Lifestyle & Wellness Health Coach Certificate

Module 3

2021

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Canada

Lifestyle and Wellness Health Coach Program:

Nutrition

Andrea Glenn, MSc, RD, CDE, PhD(c)

Health Leadership & Learning Network
York University Faculty of Health

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Objectives

- Understand why nutrition can be complicated
- Understand evidence-based practice in nutrition
- Understand the hierarchy of evidence in relation to nutrition
- Describe key messages from Canada's Food Guide

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Why can nutrition science be complicated?

Nutrition is a new science. Still lots to learn

Timeline of nutrition infographic:
https://www.bmj.com/content/bmj/suppl/2018/06/13/bmj.k2392.DC1/Mozd045248.www.pdf

New products come faster than studies can assess impact of ingredients

Difficult to conduct RCTs on all nutrition questions so we have to rely on observational studies

Conflict of interest in research

Soares et al. Conflict of interest in nutrition research: an editorial perspective. EJCN 2019.
Ioannidis & Trepanowski. Disclosures in Nutrition Research. JAMA 2017.

People and food are diverse

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Why can eating be so complicated?

Controversies

Fad diets

Concept of quick fixes, super foods, magic foods

Shaming and guilt

Pressure to eat clean

Everyone is an expert

Hand-picking evidence to support own perspective

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Evidence-based Practice

Most simply put… practice based on evidence…

"Evidence-based clinical practice (EBCP) is an approach to health-care practice that explicitly acknowledges **the evidence** that bears on **each patient management decision**, the **strength of that evidence**, the **benefits and risk of alternative** management strategies, and the **role of patients' values and preferences** in trading off those benefits and risks."

- Integration of
  - Evidence
  - Client perspectives
  - Clinical professional opinion

Shared decision making

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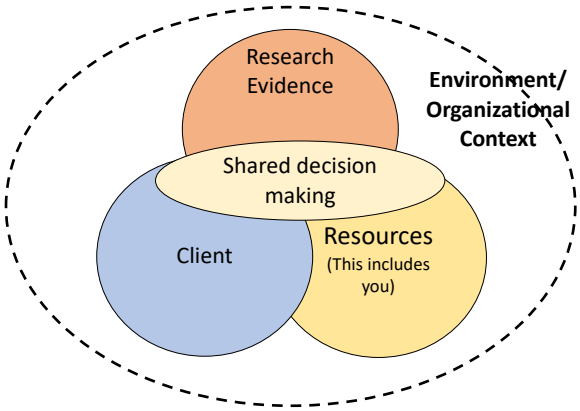
Evidence-based clinical practice. McMaster University. https://ebm.mcmaster.ca/

Evidence-based Practice



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Satterfield et al. (2009) Milbank Q; 87(2): 368-390.

Client-centered Practice

"It is not merely about delivering safe services where the client is located. It involves advocacy, empowerment, and respecting the client's autonomy, voice, self-determination, and participating in decision making."

Chatalalsingh. (2013) College of Dietitians of Ontario: Resume; Spring: 8-9.
Gerteis et al. (1993) Through the Patient's Eyes: Understanding and Promoting Patient-Centered Care. San Francisco: Jossey-Bass.

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Client-centered Practice Example

Canadian Journal of Cardiology 32 (2016) 1263–1282

Society Guidelines

2016 Canadian Cardiovascular Society Guidelines for the Management of Dyslipidemia for the Prevention of Cardiovascular Disease in the Adult

Values and preferences. Adherence is one of the most important determinants for attaining the benefits of any diet. High food costs (e.g. fresh fruits and vegetables), allergies (e.g. peanut and tree nut allergies), intolerances (e.g. lactose intolerance), and gastrointestinal (GI) side effects (e.g. flatulence and bloating from fibre) may present as important barriers to adherence. Other barriers may include culinary (e.g. ability and time to prepare foods), cultural (e.g. culturally specific foods), and ecological/environmental (e.g. sustainability of diets) considerations. Individuals should choose the dietary pattern that best fits with their values and preferences, allowing them to achieve the greatest adherence over the long term.

Canadian Cardiovascular Society
Leadership. Knowledge. Community.

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Anderson JT et al. Can J Cardiol. 2016;pii:S0828-282X(16)30732-2.

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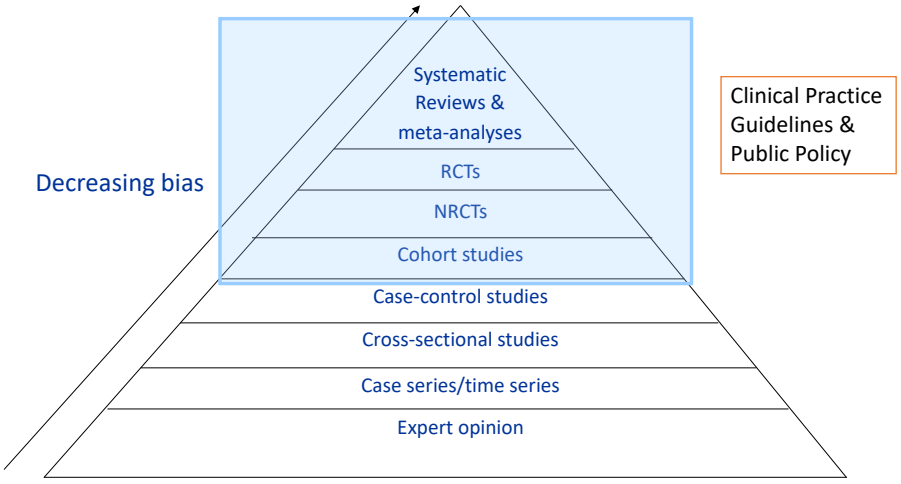
Hierarchy of Evidence in Evidence-Based Medicine



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Randomized Controlled Trials (RCT)

- Random allocation of participants
  - Intervention or control
- Does the intervention have an effect?
- **Advantages**
  - Randomization
  - Cause and effect
- **Disadvantages**
  - May not be generalizable to all populations
  - Shorter duration
  - Practical issues
  - Blinding not always possible (nutrition)

Often referred to as the gold standard.

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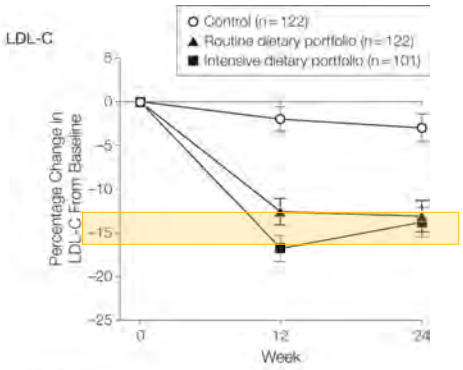
RCT Example

Effect of a Dietary Portfolio of Cholesterol-Lowering Foods Given at 2 Levels of Intensity of Dietary Advice on Serum Lipids in Hyperlipidemia
A Randomized Controlled Trial

David J. A. Jenkins, MD
Peter J. H. Jones, PhD
Bessie Lamarche, PhD

Context Combining foods with recognized cholesterol-lowering properties (dietary portfolio) has proven highly effective in lowering serum cholesterol versus metabolically controlled conditions.



Jenkins DJ et al. JAMA 2011;306(8):831-9

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Prospective Cohort Studies

- **Advantages**
  - Real-world setting/generalizability
  - Practical for some questions
- **Disadvantages**
  - Observational (causation cannot be inferred)
  - Grouping of health behaviours

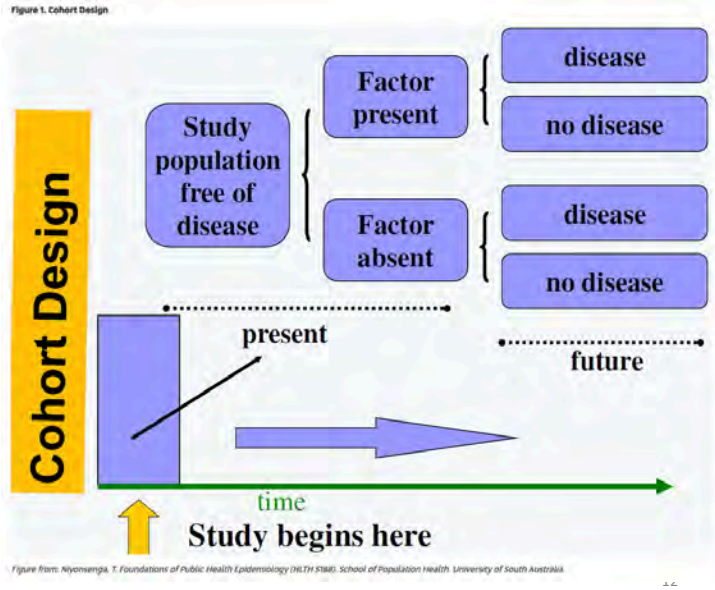

Figure from: Niyonsenga, T. Foundations of Public Health Epidemiology (HLTH 5166). School of Population Health. University of South Australia

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Prospective Cohort Study Example

JAMA Internal Medicine | Original Investigation

Ultraprocessed Food Consumption and Risk of Type 2 Diabetes Among Participants of the NutriNet-Santé Prospective Cohort

Bernard Srour, PharmD, MPH, PhD; Léopold K. Fezeu, MD, PhD; Emmanuelle Kesse-Guyot, MSc, PhD; Benjamin Allès, PhD; Charlotte Debras, MSc; Nathalie Druesne-Pecollo, PhD; Eloi Chazelas, MSc; Mélanie Deschasaux, MSc, PhD; Serge Hercberg, MD, PhD; Pilar Galan, MD, PhD; Carlos A. Monteiro, MD, PhD; Chantal Julia, MD, MPH, PhD; Mathilde Touvier, PhD, MSc, MPH

Table 3. Associations Between the Proportion (in Weight) of UPF in the Diet and Risk of Type 2 Diabetes From Cause-Specific Multiadjusted Cox Proportional Hazard Models in 104 707 Patients in the NutriNet-Santé Cohort (2009-2019)[a]

Variable	Absolute Increment of 10% of UPF in the Diet, HR (95% CI)	*P* Value
No. of cases/total	821/104 707	
Model 1	1.15 (1.06-1.25)	.001
Model 2	1.19 (1.09-1.30)	<.001
Model 3	1.14 (1.04-1.25)	.005
Model 4	1.13 (1.03-1.23)	.006
Model 5[b]	1.13 (1.01-1.27)	.04

Srour B et al. JAMA Intern Med 2020;180(2):283-291

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Critical Appraisal Questions

- Why was the study done?
- Whom was the study about (the population)?
- What design was used? Was the design appropriate?
- Was bias minimized? Acknowledged?
- Were the statistical methods applied appropriate?
- What were the main conclusions?
- Nutrition: What was the dose? What was the source? The duration? The outcome?
- Nutrition: What is the food/diet being compared or replaced with?

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Article for extra reading...

Nat Clin Pract Gastroenterol Hepatol. 2009;6(2):82-91.

Interactive activity: Matching questions

- Two Research Questions:
  1. Does drinking sugar-sweetened beverages increase risk of breast cancer? (answer=2)
  2. Does a high fibre diet lower blood glucose in patients with diabetes? (answer=1)

- Two Study designs
  1. Randomized Controlled Trial
  2. Prospective Cohort Study

Answers

- Two Research Questions:
  1. Does drinking sugar-sweetened beverages increase risk of breast cancer?
  2. Does a high fibre diet lower blood glucose in patients with diabetes?

