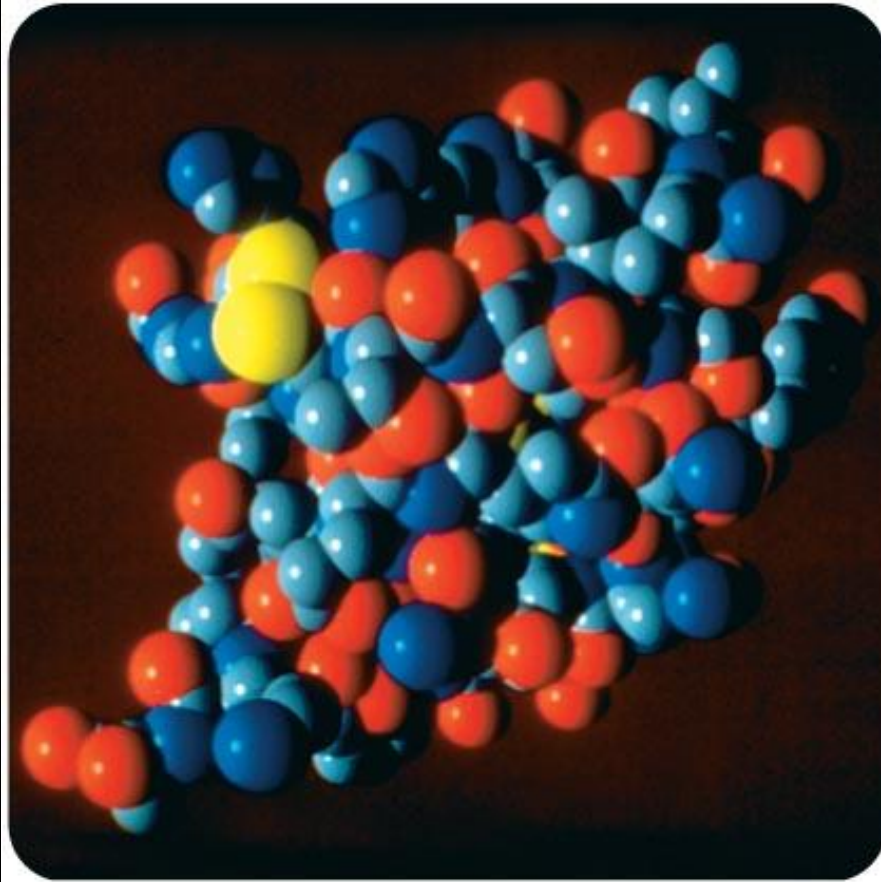


Hormones



Chapter 17

The Chemical Messengers



Your body makes over
50 different kinds of
hormones.

