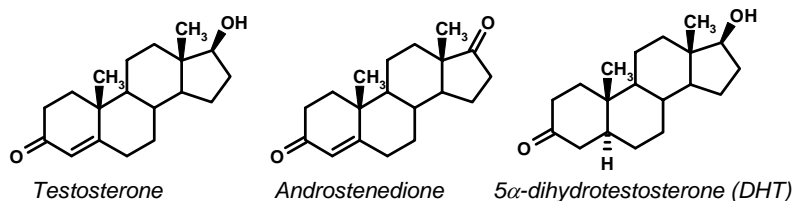
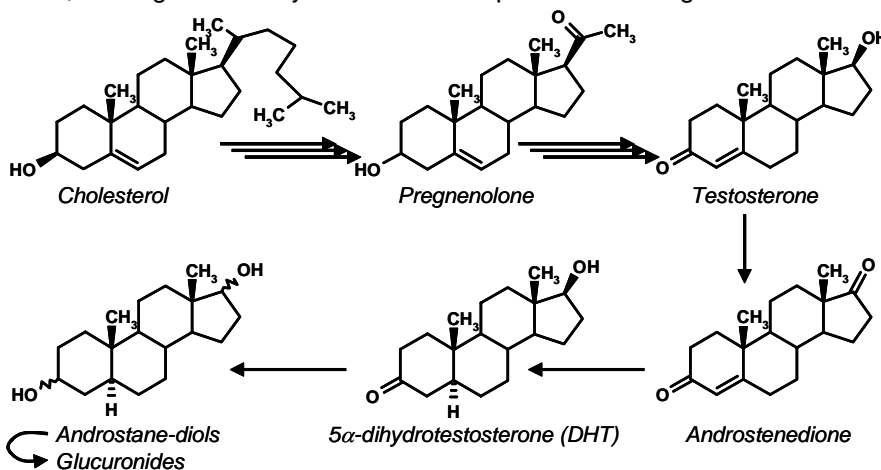


- ✓ **Structure of Androgenic Steroids** 19 carbon skeletons; presence of oxygen substituents at the 3, and 17-positions; testosterone is the most important androgenic steroid

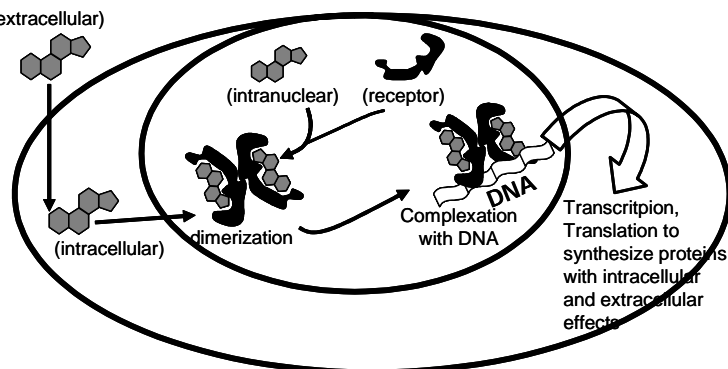


- ✓ **Pharmacologic Activities of Androgenic Steroids** Two types of effects: anabolic and androgenic; Anabolic effect refers to development of muscle mass; Androgenic activity refers to development of sex organs

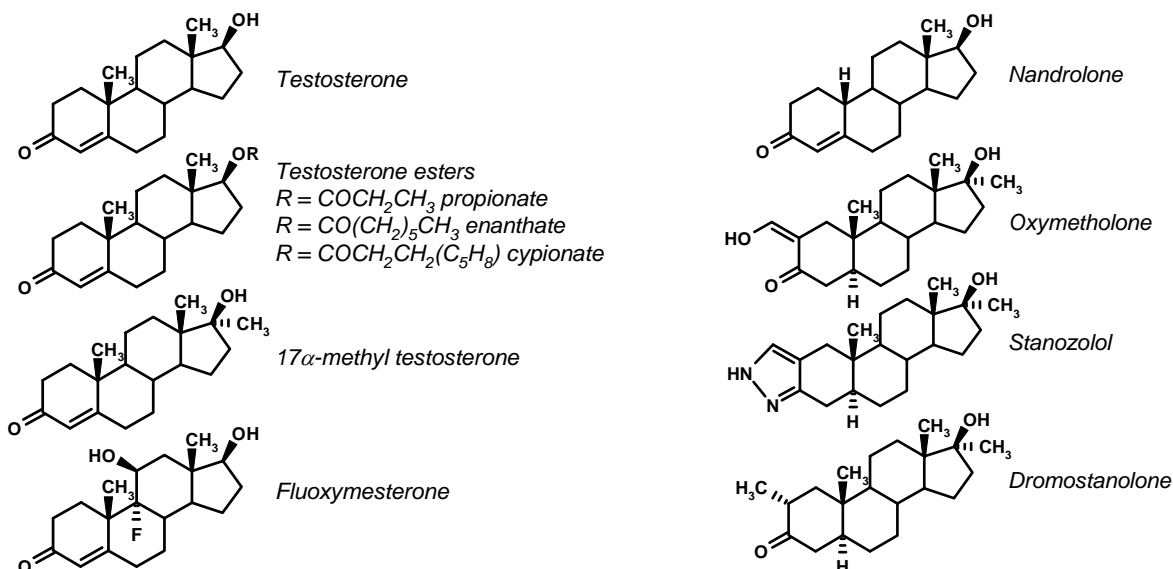
- ✓ **Biosynthesis and Metabolism of Testosterone**



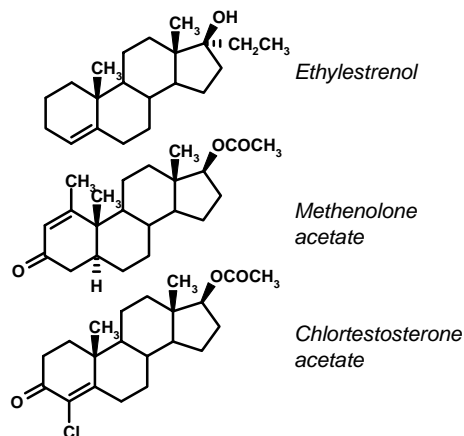
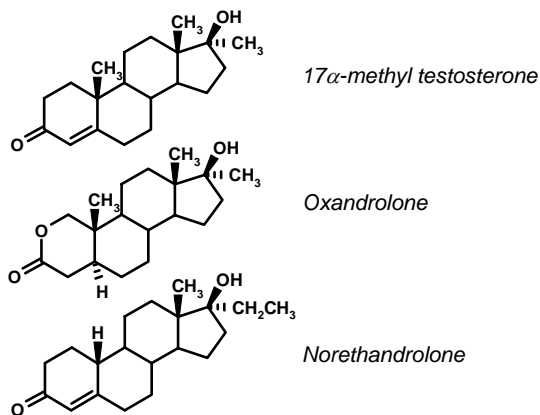
- ✓ **Overall Mechanism of Steroid Hormone Action** (extracellular)



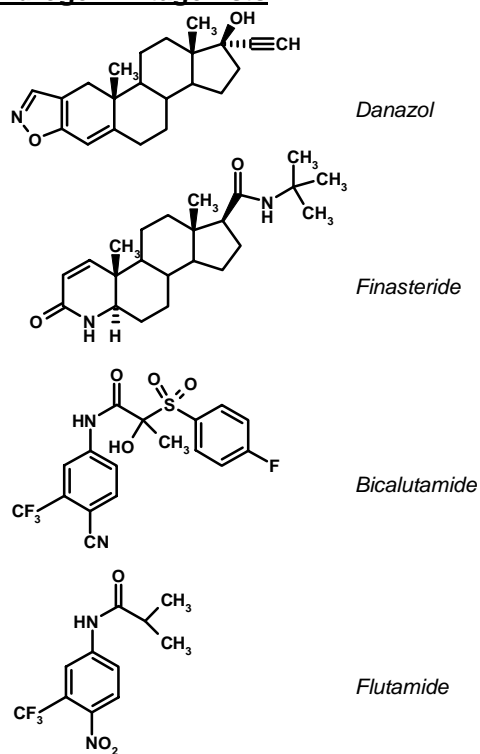
- ✓ **Structures of Pharmaceutically Relevant Androgenic Steroids**



√ Structures of Pharmaceutically Relevant Androgenic Steroids



√ Androgen Antagonists



Points to Ponder

- What are androgenic steroids? What are their activities? What class do androgenic steroids belong to? What is the need to make synthetic steroids? What is the overall mechanism of steroid hormone action? What structural change introduces oral activity in this class of compounds? How can anabolic activity be separated from androgenic activity? What are androgenic antagonists? Against what disease state or disorder do they function? Develop a skill for identifying function activity of steroids from structure.
- Predict whether the following steroids will be androgenic if taken orally.

