

AGING WITH INSIGHT:

Harnessing Knowledge
for Healthy Aging

Eating Well and Keeping Active

November 27, 2024

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Eating Well and Keeping Active

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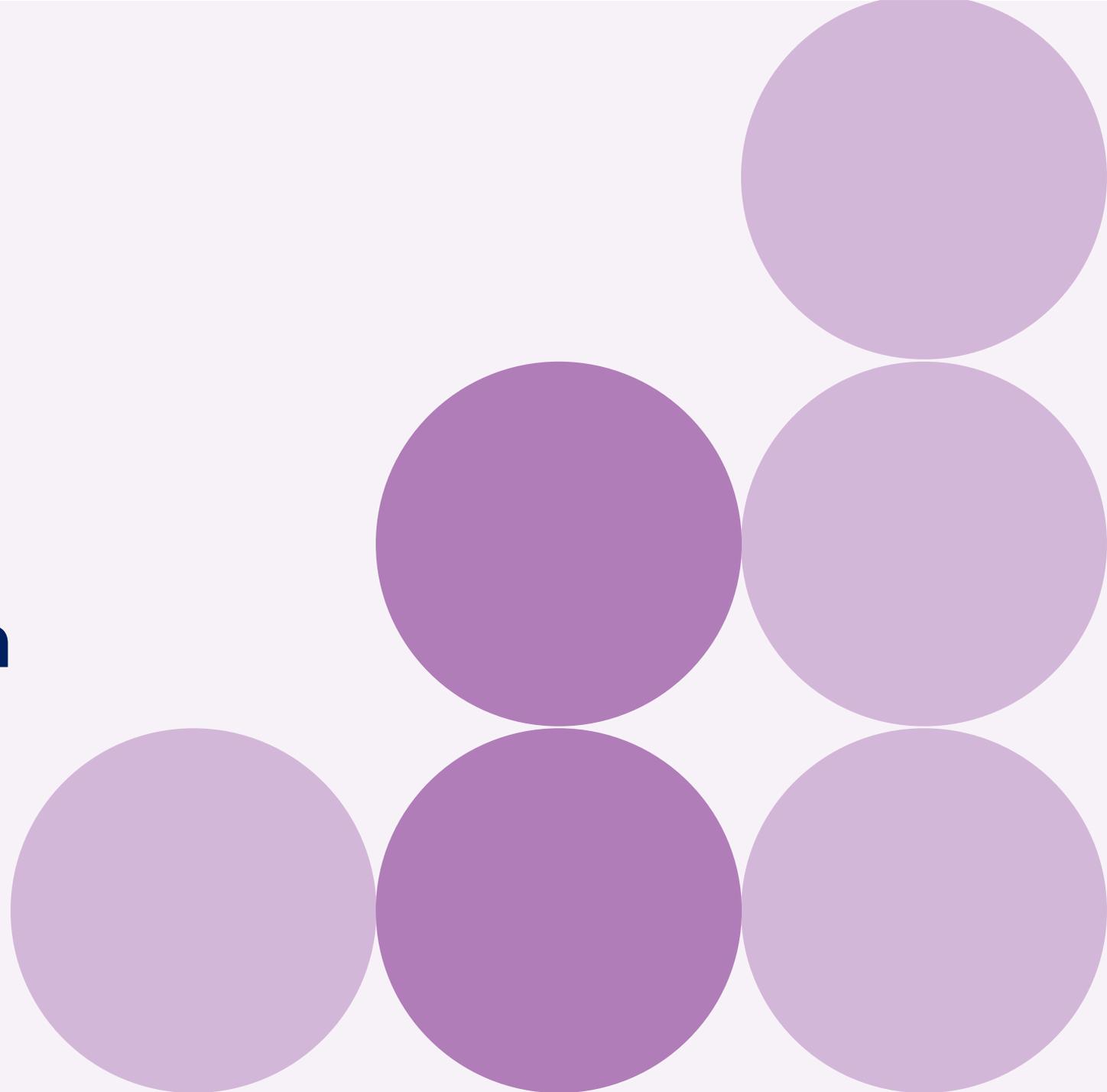
Harnessing Knowledge
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How your diet can support brain health

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Someone in the world develops dementia every 3.2 seconds.

www.alzint.org



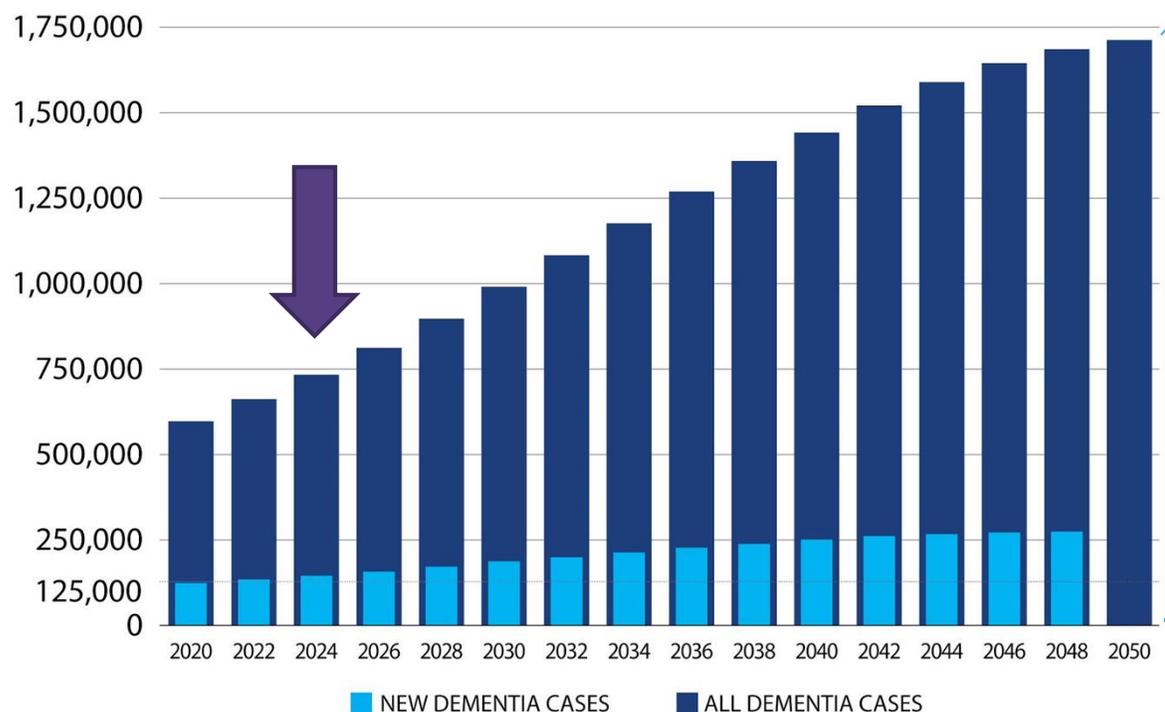
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Dementia in Canada

