



# Medications Considered High-Risk for Older Adults

Not everyone reacts to medications in the same way. Your friends may take a medication that works well for them, but it may not work for you at all, even if you have the same medical condition. It's good to know how drugs may affect your body and about any negative side effects that may happen so you can be on the lookout. Some medications are called "high-risk" because they can cause harmful side effects including falls, confusion, drowsiness, and weakness.

The chart below shows the medications that are considered high-risk in older adults. If you are on any of these medications, talk to your doctor. Even if you are not experiencing any side effects, there may be better and/or safer alternatives to prevent potential side effects in the future.

Description	Medications to avoid <sup>1, 2</sup>	Adverse side effects/concerns	Drug List alternatives <sup>3, 4, 5</sup>
Alpha agonists, central	<ul style="list-style-type: none"> <li>• guanfacine</li> <li>• guanabenz</li> <li>• methyldopa</li> <li>• reserpine (<b>doses greater than 0.1 mg/day</b>)</li> </ul>	High risk of central nervous system (CNS) effects; may cause bradycardia and orthostatic hypotension; not recommended for routine treatment of hypertension	<b>Hypertension:</b> amlodipine, atenolol, lisinopril, losartan, valsartan, clonidine <b>ADHD:</b> dextroamphetamine, methylphenidate
Analgesics	<ul style="list-style-type: none"> <li>• indomethacin</li> <li>• ketorolac</li> </ul>	Potential for gastrointestinal bleeding, renal failure, high blood pressure and heart failure	meloxicam, ibuprofen, naproxen, diclofenac
Anti-anxiety	<ul style="list-style-type: none"> <li>• aspirin-meprobamate</li> <li>• meprobamate</li> </ul>	Addictive and sedating anxiolytic	<b>Anxiety:</b> buspirone, duloxetine, escitalopram, sertraline, venlafaxine <b>Insomnia:</b> See the nonbenzodiazepine hypnotic section for insomnia alternatives.
Antidepressants (includes single entity or as part of a combination product)	<ul style="list-style-type: none"> <li>• amoxapine</li> <li>• amitriptyline</li> <li>• clomipramine</li> <li>• desipramine</li> <li>• doxepin (<b>doses greater than 6 mg/day</b>)</li> <li>• imipramine</li> <li>• nortriptyline</li> <li>• paroxetine</li> <li>• trimipramine</li> <li>• protriptyline</li> </ul>	Highly anticholinergic effects; may cause orthostatic hypotension	<b>Depression:</b> Selective serotonin reuptake inhibitors (SSRIs) <sup>§</sup> – escitalopram, sertraline; serotonin and norepinephrine reuptake inhibitors (SNRIs) – duloxetine, venlafaxine <b>Insomnia:</b> See the nonbenzodiazepine hypnotic section for insomnia alternatives. <b>Neuropathic pain:</b> gabapentin
Antihistamines (includes single entity or as part of a combination product)	<ul style="list-style-type: none"> <li>• brompheniramine</li> <li>• carbinoxamine</li> <li>• chlorpheniramine</li> <li>• clemastine</li> <li>• cyproheptadine</li> <li>• dexbrompheniramine</li> <li>• dexchlorpheniramine</li> <li>• diphenhydramine (oral)</li> <li>• dimenhydrinate</li> <li>• doxylamine</li> <li>• hydroxyzine</li> <li>• meclizine</li> <li>• promethazine</li> <li>• triprolidine</li> </ul>	Highly anticholinergic effects, sedation, weakness, blood pressure changes, dry mouth, urinary retention; clearance reduced in advanced age (Tolerance develops when used as hypnotic.)	<b>Pruritus/urticaria:</b> cetirizine oral solution, levocetirizine, loratadine* <b>Nausea/vomiting:</b> ondansetron, prochlorperazine <b>Allergic rhinitis:</b> azelastine*, cetirizine oral solution, fexofenadine*, fluticasone nasal spray, flunisolide nasal spray, levocetirizine, loratadine* <b>Insomnia:</b> See the nonbenzodiazepine hypnotic section for insomnia alternatives. <b>Over-the-counter option:</b> melatonin, if appropriate; regarded as safe in recommended doses (up to 15 mg daily) for up to two years
Anti-infectives ( <b>when cumulative days' supply greater than 90 days</b> )	<ul style="list-style-type: none"> <li>• nitrofurantoin</li> <li>• nitrofurantoin macrocrystals</li> </ul>	Potential for pulmonary toxicity, hepatotoxicity and peripheral neuropathy; nitrofurantoin causes renal impairment; avoid in persons with a CrCl less than 60 mL/min due to inadequate drug concentration in the urine	Dependent on the infection: cephalexin, ciprofloxacin, sulfamethoxazole/trimethoprim, doxycycline
Anti-Parkinson agents	<ul style="list-style-type: none"> <li>• benztropine (oral)</li> <li>• trihexyphenidyl</li> </ul>	Not recommended for prevention of extrapyramidal symptoms with antipsychotics	carbidopa-levodopa, pramipexole (Mirapex), ropinirole (Requip)