Hypothalamus

Pituitary gland

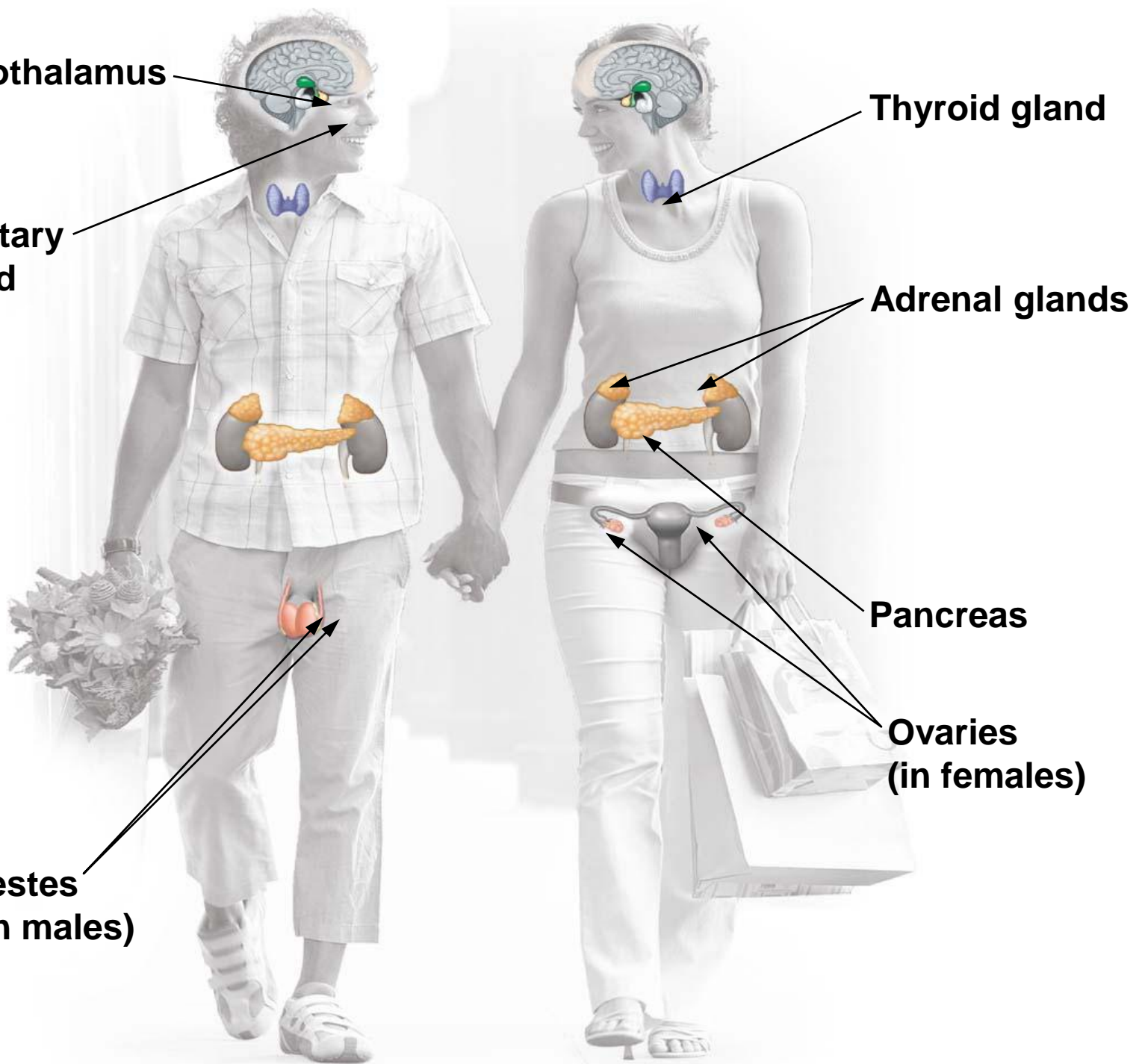
Thyroid gland

Adrenal glands

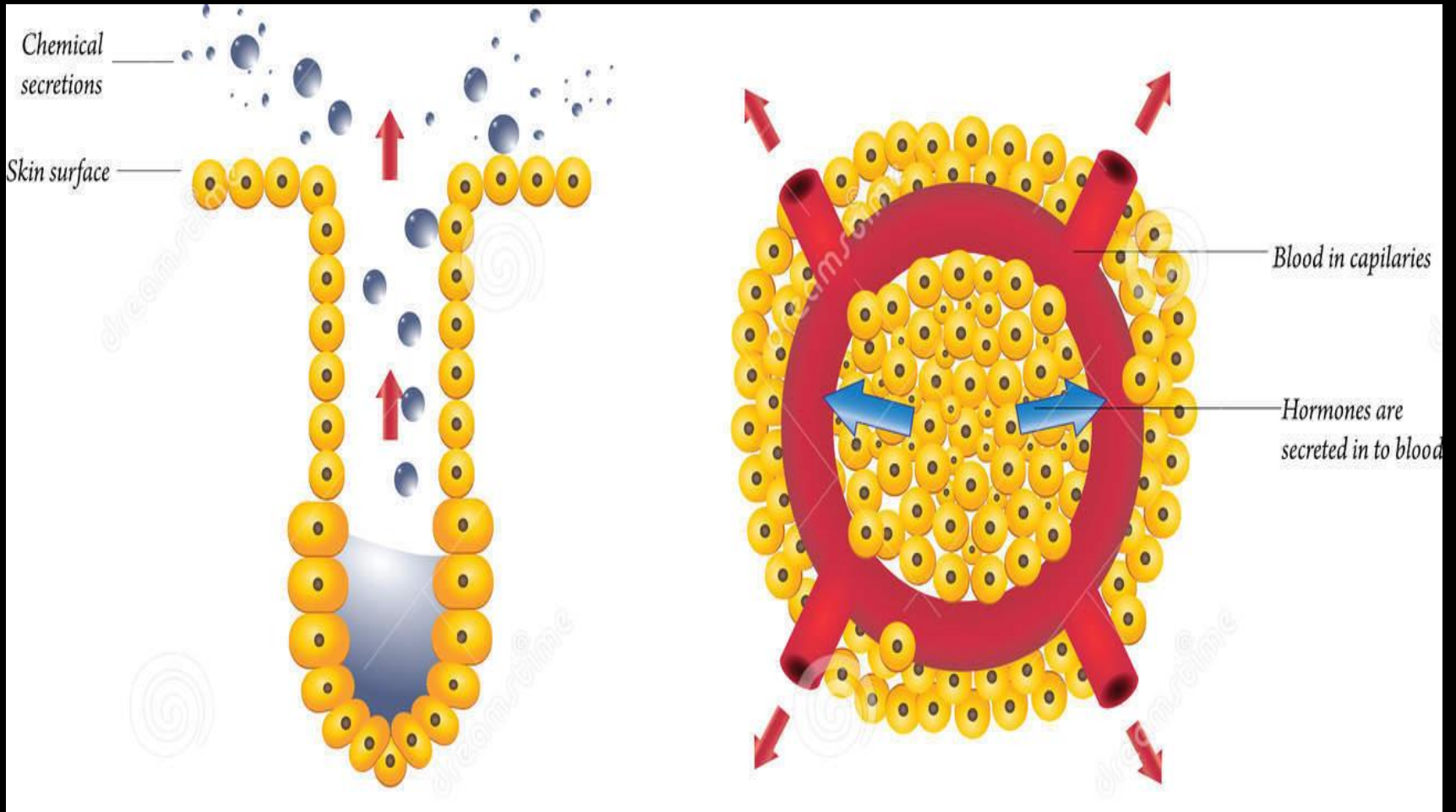
Pancreas

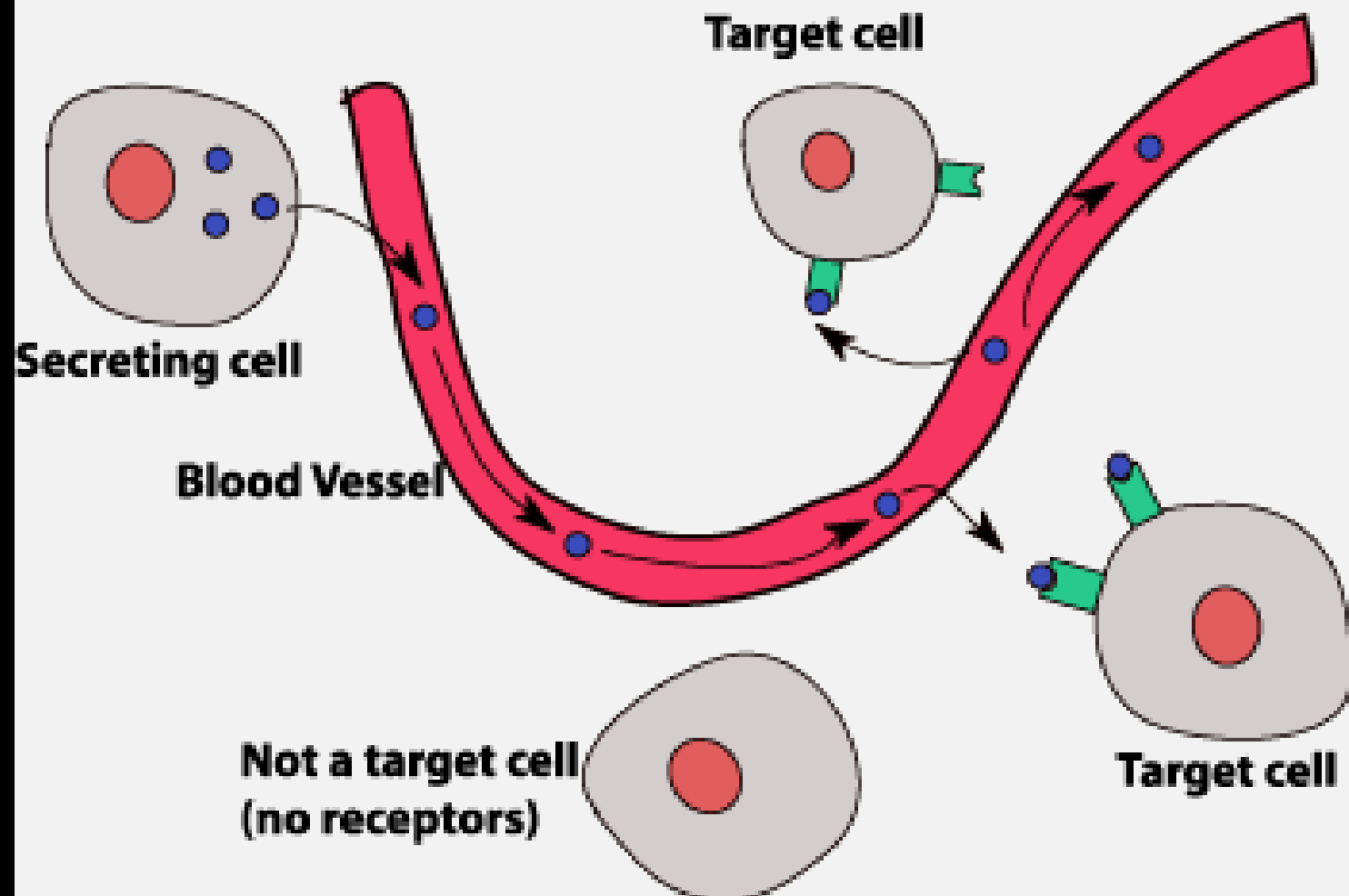
**Ovaries
(in females)**

**Testes
(in males)**



The Endocrine Glands







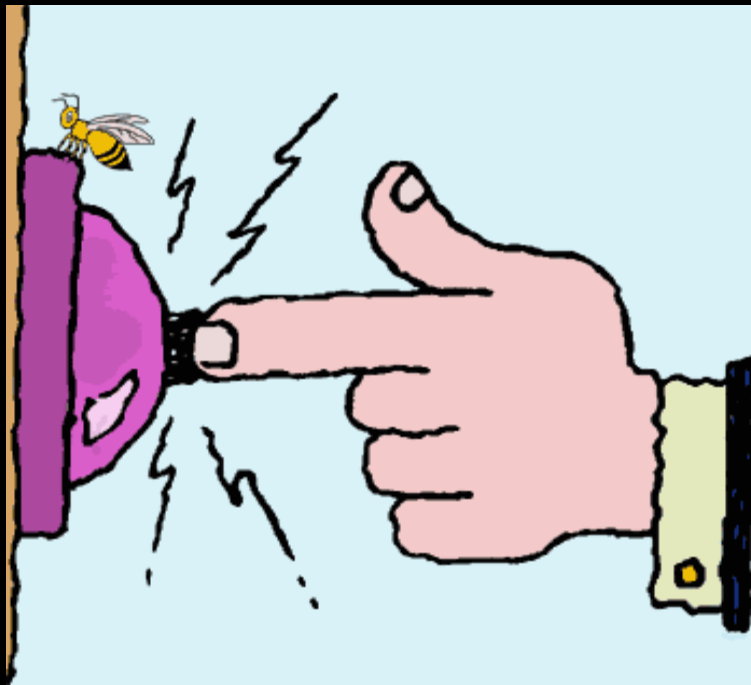
Why the action of hormones is specific to some target cells only?

Chemical classification of hormones

- **Hormones**
 - Peptide/Protein e.g., **GH**
 - Lipid based e.g., **Testosterone, Estrogen**



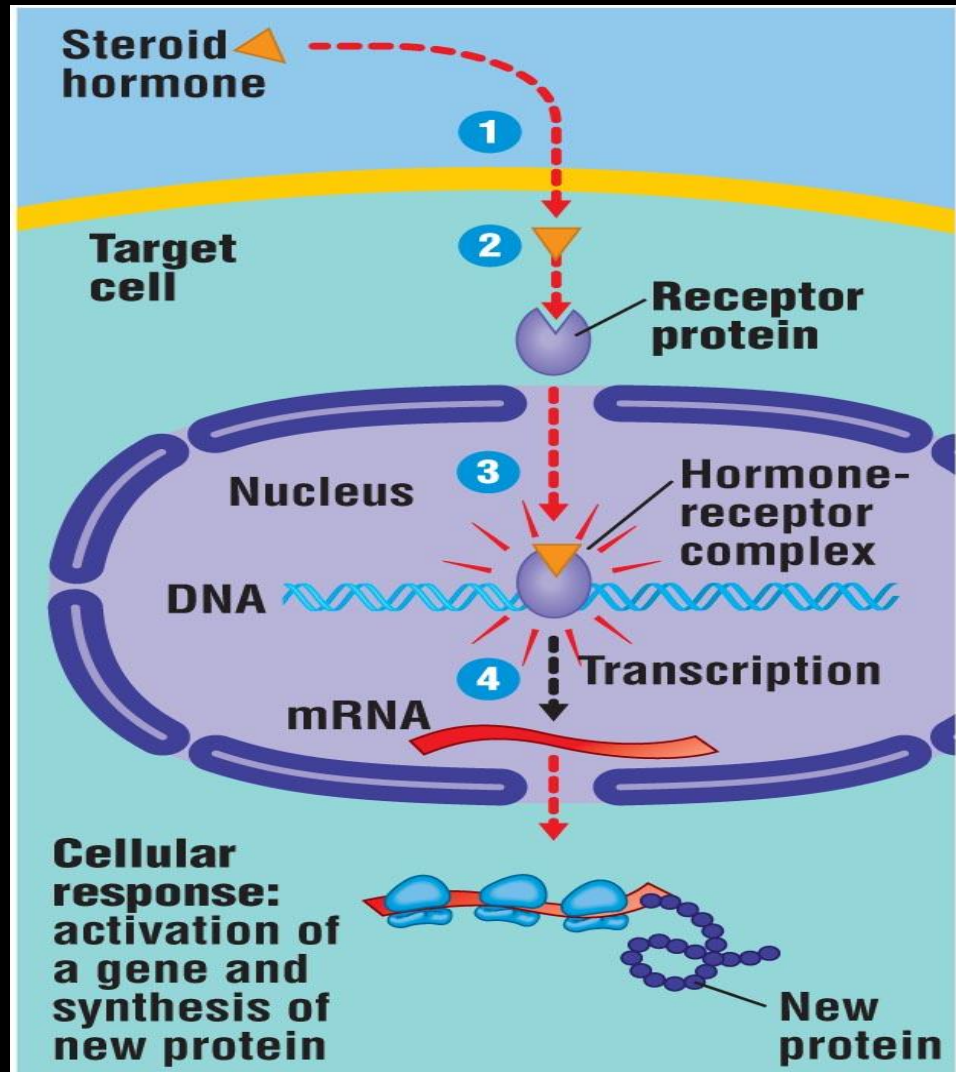
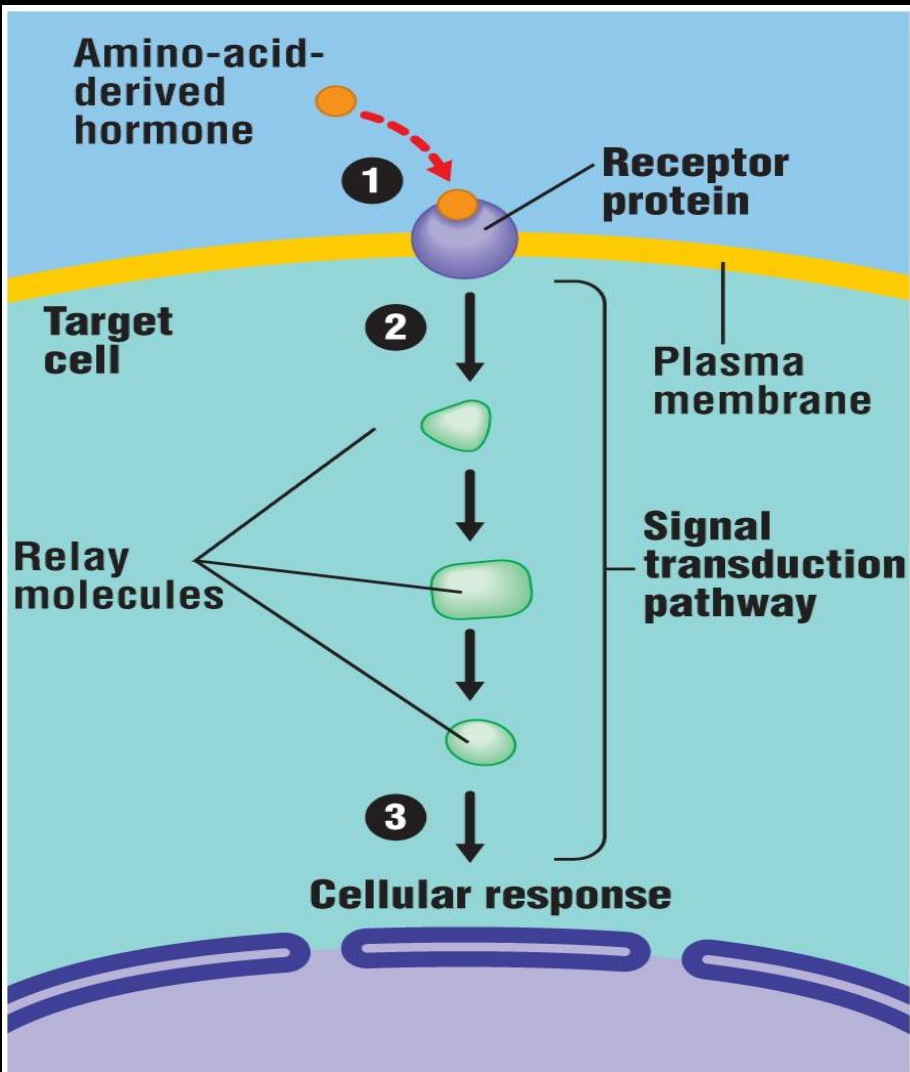
Do all hormones **enter** inside the
cell?



