

Introduction to Endocrine

What is endocrine?

- >Secrete messenger molecules (mostly hormones)
- >Slower than neurotransmitters, but last longer

Catabolic: Break

Anabolic: Build

Subspecialties:

- >Neuroendocrinology:
 - >Hypothalamus
 - >Thalamus
 - >Pituitary Gland

Chemical messengers vs. Neurotransmitters

C: Blood (Epi)

N: Neurons (Norepi)

What are hormones?

- >Chemical messengers synthesized and released by endocrine glands

Classes of hormones:

- >Polypeptide
- >Steroid
- >Eicosanoids

Glands/Organs

Who	What/Why/How
Pineal	Melatonin (Sleep)
Pituitary	Prolactin (Milk) Growth Hormone ACTH (Stress) LH FSH (Sperm and egg) ADH (Vasopressin, BP regulation) Oxytocin (Labor)
Thyroid	T3 T4 Calcitonin
Adrenal	Epinephrine Aldosterone (Blood pressure) Cortisol (Blood glucose)
Pancreas	Insulin (Glucose, anabolic) Glucagon (Blood sugar)
Hypothalamus	CEO; Primary regulator

Parathyroid	PTH (Calcium)
Kidney	Renin