

Canadian Medication
Appropriateness and
Deprescribing Network

Medications as We Age: *How to Make the Most of Them and Prevent Harmful Effects*

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Our plan for today

- Why does aging make us more sensitive to the effects of medications?
- In what situations would the risks of drug effects outweigh potential benefits?
- How can you work with patients, caregivers, and health professionals to prevent harmful medication effects?

Disclosure: conflicts of interest

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The views expressed herein do not necessarily represent the views of Health Canada.

Why take medications?

- Necessary for health
- Managing chronic conditions (e.g. diabetes, high blood pressure, chronic pain)
- Improving symptoms
- Prolonging life expectancy



***DO NOT STOP ALL YOUR MEDICATIONS
AFTER MY TALK***

Why all the fuss about medications?



How many meds?

What percentage of community-dwelling older adults take:



5 or more different prescription medications?

62%



10 or more different prescription medications?

24%



What percentage of people **over age 85** take 10+ medications?

36%



Older adults are a diverse group!

- **Over 7.3 million Canadians are over age 65 (source: 2022 census)**
- Over 90% live independently in the community
- 56% report being in good health



Muscudere et al. 2016. Screening for Frailty in Canada's Health Care System: A Time for Action. Canadian Journal on Aging 35 (3).



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Why does aging make us more sensitive to the effects of medications?