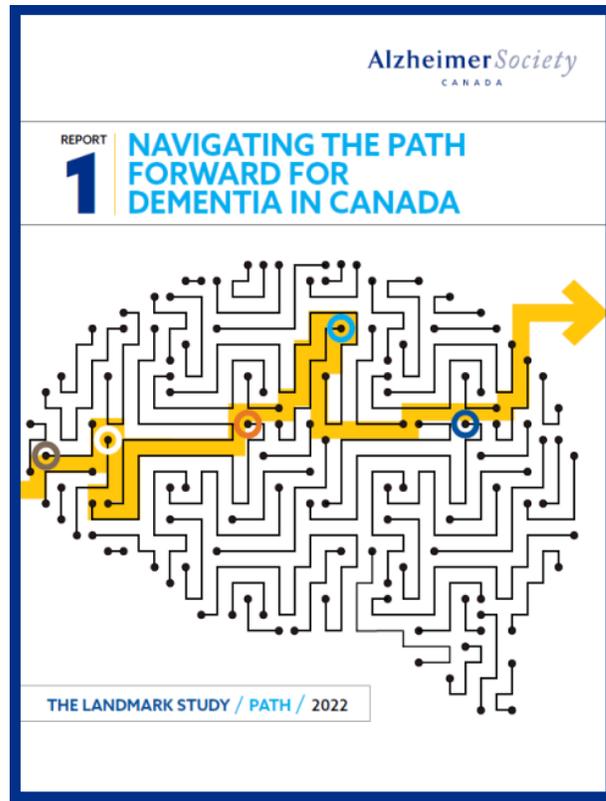
Figure 1. Number of people living with dementia and the number of new cases of dementia per year in Canada, 2020 to 2050



For every person in Canada who has dementia, a family member or friend will spend an average of 26 hours a week caring for them.

How can we prevent this?

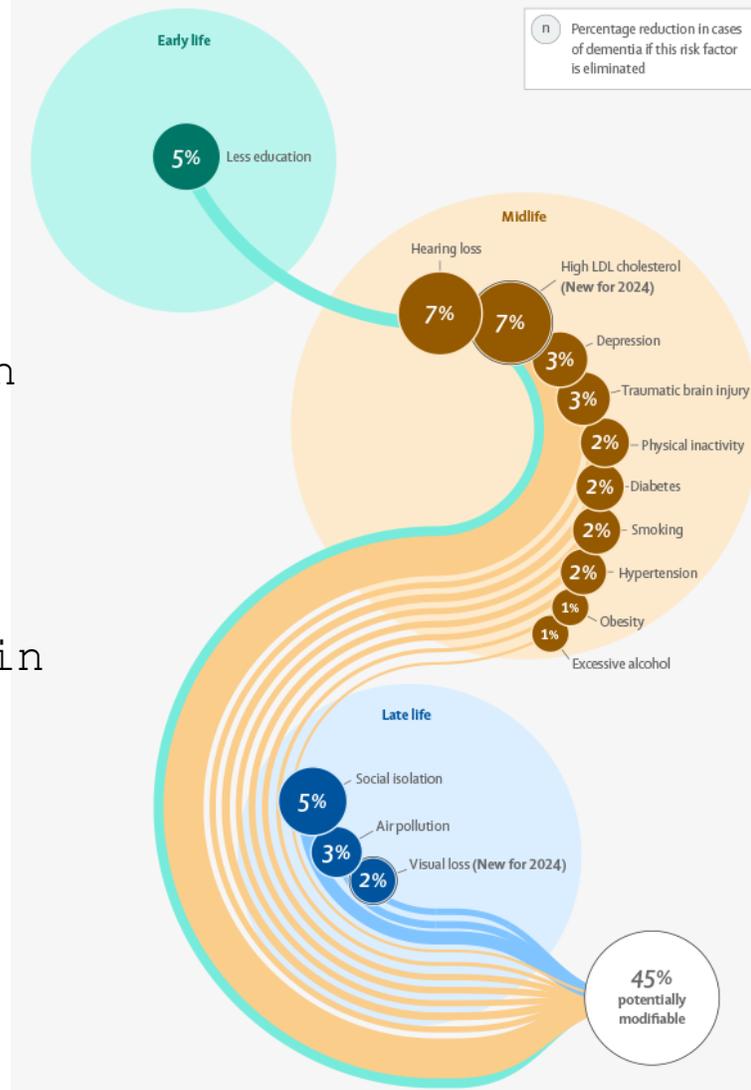
45% of risk factors for dementia are potentially modifiable!



1. Less education
2. Hearing loss
3. *High LDL cholesterol
4. Depression
5. Traumatic brain injury
6. Physical inactivity
7. Diabetes
8. Smoking
9. Hypertension
10. Obesity
11. Excess alcohol consumption
12. Social

Risk factors for dementia — 2024 update

The 2024 update to the standing Lancet Commission on dementia prevention, intervention, and care adds two new risk factors (high LDL cholesterol and vision loss) and indicates that nearly half of all dementia cases worldwide could be prevented or delayed by addressing 14 modifiable risk factors.