Description	Medications to avoid <sup>1, 2</sup>	Adverse side effects/concerns	Drug List alternatives <sup>3, 4, 5</sup>
Antispasmodics (includes single entity or as part of a combination product)	<ul style="list-style-type: none"> <li>atropine (excludes ophthalmic)</li> <li>belladonna</li> <li>clidinium-chlordiazepoxide</li> <li>dicyclomine</li> <li>hyoscyamine</li> <li>propantheline</li> <li>scopolamine</li> </ul>	Anticholinergic effects	<p><b>Constipation:</b> polyethylene glycol oral*, psyllium*, stool softener*</p> <p><b>Diarrhea:</b> aluminum hydroxide*, sucralfate, pantoprazole, omeprazole, loperamide</p>
Anti-thrombotics	<ul style="list-style-type: none"> <li>dipyridamole (oral short-acting only)</li> <li>ticlopidine</li> </ul>	Dipyridamole may cause orthostatic hypotension; more effective alternatives are available	cilostazol, clopidogrel, low-dose aspirin*
Barbiturates	<ul style="list-style-type: none"> <li>amobarbital</li> <li>butabarbital</li> <li>butalbital</li> <li>mephobarbital</li> <li>pentobarbital</li> <li>phenobarbital</li> <li>secobarbital</li> </ul>	High rate of physical dependence; patients develop tolerance, which reduces sleep benefits; risk of overdose at low dosage due to tolerance and patient choice to over-medicate to achieve therapeutic effect	<p><b>Anxiety:</b> SSRIs<sup>5</sup> (escitalopram, sertraline); SNRIs (duloxetine, venlafaxine); buspirone</p> <p><b>Insomnia:</b> See the nonbenzodiazepine hypnotic section for insomnia alternatives.</p> <p><b>Seizure:</b> gabapentin, lamotrigine, topiramate</p> <p><b>Migraine:</b> sumatriptan, rizatriptan, naratriptan, naproxen</p>
Calcium channel blockers	<ul style="list-style-type: none"> <li>nifedipine – short-acting only</li> </ul>	Potential for hypotension; risk of causing myocardial ischemia	Use long-acting formulation to avoid adverse effects: felodipine, amlodipine
Cardiovascular	<ul style="list-style-type: none"> <li>digoxin (<b>doses greater than 0.125 mg/day</b>)</li> <li>disopyramide</li> </ul>	<p><b>Digoxin:</b> In heart failure, higher doses have increased risk of toxicity; decreased renal clearance</p> <p><b>Disopyramide:</b> Potent negative inotrope that may induce heart failure in older adults; anticholinergic effects</p>	<p>Digoxin does not decrease morbidity or mortality.</p> <p>Optimize angiotensin-converting enzyme inhibitors (ACEI), angiotensin receptor blockers (ARB), beta blockers and/or aldosterone antagonist prior to digoxin use.</p> <p>Options from each class include: ACEI – lisinopril, enalapril, ARB – losartan, valsartan; beta blocker – metoprolol succinate XL, carvedilol, atenolol; aldosterone antagonist – spironolactone</p> <p>Antiarrhythmics – quinidine, flecainide, diltiazem</p>
Endocrine	<ul style="list-style-type: none"> <li>megestrol</li> </ul>	Increases risk of thrombotic event and possibly death in older adults	Consider nutritional support and treatment of potential cause (e.g., depression, certain medications); consider dronabinol for anorexia associated with weight loss in patients with AIDS or for nausea and vomiting in chemotherapy patients who failed to respond adequately to conventional treatments.
Nonbarbiturate or nonbenzodiazepine hypnotic ( <b>when cumulative days' supply greater than 90 days</b> )	<ul style="list-style-type: none"> <li>Lunesta (eszopiclone)</li> <li>Sonata (zaleplon)</li> <li>Ambien (zolpidem)</li> </ul>	Benzodiazepine-receptor agonists have adverse events similar to those of benzodiazepines in older adults (e.g., delirium, falls, fractures); they produce minimal improvement in sleep latency and duration <sup>1</sup>	<p>Consider only short-term or intermittent use (less than 90 days per year).</p> <p>Ambien IR: Do not exceed 5 mg orally at bedtime in geriatrics.<sup>6</sup></p> <p>suvorexant (Belsomra)</p> <p>Discuss sleep hygiene and avoidance of caffeine, alcohol, nicotine and medications cause insomnia.</p> <p>Evaluate for depression, a common cause of insomnia in the elderly. Secondary insomnia can be treated with trazodone 50 mg (may cause orthostatic hypotension) or doxepin (less than 6 mg per day).</p> <p>Over-the-counter option: melatonin*, if appropriate; regarded as safe in recommended doses (up to 15 mg daily) for up to two years.</p>