- Two Study designs
  1. Randomized Controlled Trial
  2. Prospective Cohort Study

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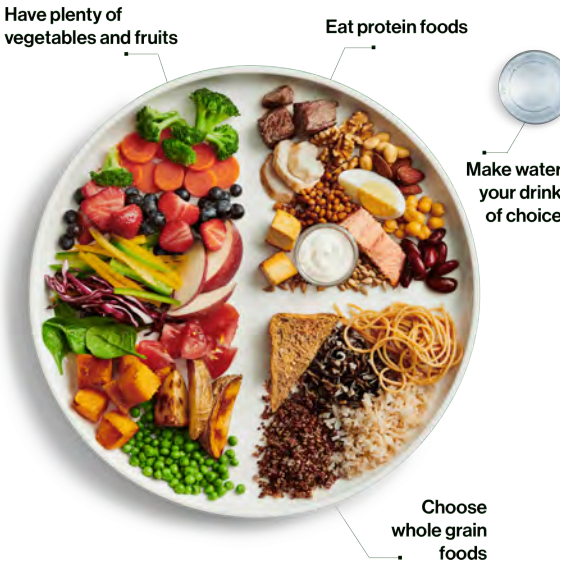
Canada's Food Guide (2019)



Health Canada. https://food-guide.canada.ca/en/food-guide-snapshot/

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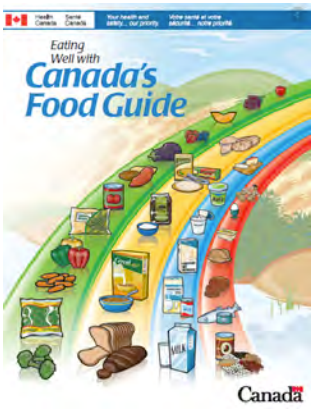
Criticisms of Old Food Guide

- Not enough emphasis on whole grains
- Food groups may be industry-influenced
- Uses prescriptive serving sizes
- Includes fruit juice
- Emphasizes total fat intake instead of type of fat



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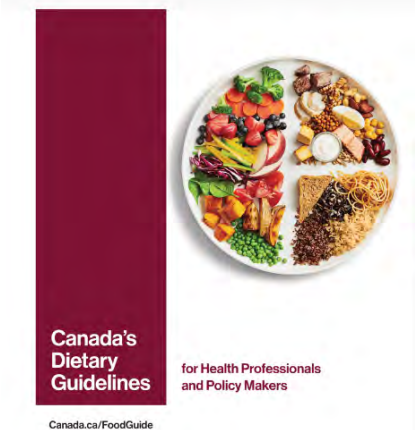
Canadian Dietary Guidelines: Three Main Ideas

- 1) Nutritious foods are the foundation for healthy eating
- 2) Processed or prepared foods and beverages that contribute to excess sodium, free sugars, or saturated fat undermine healthy eating and should not be consumed regularly
- 3) Food skills are needed to navigate the complex food environment and support healthy eating



https://food-guide.canada.ca/en/guidelines/what-are-canadas-dietary-guidelines/

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Key Messages:
Healthy eating is more than the foods you eat

- Be mindful of your eating habits
- Cook more often
- Enjoy your food
- Eat meals with others
- Use food labels
- Be aware of food marketing

Health Canada. https://food-guide.canada.ca/en/food-guide-snapshot/

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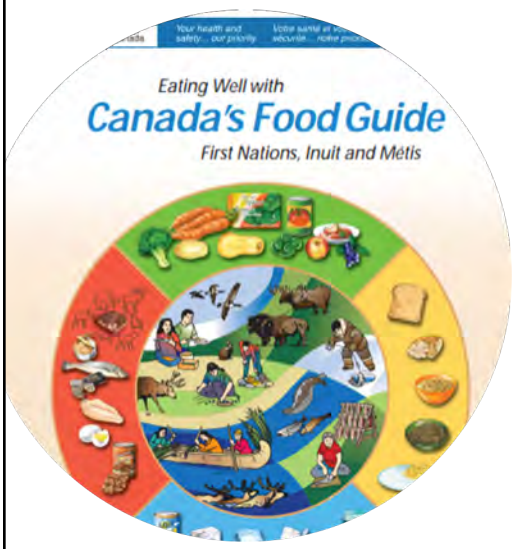

Eating well with Canada's Food Guide – First Nations, Inuit and Métis

- Health Canada is currently working with First Nations, Inuit and Métis partners to support the development of healthy eating tools

Health Canada. https://food-guide.canada.ca/en/food-guide-snapshot/

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But not without criticisms....

Read this article before live class!

Calcium & Vitamin D

Health · Marketplace

Cut dairy from your diet? You may be deficient in vitamin D, calcium

Alternative milks not required to have same nutrient value as dairy in Canada

Katie Pedersen, Chelsea Gomez, Asha Tomlinson · CBC News · Posted: Nov 16, 2019 4:00 AM ET | Last Updated: November 16

https://www.cbc.ca/news/health/milk-health-marketplace-1.5359954

Other criticisms...


THE STAR

Is saturated fat bad for your heart? Canada's Food Guide says so. Here's what the science says

https://www.thestar.com/news/investigations/2019/09/24/is-saturated-fat-bad-canadas-food-guide-says-so-heres-what-the-science-really-says.html


THE STAR

The BIG DEBATE

Did Canada's new Food Guide get it right? No

https://www.thestar.com/opinion/contributors/thebigdebate/2019/01/29/did-canadas-new-food-guide-get-it-right-no.html?fbclid=IwAR1cBHvaO6ko1LpYc85w2IbAL6m9Rm4-ImKFrzOOJ-2ozFEWh0zwHhBKhf0


CBC

Health · SECOND OPINION

The dark side of Canada's new food guide – many Canadians can't follow it

https://www.cbc.ca/news/health/canada-food-guide-school-food-program-1.4975027?fbclid=IwAR3rBaz2MUCfOszzRsIuW0dmd_9HpaEv_eE7858-f-1sJLrode-RYuS3XFk


11/26/2019

Scheer says he will review 'ideologically driven' Food Guide if he becomes PM | CTV News

Scheer says he will review 'ideologically driven' Food Guide if he becomes PM

Ryan Flanagan, CTVNews.ca Writer

Published Thursday, July 18, 2019 12:04PM EDT

Last Updated Thursday, July 18, 2019 10:12PM EDT

Conservative Leader Andrew Scheer says the new version of Canada's Food Guide is 'not based on sound science,' will hurt the dairy industry, and would be reviewed if he becomes prime minister.

He made the remarks Wednesday, while speaking at the Dairy Farmers of Canada annual meeting in Saskatoon.

"Absolutely we're going to review that Canada's Food Guide," he said in response to a question from a B.C. dairy producer about his party's food policy.

https://www.ctvnews.ca/politics/scheer-says-he-will-review-ideologically-driven-food-guide-if-he-becomes-pm-1.4513566

Not all bad news...


11/26/2019 Did Canada's new Food Guide get it right? Yes | The Star

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The BIG DEBATE

Canada's new Food Guide is bold and courageous. Canadians should be proud of the unwavering commitment that the guide represents to improving the food environment in Canada, so that it is easier for us all to make healthier choices.

The advice has been met with support from the majority of dietitians in Canada; it reflects the feedback we gave to Health Canada during its extensive consultation process. As Minister Petitpas Taylor noted at the launch of the Food Guide, food is more than nourishment. Food has the potential to enhance lives and improve health and the new Food Guide recognizes this by talking about not only about *what* we should eat but *how* we should eat.

OPINION

Did Canada's new Food Guide get it right? Yes

By Nathalie Savoie Opinion

https://www.thestar.com/opinion/contributors/thebigdebate/2019/01/29/did-canadas-new-food-guide-get-it-right-yes.html

Facilitating the message… evidence translation

- Canada's Food Guide is a recommendation for the general population...
- ...One message for general population with the recognition one size does not fit all

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Interactive Activity: Quiz

1. Healthy eating is more than just the foods you eat (True or false?)
Answer: True

2. Which of the following factors should be considered when interpreting results of nutrition studies? (multiple choice)
- The population being studied
- The dose of the food/supplement
- What the food is being replaced/compared with
- All of the above

Answer: all of the above

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Interactive activity: Summary highlights/key messages

- Nutrition is a complicated science
- Evidence-based practice is the core of nutrition recommendations
- Canada's Food Guide is a general population recommendation, while still considering that one size does not fit all when it comes to diet

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Lifestyle and Wellness Health Coach Program:

Nutrition

Andrea Glenn, MSc, RD, CDE, PhD(c)

Health Leadership & Learning Network
York University Faculty of Health

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Presenter: Andrea Glenn, MSc, RD, CDE, PhD(c)

Department of Nutritional Sciences, University of Toronto
Clinical Nutrition & Risk Factor Modification Center, St. Michael's Hospital

Work experience:

- St. Francis Xavier University, Department of Human Nutrition
- St. Michael's Hospital, Clinical Nutrition & Risk Factor Modification Centre
- Women's College Hospital, Women's College Research Institute
- University of Toronto, Department of Nutritional Sciences

Consulting:

- Diabetes Canada, Dietitians of Canada, SoLo GI Nutrition, Soy Nutrition Institute

Let's Connect!

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Objectives

- Understand how clinical practice guidelines for nutrition are developed
- Describe different dietary patterns for chronic disease prevention
- Understand complexity and principles of weight management
- Recognize and discuss factors that can impact eating behaviour
- Describe mindful eating and how to implement mindful eating practices
- Discuss key concepts of meal planning
- Discuss and practice different nutrition scenarios

What is a Registered Dietitian (RD)?

- Accreditation, education, experience and accountability
- What is the difference between RD, Professional Dietitian (PDt) and Nutritionist?

Helpful link:

1. http://www.dietitians.ca/Your-Health/Find-A-Dietitian/Difference-Between-Dietitian-and-Nutritionist.aspx

Scope of Practice

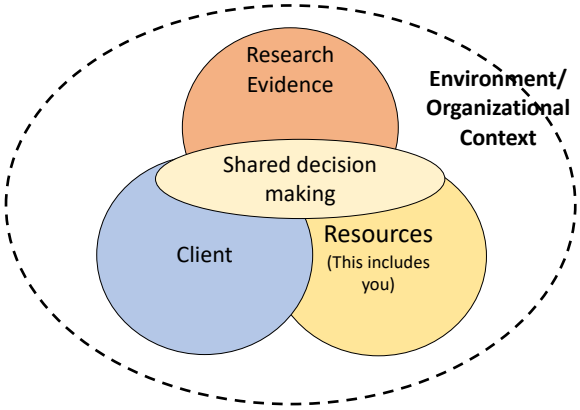
- The scope of practice describes the procedures, actions, and processes that a healthcare practitioner is permitted to undertake in keeping with the terms of their professional license.

- Why is this important to today's topic?
  - What is your scope of practice?
  - How does your scope differ from other professions?
  - Do you ever seen confusion among clients/ colleagues re: your scope of practice?

Discussion based on reading

1. What was your first (knee jerk response to the article)?
2. What do you think of the headline?
3. What do you think of the article content? Do you agree or disagree with anything? Why or why not?
4. What would you tell your client if they asked you what you think about this article? *THEY WILL.
5. Any other shares?

Evidence-based Practice



Satterfield et al. (2009) Milbank Q; 87(2): 368-390.