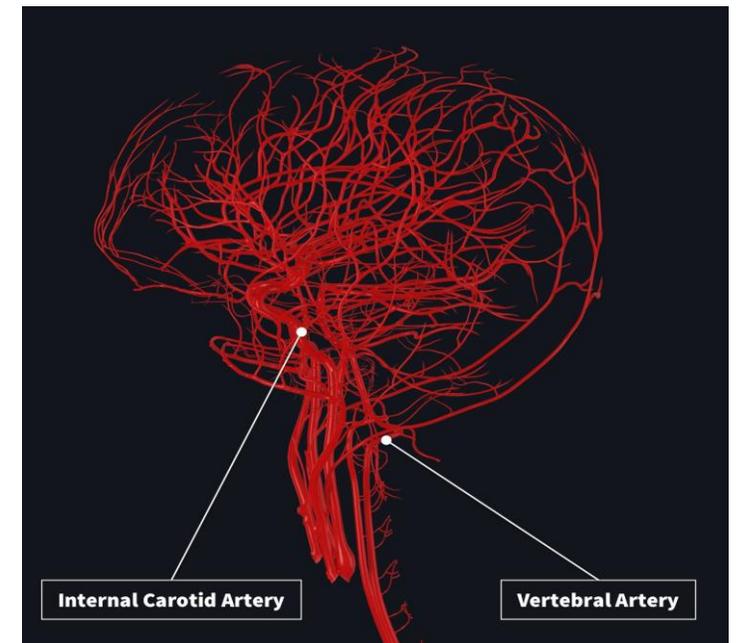
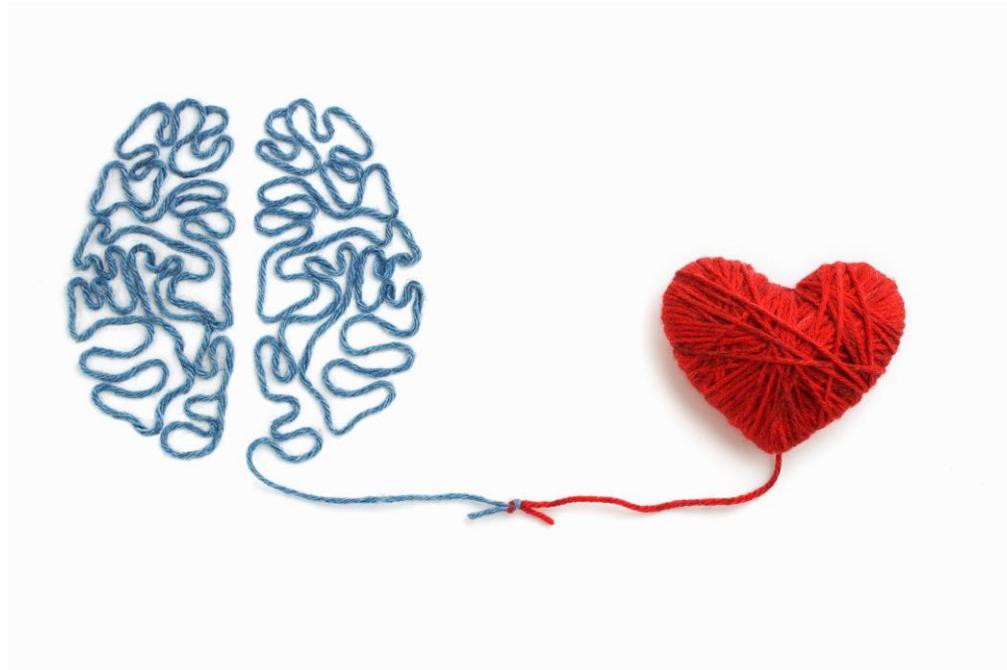


Read the full commission update at [thelancet.com/commissions/dementia-prevention-intervention-care](https://www.thelancet.com/commissions/dementia-prevention-intervention-care)

Livingston G, Huntley J, Liu KY, et al. Dementia prevention, intervention, and care: 2024 report of the Lancet standing Commission. *The Lancet* 2024; published online July 31. [https://doi.org/10.1016/S0140-6736\(24\)01296-0](https://doi.org/10.1016/S0140-6736(24)01296-0).

What's good for the heart is good for the brain

- ✓ The Mediterranean Diet
- ✓ The DASH Diet (Dietary Approaches to Stop Hypertension)- 1997
- ✓ The MIND Diet (The Mediterranean-Dash Intervention for Neurodegenerative Delay)- 2015



What the diets have in common

- ✓ **whole grains**
- ✓ **whole foods (limits pre-made, pre-packaged, processed foods)**
- ✓ **Encourage a high intake of fruits and vegetables**
- ✓ **Include nuts/legumes several times per week**
- ✓ **weekly consumption of fish (Mediterranean, MIND)**
- ✓ **Oil over butter**
 - ✓ **Vegetable oils (DASH)**
 - ✓ **EVOO (Extra virgin olive oil)- MIND diet, Mediterranean**
- **ALL advise cutting back on red meat, refined grains, and sugar.**

What does the research show

Adherence to the Mediterranean, DASH, and MIND diets have been associated with:

- **Better cognitive function (improved scores on memory tests)**
- **Slower cognitive decline**
- **Larger total brain volume and hippocampal volume**
- **Lower odds of developing cognitive impairment and Alzheimer's Disease**
- **In a 2017 brain health study, people who reported eating well, balanced meals also self reported better brain health.**

Brain Health Food Guide- 2017

BRAIN HEALTH FOOD GUIDE



Eating well for your brain health means:



- Including a **variety** of healthy foods in moderation
- Focusing on overall **pattern** of healthy eating, not one specific "superfood"
- Eating until you're **comfortably full** and not stuffed
- Enjoying lots of **fruits and vegetables** including berries and leafy greens (lettuce, kale, and spinach). Frozen fruits and vegetables are an equally good option



- Including foods with **healthy fats** such as olive oil daily

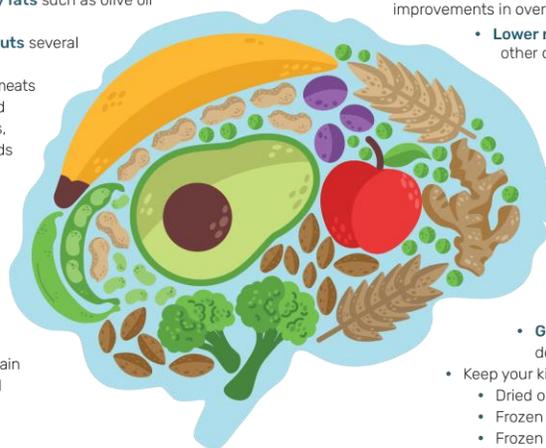
- Choosing **fish, beans, and nuts** several times a week



- **Limiting** red and processed meats
- **Limiting** foods high in added sugar and salt such as cakes, cookies, ice cream, fried foods chips, frozen dinners, and canned soups



- Choosing dairy products such as milk and yogurt that are **low in fat**. For example, choose skim milk instead of whole milk
- Selecting **whole grains** over refined grains. For example, choose multigrain bread instead of white bread



An Evidence-Based
Approach to Healthy
Eating for the Aging Brain

Simple diet changes have a powerful effect on brain health

What's good for the body is also good for the brain.

