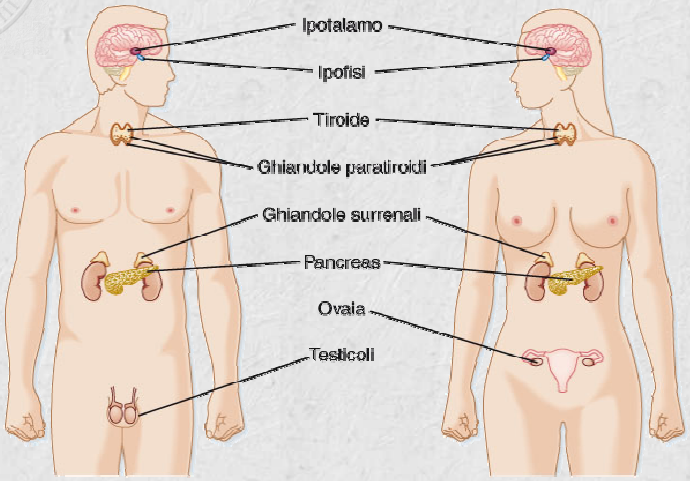
Università degli Studi di Perugia
Dipartimento di Medicina Sperimentale
Sezione di Fisiologia e Biochimica

Apparato endocrino

Introduzione e concetti generali

Principali ghiandole endocrine



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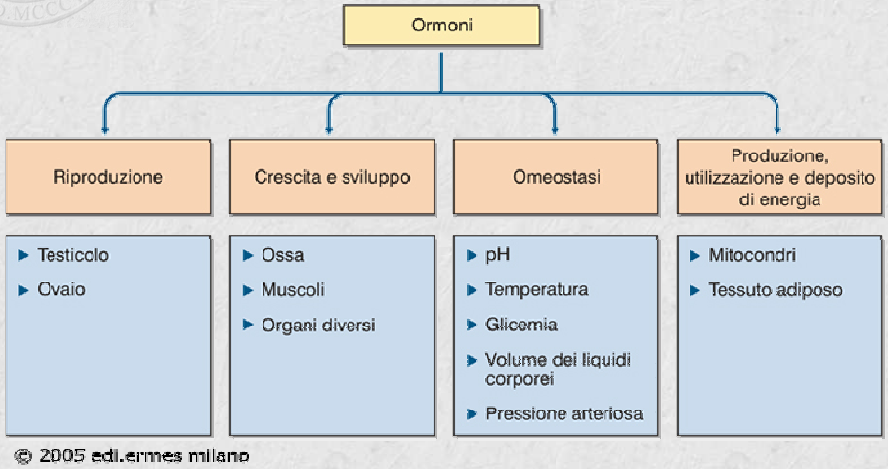
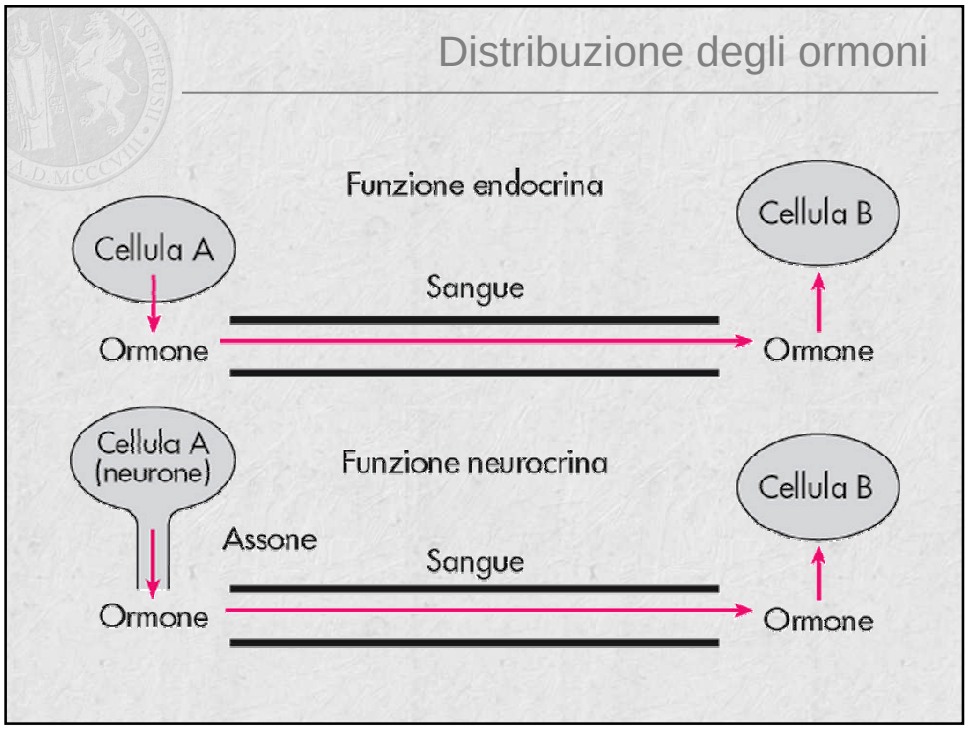
Funzioni controllate dagli ormoni