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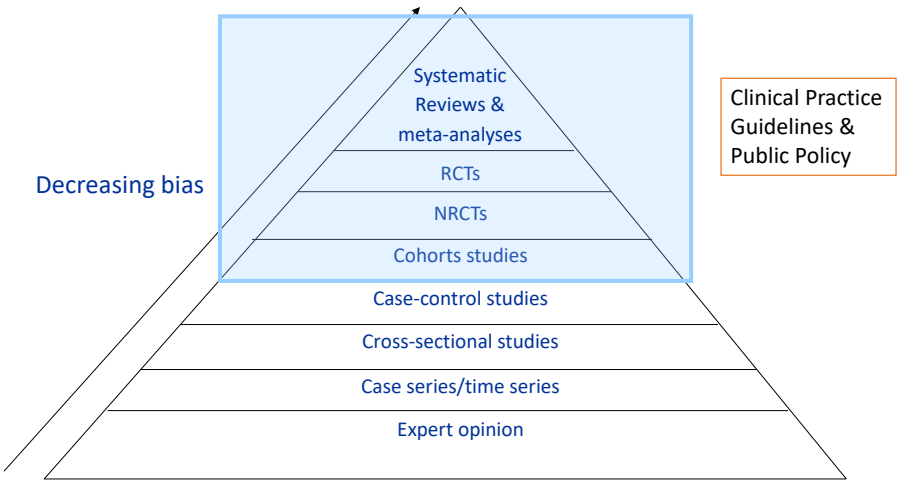
Hierarchy of Research Evidence



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Nutrition is the cornerstone therapy

*"Lifestyle interventions remain the **cornerstone** of chronic disease prevention"*

Hypertension CANADA

Nerenberg et al. Canadian J Cardiol 2018;34:506e525.

obesity canada

Brown et al, Canadian Adult Obesity CPGs Clinical Practice Guidelines. 2020.

DIABETES CANADA

Sievenpiper et al. Can J Diabetes. 2018;42 (Suppl 1):S64-S79.

Canadian Cardiovascular Society
Leadership. Knowledge. Community.

Anderson JT et al. Can J Cardiol. 2016;pii:S0828-282X(16)30732-2.

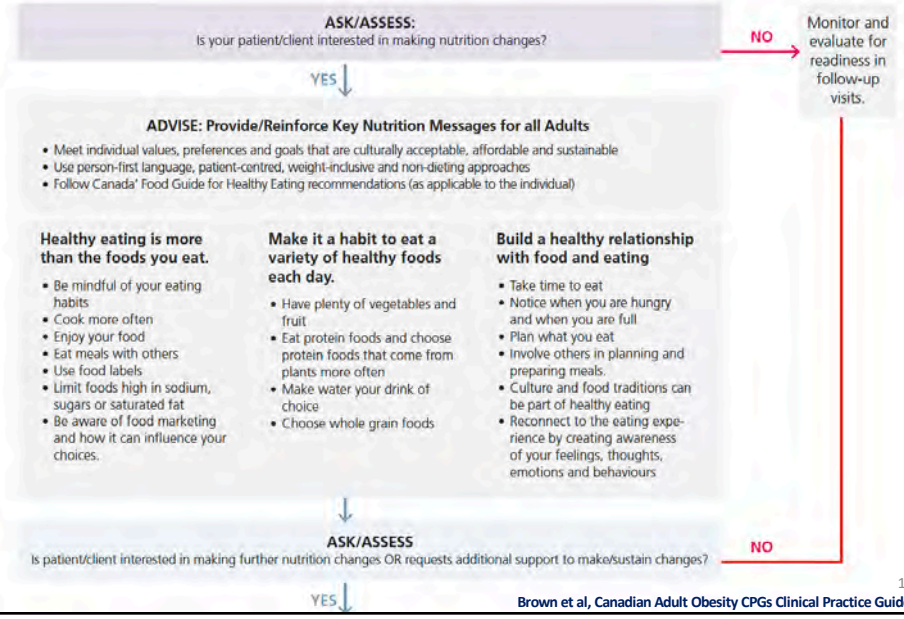
"Nutrient-based" to "food-and dietary pattern-based" recommendations

- Foods are not consumed in isolation, but rather in various combinations over time
- Many ways to eat healthy
  - Adaptable and tailored to the individual's socio-cultural and personal preferences

Anderson et al. Can J Cardiol 2016;32:1263e1282

Sievenpiper et al. Can J Diabetes 2018;42:s64-s79

2020 Clinical Practice Guidelines for Medical Nutrition Therapy



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Brown et al, Canadian Adult Obesity CPGs Clinical Practice Guidelines. 2020.

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2020 Clinical Practice Guidelines for Medical Nutrition Therapy

AGREE AND ASSIST: Explore Options, Collaborate Care
Refer to a Registered Dietitian (RD)

Food Based Approaches
- Pulses
- Vegetables and fruit
- Nuts
- Whole grains
- Dairy foods

Dietary Patterns
- Calorie-restricted patterns with variable macronutrient ranges
- Mediterranean
- Vegetarian
- Portfolio
- Low glycemic index
- DASH
- Nordic
- Partial meal replacements
- Intermittent fasting

Intensive Lifestyle Interventions with a Multidisciplinary Team
- Behaviour modification
- Nutrition (RD)
- Partial meal replacements
- Physical activity
- Education
- Self-monitoring/self-care
- Medications
- Frequent follow-up visits

Monitor and Evaluate Health-Related Outcomes*, including:
Health behaviours, Nutrition status, Quality of life, Mental health, Cardiovascular, Metabolic,Functional status, Body

Reassess intervention, plan, readiness, barriers and supports;

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Brown et al, Canadian Adult Obesity CPGs Clinical Practice Guidelines. 2020.

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2018 Clinical Practice Guidelines for Nutrition Therapy

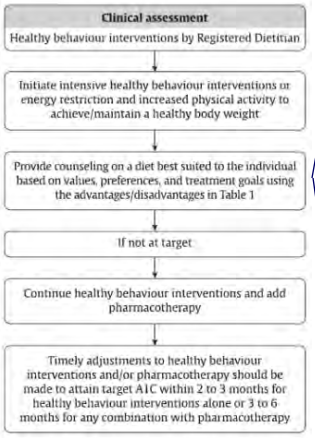

Table 1
Properties of dietary interventions*†‡

Properties of dietary interventions (listed in the order they are presented in the text)

Dietary interventions	A1C	CV benefit	Other advantages	Disadvantages
Macronutrient-based approaches				
Low-glycemic-index diets	↓ (32,44,46,47)	↓CVD (52)	↓LDL-C, ↓CRP, ↓hypoglycemia, ↓diabetes Rx	None
High-fibre diets	↓ (viscous fibre) (57)	↓CVD (69)	↓LDL-C, ↓non-HDL-C, ↓apo B (viscous fibre) (54,57,59)	GI side effects (transient)
High-MUFA diets	↔	↓CVD	↓Weight, ↓TG, ↓BP	None
Low-carbohydrate diets	↔	-	↓TG	↓Micronutrients, ↑renal load
High-protein diets	↓	-	↓TG, ↓BP, preserve lean mass	↓Micronutrients, ↑renal load
Mediterranean dietary pattern	↓ (50,139)	↓CVD (143)	↓retinopathy (144), ↓BP, ↓CRP, ↑HDL-C (139,140)	None
Alternate dietary patterns				
Vegetarian	↓ (145,251)	↓CHD (152)	↓Weight (148), ↓LDL-C (149)	↓vitamin B12
DASH	↓ (159)	↓CHD (161)	↓Weight (159), ↓LDL-C (159), ↓BP (159), ↓CRP (160)	None
Portfolio	-	↓CVD (162,163)	↓LDL-C (162,163), ↓CRP (162), ↓BP (163)	None
Nordic	-	-	↓LDL-C↔, ↓non-HDL-C (169–171)	None
Popular weight loss diets				
Atkins	↔	-	↓Weight, ↓TG, ↑HDL-C, ↓CRP	↑LDL-C, ↓micronutrients, ↓adherence
Protein Power Plan	↓	-	↓Weight, ↓TG, ↑HDL-C	↓Micronutrients, ↓adherence, ↑renal load
Ornish	-	-	↓Weight, ↓LDL-C, ↓CRP	↔ FPG, ↓adherence
Weight Watchers	-	-	↓Weight, ↓LDL-C, ↑HDL-C, ↓CRP	↔ FPG, ↓adherence
Zone	-	-	↓Weight, ↓LDL-C, ↓TG, ↑HDL-C	↔ FPG, ↓adherence
Dietary patterns of specific foods				
Dietary pulses/legumes	↓ (176)	↓CVD (181)	↓Weight (179), ↓LDL-C (177), ↓BP (178)	GI side effects (transient)
Fruit and vegetables	↓ (183,184)	↓CVD (79)	↓BP (186,187)	None
Nuts	↓ (188)	↓CVD (143,181)	↓LDL-C (190), ↓TG, ↓FPG (189)	Nut allergies (some individuals)
Whole grains	↓ (oats) (194)	↓CHD (99)	↓LDL-C, FPG (oats, barley) (57,193)	GI side effects (transient)
Dairy	↔	↓CVD (199,200)	↓BP, ↓TG (when replacing SSBs) (197)	Lactose intolerance (some individuals)
Meal replacements	↓	-	↓Weight	Temporary intervention

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Sievenpiper et al. Can J Diabetes. 2018;42 (Suppl 1):S64-S79.

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2016 Clinical Practice Guidelines for Nutrition Therapy

Recommendation. We recommend that all individuals be encouraged to moderate energy (caloric) intake to achieve and maintain a healthy body weight (Conditional Recommendation/Moderate-Quality ⊕⊕⊕ Evidence) and adopt a healthy dietary pattern to lower their CVD risk:

(a) Mediterranean dietary pattern (Strong Recommendation/High-Quality ⊕⊕⊕⊕ Evidence)
(b) Portfolio dietary pattern (Conditional Recommendation, Moderate-Quality ⊕⊕⊕ Evidence)
(c) DASH dietary pattern (Conditional Recommendation, Moderate-Quality ⊕⊕⊕ Evidence)
(d) Dietary patterns high in nuts (≥ 30 g/day) (Conditional Recommendation/Moderate-Quality ⊕⊕⊕ Evidence)
(e) Dietary patterns high in legumes (≥ 4 servings/week) (Conditional Recommendation, Moderate-Quality ⊕⊕⊕ Evidence)
(f) Dietary patterns high in olive oil (≥ 60mL/day) (Conditional Recommendation, Moderate-Quality ⊕⊕⊕ Evidence)
(g) Dietary patterns rich in fruits and vegetables (≥ 5 servings/day) (Conditional Recommendation, Moderate-Quality ⊕⊕⊕ Evidence)
(h) Dietary patterns high in total fibre (≥ 30 g/day) (Conditional Recommendation, Moderate-Quality ⊕⊕⊕ Evidence) and whole grains (≥ 3 servings/day) (Conditional Recommendation, Low-Quality ⊕⊕ Evidence)
(i) Low-glycemic load (GL) (Conditional Recommendation, Moderate-Quality ⊕⊕⊕ Evidence) or low-glycemic index (GI) (Conditional Recommendation, Low-Quality ⊕⊕ Evidence) dietary patterns
(j) Vegetarian dietary patterns (Conditional Recommendation, Very Low-Quality ⊕ Evidence)

Values and preferences. Adherence is one of the most important determinants for attaining the benefits of any diet. High food costs (e.g. fresh fruits and vegetables), allergies (e.g. peanut and tree nut allergies), intolerances (e.g. lactose intolerance), and gastrointestinal (GI) side effects (e.g. flatulence and bloating from fibre) may present as important barriers to adherence. Other barriers may include culinary (e.g. ability and time to prepare foods), cultural (e.g. culturally specific foods), and ecological/environmental (e.g. sustainability of diets) considerations. **Individuals should choose the dietary pattern that best fits with their values and preferences, allowing them to achieve the greatest adherence over the long term.**

14

Anderson JT et al. Can J Cardiol. 2016 Jul 25. pii: S0828-282X(16)30732-2.