The Brain Health Food Guide is similar to the eating plans that are recommended to treat other conditions such as heart disease, diabetes, high cholesterol, and high blood pressure.

Studies show that eating a healthy diet is associated with:

- **Better memory abilities**^{1,2}, thinking speed^{1,3}, and improvements in overall brain functioning⁴
- **Lower risk of Alzheimer's disease** and other dementias⁵



Tips & Tricks

The Brain Health Food Guide includes a variety of healthy foods that supply your brain with the nutrients it needs to function best.

- **Choose colour.** Eat a colourful assortment of fruits and vegetables at each meal
 - **Grill, steam, or bake** foods instead of deep frying
- Keep your kitchen stocked with:
 - Dried or canned **beans**
 - Frozen or canned **fish**
 - Frozen **vegetables** and **fruits**
- Add **beans** or **legumes** to soups, stews, salads, and stir-fries
- **Snack smart.** Choose nuts, fresh fruits, chopped vegetables, and low-fat yogurt
- **Keep hydrated.** Drink water or other unsweetened drinks



For more resources and recipes, to find a registered dietitian, and to share your feedback, scan the QR code

The Brain Health Food Guide was developed by Dr. Matthew Parrott in collaboration with members of the Canadian Consortium on Neurodegeneration in Aging: Team 5 (Nutrition, Exercise and Lifestyle in Alzheimer's Disease Prevention).

Team 5 Member Organizations: Baycrest Health Sciences, Concordia University, Institut universitaire de gériatrie de Montréal, Centre de recherche du Centre hospitalier de l'Université de Montréal, McGill University, Rotman Research Institute, Toronto Metropolitan University, Sunnybrook Health Sciences Centre, Toronto Rehab/UHN Cardiovascular Rehabilitation Program, Université de Montréal, Université de Sherbrooke, University Health Network, Toronto, University of British Columbia, University of Ottawa, University of Toronto, Waterloo University

Supporting evidence: ¹Shannon, OM, Stephan, BCM, Granic, A, et al. Mediterranean diet adherence and cognitive function in older UK adults: The European Prospective Investigation into Cancer and Nutrition-Norfolk (EPIC-Norfolk) Study. *Am J Clin Nutr.* 2019;110:939-43. ²Valls-Pedret C, Sala-Vila A, Serra-Mir, et al. Mediterranean diet and age-related cognitive decline: a randomized trial. *JAMA Internal Medicine.* 2015;175(7):1094-1103. ³Smith PJ, Blumenthal, JA, Babyak MA, et al. Effects of the dietary approaches to stop hypertension diet, exercise, and caloric restriction on neurocognition in overweight adults: with high blood pressure. *Hypertension.* 2010;55:1331-1338. ⁴Martinez-Lapiscina, EH, Clavero, P, Toledo, E, et al. Mediterranean diet improves cognition: the PREDIMED-NAVARRA randomized trial. *J Neurol Neurosurg Psychiatry.* 2013;84:1318-1325. ⁵Wu, L, Sun, D. Adherence to Mediterranean diet and risk of developing cognitive disorders: An updated systematic review and meta-analysis of prospective cohort studies. *Scientific Reports.* 2017;7:41317.

Research has found that dietary patterns similar to those outlined in the *Brain Health Food Guide* are associated with decreasing the risk of developing Alzheimer's disease by 36 per cent and mild cognitive impairment by 27 per cent.

Vegetables

How much should I eat? 5 or more times per day

Cruciferous Vegetables 3d/week (Serving size= ½ cup = ½ fist)

Examples:

- **Broccoli**
- **Cauliflower**
- **Brussel Sprouts**
- **Kale**
- **Cabbage**
- **Bok Choy**



Raw leafy Greens 1x/day (Serving Size= 1 fist)

Examples (lettuce, spinach, mixed greens, kale, cabbage, arugula, collard greens, beet greens)

Why? Lutein, folate, β -carotene, and vitamin E and K may have neuroprotective actions

Other Vegetables

- **Eat a wide variety, colourful assortment of vegetables.**
- **Fresh and frozen vegetables are equally good options .**



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Fruits

- **How much should I eat? 4 or more per day**
- **Serving size: 1 med fruit OR ½ cup= ½ fist**
- **Recommendation: Eat berries (fresh or frozen) 3x per week.**
- **Did you know? Berries are high in flavonoids called anthocyanides. These compounds cross into the brain and can improve blood flow to areas responsible for memory and learning. They are also anti-inflammatory.**



Unsalted Nuts/Nut butters

How much should I eat? 1/day

Serving size= ¼ cup or 1 cupped hand or 2 Tbsp nut butter

Consider including Walnuts 4 or more times per week

Tips

Add to yogurt.

Eat as a between meal snack.

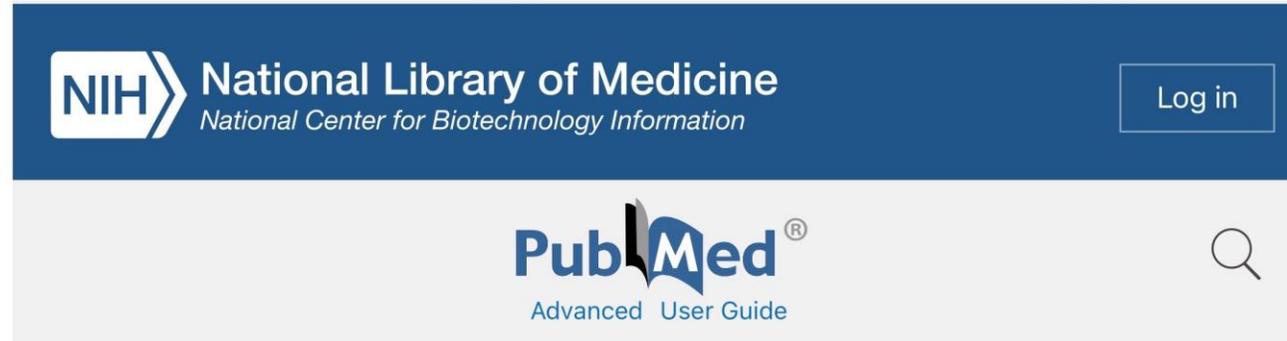
Add to a smoothie.

Use nut butters.

Add to salads/veg dishes/stir-fries.



Nuts in the news



> [Geroscience](#). 2024 Sep 30. doi: 10.1007/s11357-024-01365-z. Online ahead of print.

Nut consumption is associated with a lower risk of all-cause dementia in adults: a community-based cohort study from the UK Biobank

- **People who reported eating 1 handful/30 g/day of unsalted nuts had a 16% reduction in dementia compared to those that did not eat any nuts.**
- **Unsalted nuts were also seen to have a more positive effect than salted ones.**

Legumes

- **How much should I eat? 2/week**
- **This category includes all beans, lentils, and soybeans.**
- **Serving size= ½ cup = ½ fist**



Fish/Seafood

How much should I eat? 3/week

Serving Size: 3-4 oz (1 palm)

Consider adding fatty fish high in omega-3 1 or more times per week

- **Salmon**
- **Sardines**
- **Trout**
- **Tuna**
- **Atlantic Mackerel**
- **Lake whitefish**
- **Anchovies**

Limit battered or fried fish.



Higher mercury: shark, swordfish, king mackerel, tilefish, and orange roughy
www.seafoodwatch.org

Fats

- **Recommendation:**

Use EVOO as your main culinary oil for cooking, salad dressings, and adding to food.

- **Choose low fat dairy**

- **milk (skim, 1%)**
- **low fat yogurt (0-2%)**
- **cheese (<22% M.F)**

- **Limit butter/cream to less than 1x/week (1 tsp butter OR 1 Tbsp cream)**

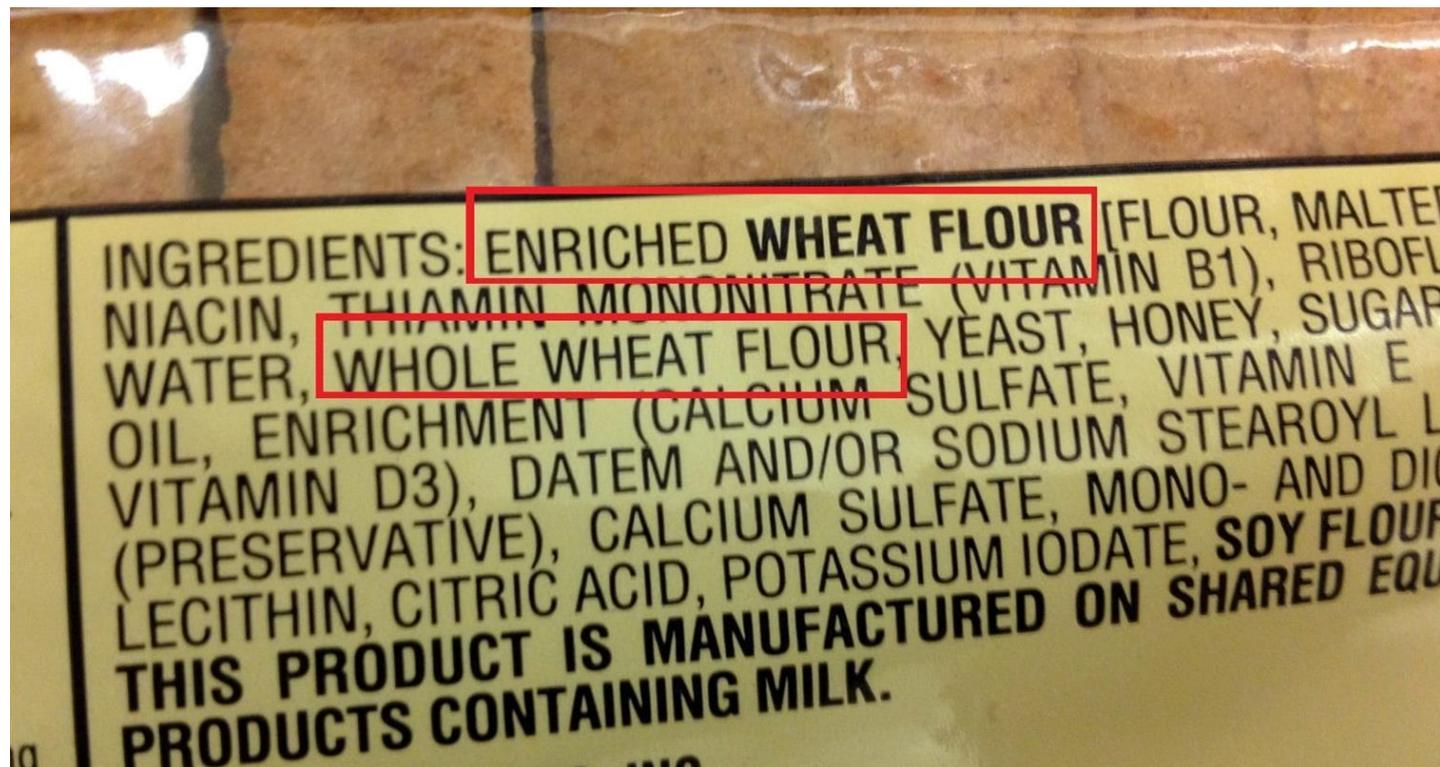


Choose Whole Grains Over Refined Grains

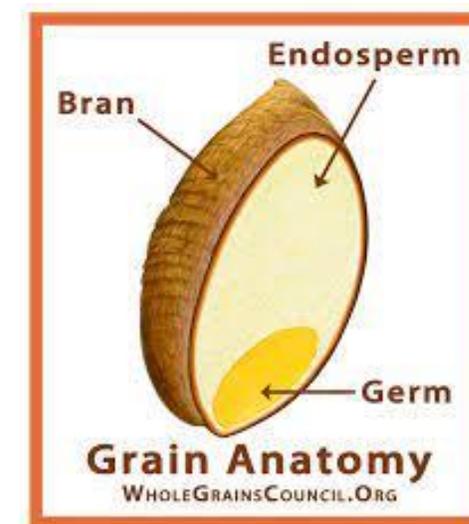
- **Replace white bread, short white rice, white pasta with a whole grain option.**
- **Limit white breads (bread, rolls, bagels, pita, tortillas) to 1 or less per week**



What to look for on the food label



Wheat flour and enriched flour are NOT whole grain. Look for whole wheat flour, whole rye flour, whole (other grain)