- Controllo del canale digerente ed annessi
- Controllo della produzione energetica
- Controllo della composizione e del volume dei liquidi extracellulari
- Adattamento all'ambiente sfavorevole
- Crescita e sviluppo
- Riproduzione

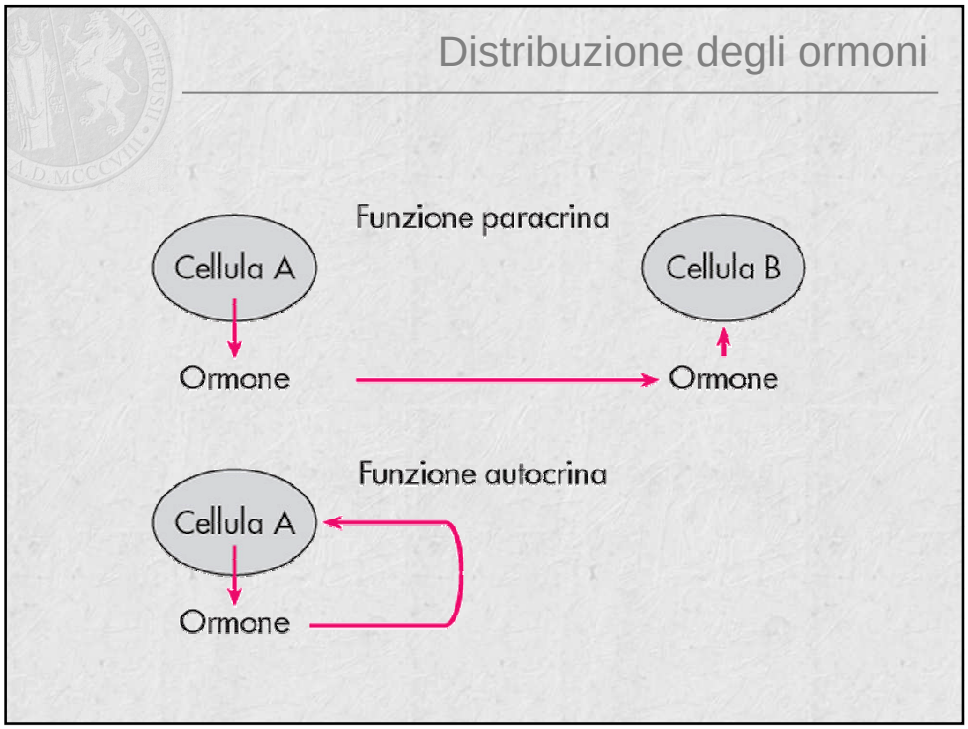
Funzioni controllate dagli ormoni

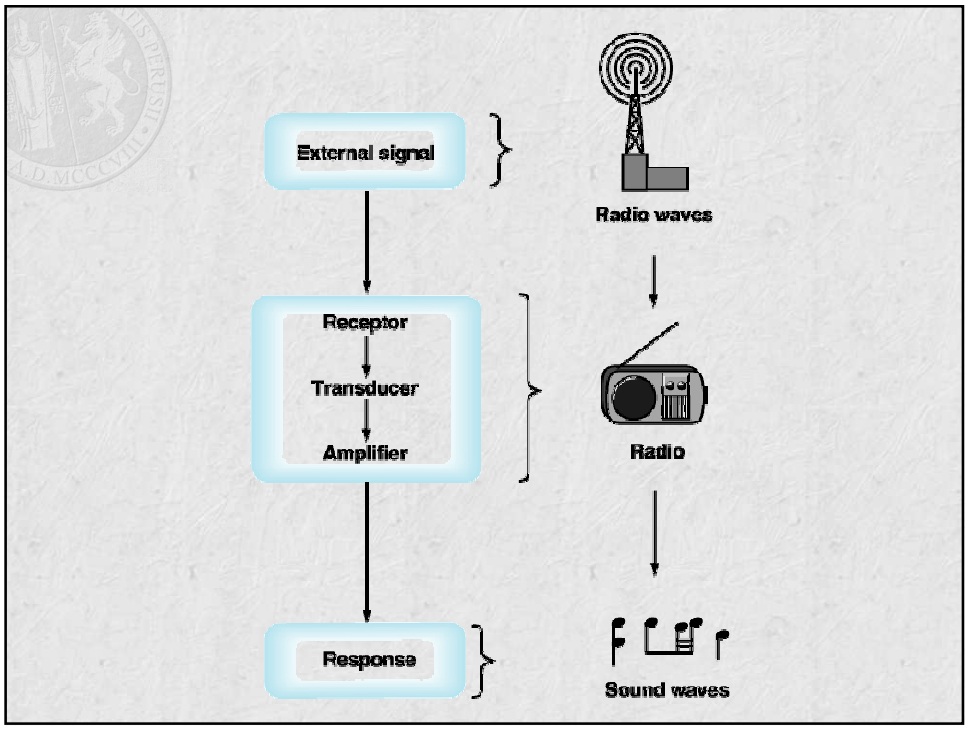


Distribuzione degli ormoni



Distribuzione degli ormoni

