## **Blood Flow Regulation**

- 1. Autoregulation
  - a. Arterioles regulate own blood flow depending on needs of tissue
  - b. Regulated by chemical and metabolic changes
    - 1. Increased O<sub>2</sub> utilization
    - 2. Increased CO<sub>2</sub>, K<sup>+</sup>, H<sup>+</sup>, HLa
- 2. Extrinsic Neural Control
  - a. Control exerted by SNS
  - b. Can cause either:
    - 1. vasoconstriction/vasodilation
    - 2. venoconstriction

What effect does this have on blood pressure?

## Regulation of Stroke Volume

## Mechanisms to increase venous return

- 1. Venoconstriction
- 2. Muscle Pump
- 3. Respiratory Pump