Foods to limit/avoid

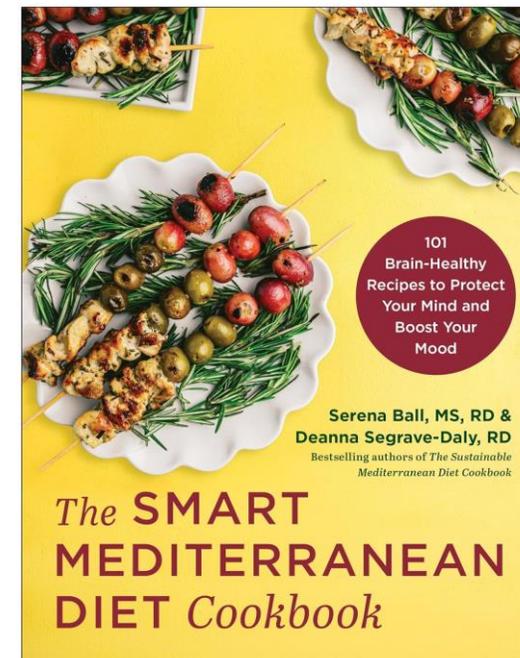
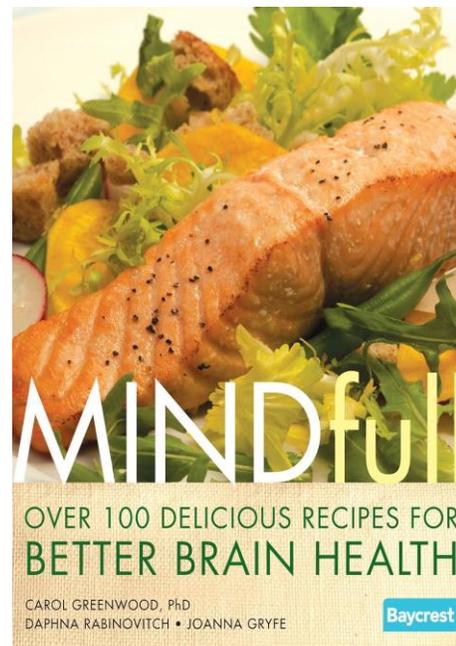
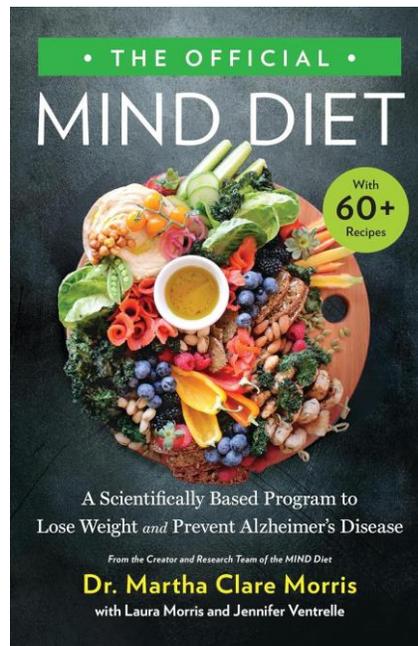
3 or less servings per week

- **Pre-packaged foods and meals**
- **Potato chips, fries, pretzels, or other salty snacks or fried foods**
- **Store-bought dairy desserts (ice cream, frozen yogurt, pudding, custard)**
- **Baked Goods (esp store bought)- cookies, muffins, scones, croissants, donuts, cakes, pies**
- **Candy and Chocolate**
- **Pop, fruit juices or any other sugary drink**

- **Consider limiting red and processed meats (such as beef, pork, lamb, liver, sausages, hot dogs, jerky, cold cuts, pepperoni) to less than 1x/week.**

Brain health recipes

- <https://ccna-ccnv.ca/brain-health-food-guide-recipe-library/>
- <https://www.reciperadar.com/>
- **Look at a recipe database where you can search by ingredient.**



Key learnings

- **Diet impacts brain health.**
What is good for your heart is good for your brain.
 - **No single food acts as a silver bullet for improving or maintaining brain health.**
 - **Focus on overall diet.**
- **The Brain Health Food Guide is an evidenced based approach for healthy eating for the aging brain.**

Remember: Some change is better than no change!

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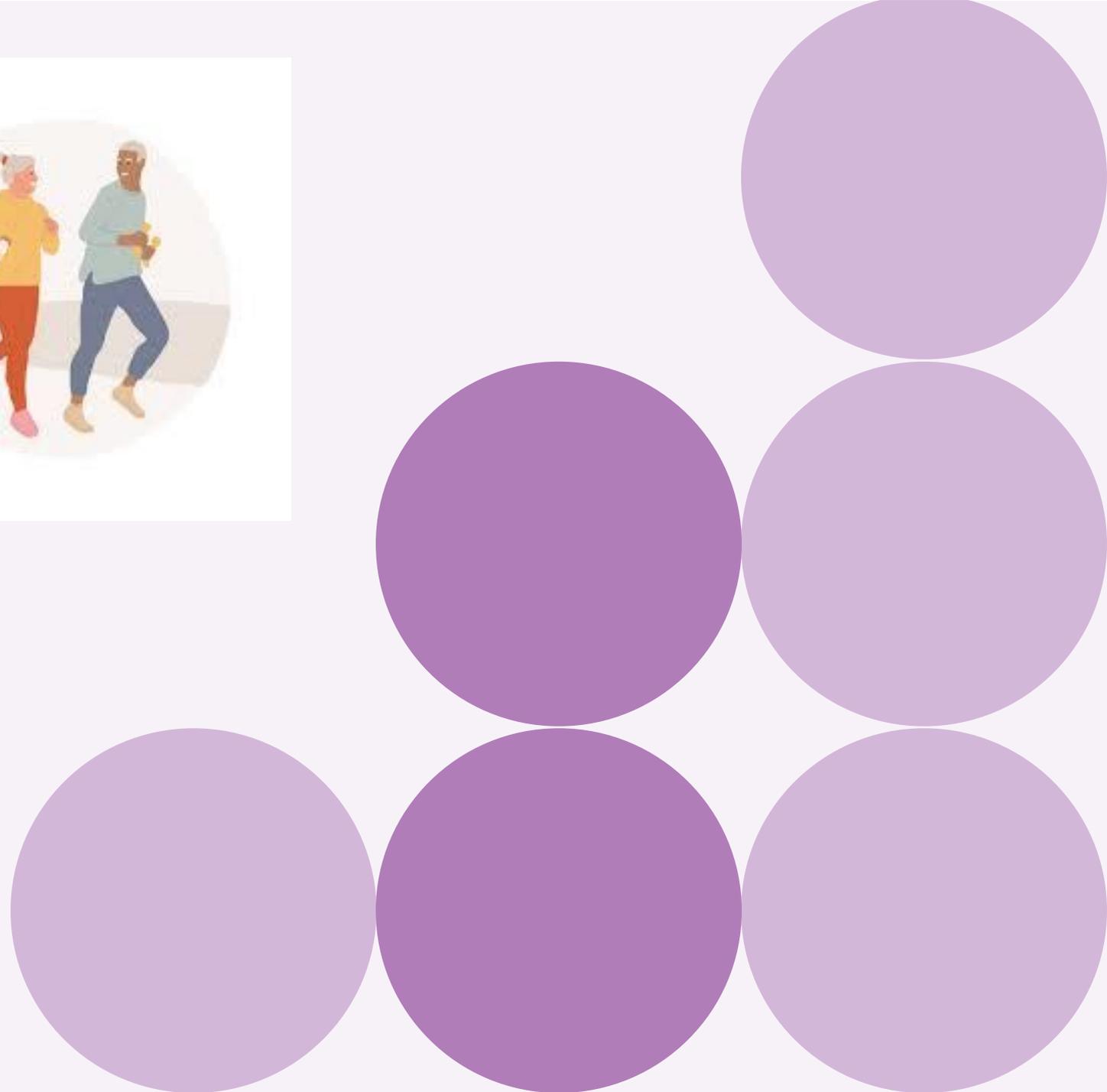
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Keeping Active as we Age