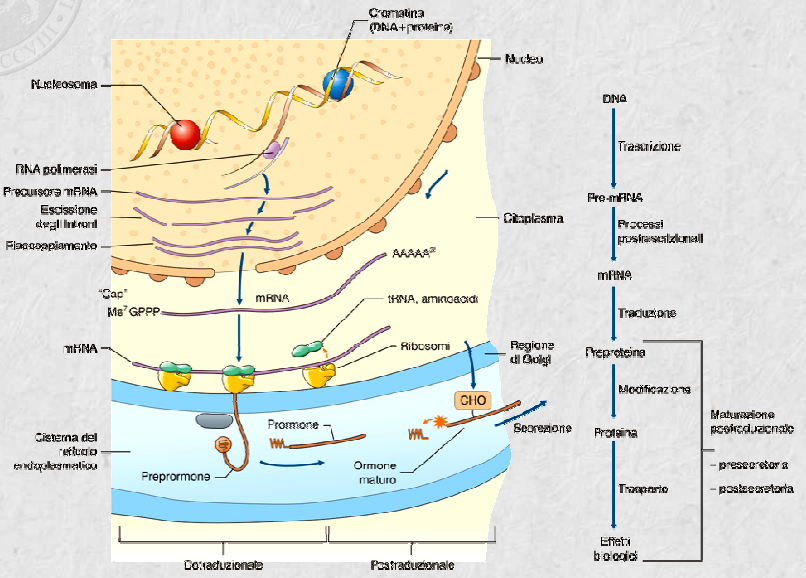




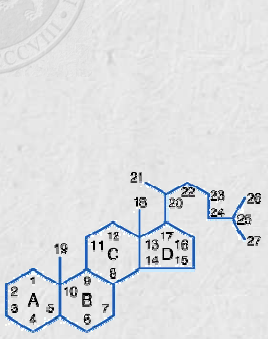
Natura chimica degli ormoni

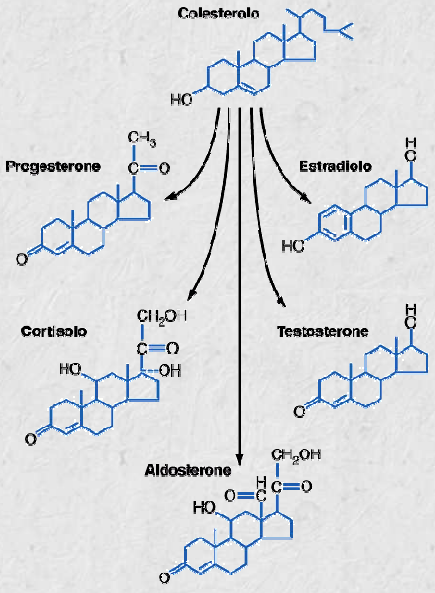
- Polipeptidi: insulina, glucagone, GH, ACTH, paratormone, ADH, ossitocina, ormoni ipotalamici, etc.
- Ormoni steroidei: Cortisolo, Aldosterone, 17β-estradiolo, Progesterone, Testosterone.
- Amine (tirosina): Tetraidodtironina (T_4), Triiodotironina (T_3), Adrenalina e Noradrenalina.