..... hormones trigger responses without entering the cell.

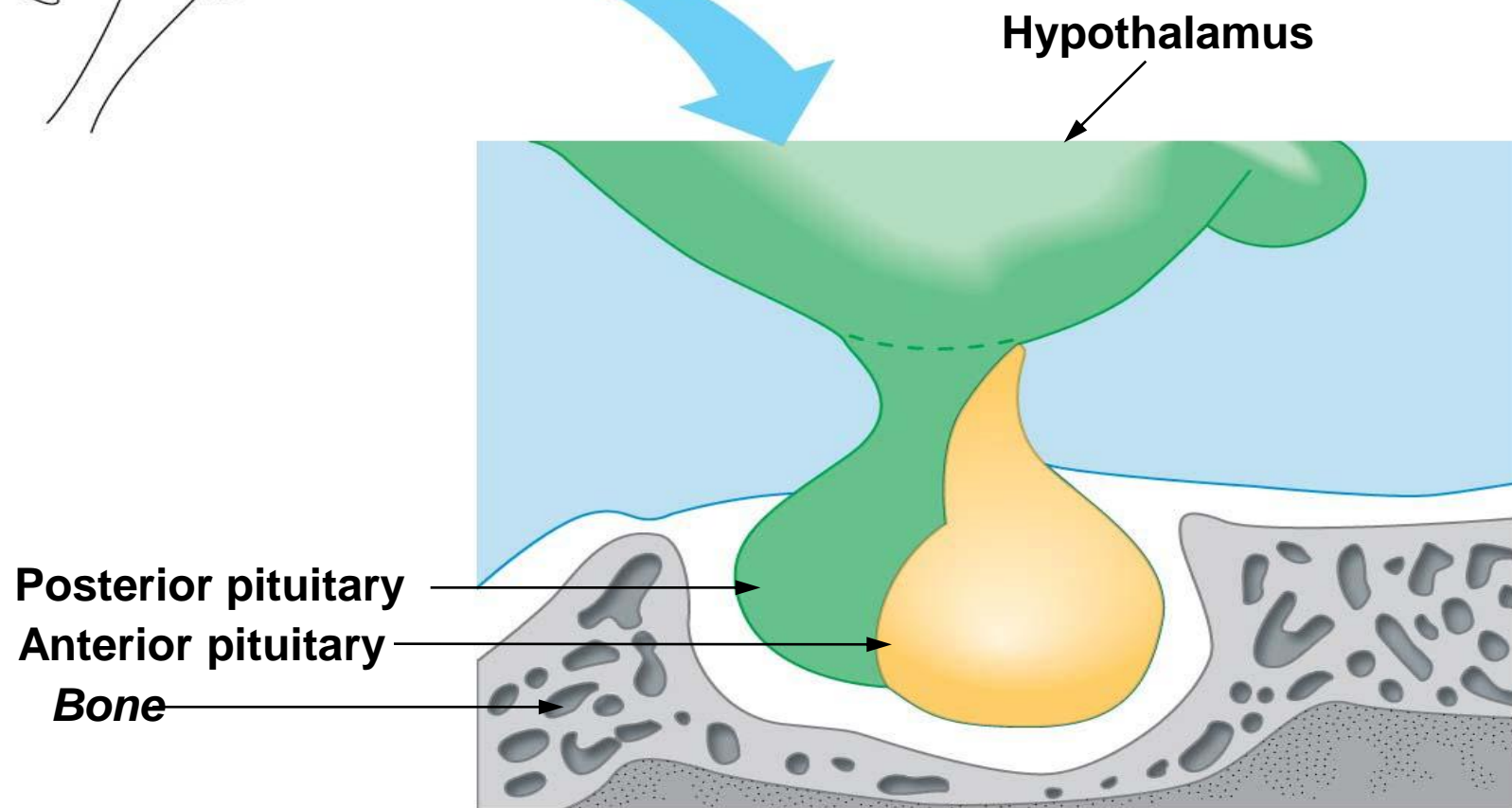
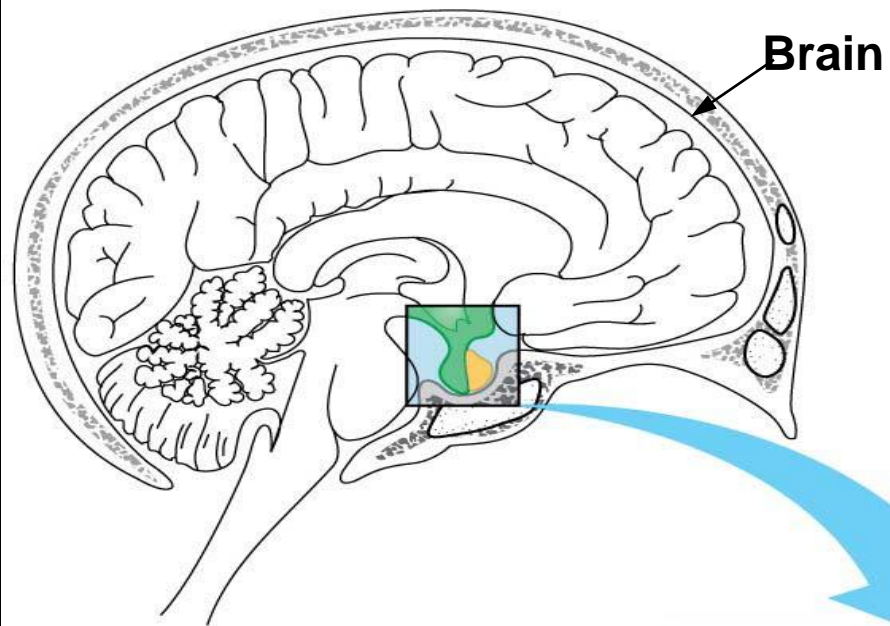
..... hormones trigger responses after entering the cell.