November 27, 2024

Jacqueline Holloway,
Physiotherapist
St. Joseph's Health Centre



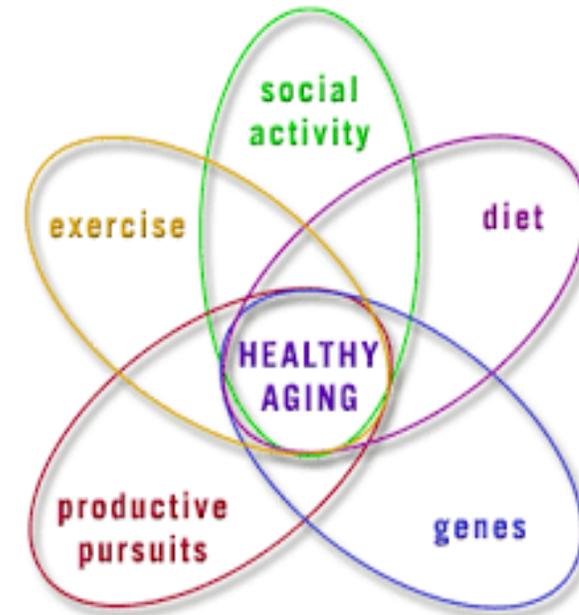
Topics for Discussion

- **Aging: Health and Exercise**
- **Physical changes with aging**
- **Safe Exercise / Injury prevention**
- **Beginner Exercises**
- **Advanced Exercises**
- **Questions?**



Aging

- **Aging is a dynamic process impacted by many factors**
- **This process can be slowed by taking steps that support healthy aging**
- **Learning about Nutrition and Exercise today is an important step towards aging with insight**



Aging: Health and Exercise

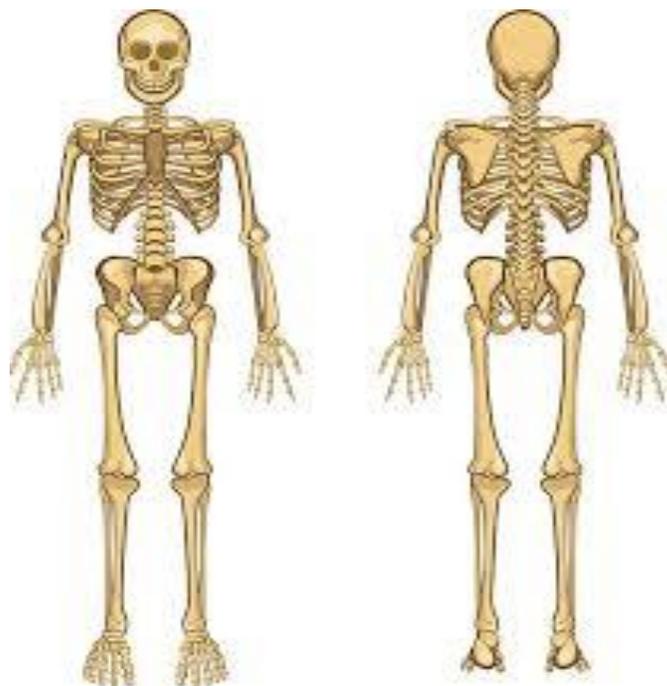
Physiotherapy can help answer the questions:

- **How to keep the body and mind active**
- **How to prevent injury and physical decline**

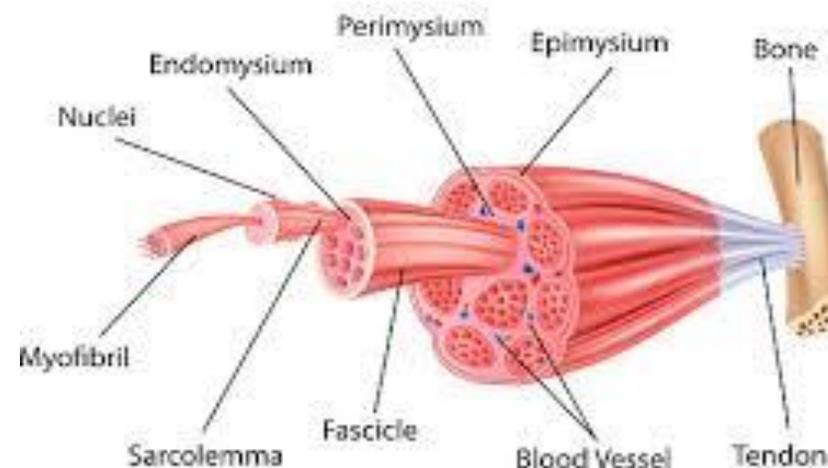


Changes in Muscle, Bone and Joints

Strength, flexibility and power decrease with age



Structure of Skeletal Muscle



Exercise builds muscle to support joints and maintain bone density

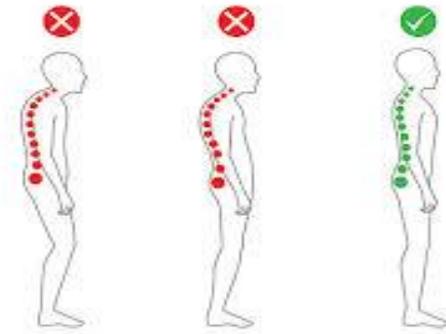
- **Strengthen muscles by moving against a gradually progressive level of resistance**
- **Stretching and moving through full available range maintains joint mobility**