Description	Medications to avoid <sup>1, 2</sup>	Adverse side effects/concerns	Drug List alternatives <sup>3, 4, 5</sup>
Oral estrogens and estradiol transdermal patch	<ul style="list-style-type: none"> <li>• conjugated estrogen</li> <li>• conjugated estrogen-medroxyprogesterone</li> <li>• drospirenone-estradiol</li> <li>• esterified estrogen</li> <li>• estradiol-norethindrone</li> <li>• esterified estrogen-methyltestosterone</li> <li>• estropipate</li> <li>• estradiol</li> <li>• estradiol-levonorgestrel</li> </ul>	Cardio-protective properties are absent; high carcinogenic effects (breast cancer and endometrial cancer)	<b>Hot flashes:</b> nondrug comfort therapy <b>SSRIs<sup>§</sup>:</b> escitalopram, sertraline; SNRIs: venlafaxine <b>Vaginal dryness:</b> Estrace vaginal cream, Premarin vaginal cream <b>Bone density:</b> alendronate, calcium*, raloxifene, vitamin D*
Hypoglycemics	<ul style="list-style-type: none"> <li>• chlorpropamide</li> <li>• glyburide</li> </ul>	Prolonged half-life causing prolonged hypoglycemia; also causes syndrome of inappropriate anti-diuretic hormone secretion (SIADH)	glimepiride, glipizide
Skeletal muscle relaxants	<ul style="list-style-type: none"> <li>• ASA/caffeine/orphenadrine</li> <li>• ASA/carisoprodol/orphenadrine</li> <li>• aspirin-carisoprodol</li> <li>• carisoprodol</li> <li>• chlorzoxazone</li> <li>• cyclobenzaprine</li> <li>• metaxalone</li> <li>• methocarbamol</li> <li>• orphenadrine</li> </ul>	Anticholinergic effects, sedation, weakness and increased risk of fractures Poorly tolerated; effectiveness at doses tolerated by older adults is questionable	baclofen, tizanidine <b>Nonpharmacologic treatment for muscle spasms:</b> heat, massage, stretching/exercise
Thyroid	<ul style="list-style-type: none"> <li>• thyroid desiccated</li> </ul>	Cardiac concerns	levothyroxine
Vasodilators	<ul style="list-style-type: none"> <li>• dipyridamole – short-acting only</li> <li>• ergot mesyloid</li> <li>• isoxsuprine</li> </ul>	Orthostatic hypotension	<b>Stroke prevention:</b> clopidogrel, low-dose aspirin* <b>Coronary artery disease:</b> amlodipine <b>Alzheimer’s disease/dementia:</b> donepezil, galantamine, rivastigmine

\*= OTC medication;

§ = Selective serotonin reuptake inhibitors can be considered a clinical alternative for patients older than 65 years old on a high-risk medication (HRM), but they should not be considered an alternative or used in patients with a history of falls or dementia.

