

The Effects of Psychotropic and Neurotropic Medications on Sleep

Medication	Tmax (Hrs)	T1/2 (Hrs)	Sleep Latency	Sleep Efficiency	% SWS	% REM	Morning Sedation	Motor Restless
Tricyclics (3° amines):								
Amitriptyline	3.0	25	↓↓	↑	↑	↓	↑↑	↓
Imipramine	4	16	↓↓	↑	↑	↓	↑	↑
Nortriptyline	4	30	↓	↑	↑	↓	↑↑	---
Doxepine	2.5	17	↓↓	↑	---	↓	---/↑	---
Tricyclics (2° amines)								
Desipramine	7	22	↓	↑	↑	↓	↑	↑
Protriptyline	10	80	↓	↑	↑	↓↓	↑	---
SSRIs/SNRIs								
Fluvoxamine	4	15	↑	↓	N/A	↓↓	↑	?
Fluoxetine	7	50	↑	↓	---	↓↓	---	↑↑
Paroxetine	5	17	↑	↓	---	↓	↑↑	↑
Sertraline	7	24	↑	---	---	↓	---	↑
Venlafaxine	2	5	↑	↓	↓	↓	---	↑
Citalopram	4	36	---	---	---	↓	---	↑
Escitalopram	5	30	---	---	---	↓	---	↑
Duloxetine	6	12	↑/↓	↑/↓	↓	↓	---	N/A
Misc Antidepressants								
Bupropion	1.6	12	---	---	---	---	↓	↓
Mirtazapine	1.5	16	↓↓	↑	↑	---	↑	↓
Nefazodone	1.5	3	↓	↑	↑	---	---	↓
Trazodone	1.0	6	↓↓	↑	↑	---	---	↓
Ramelteon	0.8	1.5	↓	↑	---	---	---	↓
Antipsychotics								
Clozapine	2.0	12	↓	↑	↑	↓	↑	↑
Loxapine	1.5	8	↓	↑	↑	↓	↑	↑
Olanzapine	3.5	33	↓	↑	↑	↓	---	↑
Quetiapine	1.5	7	↓	↑	---	↓	↑	↑↑
Risperidone	1.0	3.2	↓	↑	↑	↓	↑	↑
Haloperidol	2.0	24	↓	↑	↑	↓	↑↑	↑↑
Non-Benzo Hypnotics								
Zopiclone	0.5	6.0	↓↓	↑	↑/---	---	---	---
Zaleplon	0.5	1.5	↓↓	↑	↑/---	---	---	---
Zolpidem	0.9	2.3	↓↓	↑	↑	↑/---	---	---
Zolpidem MR	1.5	4.5	↓↓	↑	↑	↑/---	---	---
Benzodiazepines								
Temazepam	1	10	↓↓	↑	↓↓	---	↑	↓
Triazolam	0.5	2	↓↓	↑	↑	↓	---	---
Oxazepam	3	16	↓	↑	↓	---	↑	↓
Clonazepam	2	25	↓↓	↑	↓↓	↓	↑	↓↓
Flurazepam	1.5	50+	↓↓	↑	↓↓	↓	↑↑	↓
Lorazepam	1.2	14	↓	↑	↓	---	↑/---	↓
Anti-epileptics								
Gabapentin	2.5	7	↓	↑	↑	↑	---	↓
Valproic acid	4	12	---	---	↑	---	↑	↓
Phenytoin	8	22	---	↓	↓	↓	---	N/A
Carbamazepine	1.5	8	---	---	↑	↓	---	↓
Miscellaneous								
Chloral Hydrate	0.5	8	↓↓	↑	↓	---	---	---
Clonidine	2	12	↓	↑	---	↓↓	↑	↓
OTCs								
Valerian	~1	1.5	↓/---	↑/---	---	---	---	---
Diphenhydramine	2.3	8.5	↓	↑	↑	↓	↑	↑
Melatonin	1	>1	↓/---	↑/---	N/A	N/A	---	---

↑ = increase, ↓ = decrease, ↑↑ = greatly increase, ↓↓ = greatly decrease, ↑/↓ = increase and/or decrease, --- = no significant change, ↓/--- = decrease and/or no significant change, ↑/--- = increase and/or no significant change, ? = no available data, N/A = not applicable. SSRIs = Selective serotonin reuptake inhibitors, SNRIs = Serotonin-norepinephrine reuptake inhibitors. Values derived from multiple peer-reviewed articles. References available at sleepreviewmag.com. Data compiled by James MacFarlane, PhD, DABSM.