14

Certainty of Evidence: Grading of Recommendations Assessment, Development and Evaluation (GRADE)

RCTs →

Cohorts →

GRADE	DEFINITION
High ⊕⊕⊕⊕	Further research is very unlikely to change our confidence in the estimate of effect.
Moderate ⊕⊕⊕◯	Further research is likely to have an important impact on our confidence in the estimate of effect and may change the estimate.
Low ⊕⊕◯◯	Further research is very likely to have an important impact on our confidence in the estimate of effect and is likely to change the estimate.
Very low ⊕◯◯◯	Any estimate of effect is very uncertain.

5 Factors to Rate DOWN ↓	3 Factors to Rate UP ↑
Study Limitations *(Risk of bias)*	**Large Magnitude of Effect**
Inconsistency of Results *(Heterogeneity in meta-analysis)*	**Confounding**
Indirectness of Evidence *(Question/answer directness)*	**Dose-response Gradient**
Imprecision *(Small sample size, wide CIs)*	
Publication Bias	

Schünemann H, Brozek J, Guyatt G, editors. The GRADE handbook. The GRADE Working Group, 2016. Available from http://gdt.guidelinedevelopment.org

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PEN: Practice-based Evidence in Nutrition® How is evidence evaluated?

- Dietitians of Canada; PEN: Practice-based Evidence in Nutrition®
  - PEN is a dynamic knowledge translation subscription service available internationally as individual or group licenses for food, nutrition, and dietetic practice.

Evidence Grading Overview:

- Level A - the conclusion is supported by good evidence
- Level B- the conclusion is supported by fair evidence
- Level C - the conclusion is supported by limited evidence or expert opinion
- Level D - evidence is from limited studies that are either such poor quality or too conflicting that no conclusions can be made. - No evidence from either authoritative sources or research involving humans was found.

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http://www.pennutrition.com/

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Choose "healthy" dietary patterns

Mediterranean diet

https://oldwayspt.org/traditional-diets/mediterranean-diet

Vegetarian diet

https://oldwayspt.org/traditional-diets/vegetarian-vegan-diet

Oldways also has African Heritage, Latin American and Asian Diet Pyramids: https://oldwayspt.org/traditional-diets

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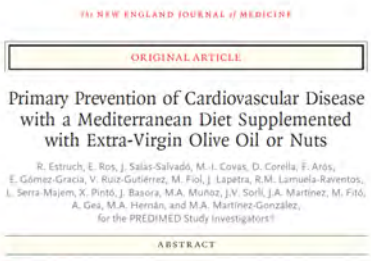
Primary Prevention of CVD: PREDIMED Trial



THE NEW ENGLAND JOURNAL of MEDICINE

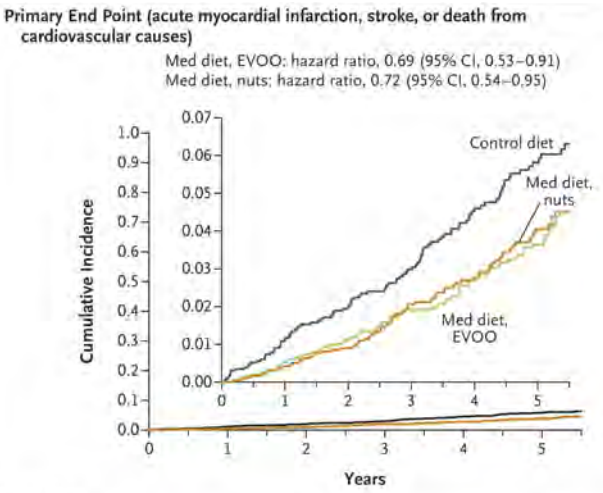
ORIGINAL ARTICLE

Primary Prevention of Cardiovascular Disease with a Mediterranean Diet Supplemented with Extra-Virgin Olive Oil or Nuts

R. Estruch, E. Ros, J. Salas-Salvadó, M.-I. Covas, D. Corella, F. Arós, E. Gómez-Gracia, V. Ruiz-Gutiérrez, M. Fiol, J. Lapetra, R.M. Lamuela-Raventos, L. Serra-Majem, X. Pintó, J. Basora, M.A. Muñoz, J.V. Sorlí, J.A. Martínez, M. Fitó, A. Gea, M.A. Hernán, and M.A. Martínez-González, for the PREDIMED Study Investigators†

ABSTRACT

- Med Diet + 4 tbsp EVOO
- Med Diet + 30 g nuts (walnuts, almonds, hazelnuts)
- Control diet – low fat, heart healthy



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Estruch et al. N Engl J Med 2018;378:e34

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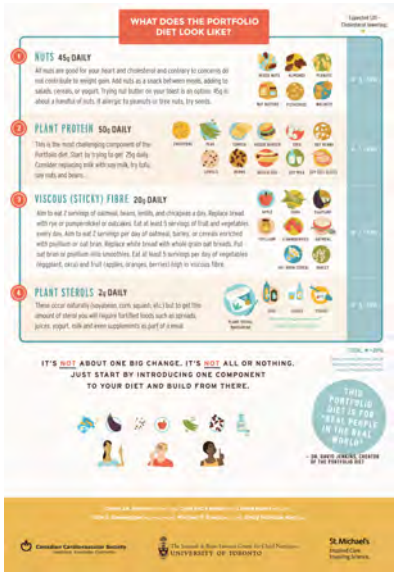
Portfolio diet



https://www.ccs.ca/images/Images_2017/Portfolio_Diet_Scroll_eng.pdf

DASH diet

Food Group	Daily Servings	Serving Sizes (1 serving is equivalent to)
Grains	6-8	• 1 slice bread • 1 ounce dry cereal • ½ cup cooked rice, pasta, cereal
Vegetables	4-5	• 1 cup raw leafy vegetables • ½ cup cut up raw or cooked • vegetables
Fruits	4-5	• 1 medium piece of fruit • ¼ cup dried fruit • ½ cup fresh, frozen or canned fruit • ½ cup fruit juice
Fat-free or low-fat milk and milk products	2-3	• 1 cup milk or yogurt • 1½ ounce cheese
Meat and alternatives: Lean meats, poultry, and fish Nuts, seeds, and Legumes	6 or less	• 1 ounce cooked meats, poultry, fish, 1 egg • 1/3 cup nuts • 2 tbsp peanut butter • 2 tbsp of seeds • ½ cup cooked legumes
Fats and oils	2-3	• 1 tsp soft margarine (non-hydrogenated) • 1 tsp vegetable oil • 1 tbsp mayonnaise • 2 tbsp salad dressing

http://guidelines.diabetes.ca/cdacpg/media/documents/patient-resources/high-blood-pressure-and-diabetes.pdf

Weight Management

Understanding Weight Bias

- One in four adults and one in 10 children in Canada are now living with excess weight (Obesity Canada)
- Stigma, stereotypes and weight bias
  - Negative attitudes and views about obesity and people with obesity
  - Beliefs that people with obesity are lazy, awkward, sloppy, non-compliant, unintelligent, unsuccessful and lacking self-discipline or self-control
  - Leads to feelings of shame, blame, anxiety, depression, poor self-esteem, body dissatisfaction, unhealthy weight-control practices

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https://obesitycanada.ca/weight-bias/

Why is weight management difficult?

- Weight is complex
  - Age
  - Genetics
  - Environment
  - Medications: metabolism, appetite, promote fat storage
  - Health conditions
  - Lifestyle, sleep, emotions
- Obesity is a chronic disease
- Body tries to "defend" its fat stores to maintain highest weight (researchers call this "starvation response")

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Key principles of obesity management

- Obesity is a chronic disease that requires long term management
- Not just about numbers on the scale. Focus on improving health and wellbeing
- Important to identify and address root causes for weight gain and road blocks
- Success means something different to everyone
- Work towards "best" weight
  - how much weight you can keep off while still living a life that you can enjoy

23

https://obesitycanada.ca/managing-obesity/.

23

What should be the focus?

- Weight stability
- Focus on health behaviours
- Health values and goals
- Realistic and sustainable changes
- Concept of Best Weight
- Consider emotional health, sleep, eating behaviours, activity, medications

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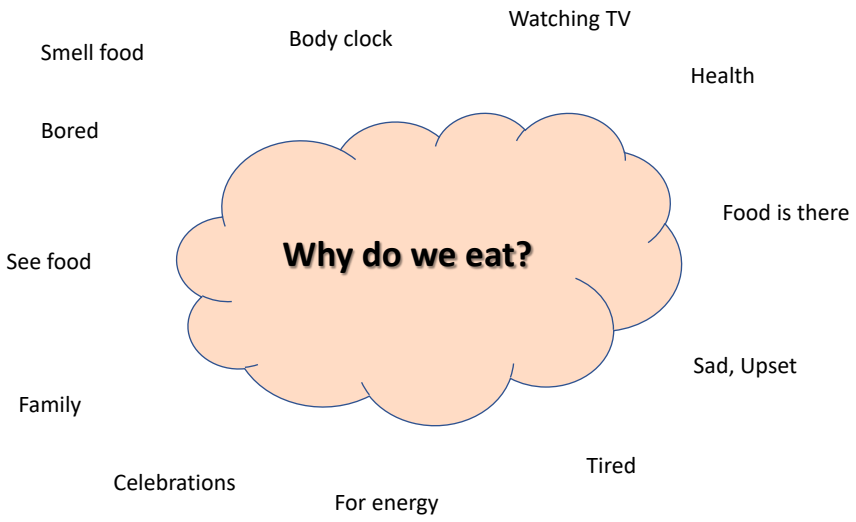
Eating as a behaviour...



REASONS WHY WE EAT

Internal

- Physiological
  - Nutrition, Hunger, Medical Conditions, taste, appearance, smell
- Psychological
  - Bored, Tired, Happy, Upset, Stressed, habit

External

- Social
  - Celebrations, Birthdays, Get together, Holidays, Coffee time
- Environmental
  - Access, availability, cost, variety, media

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The Environment:

Eating under the Influence

- We live in fast forward
- We expect a lot from ourselves
- Food is everywhere
- Food is big business
- We think BIG

28

Shah W & Cannon C. Craving Change – A how to guide for helping people who struggle with their eating. Blitzprint Inc. 2008-2012.

The Environment:
Eating under the Influence

- Too many choices
- We love a deal
- Food is always within reach
- Extra Large Portions

Our Body:
Lifestyle Factors

Food cravings and weight gain may be caused by the following factors due to the body's hormonal and chemical responses:

- Inactivity → Insulin
- Chronic stress → Cortisol
- Lack of sleep → Cortisol

What is mindful eating?

- Being **aware** of the nutrition available through the process of food preparation and consumption
- Choosing **enjoyable** and nutritious foods
- Recognizing and honoring physical hunger and satiety **cues**
- Using wisdom to **guide** eating decisions

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http://www.todaysdietitian.com/newarchives/030413p42.shtml

When do I want to eat?

- How often do I eat?
- Do I Check the clock (i.e., eat every 4-6 hours)

  or
- Use physical hunger cues

- Do I eat due to emotions?
- Do I eat when I really just need a break?

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What do I eat?

- Would food journaling help be more aware?
- What do I eat when experiencing different emotions?
- What is missing from my diet? What could I eat that could improve my health?
- What kinds of foods should I plan to have to prevent feeling hungry between meals?
- What makes me choose my food?
  - Convenience
  - Taste
  - Comfort
  - Nutrition

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How do I eat?

- What about my environment influences what I eat?
- Do I feel guilty or ashamed after eating?
- Do I enjoy the food I eat?

- Do I have attentive eating?
  - Rushed? Fast?
  - Distracted?
  - Secretive?

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How much do I eat?

- How do I know when I am full?

  How do I feel when I am full?