This material is provided for informational use only and should not be taken as medical advice or used in place of consulting a licensed medical professional. You should consult with your doctor to determine what is right for you.

#### References:

<sup>1</sup>The American Geriatrics Society 2015 Beers Criteria Update Expert Panel (2015). American Geriatrics Society 2015 Updated Beers Criteria for Potentially Inappropriate Medication Use in Older Adults. Journal of the American Geriatrics Society. DOI: 10.1111/jgs.13702. <http://onlinelibrary.wiley.com/doi/10.1111/jgs.13702/full>. Accessed Nov 27, 2017.

<sup>2</sup>The Pharmacy Quality Alliance Technical Specifications for PQA Approved Measures. July 2017 Edition. Print.

<sup>3</sup>Joseph T. Hanlon, Todd P. Semla and Kenneth E. Schmader. “Alternative Medications for Medications in the Use of High-Risk Medications in the Elderly and Potentially Harmful Drug–Disease Interactions in the Elderly Quality Measures.” Journal of the American Geriatrics Society 63.12 (2015): e8-e18.

<sup>4</sup>Source: PL Detail-Document, Potentially Harmful Drugs in the Elderly: Beers List. Pharmacist’s Letter/Prescriber’s Letter. June 2012.

<sup>5</sup>Starting and Stopping Medications in the Elderly. Pharmacist’s Letter/Prescriber’s Letter. (2011): 270906

<sup>6</sup>DRUGDEX. Micromedex, Greenwood Village, CO: Truven Health Analytics Inc. 2013. Accessed Nov. 27, 2017. Available from: <http://www.micromedexsolutions.com>.

CarePlus is an HMO plan with a Medicare contract. Enrollment in CarePlus depends on contract renewal.

## Discrimination is against the law

CarePlus Health Plans, Inc. ("CarePlus") complies with applicable Federal Civil Rights laws and does not discriminate on the basis of race, color, national origin, age, disability, sex, sexual orientation, gender identity, or religion. CarePlus does not exclude people or treat them differently because of race, color, national origin, age, disability, sex, sexual orientation, gender identity, or religion. CarePlus provides:

- Free assistance and services to people with disabilities to communicate effectively with us, such as:
  - Qualified sign language interpreters
  - Video remote interpretation
  - Written information in other formats
- Free language services to people whose primary language is not English when those services are necessary to provide meaningful access, such as:
  - Qualified interpreters
  - Information written in other languages

If you need these services, call the number on the back of your Member ID Card or contact Member Services using the information below. If you believe that CarePlus has failed to provide these services or discriminated in another way on the basis of race, color, national origin, age, disability, sex, sexual orientation, gender identity, or religion, you can file a grievance with:

**CarePlus Health Plans, Inc. Attention: Member Services Department.** 11430 NW 20th Street, Suite 300. Miami, FL 33172. Telephone: **1-800-794-5907; (TTY: 711)**. From October 1 - March 31, we are open 7 days a week; 8 a.m. to 8 p.m. From April 1 - September 30, we are open Monday - Friday, 8 a.m. to 8 p.m. You may always leave a voicemail after hours, Saturdays, Sundays, and holidays and we will return your call within 1 business day. Fax: **1-800-956-4288**.

You can file a grievance in person or by mail, phone or fax. If you need help filing a grievance, our Member Services Representatives are available to help you at the contact information listed above.

You can also file a civil rights complaint with the U.S. Department of Health and Human Services, Office for Civil Rights electronically through the Office for Civil Rights Complaint Portal, available at <https://ocrportal.hhs.gov/ocr/portal/lobby.jsf>, or by mail or phone at **U.S. Department of Health and Human Services.**

200 Independence Avenue, SW, Room 509F, HHH Building, Washington, D.C. 20201. **1-800-368-1019; 800-537-7697 (TDD)**  
Complaint forms are available at <http://www.hhs.gov/ocr/office/file/index.html>.

