VITAMIN D:

7-Dehydrocholesterol → Vitamin D₃

Discovery of Vitamin D, isolation, sources, etc., in lecture

Also transformation of ergosterol (from yeast) to Vitamin D₂ is the same reaction – just double bond at position marked with ↖

CORTISONE AND CORTISOL:

CORTISONE

CORTISOL

Among hormones of adrenal cortex
Clinical uses:
- Cortisone – rheumatoid arthritis, skin diseases
- Cortisol – allergies, tissue inflammations

Synthesis of cortisone from diosgenin:

Diosgenin → Progesterone → 11-α-hydroxyprogesterone → CORTISONE

Marker YEA, PSU: BRILLIANT:

MICROBIOLOGICAL HYDROXYLATION (Upjohn)

BILE SALTS (Bile acids):

Cholic Acid (a bile acid)
Desoxycholic acid (no 7-OH)

A bile salt:
Emulsifies fats & lipids – so can pass through intestinal wall

see over
SEX HORMONES:
Female Hormones: Estrogens

Male Hormones: Androgens

Note similarity of molecules – some comments on mechanism of action in class

(Birth Control Pills:)
Over a hundred different birth control pills are now sold over the world; some comments on mechanism of action – problems – hazards – in lecture. Typical examples:

Other kinds of compounds: