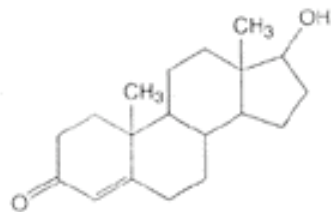
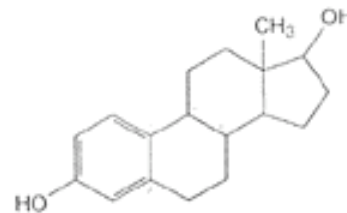


Cholesterol, a component of the tissue of all mammals and a precursor to the human sex hormones testosterone and estradiol.

(A)

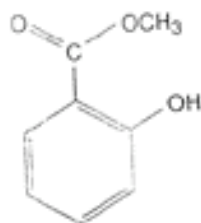


Testosterone, a male sex hormone that is produced by the body from cholesterol. A surge in testosterone levels occurs in males at the onset of puberty to trigger the changes of adolescence.



Estradiol, a female sex hormone responsible for the development of breasts and other characteristics of females. Note the similarity to the structure of testosterone. Small chemical differences can lead to a large difference in biological effects.

(B)



Methyl salicylate,
wintergreen odor

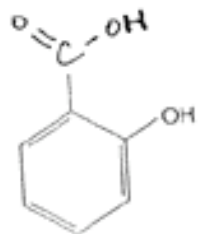
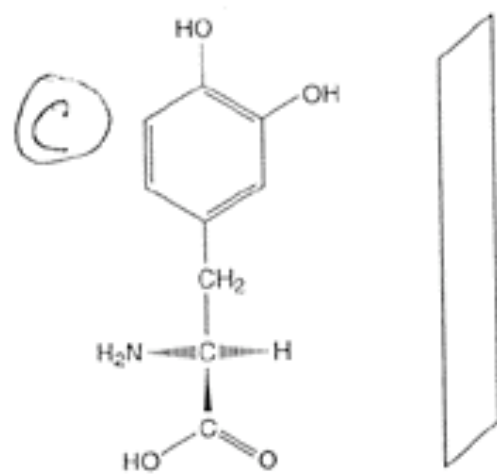
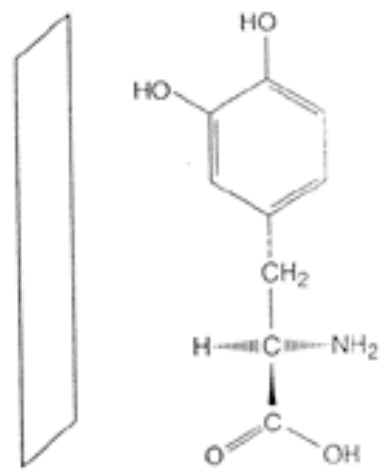


Figure 4.14.
Salicylic acid



L-dopa, a drug that can cross the blood/brain barrier and increase levels of dopamine, a neurotransmitter precursor deficient in the brains of patients with Parkinson's disease.

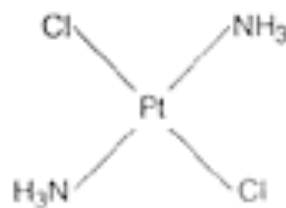


D-dopa, the mirror image of L-dopa. This compound has no activity as a drug for the treatment of Parkinson's disease.

(D)



cis-Diamminedichloroplatinum(II), also known as cisplatin or Platinol[®], is an effective anticancer drug.



trans-Diamminedichloroplatinum(II), is a toxic compound with negligible anticancer properties.