INE | INSTITUTE OF NUTRITIONAL ENDOCRINOLOGY

Nutritional Endocrinology Overview and Relationships

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Medical Disclaimer: The information in this presentation is not intended to replace a one-on-one relationship with a qualified health care professional and is not intended as medical advice. It is intended as a sharing of knowledge and information from the research and experience of Dr. Ritamarie Loscalzo, drritamarie.com, and the experts who have contributed. We encourage you to make your own health care decisions based upon your research and in partnership with a qualified health care professional.

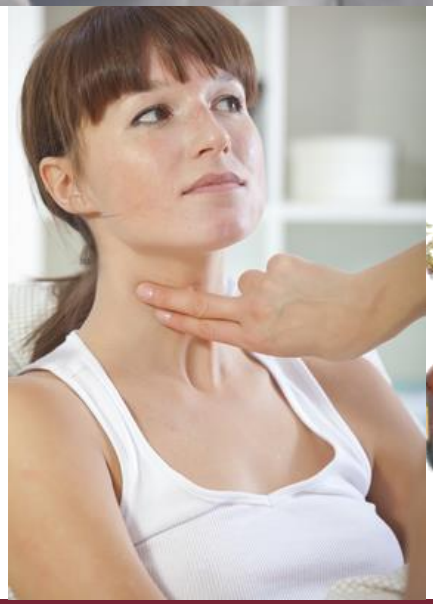
What Brings Clients to You?

Complex Health Challenges

Nutritional Endocrinology Defined

- ✓ Relationship between **nutrition and endocrine imbalances**
- ✓ **Nutrient deficiencies or excesses** impact hormones
- ✓ Understanding the **relationship between food and hormones**
- ✓ **Hierarchy of interventions**
  - ➢ Food and lifestyle
  - ➢ Herbs
  - ➢ Isolated nutrients
  - ➢ Bioidentical hormones – natural source

