

Medications that cause hyperprolactinemia

Medication class	Frequency of prolactin elevation*	Mechanism
Antipsychotics, first generation		
Chlorpromazine	Moderate	Dopamine D ₂ receptor blockade within hypothalamic tuberoinfundibular system.
Fluphenazine	High	
Haloperidol	High	
Loxapine	Moderate	
Perphenazine	Moderate	
Pimozide	Moderate	
Thiothixene	Moderate	
Trifluoperazine	Moderate	
Antipsychotics, second generation		
Aripiprazole	None or low	Dopamine D ₂ receptor blockade.
Asenapine	Moderate	
Clozapine	None or low	
Iloperidone	None or low	
Lurasidone	None or low	
Olanzapine	Low	
Paliperidone	High	
Quetiapine	None or low	
Risperidone	High	
Ziprasidone	Low	
Antidepressants, cyclic		
Amitriptyline	Low	Not well understood. Possibly by GABA stimulation and indirect modulation of prolactin release by serotonin.
Desipramine	Low	
Clomipramine	High	
Nortriptyline	None	
Antidepressants, SSRI		
Citalopram, fluoxetine, fluvoxamine, paroxetine, sertraline	None or low (rare reports)	Same as for cyclic antidepressants.
Antidepressants, other		
Bupropion, venlafaxine, mirtazapine, nefazodone, trazodone	None	Not applicable.
Antiemetic and gastrointestinal		
Metoclopramide	High	Dopamine D ₂ receptor blockade.
Domperidone (not available in United States)	High	
Prochlorperazine	Low	
Antihypertensives		
Verapamil	Low	Not well understood. Specific to verapamil. May involve calcium influx inhibition within tuberoinfundibular dopaminergic neurons.
Methyldopa	Moderate	Decreased conversion of L-dopa to dopamine; suppression of dopamine synthesis.
Most other antihypertensives (including other calcium channel blockers)	None	Not applicable.
Opioid analgesics		
Methadone, morphine, others	Transient increase for several hours following dose	Potentially an indirect effect of mu opiate receptor activation.

Medication-induced hyperprolactinemia can cause decreased libido and erectile dysfunction in males and galactorrhea and amenorrhea in females.

GABA: gamma-aminobutyric acid; SSRI: selective serotonin reuptake inhibitor.

* Frequency of increase to abnormal prolactin levels with chronic use: high: >50%; moderate: 25 to 50%; low: <25%; none or low: case reports. Effect may be dose dependent.

Data from:

1. Molitch ME. Drugs and prolactin. *Pituitary* 2008; 11:209.
2. Molitch ME. Medication induced hyperprolactinemia. *Mayo Clin Proc* 2005; 80:1050.
3. Coker F, Taylor D. Antidepressant-induced hyperprolactinaemia: incidence, mechanisms and management. *CNS Drugs* 2010; 24:563.
4. Drugs for psychiatric disorders. *Treat Guidel Med Lett* 2013; 11:53.