

TABLE 12-7 MAJOR CONTRAINDICATIONS AND SIDE EFFECTS OF ANTIHYPERTENSIVE DRUGS

DRUG CLASS	MAJOR CONTRAINDICATIONS	SIDE EFFECTS
DIURETICS		
Thiazides	Gout	Insulin resistance, new-onset type 2 diabetes (especially in combination with β -blockers) Hypokalemia, hyponatremia Hypertriglyceridemia Hyperuricemia, precipitation of gout Erectile dysfunction (more than other drug classes) Potentiate nondepolarizing muscle relaxants Photosensitive dermatitis
Loop diuretics	Hepatic coma	Interstitial nephritis Hypokalemia Potentiate succinylcholine Potentiate aminoglycoside ototoxicity
Potassium-sparing diuretics	Serum K >5.5 mEq/L GFR <30 mg/mL/1.73 m ²	Fatal hyperkalemia if used with salt substitutes, ACEIs, ARBs, high-potassium foods, NSAIDs
β -Blockers	Heart block Asthma Depression Cocaine and/or methamphetamine abuse	Insulin resistance, new-onset type 2 diabetes (especially in combination with thiazides) Heart block, acute decompensated CHF Bronchospasm Depression, nightmares, fatigue Cold extremities, claudication (β_2 effect) Stevens-Johnson syndrome Agranulocytosis
ACEIs	Pregnancy Bilateral renal artery stenosis Hyperkalemia	Cough Hyperkalemia Angioedema Leukopenia Fetal toxicity Cholestatic jaundice (rare fulminant hepatic necrosis if the drug is not discontinued)
ARBs	Pregnancy Bilateral renal artery stenosis Hyperkalemia	Hyperkalemia Angioedema (very rare) Fetal toxicity
Direct renin inhibitors	Pregnancy Bilateral renal artery stenosis Hyperkalemia	Hyperkalemia Diarrhea
Dihydropyridine CCBs	As monotherapy in chronic kidney disease with proteinuria	Fetal toxicity Headaches Flushing Ankle edema CHF Gingival hyperplasia Esophageal reflux
Nondihydropyridine CCBs	Heart block Systolic heart failure	Bradycardia, atrioventricular block (especially with verapamil) Constipation (often severe with verapamil) Worsening of systolic function, CHF Gingival edema and/or hypertrophy Increase cyclosporine blood levels Esophageal reflux
α -Blockers	Monotherapy for hypertension Orthostatic hypotension Systolic heart failure Left ventricular dysfunction	Orthostatic hypotension Drug tolerance (in the absence of diuretic therapy) Ankle edema CHF First-dose effect (acute hypotension) Potentiate hypotension with PDE5 inhibitors (e.g., sildenafil)
Central sympatholytics	Orthostatic hypotension	Depression, dry mouth, lethargy Erectile dysfunction (dose dependent) Rebound hypertension with clonidine withdrawal Coombs-positive hemolytic anemia and elevated LFTs with α -methyldopa
Direct vasodilators	Orthostatic hypotension	Reflex tachycardia Fluid retention Hirsutism, pericardial effusion with minoxidil Lupus with hydralazine

ACEIs, Angiotensin-converting enzyme inhibitors; ARBs, angiotensin-receptor blockers; CCBs, calcium-channel blockers; CHF, congestive heart failure; GFR, glomerular filtration rate; LFTs, liver function tests; MI, myocardial infarction; NSAIDs, nonsteroidal anti-inflammatory drugs; PDE5, phosphodiesterase type 5.