process about 180 L of blood-derived fluid daily – 1.5 L leaves the body as \_\_\_\_\_.

## **EXAMPLE**

The main purpose of tubular reabsorption is to...

a) Create filtrate.

- c) Increase urine volume.
- b) Reclaim important substances from filtrate.
- d) Both b and c.

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# PRACTICE

Tubular secretion occurs in the...

- a) Glomerular capsule only.
- b) Proximal tubule, distal tubule, and collecting duct.
- c) Glomerular capsule, proximal tubule, distal tubule, and collecting duct.
- d) Proximal tubule, nephron loop, distal tubule, and collecting duct.