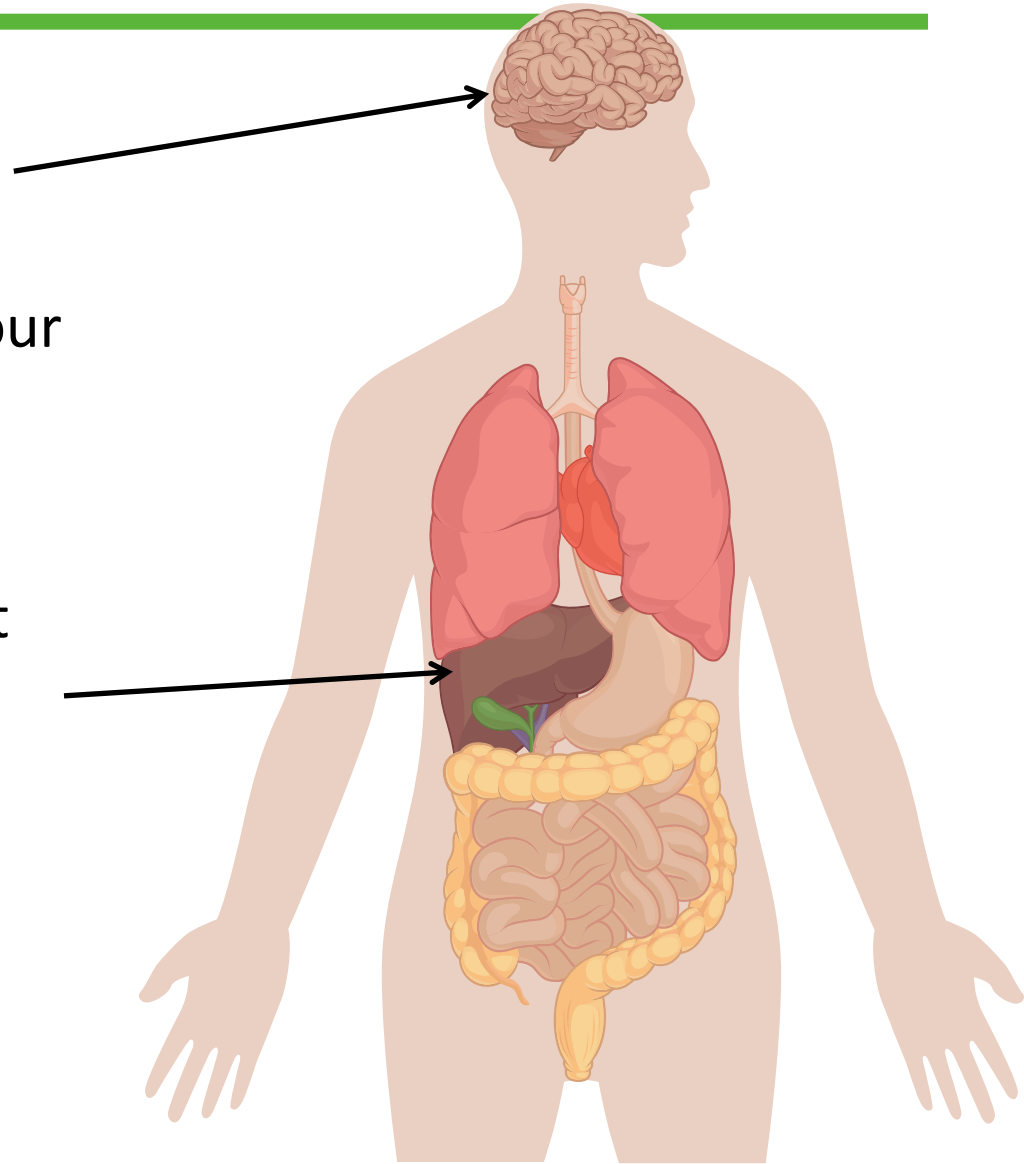
As we get older

- We often need to take more medications to manage chronic conditions
- The benefits and risks of medications may change



Our body changes as we age

- The brain becomes more sensitive to drug effects
- Medications stay longer in our body because we have less muscle and more body fat
- Our liver and kidneys do not process medications as efficiently as when we were younger



Who is most at risk of harmful effects of medication?

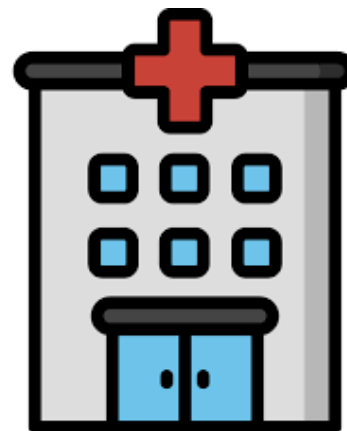
1. People over age 65
2. People with multiple chronic conditions
3. Women



The impacts of side effects

Side effects are the cause of **6 to 12%** of hospitalizations in older adults

- Over half are avoidable!
- A lot are undetected

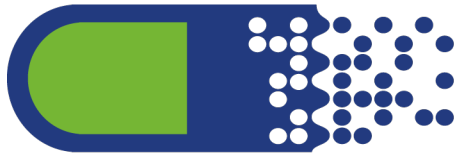


Women are more at risk



Women are more at risk. Why?

- Longer life expectancy
- Suffer from more chronic conditions
- Take more medication
- Female biology and physiology increases the risk of harmful effects of medication



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**In what situations would the risks of drug effects
outweigh potential benefits?**



What is medication overload?

Medication overload means taking a combination of medications that does more harm than good.

Medication overload increases the risk of harmful effects of medications, such as:

- Drug interactions
- Falls & fractures
- Memory problems
- Hospitalizations



Higher risk of falling



Taking more medications increases your risk of falls

- Taking 4 to 7 medications **doubles** your risk of falls
- Taking 8 medications or more **increases even more** your risk of falls



Ziere et al., Br J Clin Pharmacol. 2006
Feb;61(2):218-23.

Higher risk of drug interactions

Medications may have unpredictable effects when they interact with each other. Interactions can lead to harmful side effects or “cancelling out” the effect of a medication.

More medications means a higher chance of interactions

For example, when taking **8 to 10 medications**, the risk of an interaction increases by **8 times**.



Prescription medications are just a part of the picture !

Do you take any natural health products or over-the-counter medications?

- Natural health products include vitamin supplements and herbals
- Over-the-counter medications include commonly used medications like Tylenol[®], Advil[®] or Gravol[®]



Both natural health products as well as over-the-counter medications can cause interactions and/or side effects.

Medication overload also means...

Higher risk of forgetting medications or making mistakes while managing medications.



What are risky medications?

- The potential risks of a medication outweigh the potential benefits.
- A safer alternative treatment for the same condition exists that is equally or more effective.



Sleeping pills are risky meds because : the harms outweigh the benefits

Help you fall asleep faster

– 14 minutes faster on average

But increase the risk of:



