



## Overview of Nutritional Endocrinology and Hormone Relationships

### Pre-Test Answers

Question	Answer
In a short paragraph, please describe your understanding of what hormones are, what they do, and where hormone receptors are located.	Hormones are the messengers of life. They are chemicals secreted by glands, usually directly into blood stream. Hormones control physiological and behavioral activities such as the processes of digestion, metabolism, growth, reproduction, and mood control. Hormone receptors are located on cell membrane or intracellularly within the cytoplasm of their target cell.
Please list the major endocrine glands and where they reside in the body.	pituitary, hypothalamus: brain thyroid: neck adrenals: above kidneys ovaries: pelvis testes: scrotum pancreas: left side of body, near stomach
Choose the best answer. Hormone receptors are...	<input type="checkbox"/> located on cell membrane or in the cytoplasm <input type="checkbox"/> important to consider in hormone regulation in that problems with them can cause symptoms of low hormone levels even if blood measures are normal <input type="checkbox"/> located on target cells and are important for proper hormone function <input checked="" type="checkbox"/> <b>all of the above</b>
Which hormones are produced by the hypothalamus?	Antidiuretic Hormone Thyrotrophin Releasing Hormone (TRH) Corticotropin Releasing Hormone (CRH) Gonotrophin Releasing Factor (GnRH)



Question	Answer
Which hormones are produced by the pituitary?	Thyroid Stimulating Hormone (TSH) Growth Hormone Adrenocorticotrophic Hormone (ACTH) Prolactin (PRL)
Please name the 6 major hormone pairs:	Insulin/Glucagon Cortisol/DHEA Leptin/Ghrelin Estrogen/Progesterone Testosterone/DHEA Growth Hormone/Somatostatin
Please name the 7 major hormone families:	Metabolic rate Blood sugar balancing Appetite and digestion Stress Sex and reproduction Sleep, thoughts, and emotions Organ functions
Please list the hierarchy of nutritional endocrinology interventions that can be used to restore balance. For each intervention, please name at least two related hormones.	Digestion: CCK, Somatostatin Blood Sugar: Insulin, Glucagon Stress Response: Cortisol, DHEA Thyroid: T3, T4 Sleep: Growth Hormone, Melatonin Sex Hormones: Estrogen, Progesterone, Testosterone, Oxytocin, Organ Specific: Natriuetic Peptide, Aldosterone, Erythropoietin, Calcitriol, Thymosin