Mechanism of Action

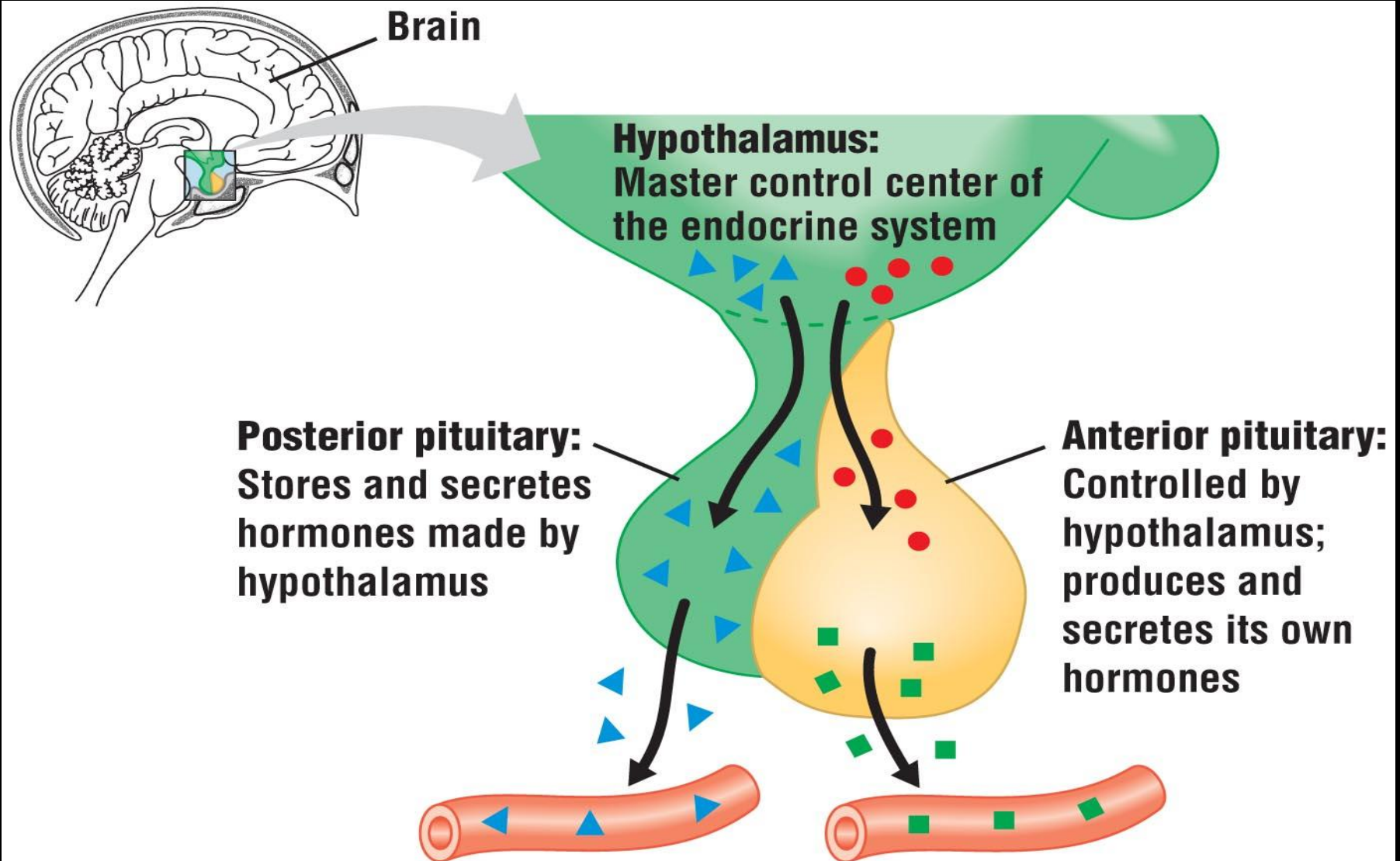


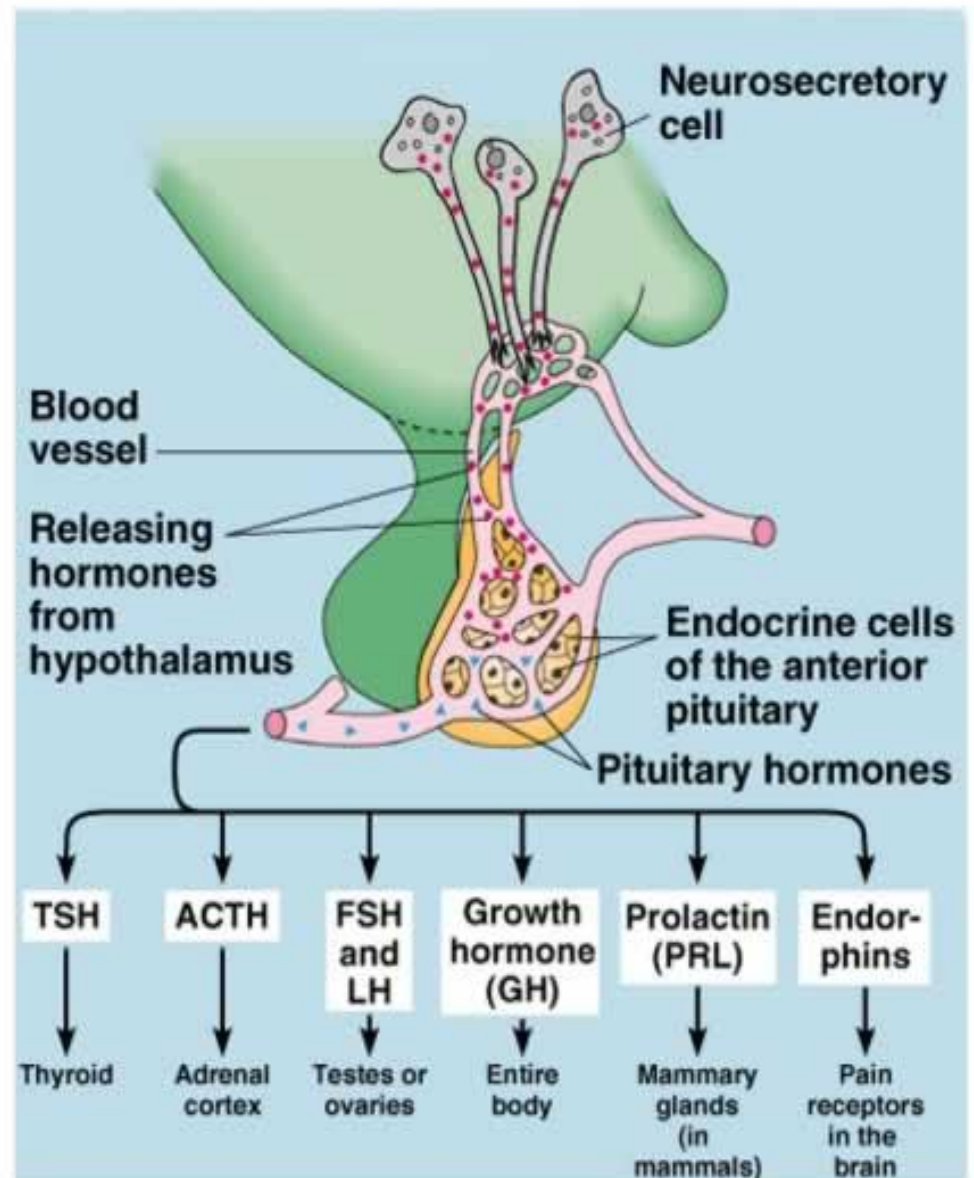
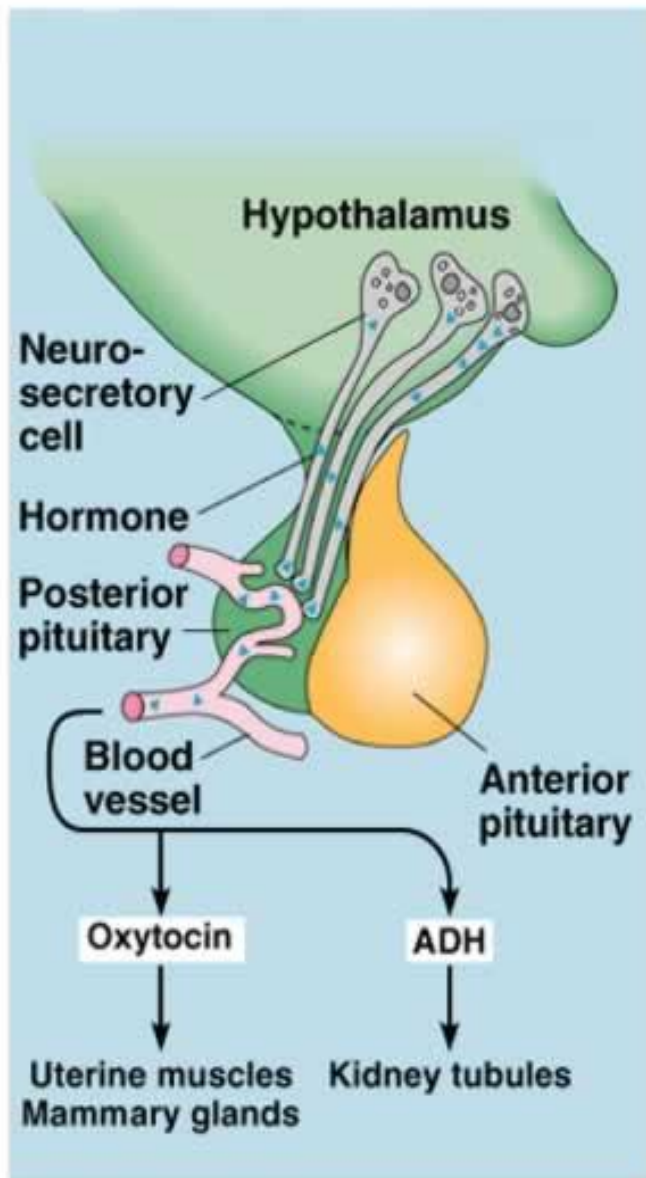
Glands we shall study...

- **Hypothalamus and Pituitary**
- **Adrenal Glands**
- **Thyroid**
- **Pancreas**



Anterior and Posterior Pituitary





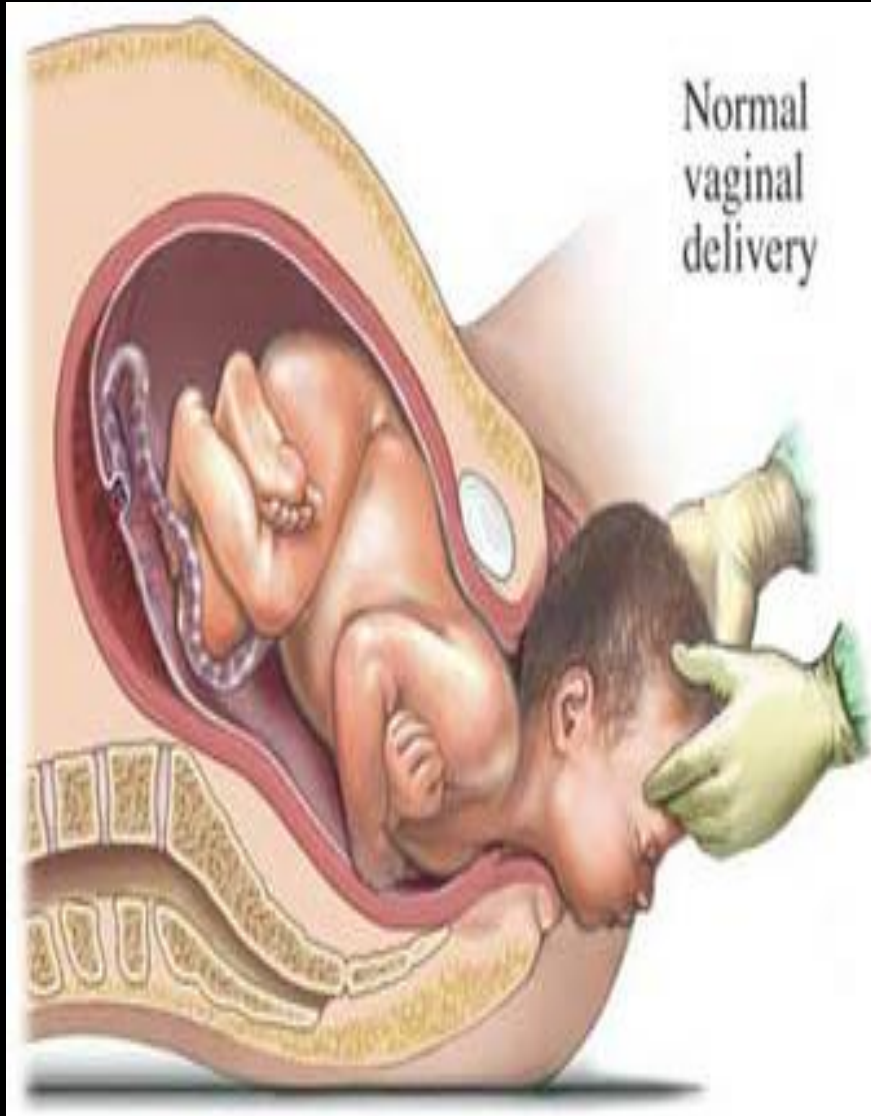
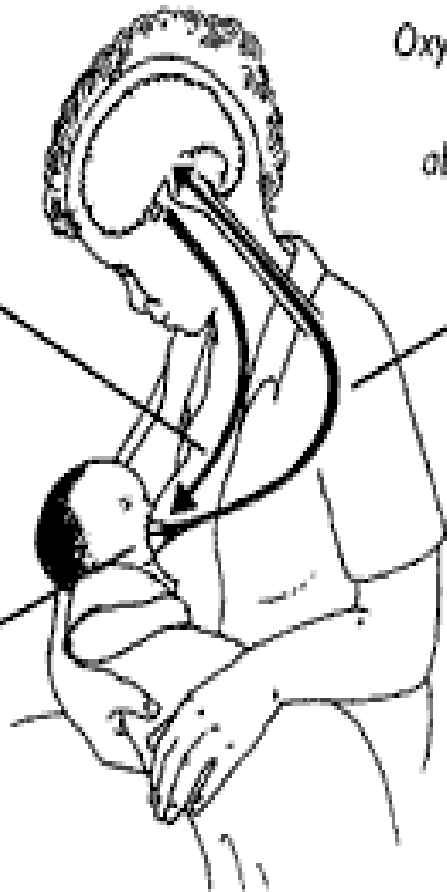
1. Oxytocin- Posterior Pituitary