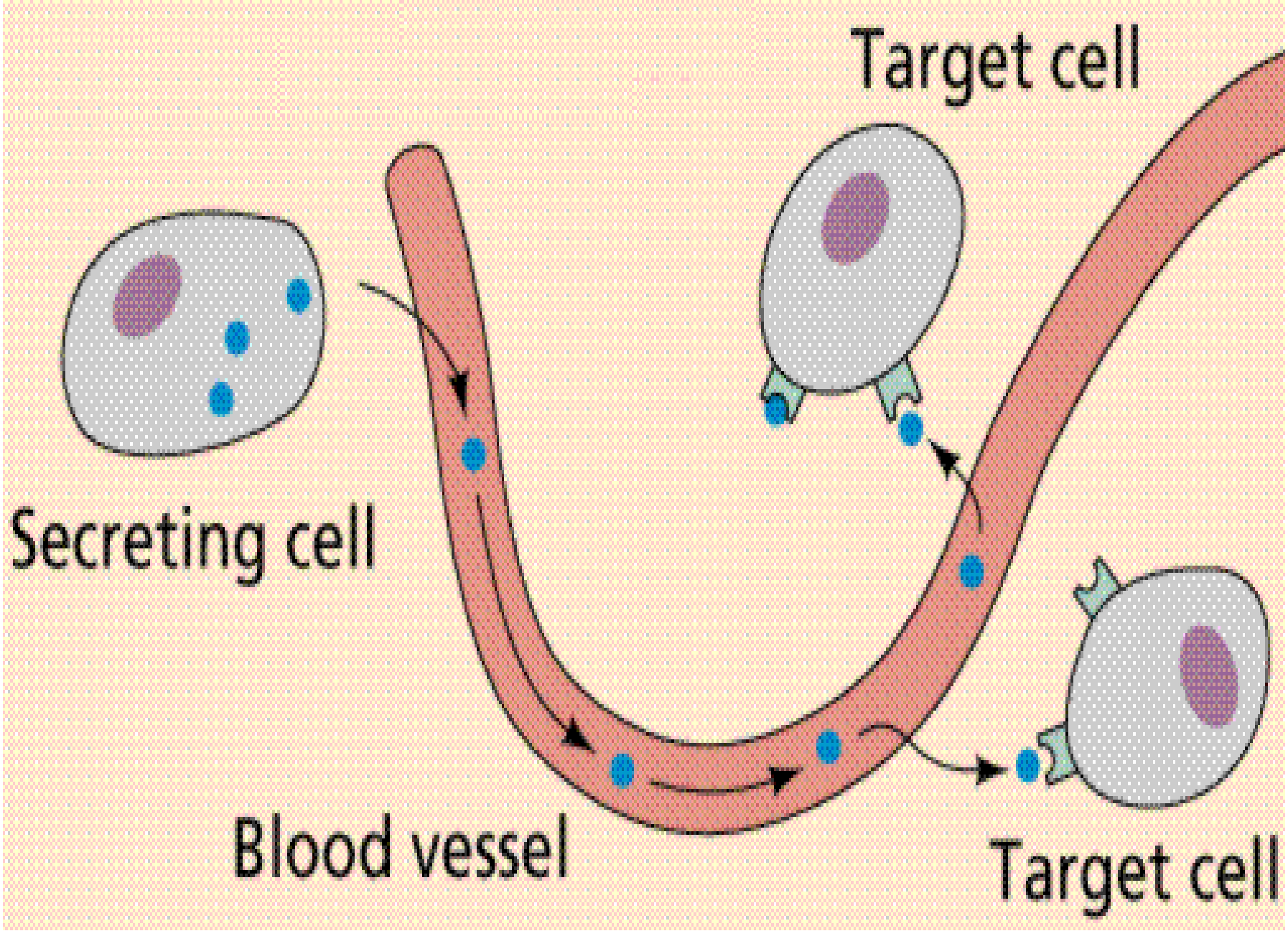
Functional Medicine/Nutrition



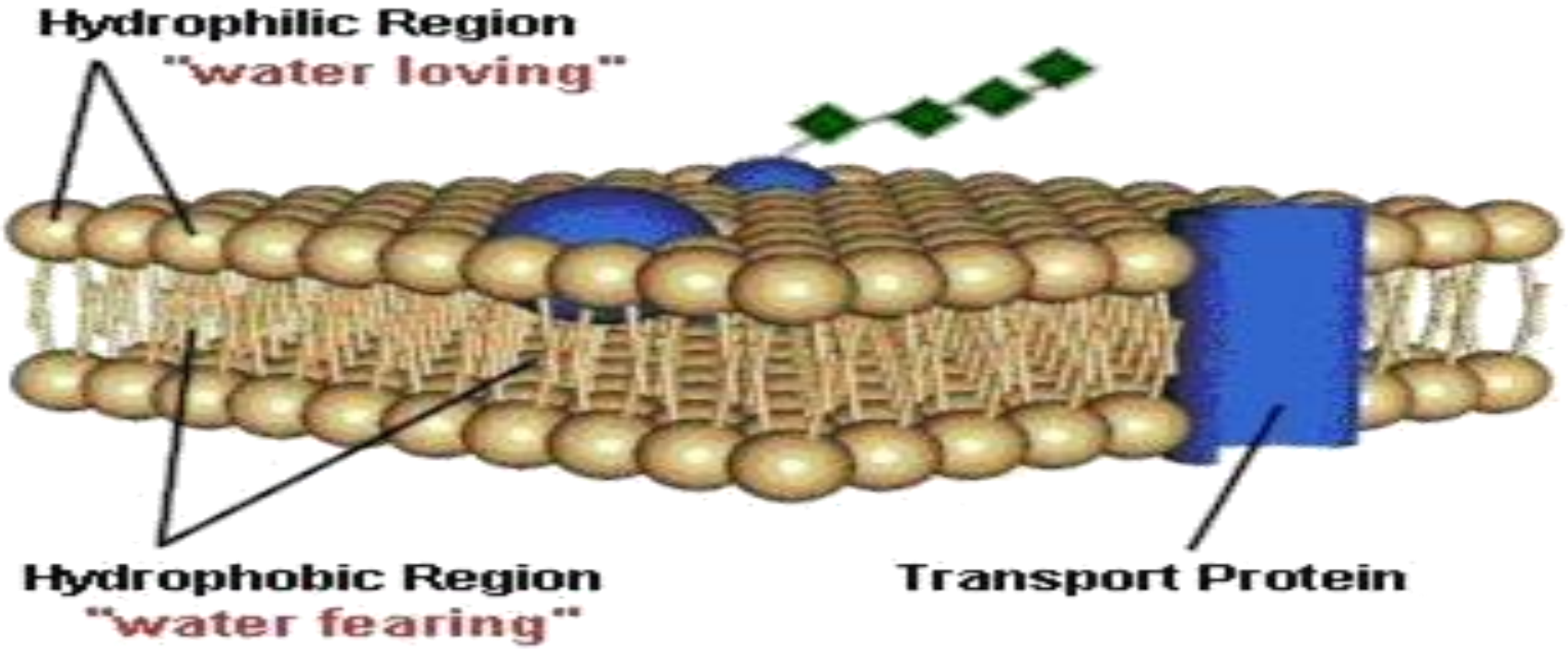
HORMONES

Hormones Defined

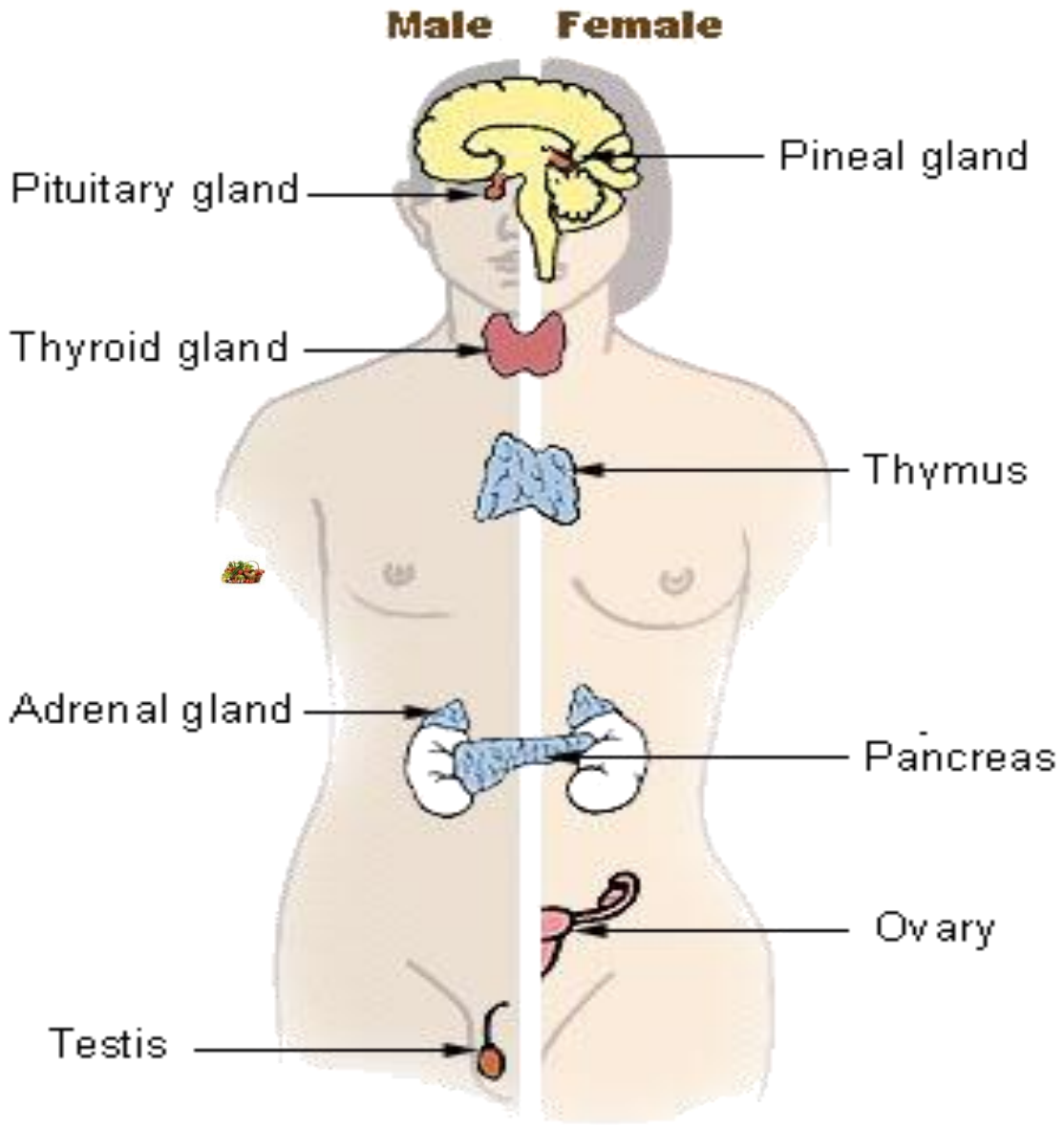
- ✓ Messengers of life
- ✓ **Chemicals secreted by glands:** usually directly into blood stream
- ✓ Control <u>physiological and behavioral activities</u> such as the processes of digestion, metabolism, growth, reproduction, and mood control
- ✓ **Receptors** are located on cell membrane or intracellularly within the cytoplasm of their target cell



