Endocrine system

Ch 45

**Fig 45.6**

Hormone:

 Endocrine gland

 Exocrine gland:

 Neurosecretory cells:

 oxytocin:

 antidiuretic hormone:

Feedback loops:

Hormonal control pathways

 **Fig 45.2**

Water soluble hormones

 **Fig 45.3a**

Fat soluble hormones

 **Fig 45.3b**

Diverse response

 **Fig 45.4**

  receptor

  receptor

Paracrine signaling

 Cytokine:

 Nitric oxide:

 Prostaglandins:

(**Fig 45.5**)

Pituitary & Hypothalamus

Fig 45.6 & 7 & 8

Hypothalamus:

Pituitary gland:

 Posterior pituitary: (Fig 45.7)

 ADH:

 Oxytocin:

 Anterior pituitary: (Fig 45.8)

 Tropic hormones:

 FSH:

 LH:

 TSH:

 ACTH:

 Nontropic hormones:

 MSH:

Malignant melanoma:

 Endorphin:

 Prolactin:

 Growth hormone:

 Hypersecretion:

 Hyposecretion:

Thyroid: (**Fig 45.6**)

 T3:

 T4:

 Hyperthyroidism:

(**Fig 45.10**)

 Hypothyroidism:

 Iodine deficiency:

Feedback regulation (**Fig 45.9**)

Parathyroid (**fig 45.11**)

 Ca+ balance

 Parathyroid hormone:

 Calcitonin:

Pancreas: (**fig 45.12**)

 98% by weight produce digestive enzymes – exocrine

 2% by weight is Islet of Langerhans

 -cells

 -cells

Adrenal glands: (fig 45.13)

 Adrenal medulla:

 Catecholamine

 Adrenal cortex:

 Adrenalcorticoid

 Mineralcorticoid:

 Aldosterone

 Glucocorticoid:

 Cortosol

Testes and ovaries

 Testes:

 Testosterone:

 Inhibin:

 Ovary:

 Estrogen:

 Estradiol:

 Progesterone: pro-

 Inhibin:

 Relaxin:

Pineal gland

 Melatonin: