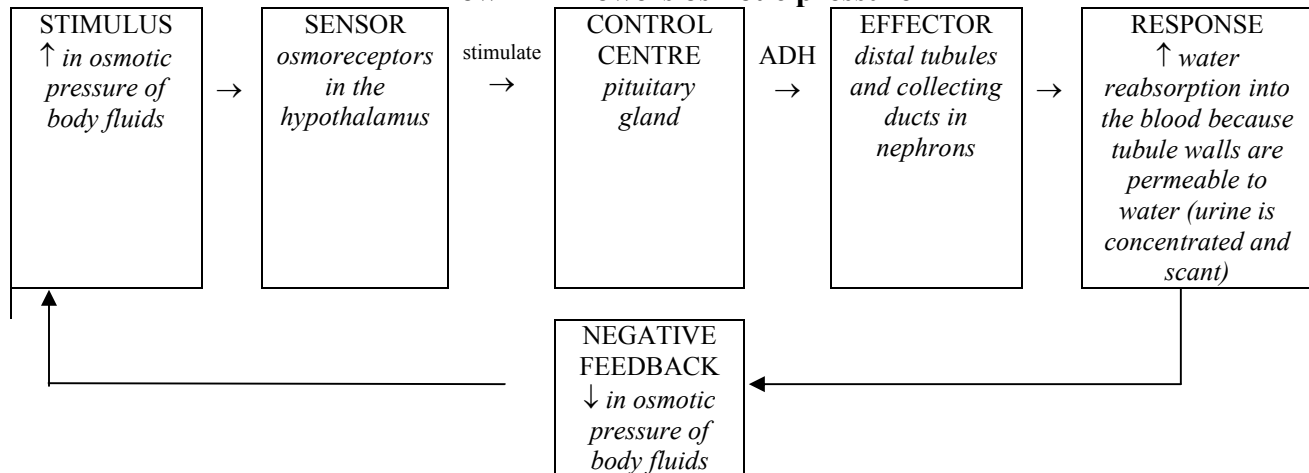


CHAPTER 9**HANDOUT****Regulation of Osmotic Pressure of Body Fluids****BLM 9.3.3**

After eating a salty meal or neglecting to drink water regularly, the osmotic pressure (“saltiness”) of body fluids increases. This is the stimulus that initiates a series of events in which urine becomes scant and concentrated because more water is reabsorbed from the urine as it passes through the salty medullary tissues. A hormone called ADH increases the permeability of the distal tubules and collecting ducts, allowing osmosis to occur. This response tends to return osmotic pressure of body fluids to normal, especially when an accompanying thirst causes increased water intake.

How ADH lowers osmotic pressure

1. Redraw the chart to show the response to drinking several glasses of water, which decreases the osmotic pressure of body fluids. Choose an appropriate title for your chart.

2. How do diuretics such as alcohol and caffeine affect this homeostatic mechanism?