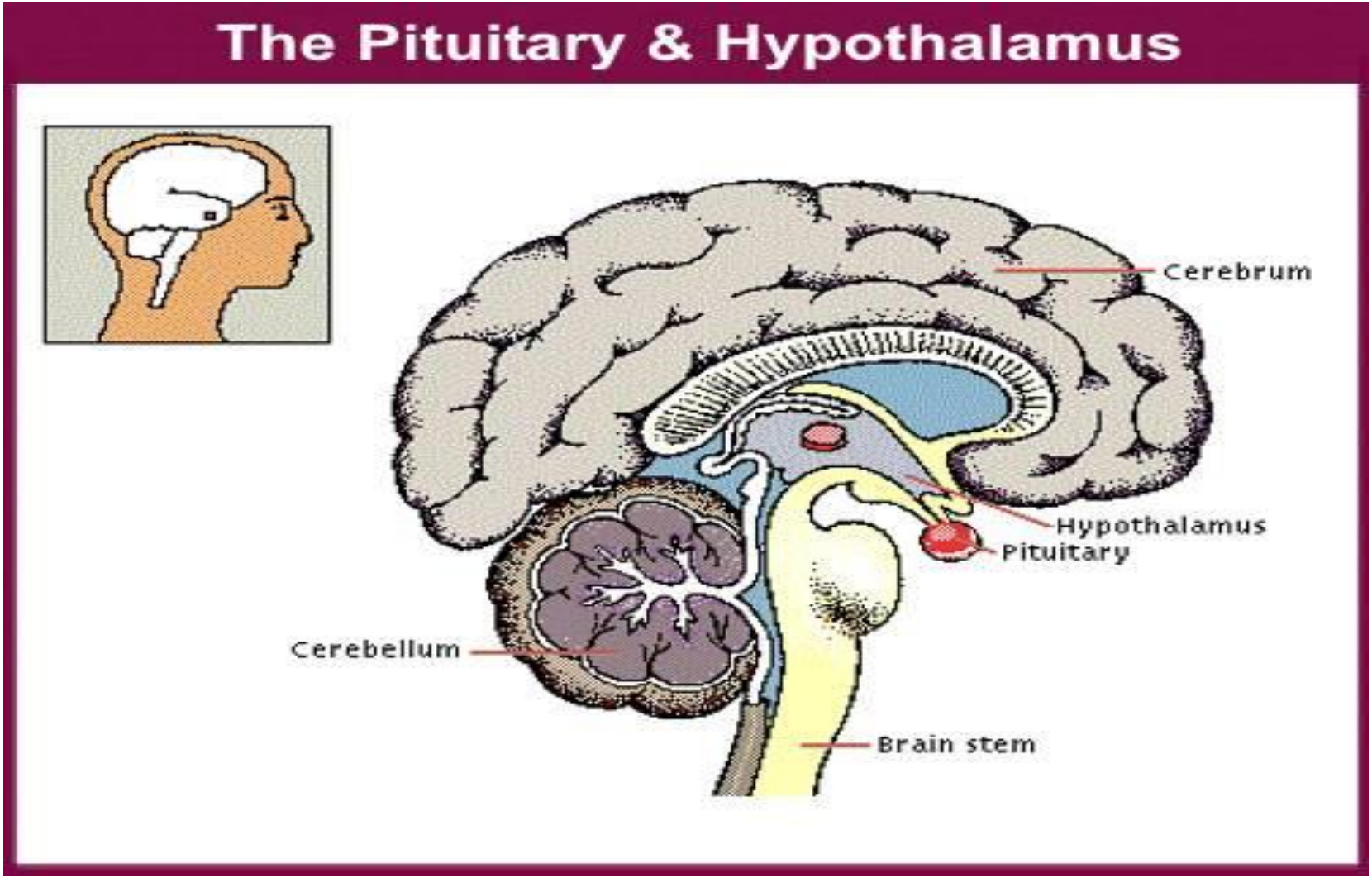
Hormone Receptor in Cell Membrane



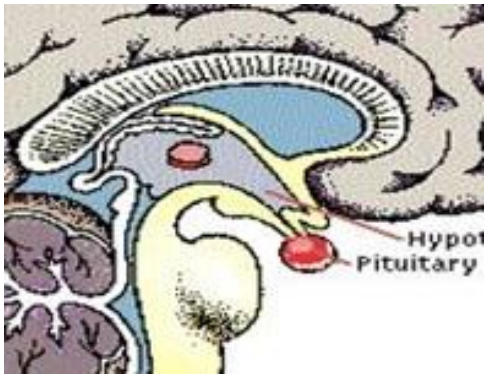
Major Endocrine Glands



Master Hormone Control



Hormones of the Hypothalamus

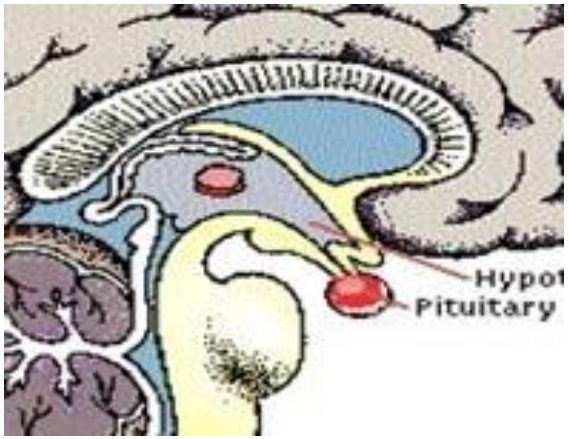


- ✓ Thyrotropin-releasing hormone **(TRH)**
- ✓ Gonadotropin-releasing hormone **(GnRH)**
- ✓ Growth hormone-releasing hormone **(GHRH)**
- ✓ Corticotropin-releasing hormone **(CRH)**
- ✓ Somatostatin: inhibits growth hormone **(SST)**
- ✓ Oxytocin: Uterine contraction, milk letdown **(OT)**
- ✓ Antidiuretic Hormone: increases water retention **(ADH)**

Pituitary Hormones

Anterior Lobe (Adenohypophysis)

- ✓ Thyroid Stimulating Hormone **(TSH)**
- ✓ Follicle Stimulating Hormone **(FSH)**
- ✓ Luteinizing Hormone **(LH)**
- ✓ Adrenocorticotrophic Hormone (**ACTH)**
- ✓ Prolactin **(PRL)**
- ✓ Growth Hormone **(GH)**
- ✓ Alpha Melanocyte-Stimulating Hormone **(α-MSH)**