  Do I like this feeling?
- Does portion sizes or package size impact how much I eat?
- Does past experiences determine how much I eat?
- Do I feel the need to eat everything on my plate?

Where do I invest my energy?

- Am I physically active?
- Do I use exercise as an excuse to eat more or to eat certain types of foods?
- How does the energy I eat get used?
- How do I feel after eating …emotionally and physically?
  - (e.g. sluggish, energetic, guilty, satisfied, sleepy, proud)
  - Do I feel like my eating gives me the energy to accomplish my goals and daily tasks?

Meal planning

Steps to Meal planning

1. Assess your schedule

- What does the week look like?
  - Do I have meetings, appointments, commitments?
- When can I give some time to planning meals?
- When can I do grocery shopping?
- When can I do some preparation work?
- Whose help do I need?
- When do I need quick meals or rely on take out?

Steps to Meal planning

2. Decide what to eat

- Write down your meal and snack ideas
- Try new foods
- Get recipe ideas from:
  - Web sites
  - Cookbooks
  - Magazines
  - Friends and family
  - Scan grocery flyers for healthy foods on sale
  - Check your fridge, freezer and cupboards for foods you have
  - Look to see what foods need to be used up before they go to waste

Steps to Meal planning

3. Make your grocery list

- Write down the foods you need for your meal plan
- Keep a grocery list handy and write down items as you run out of them. Use apps.
- Organize your grocery list by headings that match the sections of the store

Steps to Meal planning

4. Go Shopping

- Set a budget for groceries
- Use apps and sales flyers
- Buy the foods on your grocery list
- Use your list to navigate the aisles to cut down on impulse buys and save time
- Stock up on canned, non-perishable
- Freeze foods purchased in bulk
- Purchase in season produce

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Steps to Meal planning

5. Start Cooking

- Make a schedule
- Post your meal plan where everyone can see it
- Involve family members in food preparation: assign tasks

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MEAL PLANNING APPS

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USE FLYERS, COUPONS AND LOYALTY PROGRAMS

- Coupons:
- www.save.ca
- www.smartsource.ca

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Smart changes

- Shifting to healthier choices doesn't mean changing whole eating pattern at one time
  - Small shifts or changes can be easier to stick with over time
  - Every eating occasion is a chance to make a healthier choice
  - Little changes can lead to big health changes
  - Has to fit traditions and taste
  - Has to be affordable
  - Has to be maintainable
  - Avoid concept of forbidden foods

Break-Out/ Group Work

1. On your own, write down your response to the following questions:

What is an example of something you would like to change in yourself that you have never worked on before?

What is an example of something you are actively working on in terms of self development?

What is a change you have successfully made in yourself that you are currently working to maintain?

Break-Out/ Group Work

2. Share what you are comfortable sharing in groups of three
   - Facilitator, Recorder, Presenter

3. Have one person share one answer example for each question

Behaviour Change - An Introduction

- Key ingredients
  - Awareness
  - Motivation
- Key distinctions
  - Education
  - Counseling

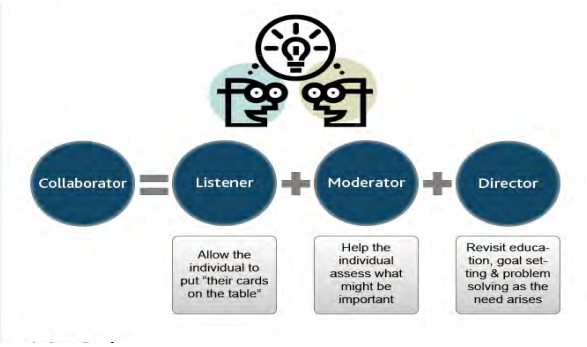
Factors Effecting One's Ability to Change

- The educator
  - Knowledge and skill
- Access to services
- Support network
- Cost
- Transportation
- Literacy
- Suitability of knowledge and skills
  - e.g. cultural competency? Translator access?
- Physical ability…
- The clinician's ability to share control…

DIABETES CANADA
CLINICAL PRACTICE GUIDELINES

Theory → Action

- Five Elements that Promote Self-Management
  1. Assess Readiness
  2. Educate (Knowledge and Skills)
  3. Collaborate
  4. Set Goals and Follow Up



http://guidelines.diabetes.ca/SelfManagementEducation/SME5Infographic

5 Characteristics for Effective Goal Setting

Create S.M.A.R.T. Goals

S PECIFIC
M EASURABLE
A CHIEVABLE
R EALISTIC
T IMELY

Example:
"I will try to become more physically active" ✗
"I will try to walk at a moderate pace for 30 minutes, 3 times per week for the next 4 weeks" ✓

1) Specific: What activity, what intensity, for how long

2) Measurable: The patient can monitor and measure this amount of physical activity

3) Achievable: This amount and intensity of physical activity is appropriate fpr the current level of fitness for this patient

4) Realistic: Finding time to walk for 30 minutes 3 times per week is what is feasible for this patient

5) Timely: Deciding on a length of time for the patient to owrk on this goal allows for a time frame of when to reassess the goal and adjust if necessary before moving forward

http://guidelines.diabetes.ca/SelfManagementEducation/SME5Infographic

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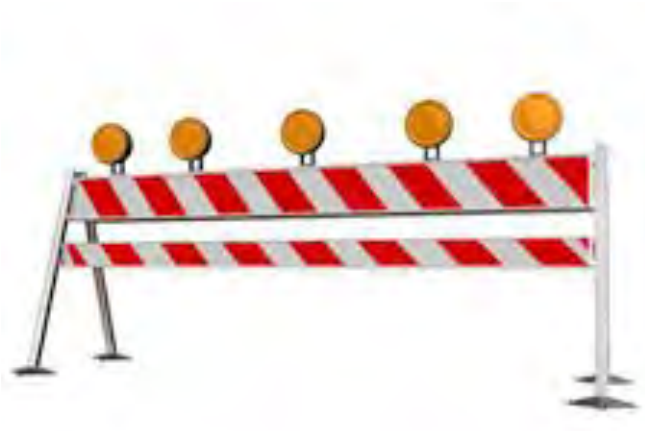
Overcoming Roadblocks or Problem Solving

- The first step in problem solving is to identify and describe the problem or roadblock.
  - *What were the events that led up to the problem?*
- Encourage the client to ask him/herself:
  - *Where was I?*
  - *What was I doing?*
  - *What was around me?*
  - *Who was there?*
  - *How was I feeling?*
  - *What was I thinking?*
  - *What time was it?*



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Motivational Interviewing (MI)

Facilitating Change Talk

"A collaborative, patient-centered, form of guiding to elicit and strengthen motivation to change"

- Patient-provider relationship
  - collaborative partnership; empathetic and non-judgmental
- Self-efficacy
  - Change in patient that is intrinsically motivated; Maintains patient's autonomy
- Creating and resolving discrepancies
  - Between current behavior and future goals
- Advice giving
  - In a non-confrontational style; Provide discussions on various methods of change

Miller and Rollnick (2013) Motivational Interviewing: Helping People Change, 3rd edition. Guilford Press; New York.; Linden et al. (2010) J Eval Clin Prac.; 16:166-174; Miller and Rollnick. (2009) Behav and Cog Psych.;37:129-140

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Developing Discrepancy and Sitting with Ambivalence

- What are the pros and cons of changing the behaviour? Or maintaining the behaviour?
- Important to acknowledge decisional balance
  - Avoid cheerleading
- Example
  - Client: "I want to follow the new eating pattern, but I just can't afford it."
  - Nutrition counsellor: "Let's look at your diet record and discuss some healthy, low-cost changes."

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Rolling with Resistance

Client:

I just feel like every time I buy salad it goes rotten, what's the point?

Nutrition counsellor:

Yes, this can be a challenge to purchasing fresh produce and can become expensive. Can you think of ways to help you consume the salad ingredients before they go bad? What other vegetables or recipes would you will find easier to integrate into your diet? Would you be open to trying a costing exercise with me?

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Avoiding jargon…

"…asking the client to repeat explanations in his/ her own words can also help with understanding…"

E.g.

- Please list the measurements you think you have consented to provide.
- In your own words…
- Would you like to show me how…

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What is the difference between…

- Glycemic Index and glycemic response?

Glycemic Index	Glycemic Response
Property of a food	Impact of food on blood sugar
Measures quality of carbohydrate	Determined by quality AND quantity of carbohydrate
Not affected by quantity of carbohydrate, protein and fat	Can be lowered by protein and fat

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Case Study: Facilitating Change - Hannah

- **Age:** 41-years-old
- **Employment**: Drug Sales Rep.
- Married, 3 kids (8, 11 and 15 yrs) Husband is an elementary vice principal.
- BMI 31kg/m² (lost weight in the past prior to her first pregnancy)
- Smokes 1/2 pkg/day - quit while she was pregnant with her children then started smoking again 3 years ago due to life stressors.
- **Diet**: Hannah wants to create a healthy household for her family. Family eats take out 2-3 times per week. Has never seen herself as a good cook. Hannah has many evening meetings with healthcare providers. She is too tired to cook after the evening meetings.

Family Hx:
Father has hypertension
Mother has type 2 diabetes

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Break-out/ Group work – Hannah

- The next step is brainstorm about possible options to address all of the details that were identified. Let the client take the lead.
  - Create a SMART Goal
  - Answer Action Planning Questions
  - Propose Action Planning Steps
  - Possible Solutions for all of the details

Case Study: Facilitating Change - Ravi

- Ravi has a tendency to snack on chips and chocolate when he comes home from work.
- He is often not hungry for dinner because of this and gets hungry again at 10:30 pm. He doesn't want to cook at this time and orders pizza or some other type of fast food take out. If his roommates are not around when he orders out, he often over eats to avoid food waste.
- Ravi has been referred to you (and your colleagues) for weight management. He tells you he knows he should stop this "bad habit" he has, but it is how he manages stress. He tells you that every time he tried to keep junk food out of the house in the past, his roommates buy it anyway.

Case Study: Facilitating Change - Ravi

The next step is brainstorm about possible options to address all of the details that were identified. Let the client take the lead.

Example: Potato chips are in the home

1. Do not buy potato chips and bring them into the house
2. Put potato chips in the cupboard so they are not readily seen
3. Put potato chips in an opaque container in the cupboard so even when the cupboard is open there is no reminder of the chips

…any more ideas?

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Some final thoughts...

- Ask what client wants to get out of the visit
- Ask them what they typically eat, their food preferences and dislikes
- Consider financial limitations, where they stop, time constraints...

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For Self-Reflection...

- Am I respectful of the client's values, preferences and expressed needs?
- Am I involving the client in informed decision making?
- Am I respecting the client's autonomy?
- Am I providing information that the client understands?
- Am I planning and coordinating ongoing services that can be provided in a timely manner?
- Am I coordinating dietetic services with relevant circle-of-care team members?

63

Chatalalsingh. (2013) College of Dietitians of Ontario: Resume; Spring: 8-9.

To Sum Up…

- As coaches, it is important that you practice within your scope
  - Understand what other professionals do
  - Evidence-based practice
  - Ethical
  - Client-centered
- Many current dietary guidelines are evidence-based (and practice-based)
  - Read nutrition literature (academic/ popular) critically
- Understanding change requires knowledge, skills, self-reflection

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HELPFUL RESOURCES

- **Unlock Food**
  - https://www.unlockfood.ca/
- **Dietitians of Canada**
  - https://www.dietitians.ca/
- **Academy of Nutrition and Dietetics**
  - https://www.eatright.org/
- **Diabetes Canada**
  - https://www.diabetes.ca/
- **Call a Dietitian**
  - In Ontario, call Telehealth Ontario toll free at 1-866-797-0000.
- **PC Health App**
  - Can ask RNs and RDs questions

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Thank you for your attention!

