

Antidepressants

Approach: Build the table by mechanism, work through common medications and side effects. Highly tested concepts are underlined.

Hook: Over 10% of Americans are on an antidepressant; it is very useful to know what the common ones are and what their side effects look like.

SSRI	<ul style="list-style-type: none"> Believed to increase the extracellular level of serotonin by limiting reabsorption into the presynaptic cell Four to six weeks to get full results First line for depression, anxiety, OCD, PTSD GI: very common - stomach upset, nausea, vomiting, diarrhea, anorexia CV: Can lengthen <u>QTc</u> which → <u>Torsades</u> Sexual: anorgasmia, decreased libido 	<ul style="list-style-type: none"> - Fluoxetine: longest half-life (5d), most 'activating' - Paroxetine: Most 'sedating' - Citalopram: Most QTc prolongation
SNRI	<ul style="list-style-type: none"> Blocking presynaptic serotonin and norepinephrine transporter proteins. This inhibits reuptake of these neurotransmitters and leads to increased stimulation of postsynaptic receptors. Also treat <u>chronic pain</u>. 	Venlafaxine, Duloxetine
TCA	<ul style="list-style-type: none"> Inhibits reuptake of both serotonin and norepinephrine SE: anticholinergic – dry mouth, constipation, blurred vision, urinary retention; orthostatic hypotension; sedation; fine rapid tremor Can be <u>fatal in overdoses</u> as little as 10 times the daily dose. The toxicity is usually due to prolongation of the QT interval, leading to arrhythmias. 	Imipramine, Amitriptyline, Nortriptyline, Doxepin
NDRI (Norepinephrine-Dopamine Reuptake Inhibitor)	<ul style="list-style-type: none"> No serotonin activity, NE/DA presynaptic uptake inhibition <u>Smoking cessation</u>. Can lose a little weight on it, can be used to counter sexual side effects of SSRI SE: <u>Lowers seizure threshold</u>. HA, insomnia, tremor, restlessness 	Bupropion
MAOi (monoamine oxidase inhibitor)	<ul style="list-style-type: none"> 2nd line antidepressant due to extensive side effect profile; best efficacy in <u>atypical depression</u> (leaden paralysis). Potent hypotensive effects; up to 50% of patients experience dizziness Severe <u>hypertensive crisis</u> can occur after patients on MAOIs ingest foods containing the sympathomimetic tyramine; <u>must stop antidepressant 2 weeks</u> (5 if Prozac) prior to switch to MAOi 	Phenelzine, Selegiline, Tranylcypromine
SARI (serotonin antagonist and reuptake inhibitor)	<ul style="list-style-type: none"> Acts on postsynaptic serotonin 5-HT_{2A} and 5-HT_{2C} receptors & weakly inhibits presynaptic serotonin reuptake Major side effect is <u>sedation</u> 	Trazodone
NaSSA (Noradrenergic and specific serotonergic antidepressants)	<ul style="list-style-type: none"> Antagonizes presynaptic alpha-2 adrenergic receptors & postsynaptic serotonin 5-HT₂ and 5-HT₃ receptors SE: drowsy, appetite, weight gain, sedation. Can use these side effects to advantage in <u>cancer patients</u> 	Mirtazapine