Biosintesi degli ormoni polipeptidici

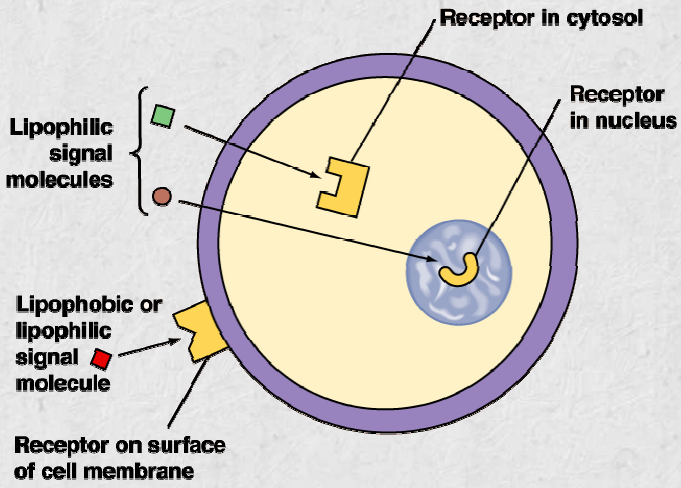


Biosintesi degli ormoni steroidei

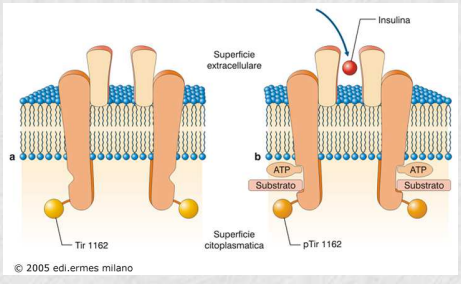


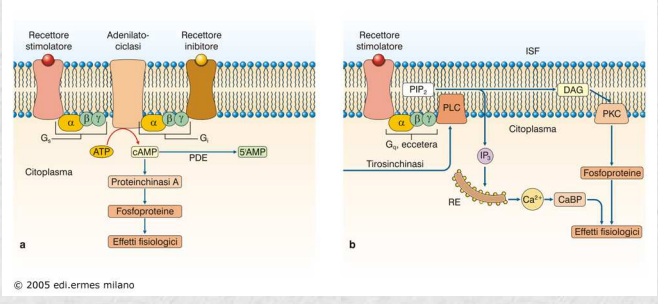


Meccanismi di trasduzione

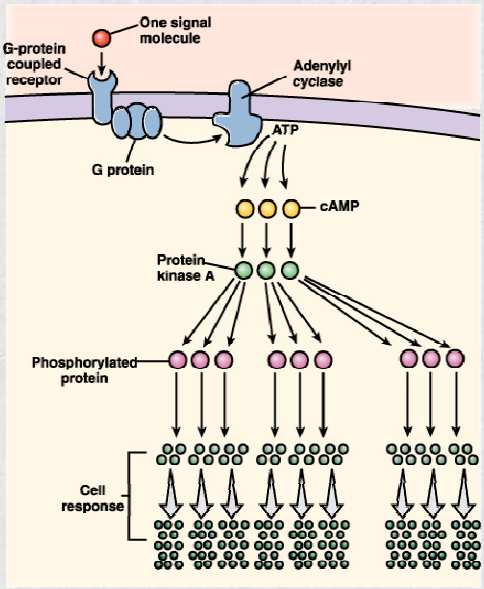


Trasduzione degli ormoni polipeptidici