Oxytocin - delivers milk

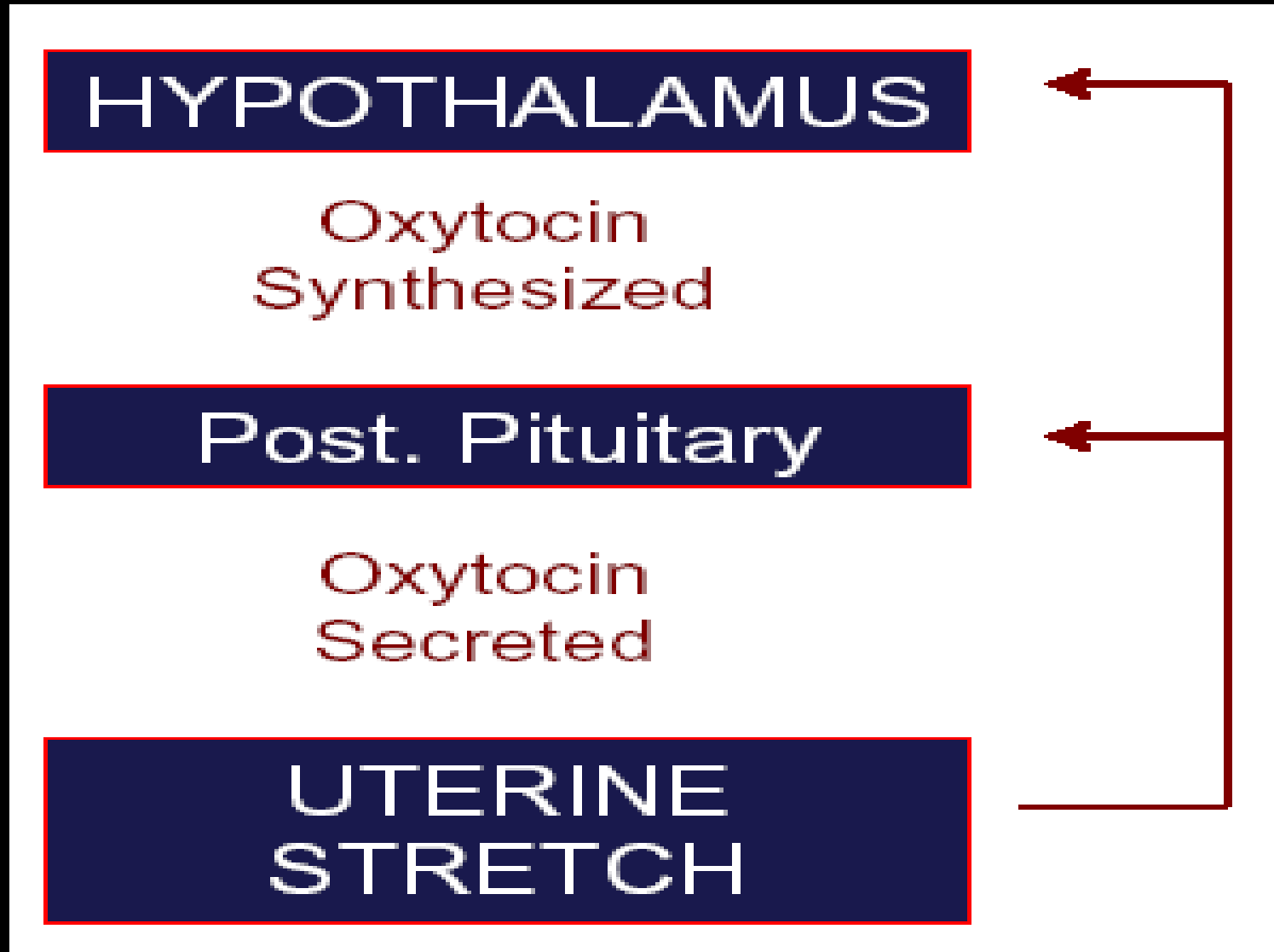
Acts on muscles surrounding milk cells, releasing milk

Oxytocin released by thinking about baby and stimulation of breast

Baby suckling stimulates breast



A Classic Example of Feedback





**The Trust Hormone; it helps Mom to be Mom;
reduces social fear; makes us feel as Human.....**

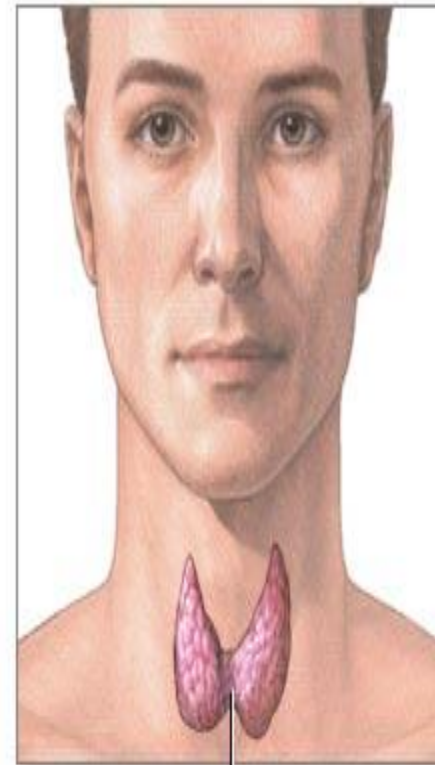
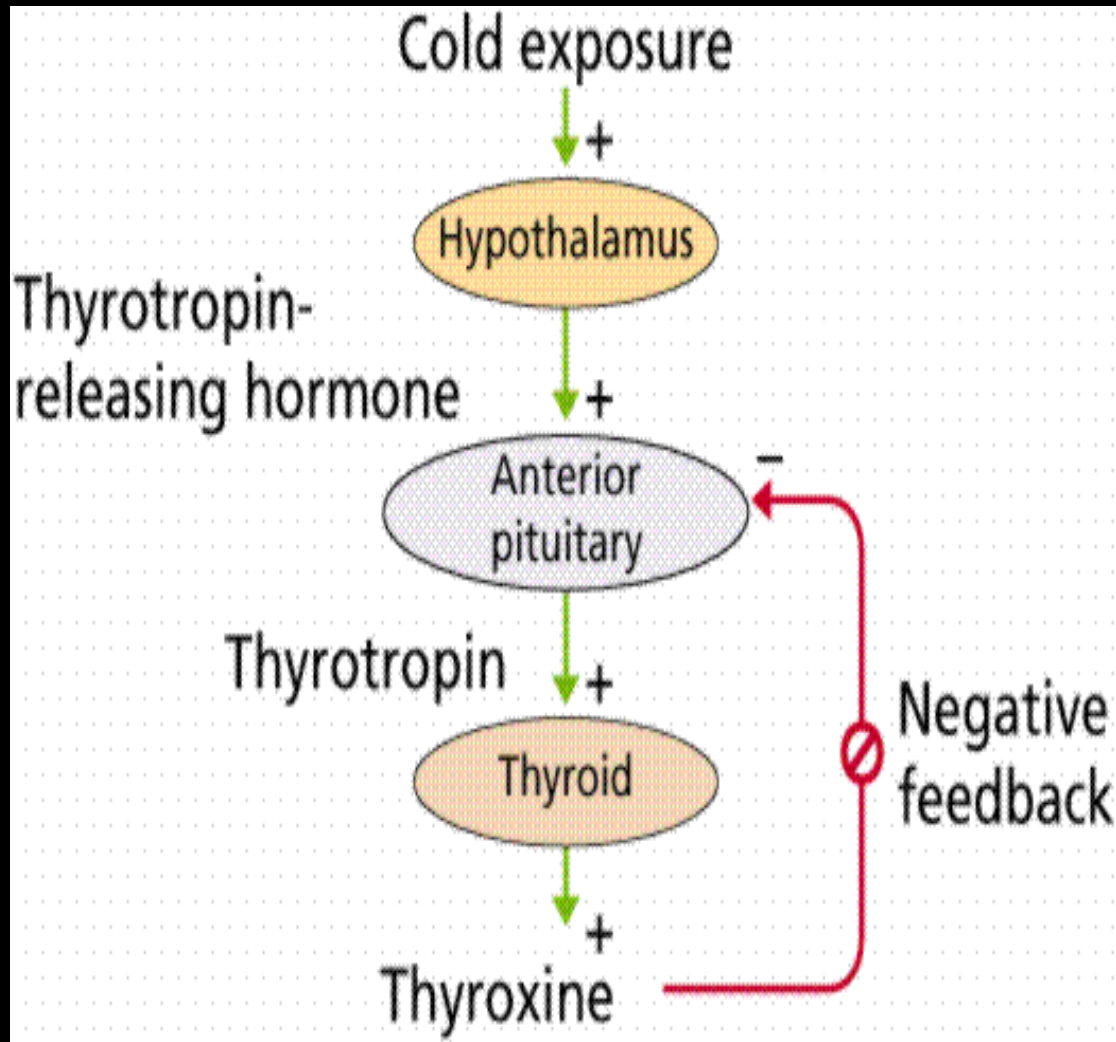
2. ADH- Posterior Pituitary