Questions?

Andrea.glenn@mail.utoronto.ca

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Review of Exercise Components and basic recommendations for some chronic conditions

Based on the Canadian Exercise Guidelines

and

The American College of Sports Medicine (ACSM) Guidelines for Exercise testing and prescription

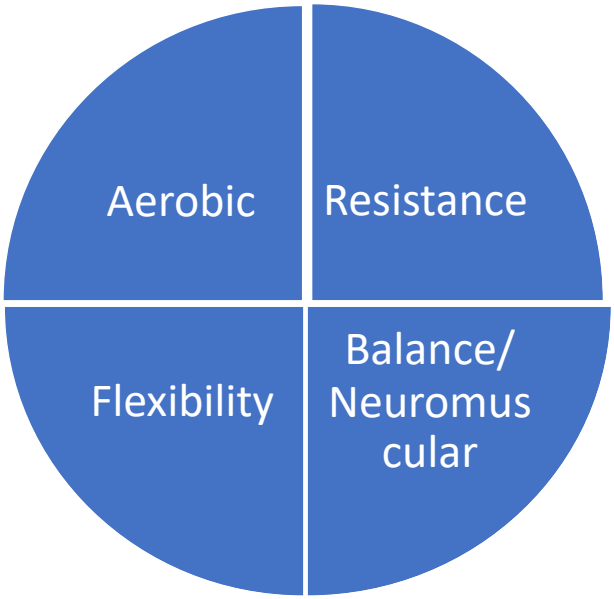
1

Disclaimer

- The following exercise prescriptions may not be appropriate for some or any of the clients you see. The information is merely examples of different types of prescriptions a designated health professional may suggest for health benefits.
- Work within your individual competency framework
- Most importantly: meet the client where they are at.

2

Types of Exercise



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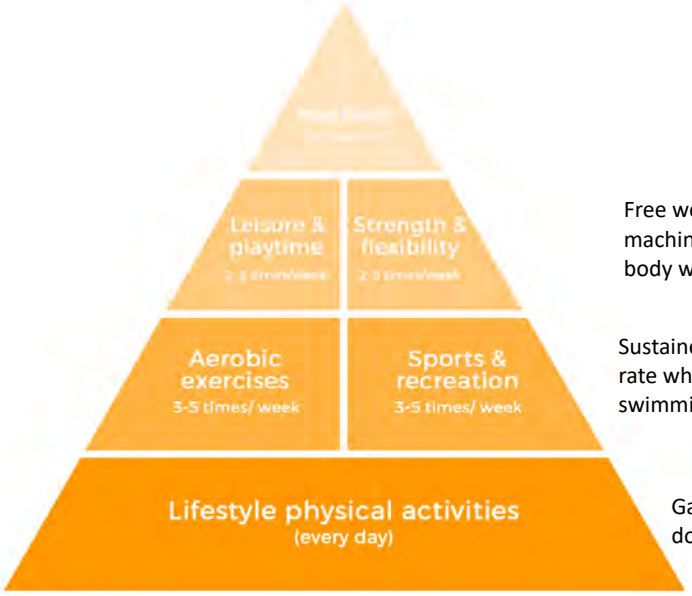
Frequency: How often should we aim for?



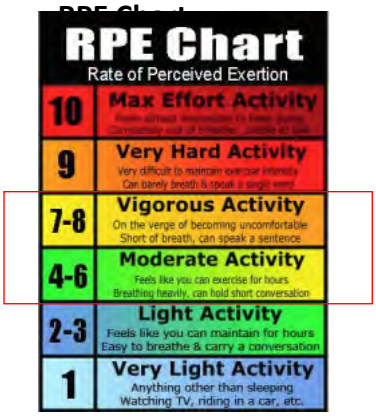
Free weights, weight machines, resistance bands, body weight against gravity

Sustained increase in heart rate while walking, biking, swimming …

Gardening, walking the dog, stair climbing

4

What is the right intensity?



Talk- Sing- Gasp Test

- Able to Sing while exercising
  - Intensity too easy
  - Pick up the pace a little
- Able to Talk while exercising
  - **Intensity just right**
- Gasping while exercising
  - Intensity too high
  - Slow down, reduce intensity

Target HR**

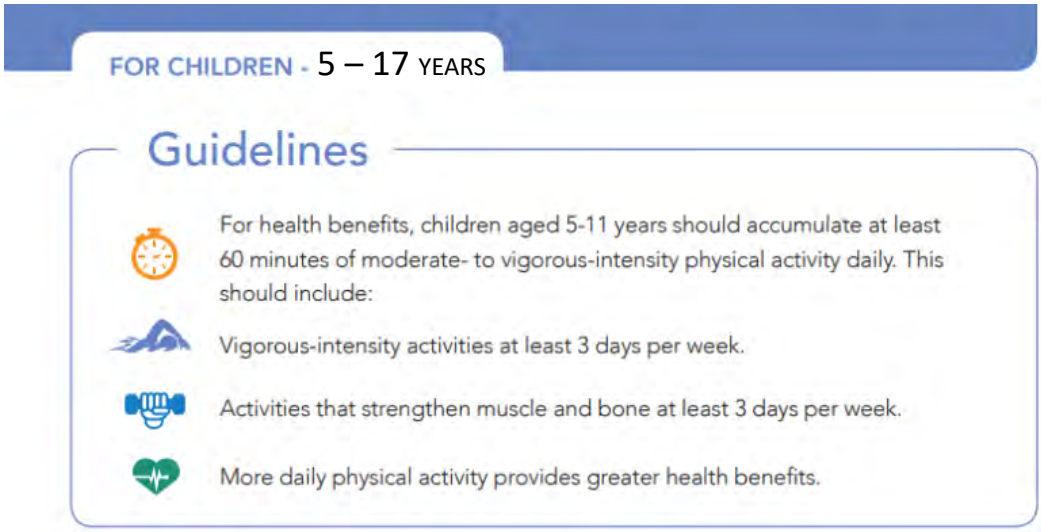
5

Time: How long should I exercise?

- Goal: **<u>at least</u>** 150 minutes of aerobic activity per week
  - Bouts can vary:
    - 30 minutes x 5 / week
    - 20 minutes x 7 / week
    - 10 minutes x 3 / day, x5 / week
  - As long as bouts of elevated HR exceeds **10 continuous minutes**

6

Canadian Exercise Guidelines



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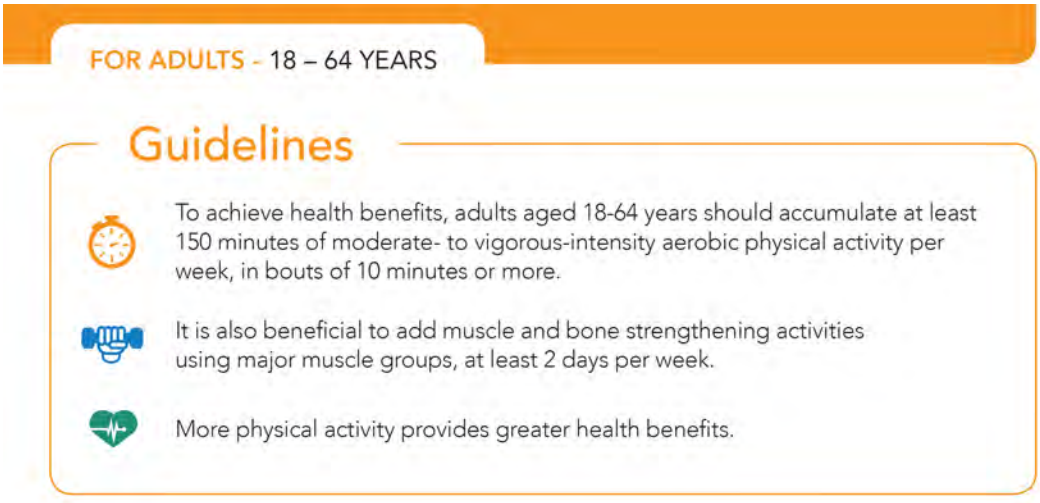
Canadian Exercise Guidelines



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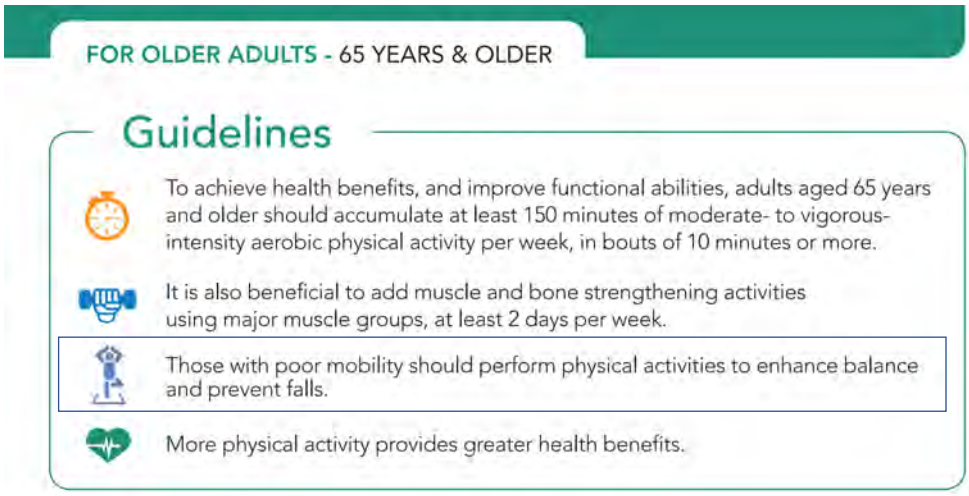
Canadian Exercise Guidelines



https://csepguidelines.ca/

9

Exercise Prescriptions

- FITT principal
- SMART goals

	PHYSICAL ACTIVITY RECOMMENDATIONS		
	AEROBIC / CARDIOVASCULAR ACTIVITY		
F	Frequency	1 2 3 4 5 6 7	days / week
I	Intensity	Light Moderate Vigorous	
T	Time	10 15 20 30 40 more	minutes / session
T	Type		
	STRENGTH / RESISTANCE ACTIVITY		
	Frequency	1 2 3 4 5 6 7	days / week
	Type (e.g., yoga, freeweights)		

10

SMART Goal

TYPE

FREQUENCY
INTENSITY
TIME

START SMALL
(5-10 MIN)

QUICK F/U

11

Exercise Prescription Example

- Walk for 20 minutes four times a week, keeping a target HR between 110-120 bpm

- Frequency: 4/7 days a week
- Intensity: target HR
- Time: 20 minute duration
- Type: walking

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Exercising with Chronic conditions

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General Recommendations

- Close- toed shoes and non-restrictive clothing
- Increase fluid intake before, during and after
- Gradually build up FITT . Start low and slow
- Monitor well-being. Should feel good or better, not worse d/t exercise
- STOP with sudden onset of pain. Re-evaluate form but may have to cease activity

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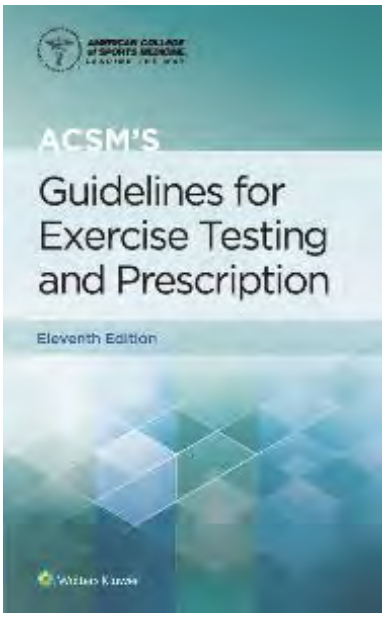