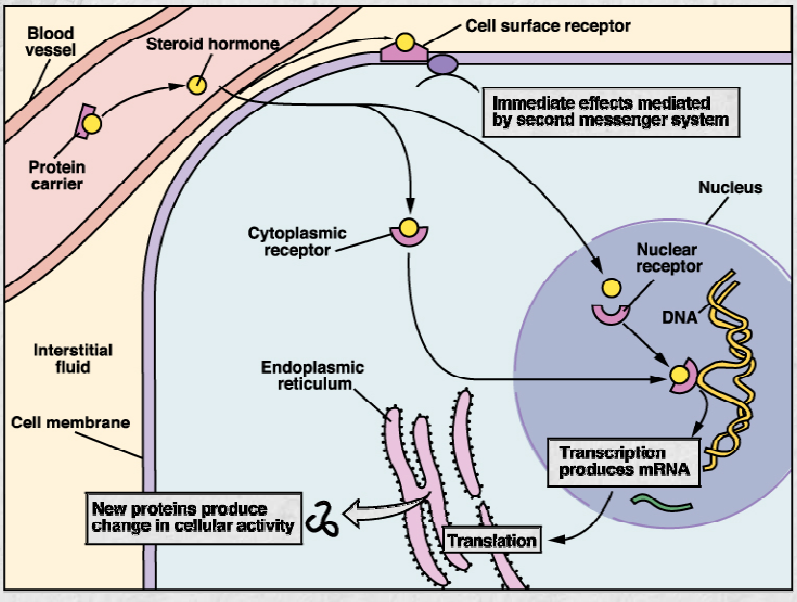




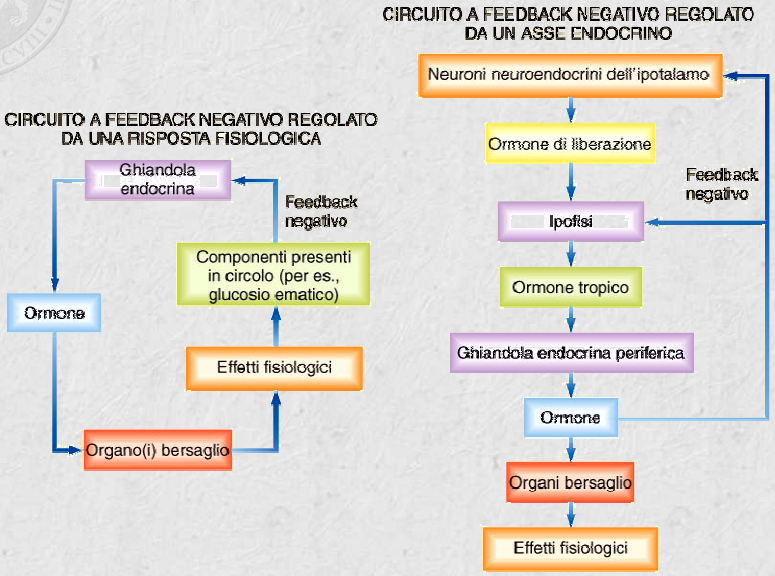
Effetto di amplificazione



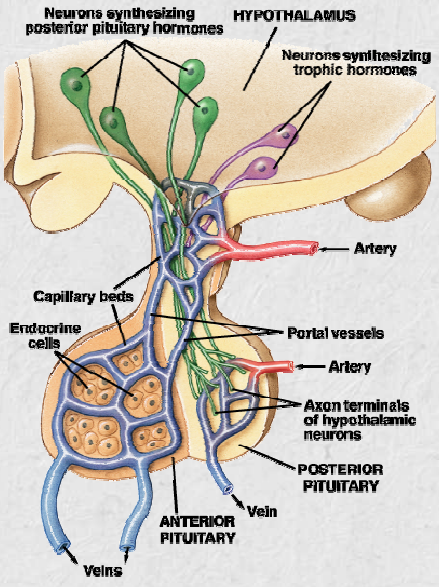
Trasduzione degli ormoni steroidei



Controllo della secrezione



Asse ipotalamo-ipofisario



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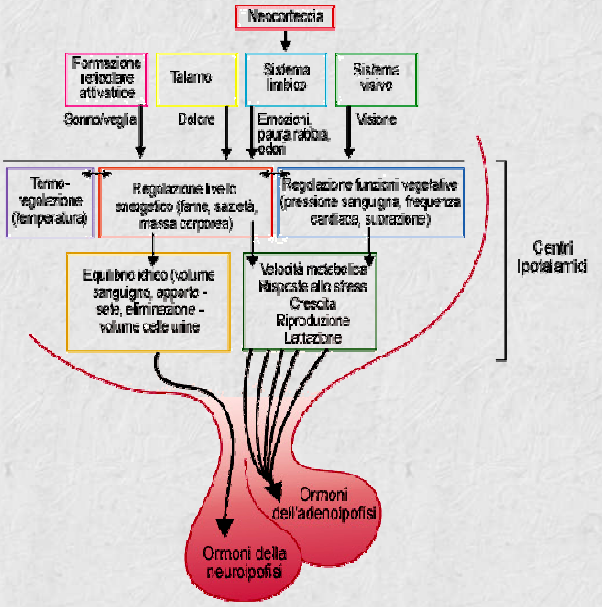