Falls & fractures

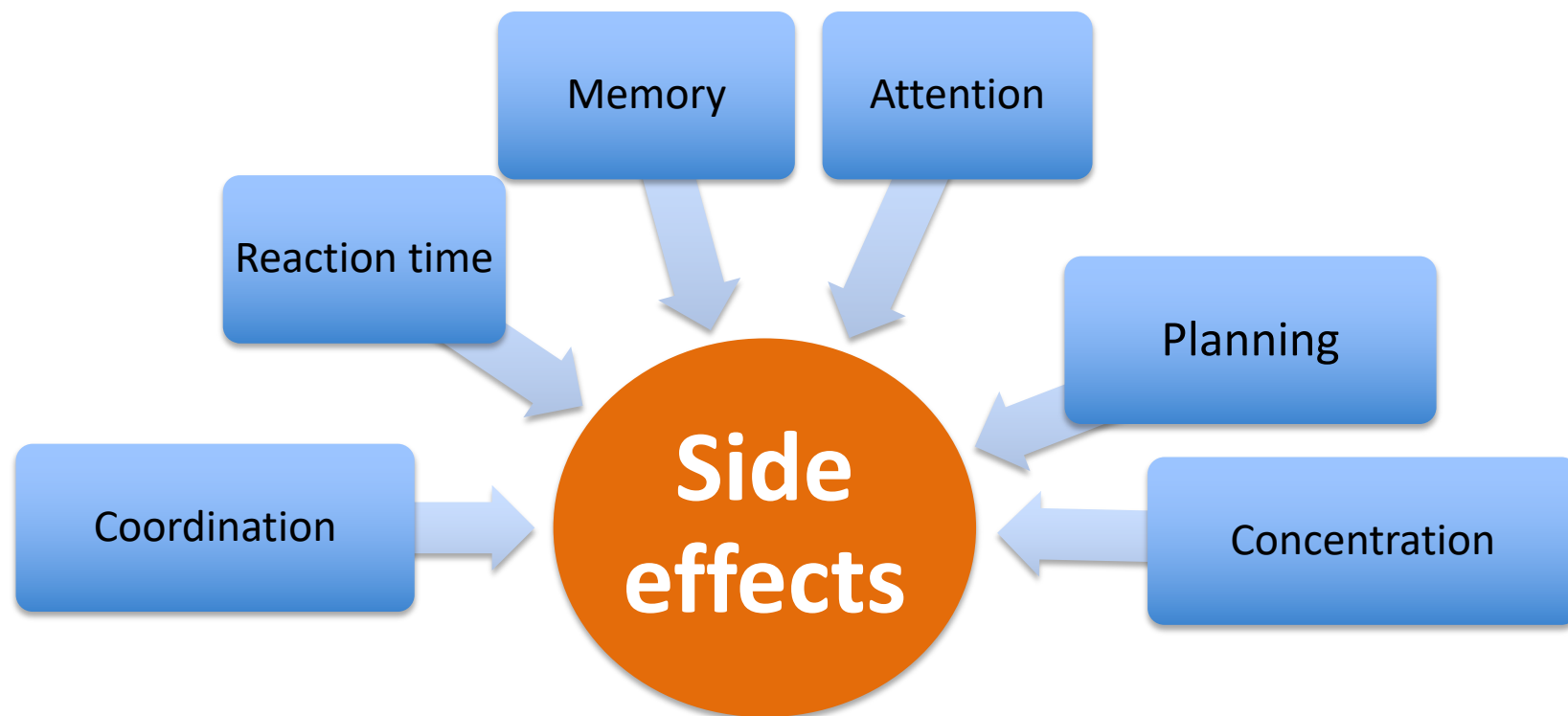


Motor vehicle
accidents



Memory problems

Sleeping pills affect our brain in different ways











Sleeping pills are risky meds because : safer alternatives exist

- There is a safe alternative to sleeping pills, called cognitive behavioral therapy for insomnia (CBTi) or **sleep therapy**
- **Sleep therapy** uses a non-medication approach that helps get your sleep back.
- **Sleep therapy** is officially recommended as the initial (or “first-line”) treatment of insomnia.



What is sleep therapy (CBTi)?

Sleep hygiene	Stimulus control	Sleep restriction	Relaxation techniques	Cognitive therapy
 <p>Avoid caffeine or alcohol consumption</p>	 <p>Use bedroom only to sleep or intimacy</p>	 <p>Limit time spent in bed</p>	 <p>Use relaxation techniques such as breathing exercises</p>	 <p>Address thoughts that interfere with sleep</p>
 <p>Avoid screens before bedtime</p>	 <p>Leave bedroom when cannot fall asleep</p>	 <p>Increase sleep time as sleep improves</p>		

For more information on sleep therapy, visit mysleepwell.ca

Older Canadians who take at least one risky medication

How many Canadians over age 65 take at least one potentially inappropriate medication?

38% of men

48% of women



The cost of risky medication

\$419 million

Canadians spend \$419M per year on potentially harmful prescription medications. This does not include hospital costs.

\$1.4 billion

Canadians spend \$1.4B per year in health care costs to treat harmful effects from medications, including fainting, falls, fractures and hospitalizations.

Morgan *et al.* 2016.
CMAJ Open; 4: E346-E51.



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How can you work with patients, caregivers, and health professionals to prevent harmful medication effects?



What can be done?