15

Contraindications to Exercise

- Unstable angina
- Uncontrolled heart failure, arrythmias, hypertension or diabetes
- Critical aortic stenosis
- Pain, discomfort in the chest, neck, jaw, arms, or other areas that may result from ischemia
- Shortness of breath at rest or with mild exertion
- Dizziness
- Orthopnea (difficulty breathing)
- Newly developed ankle edema
- Palpitations or tachycardia
- Acute illness or fever
- Orthopedic injury

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CVD Recommendations

- Start low and slow, gradually build up time and intensity of exercises
- Take BP before exercise session
  - Avoid if >160/95 mmHg → consult exercise or cardiac specialist
  -
- Postpone exercise session if:
  - erratic HR at rest, tachycardia, SOB with no exertion, dizziness

***majority of patients post cardiac episode will have been discharged from a cardiac rehab program and have already received some education for PA*

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HTN Recommendations

- Take BP before exercise session
  - Avoid if >160/95 mmHg → consult exercise or cardiac specialist
- Prudent to maintain < 220 SBP and/or <105 DBP during exercise
- Consider effect of medications with exercise
  - beta- blockers and diuretics → affects thermoregulatory function and hypoglycemia
- Avoid breath-holding during resistance training
- Include a cool-down for BP return to near resting levels
- Postpone exercise session if:
  - erratic HR at rest, tachycardia, SOB with no exertion, dizziness

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DM Recommendations

- Exercise within 1-3 hours post a carbohydrate containing meal to avoid hypoglycemia
  - Sensitivity can change with certain diabetic mediations (ex: Diamicron)
  - Especially important for individuals on MDI insulin regimes or insulin pumps
    - Exercise that exceeds 1 hr – may require dose changes of insulin prior to exercise.

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DM Recommendations

- Consider taking BG <u>before</u> exercise
  - BG must be over **5.5mmol/L** to start

- A patient **above 16.7 mmol/L** who is not feeling well or is showing signs or symptoms of hyperglycemia should <u>delay exercise</u>.
  - If above but feeling well and no hyperglycemia symptoms can exercise under supervision.

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Arthritis Recommendations

- Allow warm up time
  - Dynamic joint ROM and rotations of all affected joints
- Monitor pain throughout
  - should improve with movement not worsen
- May tolerate reduced load bearing more
  - Arm/leg ergometry vs treadmill
  - Water based exercises
- Avoid strenuous exercise during acute flare up

Multiple Sclerosis Recommendations

- Use RPE to monitor intensity vs HR
- Consider balance safer options
  - Seated recumbent bike vs treadmill
- Incorporate functional activities (mimic ADL)
- Tolerance may decrease during acute exacerbation of symptoms
- Focus on large postural muscle groups and minimize total # of exercises
- Avoid overheating – appropriate clothing, fans or cold packs

Practice writing out an exercise prescription for yourself

Using FITT principal

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Health Leadership & Learning Network
York University Faculty of Health

Health Coaching for Physical Activity & Exercise

Erika (Howe) Cellini
R.Kin PhD candidate CDE

Expectations and Today's Objectives

- Sedentary behaviour & why it is a problem
- Defining & prescribing exercise

BREAK

- Provoking the behaviour change
- Barriers to exercise
- Benefits of increasing physical activity

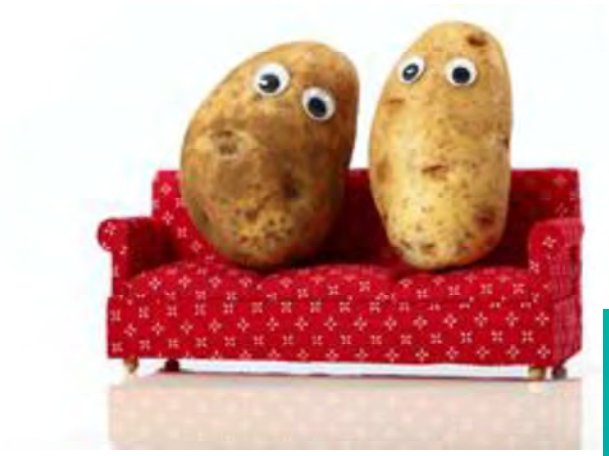
BREAK

- Case studies

Disclaimer

- The following exercise prescriptions may not be appropriate for some or any of the clients you see. The information is merely examples of different types of prescriptions a designated health professional may suggest for health benefits.
- Work within your individual competency framework
- Most importantly: meet the client where they are at.

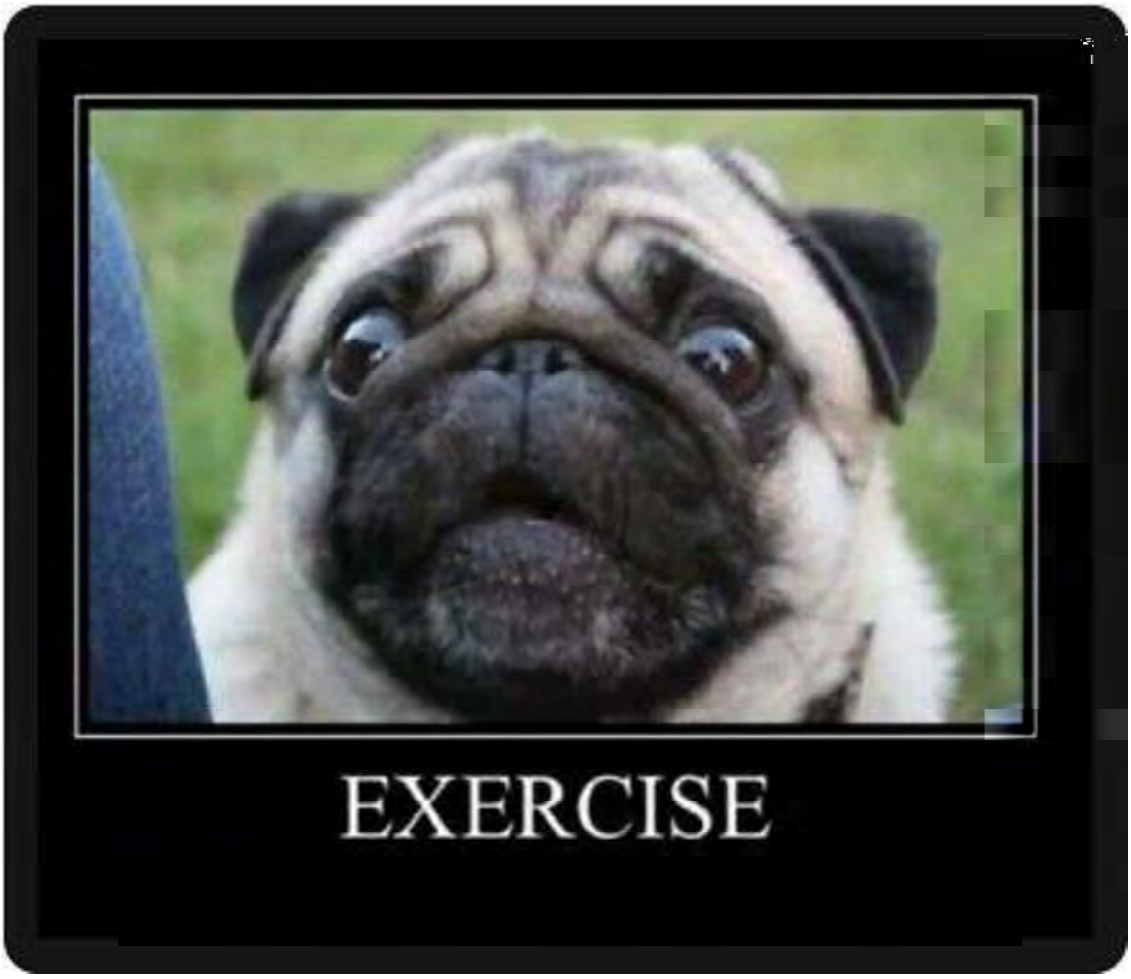
Sedentary Behaviour



Consequences of being Sedentary

- Increased risks of:
  - Cardiovascular disease
  - Diabetes
  - Depression
  - Obesity
  - High blood pressure
  - …

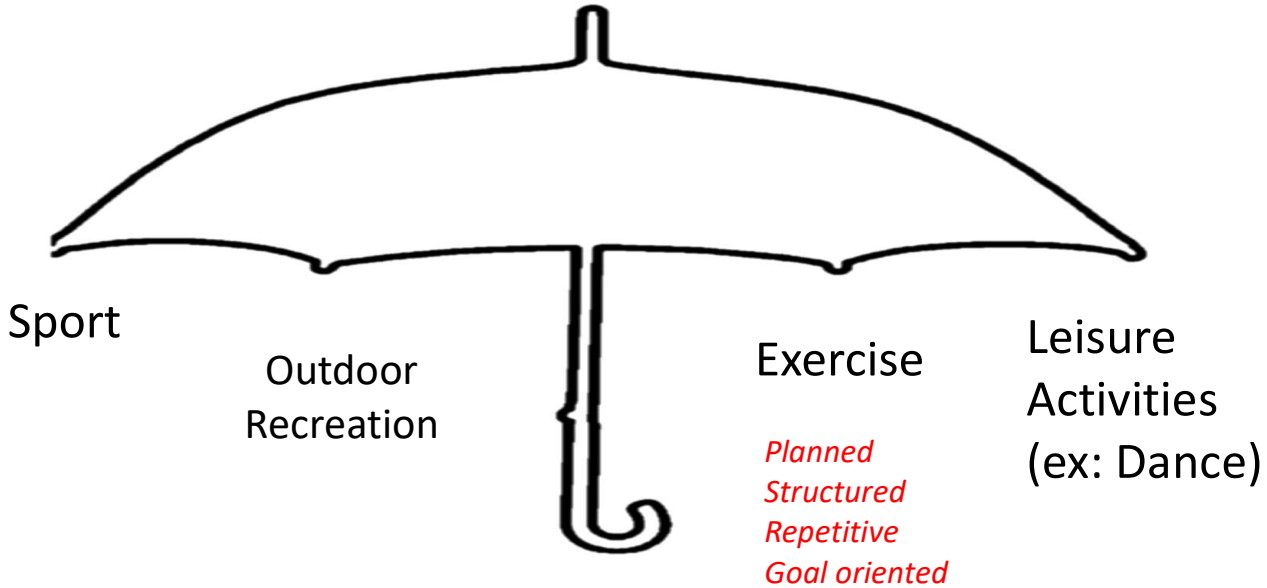
Use it or lose it..