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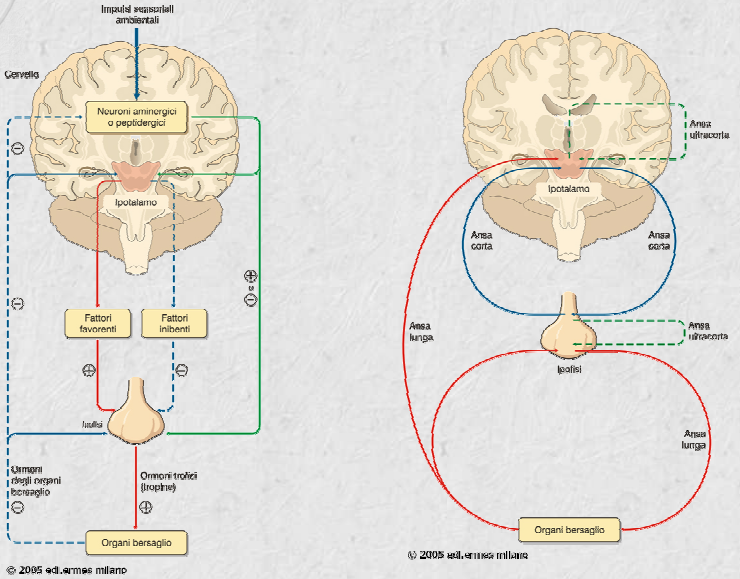
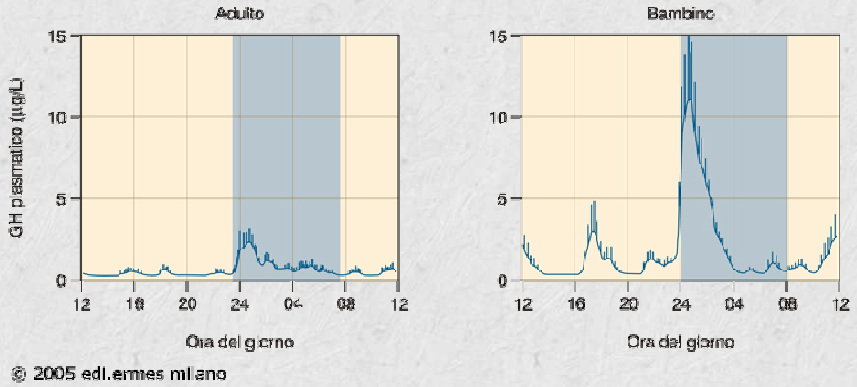
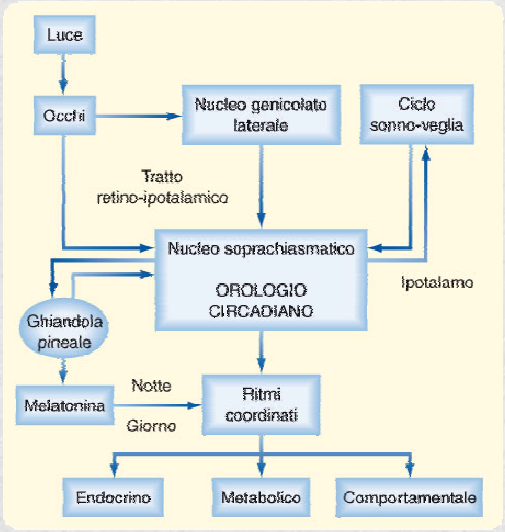