Life is Homeostasis

3. Name the hormone.....





Thyroid

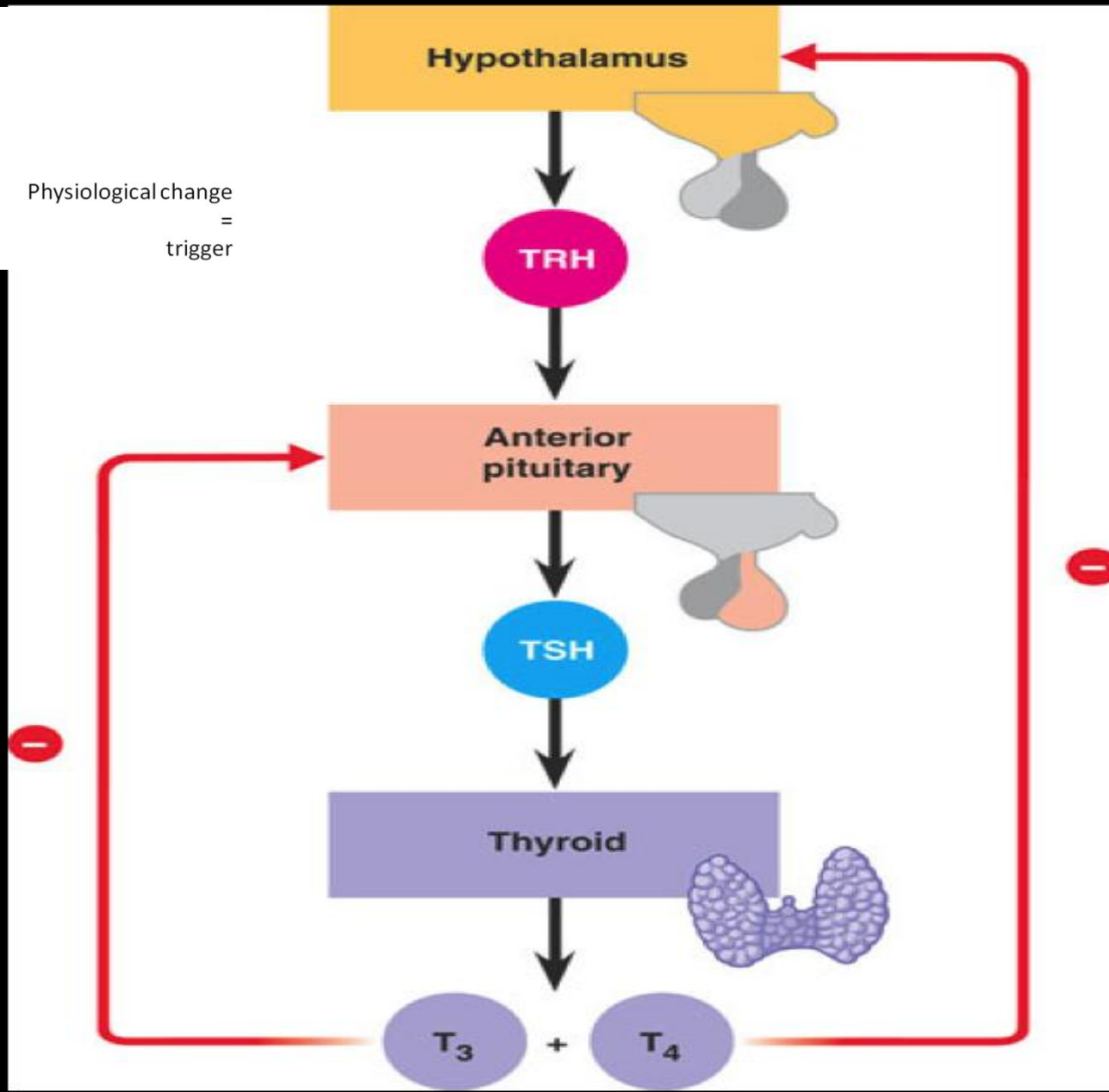
How does it act?

**An overactive thyroid
(hyperthyroidism) can cause a
person to feel too hot, while an
underactive thyroid (hypothyroidism)
can cause a person to feel too cold.**

Negative Feedback



Physiological change
=
trigger



4. Name the hormone



How does it cause desired effect....



**In whom do you assume to have
the highest levels of GH?**

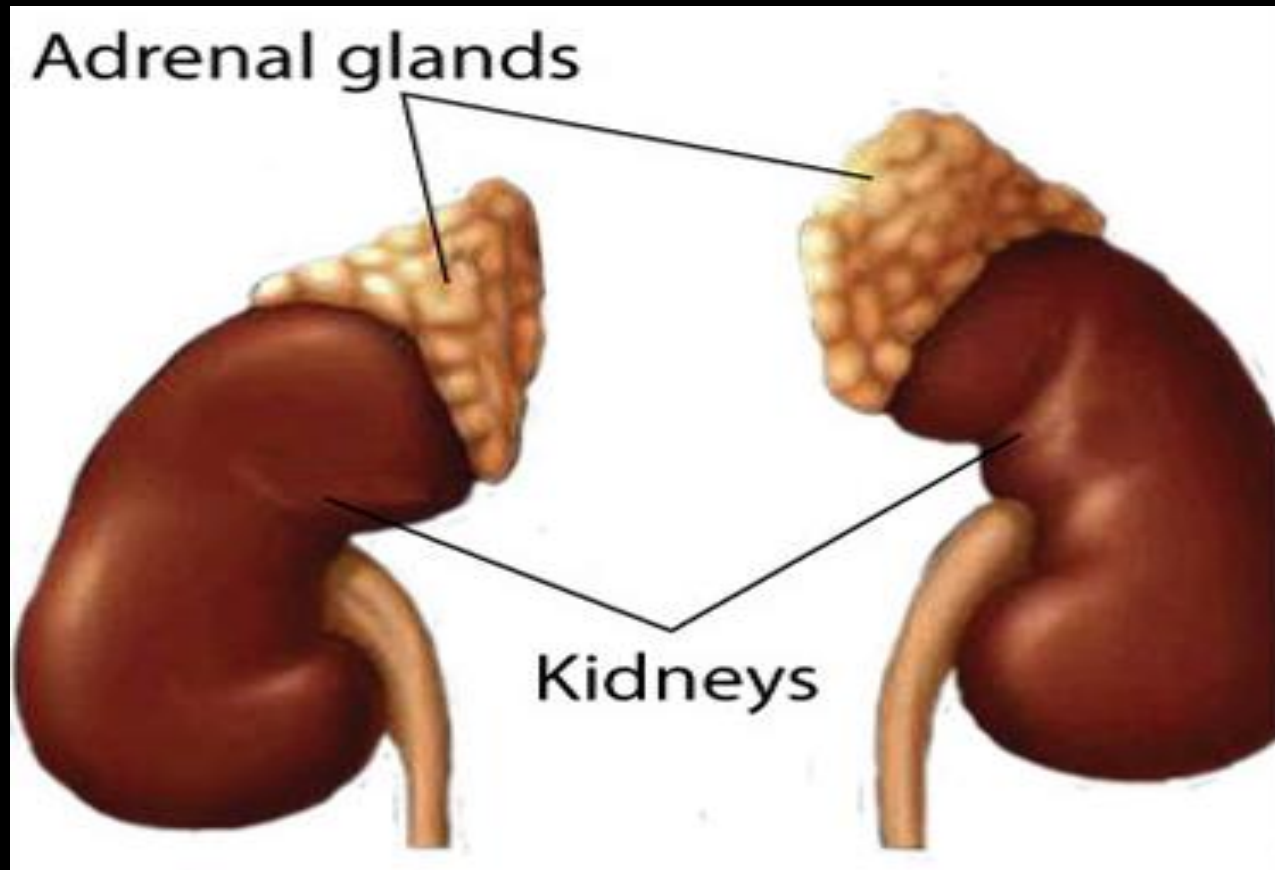


How do I up my GH naturally?

Along with testosterone is one of the hormones with high **illicit** use

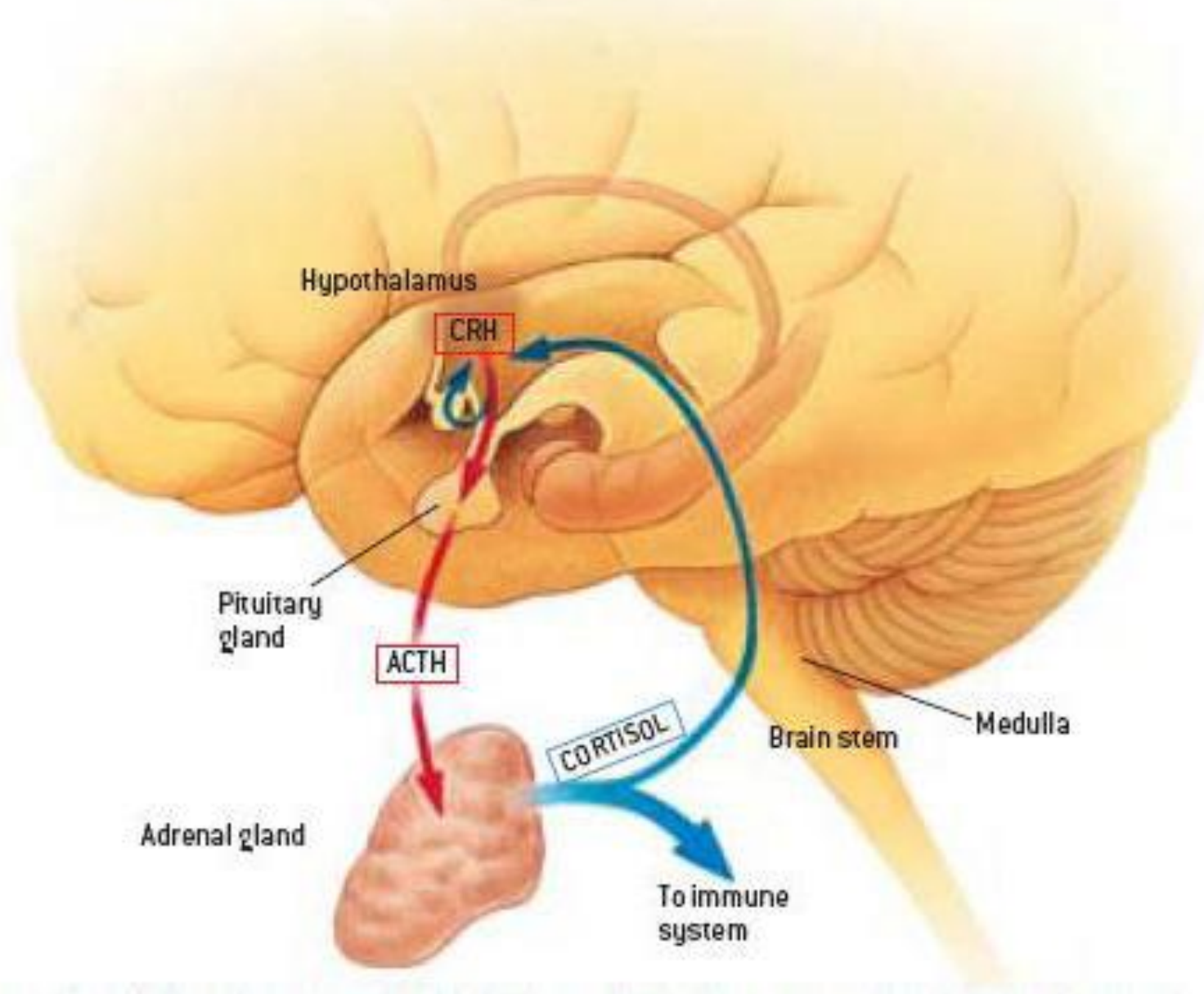


5. Adrenal Glands---The Gland in Crisis



Releases hormones:
Cortisol, Adrenaline (also called as Epinephrine)

STRESS RESPONSE SYSTEM



Ohhh pl-eeease, PLEASE, PL-eeeze
Lord.. SAVE ME,, and
GIVE ME
SUCCESS!



Ps 118:25 The Psalm of the unprepared student.

Long-term stress response

1. Proteins and fats broken down and converted to glucose, leading to increased blood glucose
2. Immune system may be suppressed

THE EFFECTS OF HIGH CORTISOL LEVELS



Higher
blood pressure



Lowers body's
ability to fight off
disease and
infections



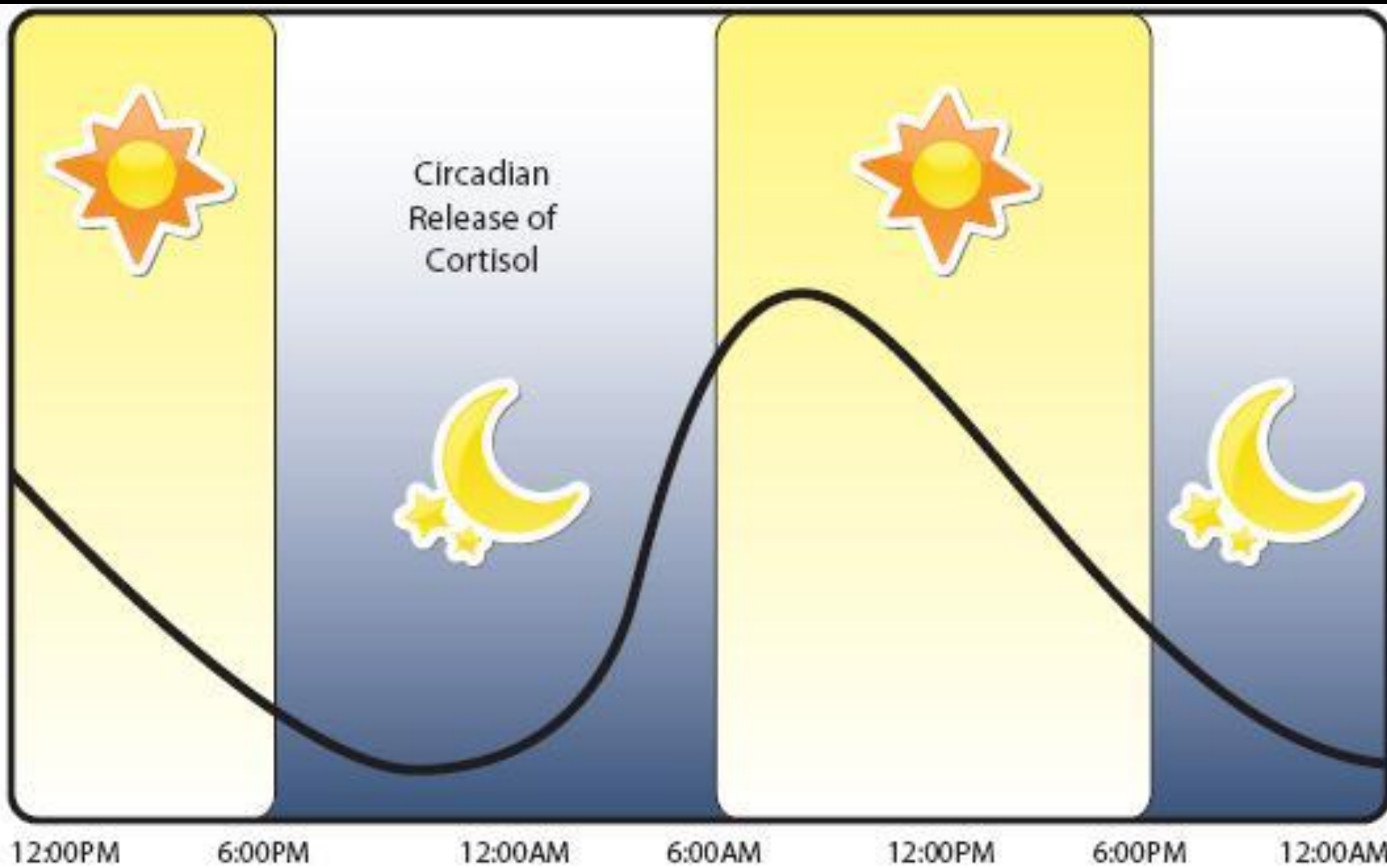
Increases blood sugar
levels, which may
affect people with
diabetes or a
family history of
diabetes



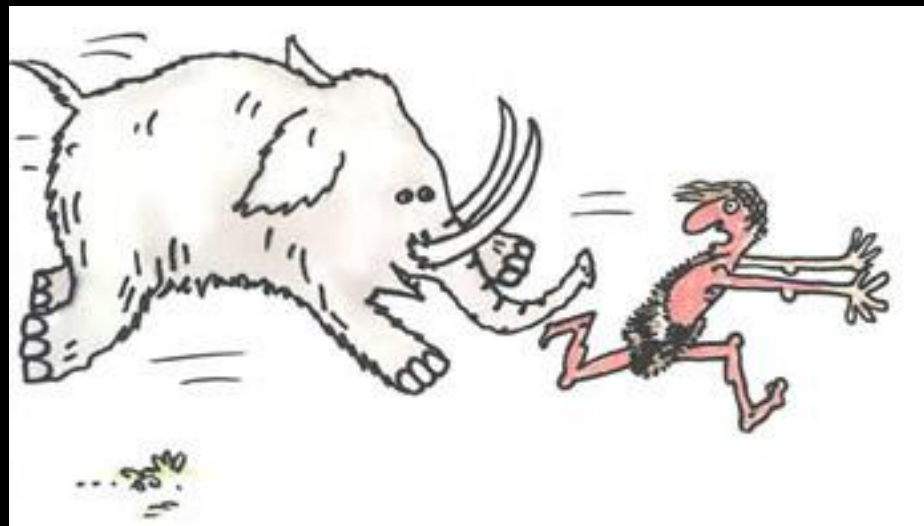
Causes increase
in fat storage,
especially around
the abdomen

All of which can contribute to an increased chance of heart problems.

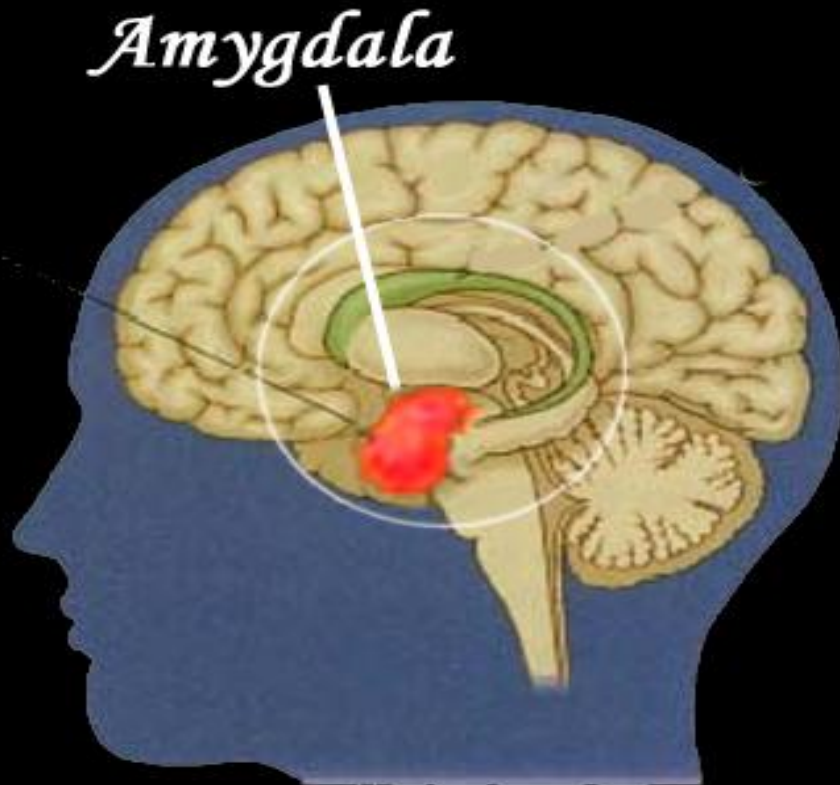
Circadian
Release of
Cortisol



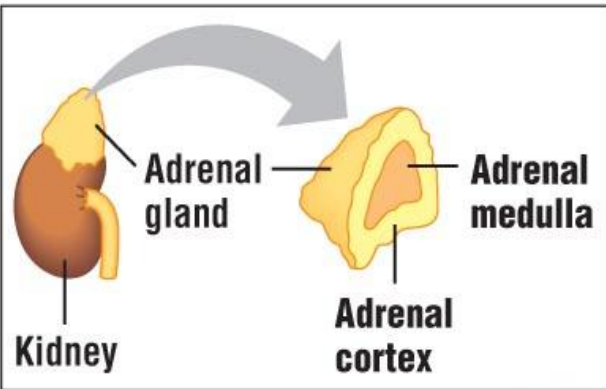
Name the hormone.....