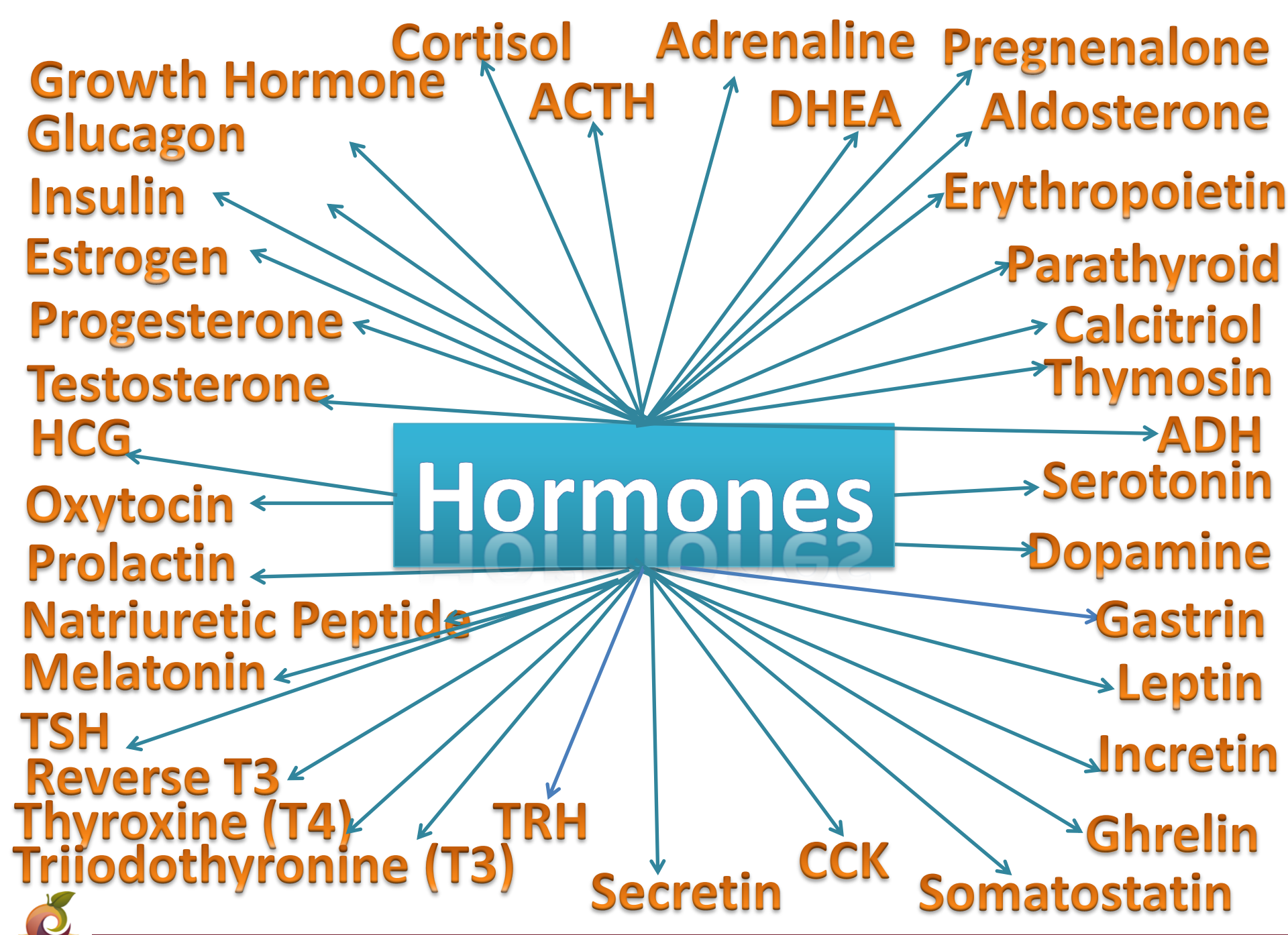


Posterior Lobe (Neurohypophysis)

