ENDOCRINE SYSTEM

A REGULATORY SYSTEM of body functions:

- control homeostasis by release of hormones (chemical messengers) into bloodstream.
- ⟶ Target cells all over body.

COMPARISON OF NERVOUS AND ENDOCRINE SYSTEMS

	NERVOUS	ENDOCRINE
1. Control by	Electrical Impulses delivered over neurons.	Release of hormones into blood stream
2. Target Cells	Muscle Cells Gland Cells Other neurons	Target cells all over body
3. Effects	Muscles contract Gland secrete	Change Metabolic Activities of body tissues
4. Response Time	A few millisecs	Can be up to several secs-hours - days
5. Direction of response	Brief	Longer than effect of nervous stimulation

1. NEURO-ENDOCRINE SYSTEM

   Consists of Central nervous system cells which secrete Neuro-hormone into body fluids → circulatory system → target cells → response (evolved first?).

2. CLASSICAL ENDOCRINE SYSTEM

   Consists of Glandular cells which secrete hormone into body fluids → circulatory system → target cells → response.

   Both endocrine systems are important regulatory systems.

   However, effects are slower and longer term than nervous system regulation.