

## Antidepressant Drugs

Major depression and mania are emotional(affective) disorders.

Two main types of depression are recognized

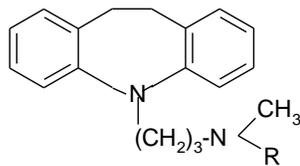
1)- Unipolar                      2)-Bipolar

- In bipolar depression, mood and behavior oscillate between depression and mania. Unipolar depression develops earlier in life and tends to be inherited, it may have features in common with schizophrenia.
- Antidepressant drugs are used to restore mentally depressed patients to an improved mental status.
- The tricyclic group and monoamino oxidase inhibitors are classical category of antidepressant-

Classification:- The Antidepressant drugs can be classified into following category-

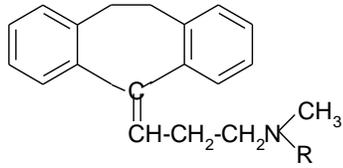
First generation Antidepressant drugs(TCAs):-

1)-Dibenzazepines:-



Generic name	R
Imipramine	-CH <sub>3</sub>
Desipramine	-H
Trimipramine	$\begin{array}{c} \text{CH}_2-\text{CHCH}_2\text{N}(\text{CH}_3)_2 \\   \\ \text{CH}_3 \end{array}$
Chlorimipramine	- 3Cl, R=-CH <sub>3</sub>

2)-Dibenzcycloheptanes:-



Generic name

R

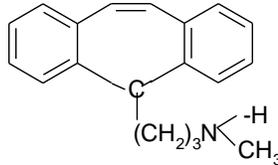
Amitriptyline

-CH<sub>3</sub>

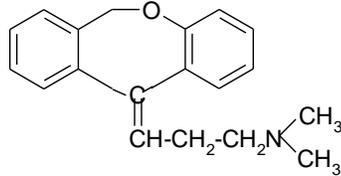
Nortriptyline

-H

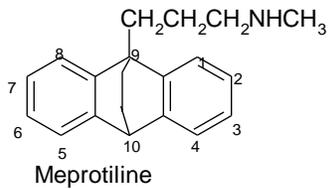
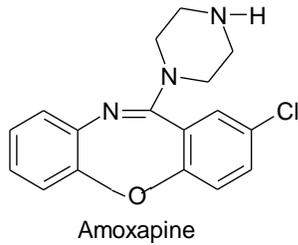
Protriptyline



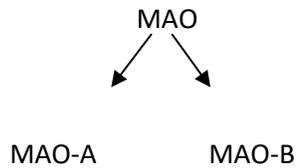
Doxepin



Second generation Antidepressant drugs:-



2)-Monoamine oxidase inhibitors (MAO)



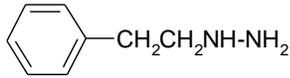
- MAO deaminates serotonin and norepinephrine but not phenylethylamine and inhibited by meclizemide.

- MAO-B deaminates phenylethylamine and better than serotonin and norepinephrine and inhibited by selegiline and deprenyl. MAO-B is the type found largely in the CNS.
- Chemically MAO inhibitors in to two category:-

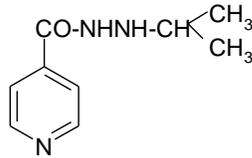
1)-Hydrazines:-

Ex-

Phenelzine

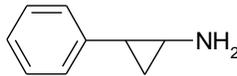


Iproniazid



Isocarboxazid

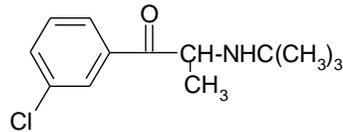
2)- Non-hydrazine:-



Ex-

Tranylcypromine

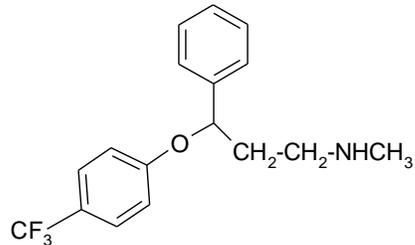
3)- Atypical antidepressants:-



Ex-

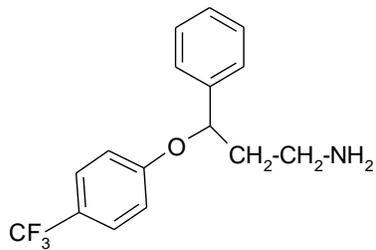
Bupropion

Serotonin specific reuptake inhibitors (SSRI):-



Ex-

Fluoxetine



Norfluoxetine

4)- Lithium salts:-

Ex- Lithium carbonate  $\text{Li}_2\text{CO}_3$

Lithium citrate