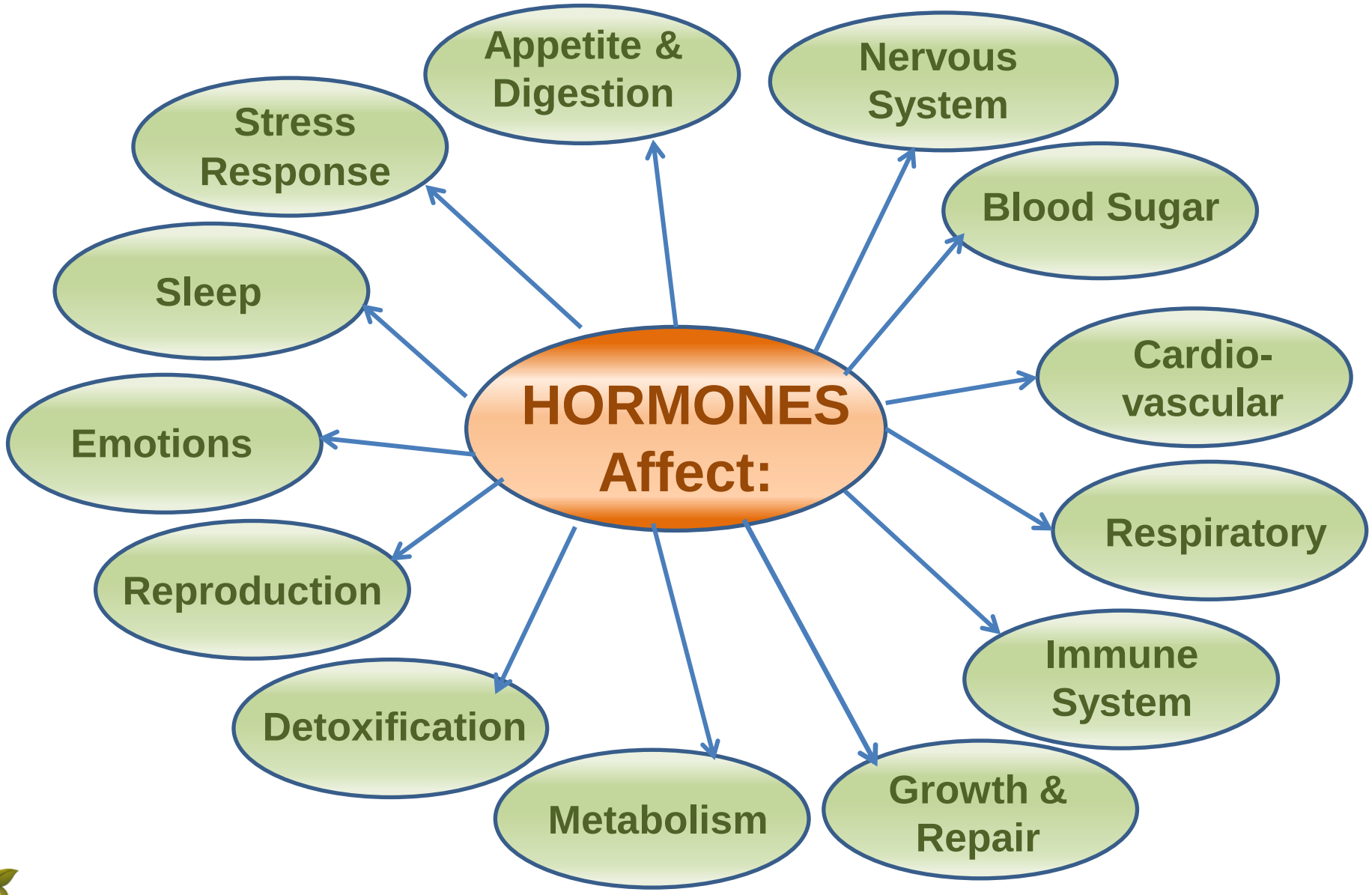
- ✓ Antidiuretic Hormone aka Vasopressin **(ADH)**
- ✓ Oxytocin **(OT)**