Ritmi circadiani



Coordinazione dei ritmi circadiani



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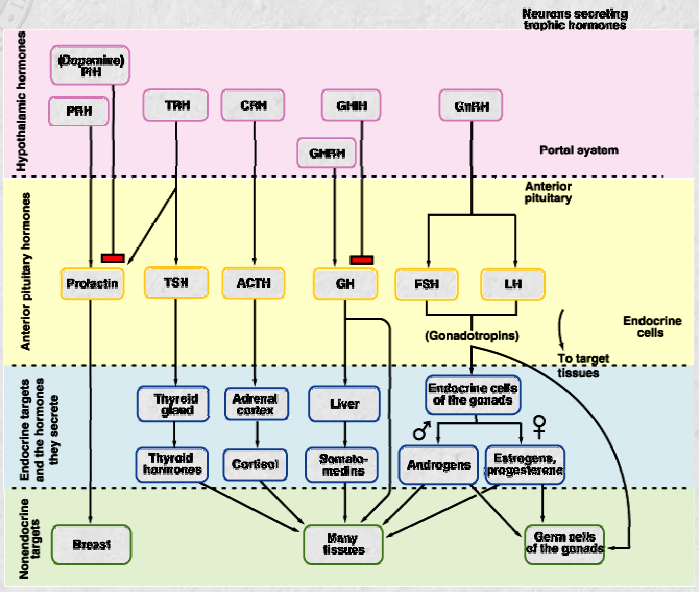
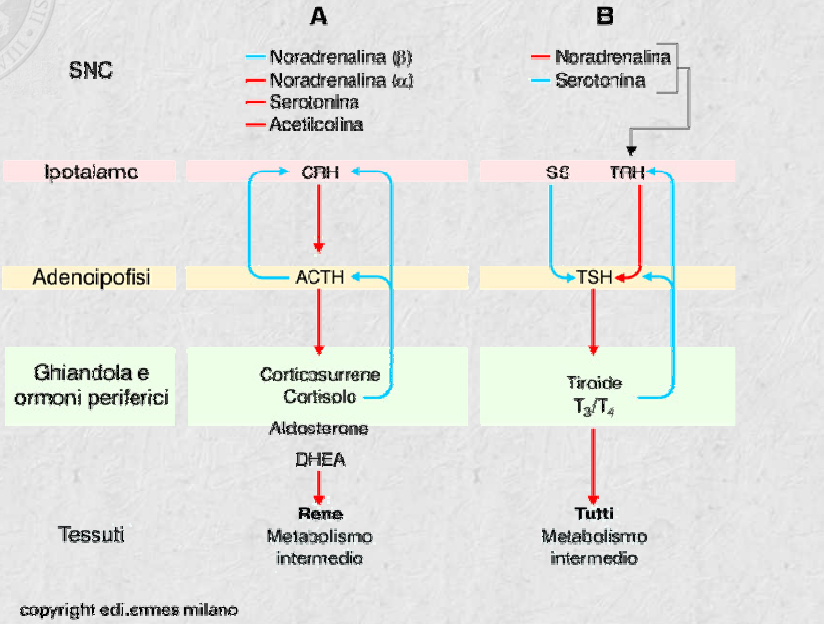
Ormoni controllati dall'asse ipotalamo-ipofisario



Ormoni controllati dall'asse ipotalamo-ipofisario



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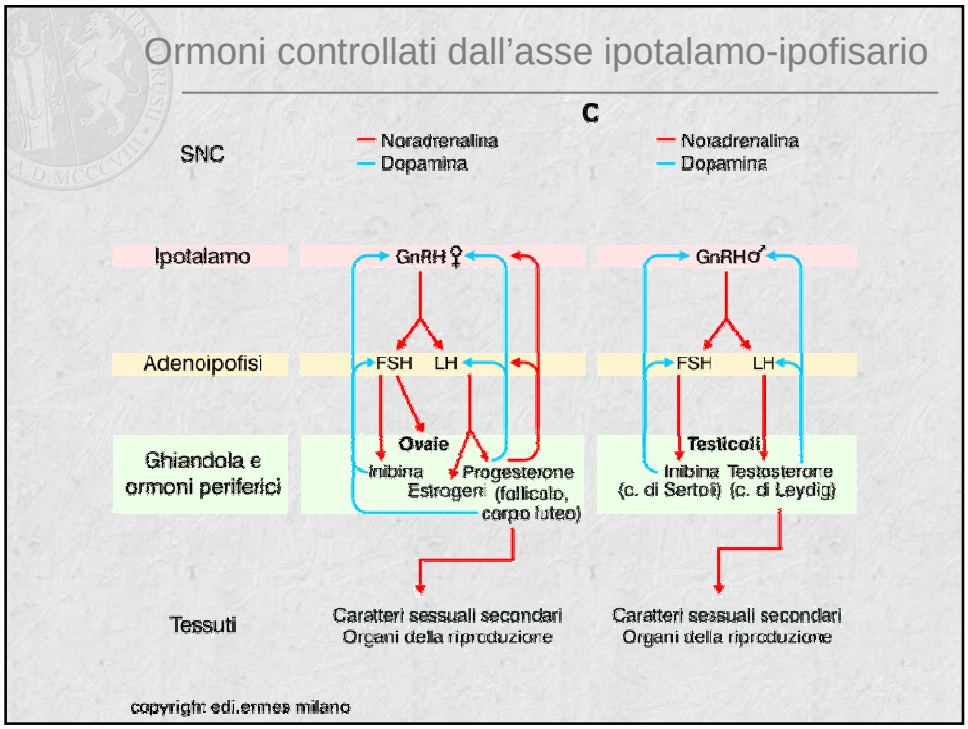