## Multi-Language Interpreter Services

**English:** ATTENTION: If you do not speak English, language assistance services, free of charge, are available to you. Call 1-800-794-5907 (TTY: 711).

**Español (Spanish):** ATENCIÓN: Si habla español, tiene a su disposición servicios gratuitos de asistencia lingüística. Llame al 1-800-794-5907 (TTY: 711).

**繁體中文 (Chinese):** 注意：如果您使用繁體中文，您可以免費獲得語言援助服務。請致電 1-800-794-5907 (TTY: 711)。

**Tiếng Việt (Vietnamese):** CHÚ Ý: Nếu bạn nói Tiếng Việt, có các dịch vụ hỗ trợ ngôn ngữ miễn phí dành cho bạn. Gọi số 1-800-794-5907 (TTY: 711).

**한국어 (Korean):** 주의: 한국어를 사용하시는 경우, 언어 지원 서비스를 무료로 이용하실 수 있습니다. 1-800-794-5907 (TTY: 711) 번으로 전화해 주십시오.

**Tagalog (Tagalog – Filipino):** PAUNAWA: Kung nagsasalita ka ng Tagalog, maaari kang gumamit ng mga serbisyo ng tulong sa wika nang walang bayad. Tumawag sa 1-800-794-5907 (TTY: 711).

**Русский (Russian):** ВНИМАНИЕ: Если вы говорите на русском языке, то вам доступны бесплатные услуги перевода. Звоните 1-800-794-5907 (телетайп: 711).

**Kreyòl Ayisyen (French Creole):** ATANSYON: Si w pale Kreyòl Ayisyen, gen sèvis èd pou lang ki disponib gratis pou ou. Rele 1-800-794-5907 (TTY: 711).

**Français (French):** ATTENTION : Si vous parlez français, des services d'aide linguistique vous sont proposés gratuitement. Appelez le 1-800-794-5907 (ATS : 711).

**Polski (Polish):** UWAGA: Jeżeli mówisz po polsku, możesz skorzystać z bezpłatnej pomocy językowej. Zadzwoń pod numer 1-800-794-5907 (TTY: 711).

**Português (Portuguese):** ATENÇÃO: Se fala português, encontram-se disponíveis serviços linguísticos, grátis. Ligue para 1-800-794-5907 (TTY: 711).

**Italiano (Italian):** ATTENZIONE: In caso la lingua parlata sia l'italiano, sono disponibili servizi di assistenza linguistica gratuiti. Chiamare il numero 1-800-794-5907 (TTY: 711).

**Deutsch (German):** ACHTUNG: Wenn Sie Deutsch sprechen, stehen Ihnen kostenlos sprachliche Hilfsdienstleistungen zur Verfügung. Rufnummer: 1-800-794-5907 (TTY: 711).

**ગુજરાતી (Gujarati):** સુચના: જો તમે ગુજરાતી બોલતા હો, તો ન-શુલ્ક ભાષા સહાય સેવાઓ તમારા માટે ઉપલબ્ધ છે. ફોન કરો 1-800-794-5907 (TTY: 711).

**ภาษาไทย (Thai):** เรียน: ถ้าคุณพูดภาษาไทยคุณสามารถใช้บริการช่วยเหลือทางภาษาได้ฟรี โทร1-800-794-5907 (TTY: 711).

**Diné Bizaad (Navajo):** Díí baa akó nínizín: Díí saad bee yáníłti'go Diné Bizaad, saad bee áká'ánída'áwo'déé', t'áá jiik'eh, éi ná hóló, kojí' hódíłníh 1-800-794-5907 (TTY: 711).

**العربية (Arabic):**

ملحوظة: إذا كنت تتحدث اللغة العربية، فإن خدمات المساعدة اللغوية تتوافر لك بالمجان. اتصل برقم 1-800-794-5907 (رقم هاتف الصم والبكم: 711).