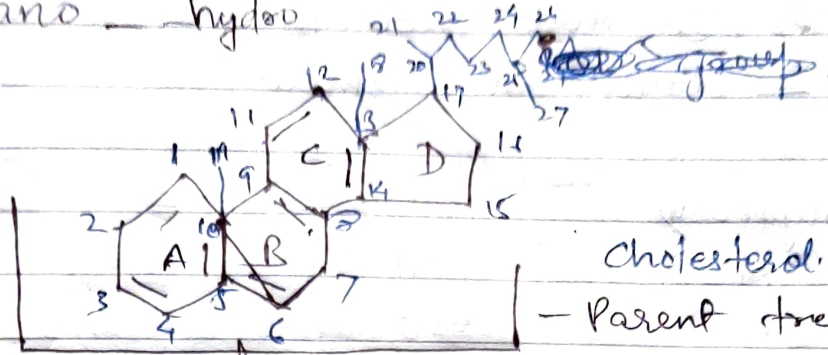


Steroidogenesis

Steroid: Any <sup>chemical substance</sup> cell nucleus which got the following ring is k/a steroid

Cyclopentano - hydro



Cholesterol:

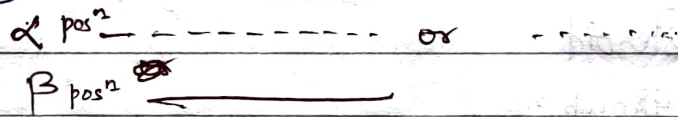
- Parent tree / ring

To this several functional gr. are attached and depending upon this their name and category is given.

- ⇒ 17-β estradiol - most potent
  - ⇒ 17-α estradiol - least potent
- only diff in pos<sup>n</sup>.

Positioning may be above or below the surface

Denotation



# Steroids - divided into 4 groups.

(1) Cholesterol - 27 C-atom are their  
 The basic tree / ring is k/a cholestane.

(2) Progesterins and Corticoids - These <sup>basic ring</sup> are ~~are~~ pregnane  
 C-21

(3) Androgens - Basic ring is C/9 Androstane.  
 C-19

(4) Estrogen - Basic ring is C/18 Estrane.  
 C-18

## # Nomenclature of steroids :

2 ways.

(1) Traditional method approved by IUPAC.

(2) IUPAC method.

\* (3) American method.

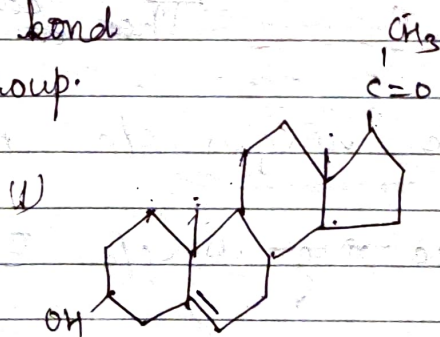
<u>NAME</u>	<u>GROUP</u>
Hydroxy	OH
-ol	OH
oxy	=O
keto	=O
one	=O
-al	-CHO (aldehyde)
$\Delta$ (delta)	double bond. ( $\Delta^{4-5}$ double bond b/w 4=5)
-ene	double bond
-diene	two double bond.
$\alpha, \beta$	functional group.

### IUPAC method

1. Double bond.
2. Parent steroid
3. Hydroxy group.
4. Keto group.

### American method

1. Hydroxy group
2. Parent steroid
3. Double bond
4. Keto group.



↳ Generally 1 is used on beginning of name.

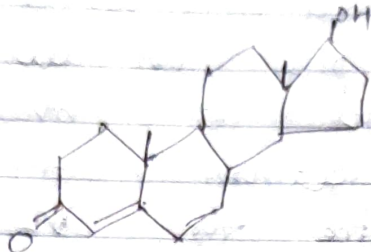
IUPAC

$\Delta^4$  pregnane 3 $\beta$ /20 one

American

3 $\beta$ /20 pregnane - 5(6) ene - 20 one

(2)

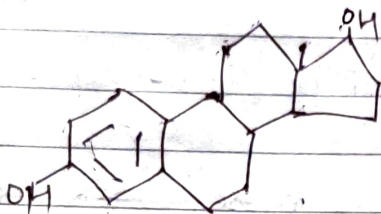


Testosterone

IUPAC -  $\Delta^4$  Androstane - 17 $\beta$ -hydroxy - 3-one

American -

(3)



IUPAC -

American -

Class name	Trivial name	Systemic name
Glucocorticoid	Cortisol	11 $\beta$ , 17 $\alpha$ , 21 Trihydroxy
	Corticosterone	pregn-4-ene-3,20 dione
	Corticosterone	11 $\beta$ , 21-dihydroxy pregn-4-ene-3,20 dione

Mineralocorticoids

Aldosterone

11-Deoxy corticosterone

Androgens

Testosterone

Dehydro epiandrosterone