Hormones Can Affect

- ✓ Focus and memory
- ✓ Sugar handling
- ✓ Digestive function
- ✓ Muscle tone
- ✓ Burning calories
- ✓ Kidney function
- ✓ Satiety after eating
- ✓ Temperature regulation
- ✓ Metabolic rate
- ✓ Sex drive
- ✓ Breast development
- ✓ Menstrual cycles and pregnancy



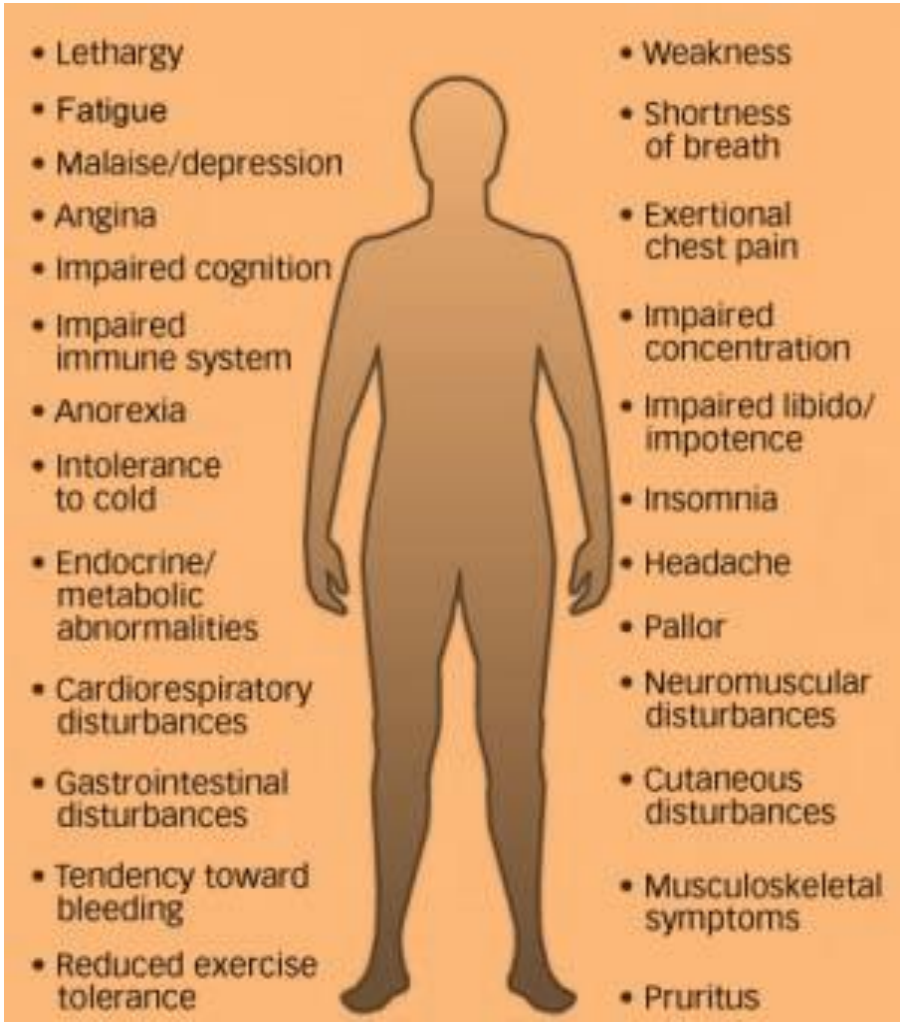
Hormonal Control of Function



Hormones Control

- ❑ Nutrients
- ❑ Foods
- ❑ Stress
- ❑ Environment
- ❑ Digestion
- ❑ Sleep
- ❑ Other Hormones

Connection Between Hormones And Persistent Symptoms



- ✓ Fatigue
- ✓ Weight gain / weight loss (yo-yo)
- ✓ Insomnia
- ✓ Depression, anxiety, and mood swings
- ✓ Skin lesions
- ✓ High cholesterol
- ✓ Cancer…