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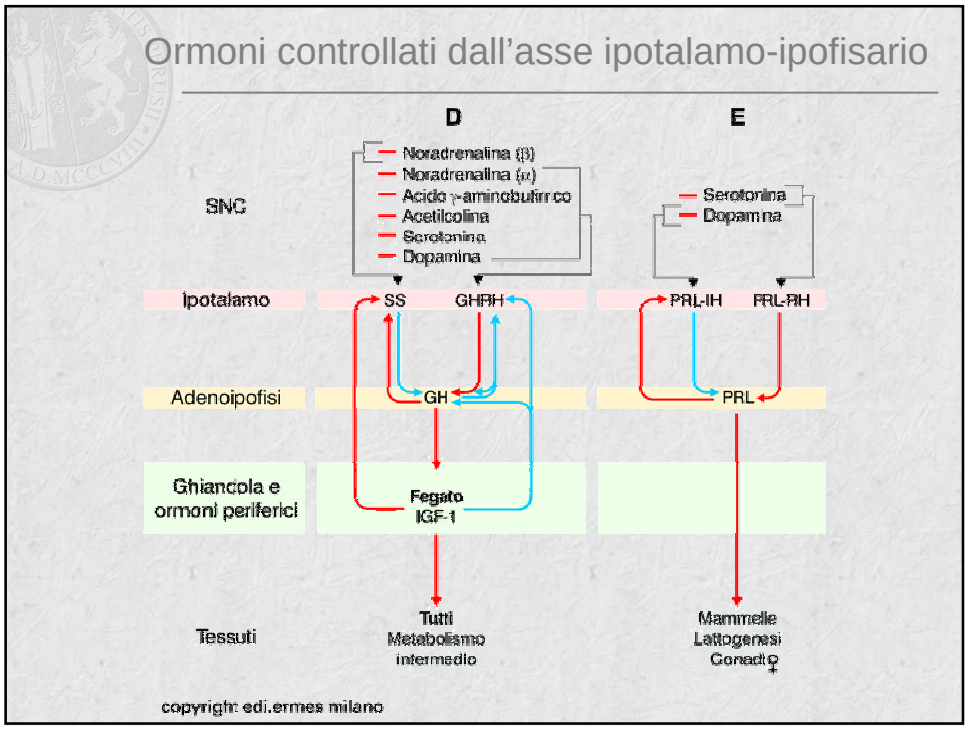
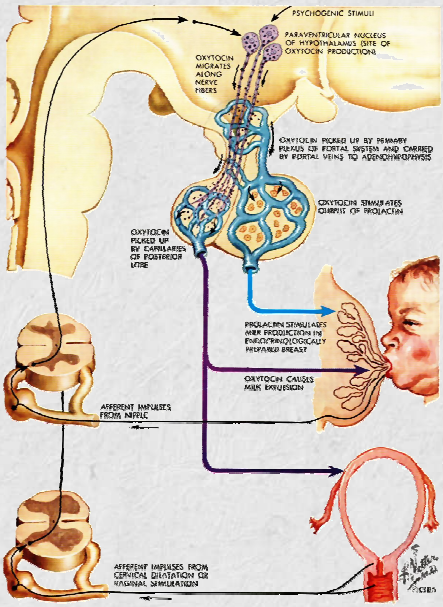


Ipofisi posteriore: Ossitocina

- Effetto sull'eiezione del latte: induce la contrazione delle cellule mioepiteliali degli alveoli.
- Effetto sull'utero (gravido): attivazione della muscolatura e riduzione della durata del parto.



Il feed-back positivo dell'ossitocina