

Chapter 25

The Urinary System

I. Kidney Anatomy

A. Location and External Anatomy

B. Internal Anatomy

C. Blood and Nerve Supply

D. Nephrons

1. Nephron Capillary Beds

2. Juxtaglomerular Complex

II. Kidney Physiology: Mechanisms of Urine Formation

A. Step 1: Glomerular Filtration

1. The Filtration Membrane

2. Pressures That Affect Filtration

i. Net Filtration Pressure

2. Glomerular Filtration Rate

B. Step 2: Tubular Reabsorption

C. Step 3: Tubular Secretion

III. Micturition