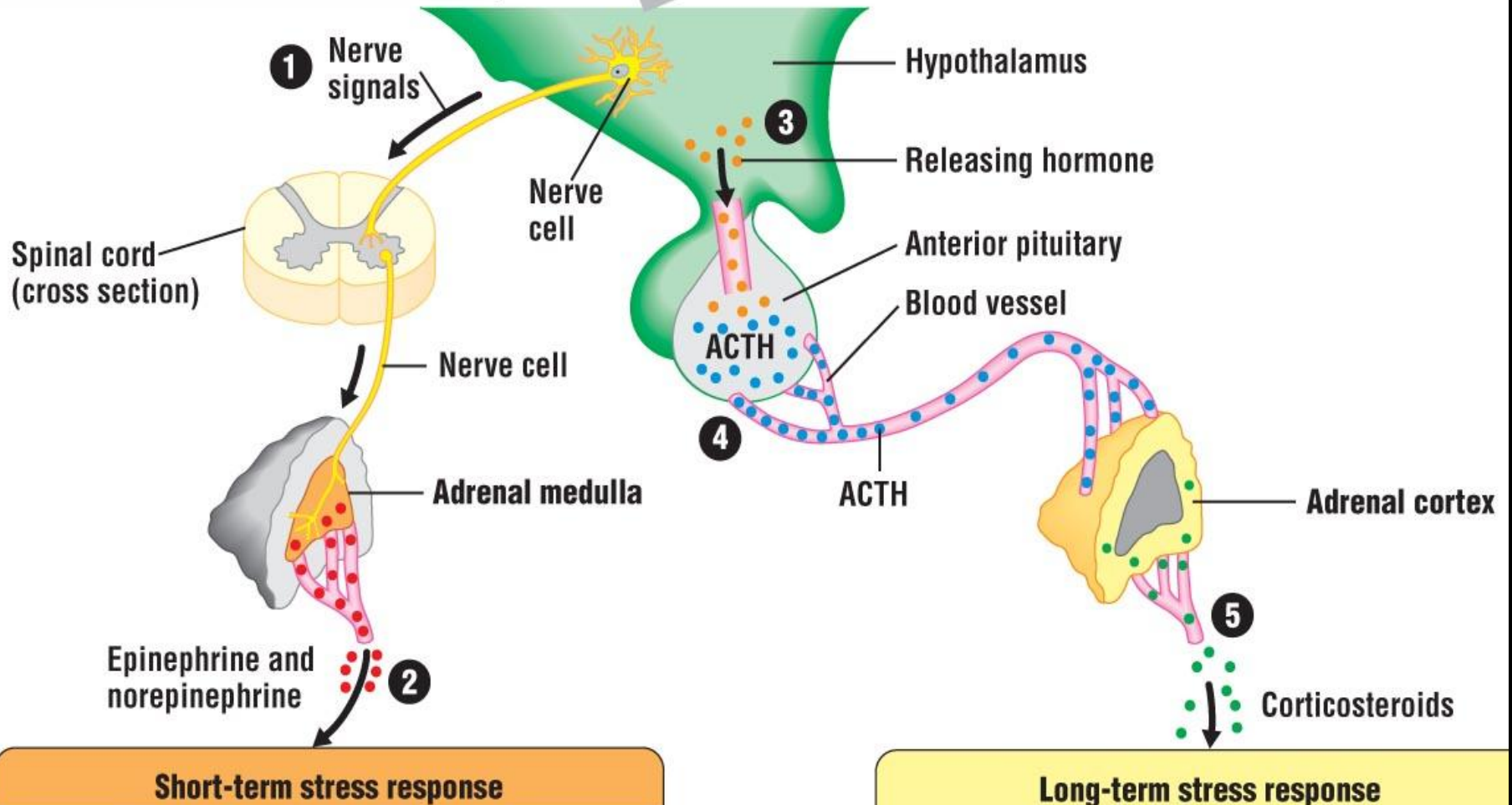
Amygdala Hijack



The removal of the amygdala takes away the memory of fear, therefore we do not fear about anything!



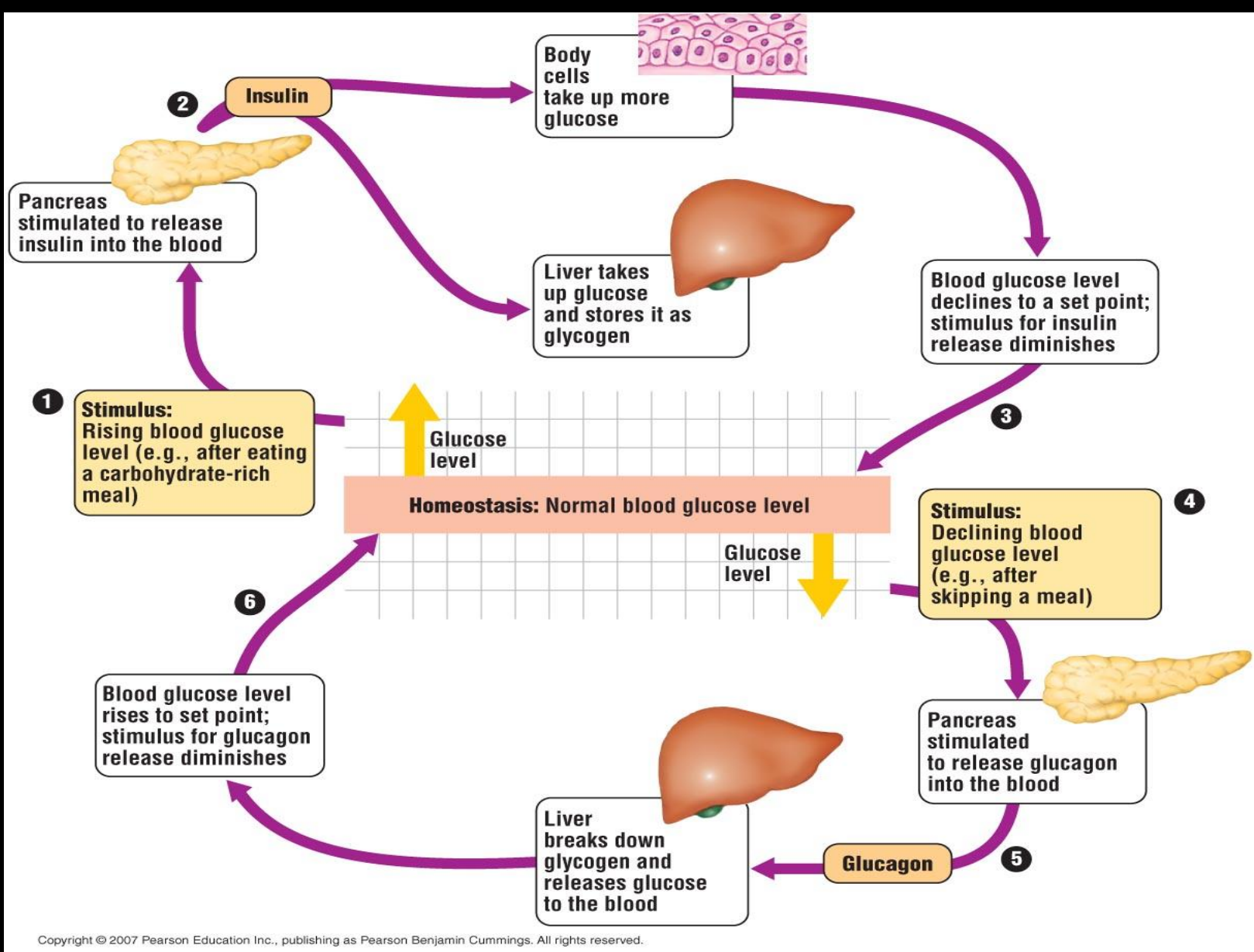
STRESS



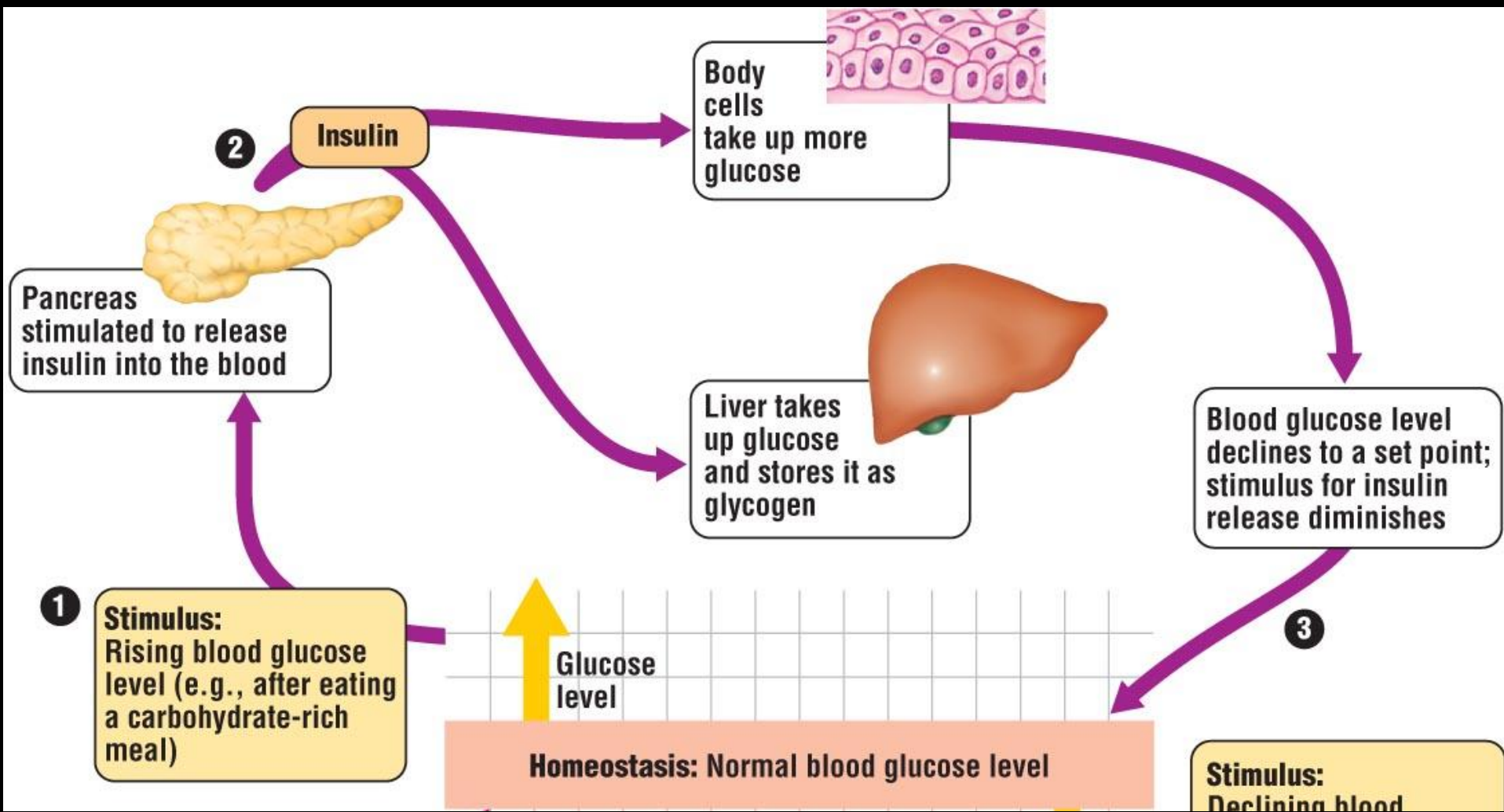
prevent loss of
with non-conducting

insulin

which regulates glucose
in the blood.



Life is Homeostasis





*A simple SMILE can change
everything!*

Why not try it and see?

Geraldine Starr

Join us @ www.facebook.com/RemedialMassagePortMacquarie

SMILING releases Endorphins- Natural Pain Killers

Thank
You



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