Posture and Balance

Correct posture is the first step for improving balance

With upright posture we naturally improve our standing stability and dynamic balance when we move



POSTURE CORRECTION



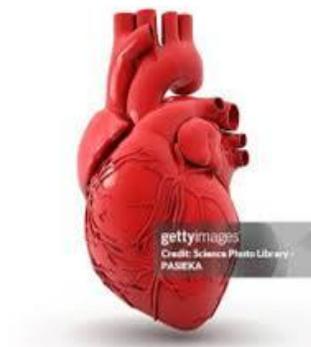
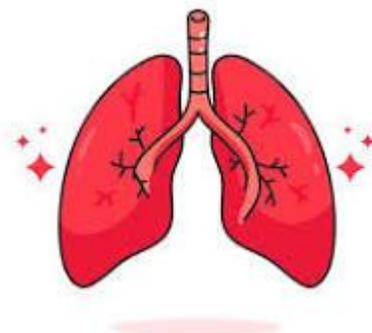
Balance and Coordination Exercise

- **Practice of balance activities on variable surfaces/ environments prepares us to correct and recover from a loss of balance**
- **Coordination exercises helps the brain practice processing all the things in a busy environment**



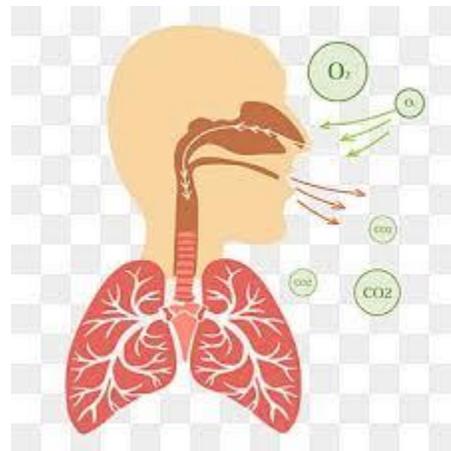
Cardiovascular change with Aging

- **Lung tissue elasticity decreased**
- **Weakened breathing muscles**
- **Changes to heart muscle and blood vessels**
- **Slowed adjustment to increased oxygen demands with activity**



Cardiovascular exercise benefits

- **Breathing exercises and aerobic exercise can reduce shortness of breath, reduce fatigue and get oxygen to muscles**
- **Higher levels of functioning of the cardiovascular system can be maintained with optimal lifestyle including appropriate exercise and diet**



Empower yourself to Age with Insight

Learn about:

- **The benefits of exercise**
- **The factors of balance and coordination in fall prevention**
- **Ways to compensate for difficulties or use assistive devices when necessary**
- **Active hobbies, classes and group activities**



Recommendations for Exercise to optimize your function

**At least 150 moderate intensity physical activity which
include**

- **Aerobic exercise**
- **Resistance training**
- **Stretch and range of motion to maintain full movement**
- **Balance training**



How to Exercise Safely

- **Take steps to Prevent Falls**
- **A Physiotherapist can help with determining an exercise program that is best for you**



Safe Exercise Tips Summary

- **Prevent injury with good posture: Sit or stand tall with shoulders back, avoid leaning your head forward.**
- **Protect your back with strong abdominal muscles: Tighten across your abdomen and hold the tummy muscles steady as you are standing or walking. (Don't hold breath)**
- **Practice deep breathing: Think about expanding the abdomen (tummy) to bring air deep into the lungs. Slowly repeat several deep breaths with tall posture.**
- **Reduce Sedentary Time: stand up, change position, walk and move around regularly**
- **Know how to reduce the risk of falls**



Safety: Fall Prevention



- **Bright lighting and floors clear of clutter**
- **Handrails on all stair cases**
- **Bathroom safety: grab bars, shower seat, raised toilet**
- **Telephone or medical alarm pendant within reach to call for help**
- **Use your gait aide (cane, walker)**
- **Wear glasses and hearing aides if you have them**
- **Slowly sit up from lying in bed, slowly stand from sitting to allow time to adjust to the transition**
- **Have your medications reviewed by your family physician or Geriatrician**
- **Ask for help if you are worried about falling**

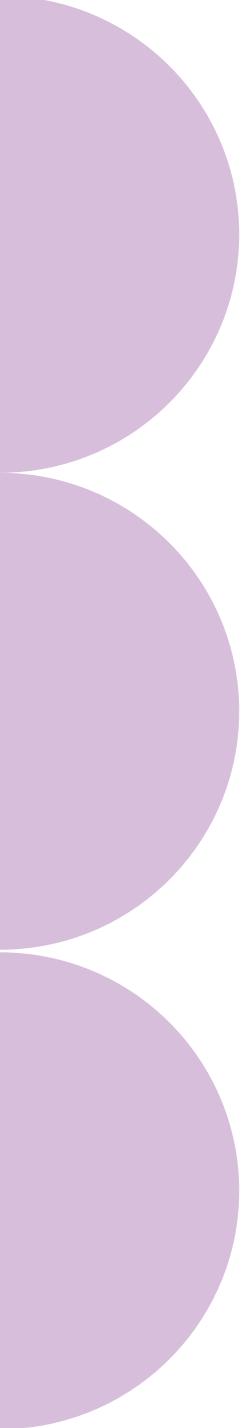
Beginner Exercises

- **Walking program, over time increase time or distance walked or other aerobic activity (peddle bike, arm bike, treadmill, seated elliptical, swimming or other activities)**
- **Stretch by moving arms and legs through comfortable range of motion to maintain mobility**
- **Strengthen major muscle groups using resistance, challenging the muscles slightly and gradually with progressions (increase load and repetitions)**
- **Balance practice while holding support, stand with narrow stance, stand on one leg, stand toe to heel**



Questions?

- **Enter your questions into the ZOOM Chat for either speaker**
- **Lauren (Dietitian)**
- **Jacqueline (Physiotherapist)**



Get in Touch!

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