

Feedback Cycles (continued)

ADH (Anti-diuretic hormone) Production

* Diuretics "flush" your body of H_2O .
So, ADH makes you retain H_2O .

1. Hypothalamus senses low H_2O ($\downarrow H_2O$) levels, causing the Posterior Pituitary to make ADH.

2. ADH goes to the kidneys, where filtration of water (into urine) is blocked.

3. The "thirst drive" is also signalled, so we drink more (Hormones can affect BEHAVIOR!)

so.... $\uparrow H_2O$ levels in blood ☺

4. When H_2O levels get too high, ADH production is decreased.

So \downarrow ADH means $\downarrow H_2O$ levels.

Glucose regulation in the blood

* Glucose is a simple sugar,

called a monosaccharide (the basic building block of all other carbohydrates). (Starch + cellulose are complex carbs).

↑ Glucose in the blood (by eating it - absorbed at sm. intest.) causes the PANCREAS to secrete more INSULIN (hormone), causing the liver to store the glucose (stores glucose in the form of glycogen),
↓ glucose in blood!

If glucose levels get too low (↓ Gl.), the PANCREAS now makes GLUCAGON (hormone), causing the liver to release the stored glucose,
↑ glucose levels in blood again!

* So, diabetics may need to take insulin if their glucose is too high. They may have to eat sugar (juice + candy) if gets too low.