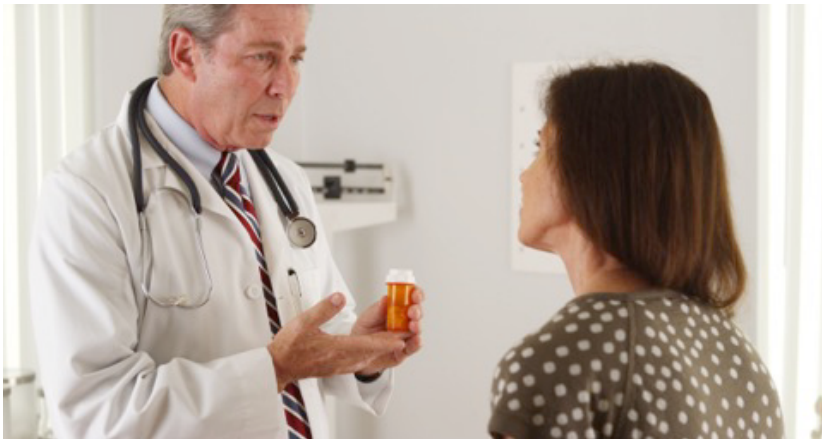
Deprescribing means reducing or stopping medications that may not be beneficial or may be causing harm. The goal of deprescribing is to maintain or improve quality of life.



Deprescribing must always be done as a team with your doctor, nurse or pharmacist.

As an individual : what can you do?

Make a special appointment with your doctor, pharmacist or nurse to ask if you can reduce your medications.



Always speak to your doctor, pharmacist or nurse before stopping any medication.

Johanna and Dusty share their story

Questions to ask your doctor, nurse or pharmacist

1. Why am I taking this medication?



Questions to ask your doctor, nurse or pharmacist

1. Why am I taking this medication?
2. What are the potential benefits and harms of this medication?



Questions to ask your doctor, nurse or pharmacist

1. Why am I taking this medication?
2. What are the potential benefits and harms of this medication?
3. Can it affect my memory or cause me to fall?



Questions to ask your doctor, nurse or pharmacist

1. Why am I taking this medication?
2. What are the potential benefits and harms of this medication?
3. Can it affect my memory or cause me to fall?
4. Can I stop or reduce the dose of this medication?

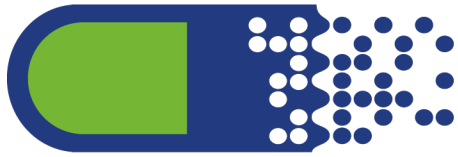
Questions to ask your doctor, nurse or pharmacist

1. Why am I taking this medication?
2. What are the potential benefits and harms of this medication?
3. Can it affect my memory or cause me to fall?
4. Can I stop or reduce the dose of this medication?
5. Who do I follow up with and when?

What can you do?

- **Inform yourself** about your medications and why you are taking them.
- **Engage in a discussion** with your doctor, pharmacist or nurse about deprescribing options and alternate therapies.
- **Spread the word** about deprescribing to friends and family, advocacy groups and government representatives.

Ask questions, stay informed, be proactive, and participate in making informed choices!



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Check out these free medication
safety and deprescribing resources



Medication Safety Toolkit



Available online at <https://www.deprescribingnetwork.ca/>

Brochures – please share!

As we get older, we should be careful with our medications



Did you know?
Older adults are hospitalized five times more often than people under the age of 65 because of harmful medication effects¹

Reference
1 Canadian Institute for Health Information, 2013. Adverse Drug Reaction-Related Hospitalizations Among Seniors, 2006 to 2011.



What you need to know about deprescribing



Are older Canadians taking too many meds?

2 out of 3 Canadians over age 65 take at least 5 prescription medications.

1 out of 4 Canadians over age 65 takes at least 10 prescription medications. (CIHI, 2016)

What is deprescribing?

When too many medications are taken, deprescribing is a solution. Deprescribing means reducing or stopping medications that may not be beneficial or may be causing harm. The goal of deprescribing is to maintain or improve quality of life.

Why deprescribe?

Taking medications may be necessary for health, improving symptoms or prolonging life. However:

- Things change**
As we age, medications affect us differently. Medications that were good then, may not be the best choice now.
- Medication may cause harm**
The risk of harmful effects and hospitalizations increases when taking multiple medications.
- Seniors are more at risk**
They are hospitalized five times more often than people under age 65 because of harmful medication effects. (CIHI, 2013)

Risky meds are good candidates for deprescribing

- Medications are considered risky when the risks outweigh the benefits, and safer drug or non-drug therapy can be used to treat the same condition.**
- Older women are typically more susceptible to harmful effects of medications and more likely to be prescribed risky meds.**

Always check with your doctor, pharmacist or nurse before changing or stopping any of your medications.

Revised: 2020/05/19

Do I still need this medication?



Although medications save lives, some may become unnecessary or even harmful as you age.

Articles



9 Quick Safety Tips to Manage Your Medications


By Johanna Trimble and Janet Currie



Deprescribing means reducing or stopping medications that may not be beneficial or may be causing harm. The goal of deprescribing is to maintain or improve quality of life.


Always consult your doctor before stopping, changing or starting a drug.

- 1. Track your meds.** It's up to you or your family to keep track of the drugs you are taking. Your medication list is unlikely to be available to all health professionals online! Electronic medical records systems often don't "talk" to one another.
- 2. Keep a list.** For your safety, carry your own UPDATED list and keep one on your fridge. Make sure to include over-the-counter (OTC) drugs. Make sure drugs prescribed by specialists that you see are listed.
- 3. Stick to one pharmacy.** Try to fill prescriptions from one pharmacy so drug interactions are easily checked. Any pharmacy's list will only show what their pharmacy has dispensed to you and won't include everything you take.
- 4. Don't start a new drug when you're alone.** It's rare, but if you have a severe allergic reaction you'll need immediate help. Never take a prescription drug that was prescribed to someone else.
- 5. Check your prescription.** When you pick up your prescription order, check both your name and the drug name on the bottle. At times, people who have the same name have received the other person's drug.



Are you worried about the medications older family members are taking?



By Johanna Trimble and Janet Currie



Often, adult children are the first to notice the effects of prescription medications on their parents or other family members. Common adverse effects can include problems with memory, over-sedation, confusion, dizziness, balance problems, increased falling or behaviour that is unusual.


Some facts about medications and older adults:

- Two out of three older Canadians take at least five medications and one out of four take at least ten.
- All drugs have the potential for adverse drug reactions, even those bought over the counter.
- The risk of having adverse drug reactions increases with the number of drugs taken.
- Adverse drug reactions can be mild or serious, temporary or permanent. Problems can begin suddenly with a new drug or take time to develop.
- In general, older adults are more sensitive to prescription medicines because their bodies process drugs differently. Smaller doses may be effective and safer.
- Prescriptions for older adults may increase over the years, even though some may no longer be necessary or safe. This is especially likely if more than one doctor is prescribing.



Are you the victim of a prescribing cascade?

By Camille Gagnon, Janet Currie & Johanna Trimble



What is a prescribing cascade?

A prescribing cascade can happen when you and/or your health providers do not realize new symptoms are actually the side effects of one of your medications. When this happens, you may be diagnosed with a new medical condition. As a result, often your health provider will prescribe a new medication to treat the side effects of the first medication.

Your new medication may also have side effects. When you and/or your health provider interpret these side effects as yet another new health condition, this can lead to more prescriptions. What happens next? Too often, you can end up taking a cascade of new medications which are not needed and which can cause harm.

Whenever you take a medication, there is a risk you will experience a side effect. The more medications you take, the greater your risk of side effects.

Whenever you experience new symptoms, you and your health providers should always first consider whether they could be caused by medications you are currently taking. This will help avoid a common preventable problem called a "prescribing cascade".

Mrs. Reynolds' story

At 75, Mrs. Reynolds started having trouble falling asleep. She felt like she was spending hours tossing and turning. Her daily routine hadn't changed: she visited with friends, went for her daily walk, and made sure to keep her coffee consumption low. Her medications hadn't changed either. She'd been taking medications regularly for depression, high cholesterol and high blood pressure for years.

Hoping it would help her get a good night's sleep, Mrs. Reynolds bought a box of sleeping pills (Sleep-Eze®) at the pharmacy and took one that evening. Although it didn't help, she thought it would be worth trying them a little longer. But over the next few days, Mrs. Reynolds noticed her mouth started feeling dry, which forced her to keep a glass of water on her bedside table. In the mornings, she woke up feeling groggy and constipated. Meanwhile, her sleep hadn't improved. Feeling frustrated, she decided to go see her pharmacist Nadia about these new symptoms as well as about her sleep problem.

Join us!


 Canadian Deprescribing Network


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Question & Answers

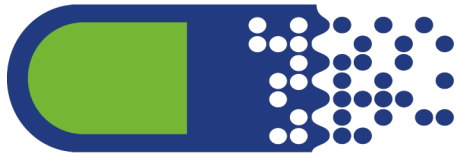


We would love your feedback!

Please take 5 minutes to complete a short survey:

surveymonkey.com/r/safe-meds





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Learn more about the Canadian Medication
Appropriateness and Deprescribing Network
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