Exercise vs Physical activity

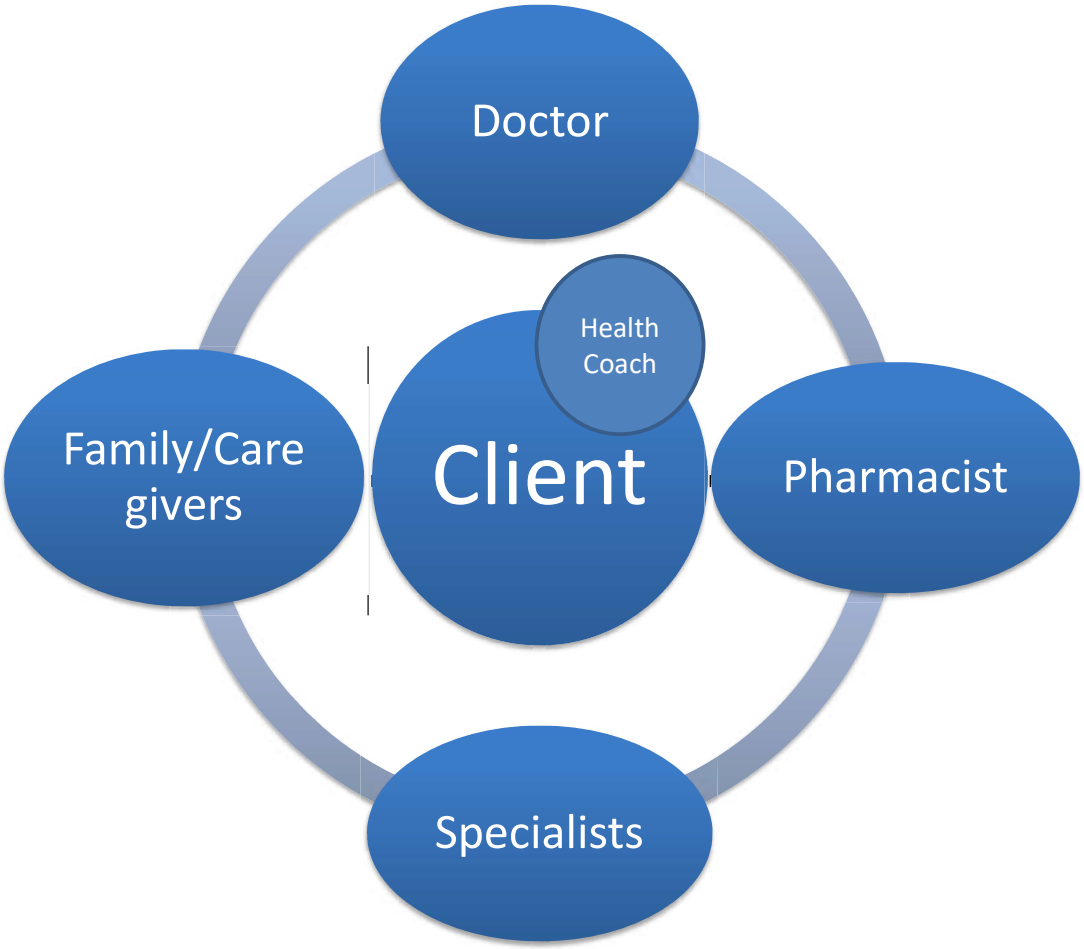
Physical Activity

Any bodily movement produced by skeletal muscles that expend energy



Our Goal as a health coach is to….

- Promote a sense of ownership and control in clients
- Encourage choice and self-initiation - menu of options
- Help clients find activities they enjoy
- Identify realistic goals
- Provide a welcoming environment with a sense of shared experience



Exercise Prescriptions

- FITT principal
- SMART goals

PHYSICAL ACTIVITY RECOMMENDATIONS								
AEROBIC / CARDIOVASCULAR ACTIVITY								
F Frequency	1	2	3	4	5	6	7	days / week
I Intensity			Light		Moderate		Vigorous	
T Time	10	15	20	30	40	more		minutes / session
T Type								
STRENGTH / RESISTANCE ACTIVITY								
Frequency	1	2	3	4	5	6	7	days / week
Type (e.g., yoga, freeweights)								

SMART Goal

TYPE

FREQUENCY
INTENSITY
TIME

START SMALL
(5-10 MIN)

QUICK F/U

Exercise Prescription Example

- Walk for 20 minutes four times a week, keeping a target HR between 110-120 bpm

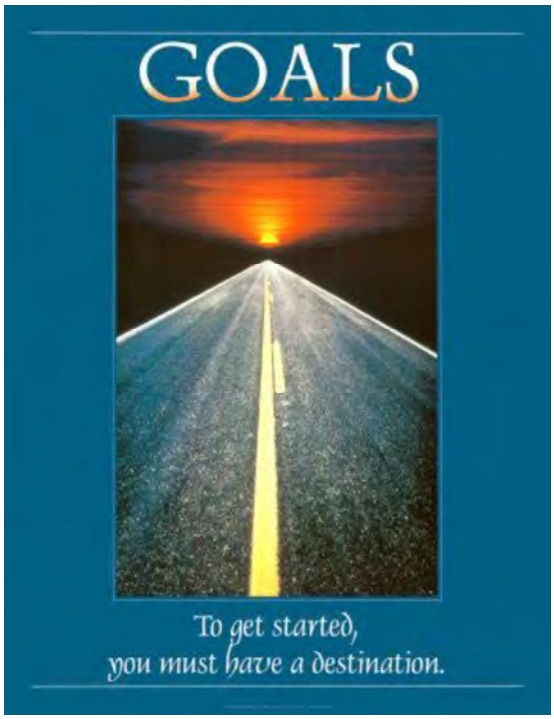
- Frequency: 4/7 days a week
- Intensity: target HR
- Time: 20 minute duration
- Type: walking

Now it is your turn!

- Using the FITT principle concepts. Create a exercise “prescription” for yourself.

- Frequency:
- Intensity:
- Type:
- Time:

Starting a Conversation



Starting a Conversation

- Elicit client's story
- Build rapport
- Gauge knowledge re: importance of PA
- Explore motivation and drivers for PA
- **Establish readiness for change**
- Behavioural history, incl. attempts to change
- Determine confidence/self-efficacy
- Not yet asking client to make changes
- Establish medical readiness for PA

Motivational Interviewing

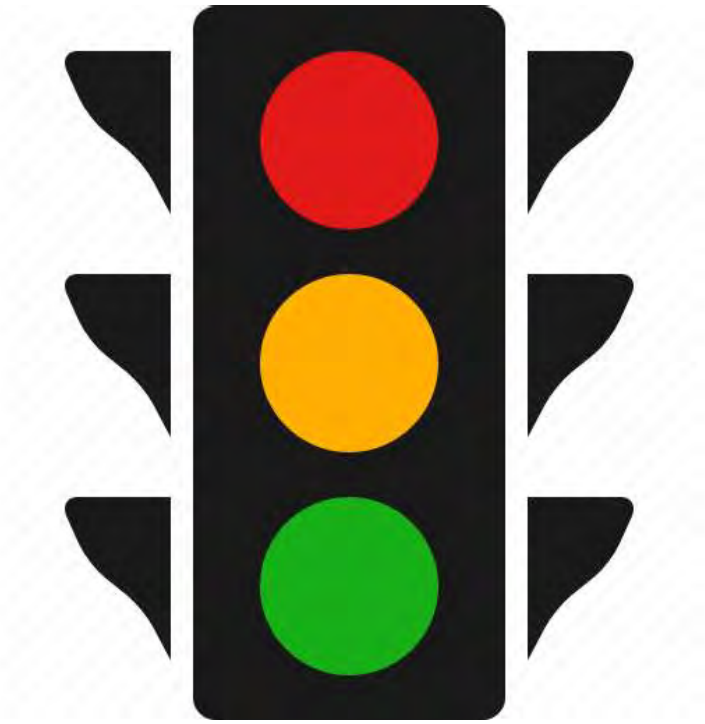
- Open-ended questioning
- Active listening
  - Affirmations, paraphrasing, summarizing, reflection on meaning and feelings
- Non- judgmental space
- Eliciting 'change talk'/ Managing 'sustained talk'
- Rolling with resistance

What do we need to know **before** we can even talk about an exercise Rx?

1. Current PA
2. Current Lifestyle: type of employment and/or leisure activities.
3. Barriers to exercise
4. Motivators to exercise
5. Support network for exercise

Once we understand what intrinsically motivates a person, only then we can help guide them towards a healthier version of themselves

Stages of Change



- Not ready to exercise, has no interest in exercising or making changes
- Apprehensive about exercise. Unsure what to do, where to start. Indecisive but willing to have a conversation
- Wants to exercise, see the benefits but just needs to get started.

Questions to Ask

Sample Questions

- *How active are you?*
- *What kinds of activities do you engage in?*
- *Does your job/commute require you to sit for long periods of time?*
- *Was there at time when you were more active?*
- *Have you tried to get more active before?*
- *Do you have any concerns about physical activity?*
- *Are you interested in increasing/adjusting your physical activity?*
- *Are you interested in learning more about your activity levels?*
- *Who do you have in your family/ friends network that can support you with your exercise plans?*

Rolling with Resistance

Barriers to Physical Activity

- Lack of time
- Inconvenience
- Lack of self-motivation
- Do not enjoy exercise
- Lack of confidence in ability to be physically active (self-efficacy)
- Fear of being injured or re-injured
- Lack of self-management skills
- Lack of social encouragement
- Lack of infrastructure

Circumstances affecting lifestyle choices and health status

- Income and social status
- Employment and working conditions
- Education
- Transportation
- Physical environment
- Health services
- Gender/ Culture
- Social support networks

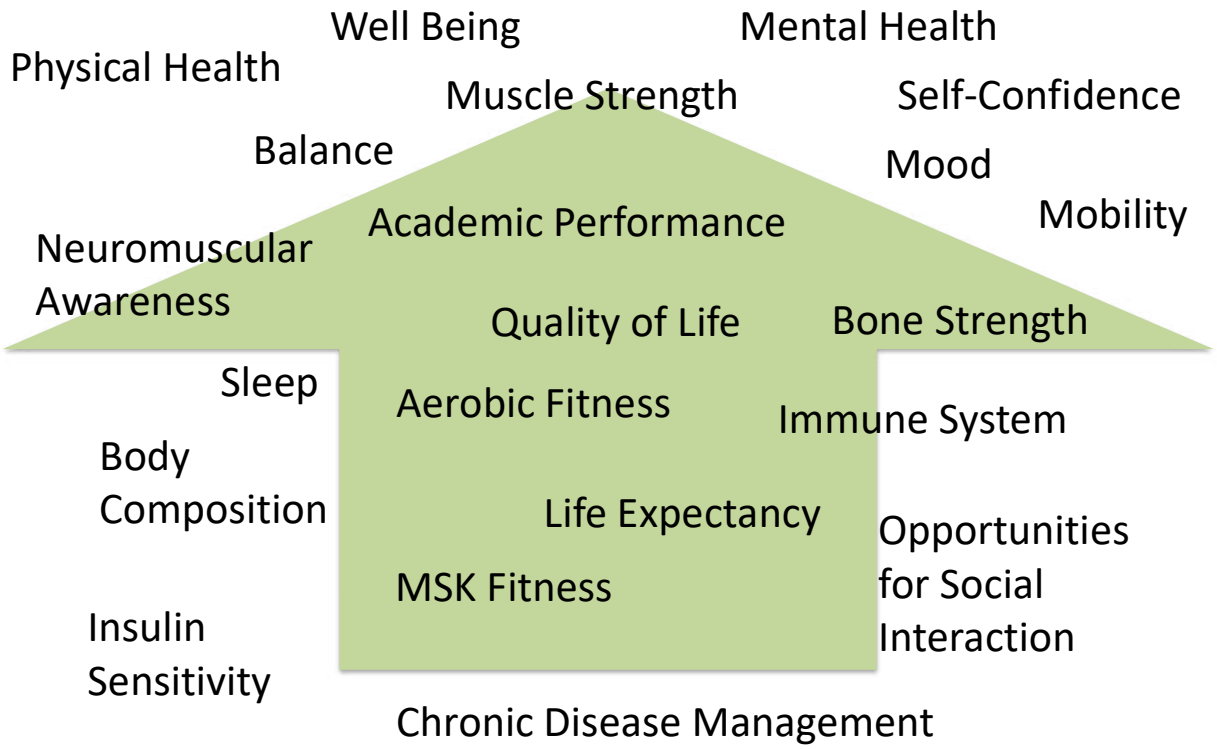
How do we respond?

1. “I don’t have time to exercise. I am already way to busy”

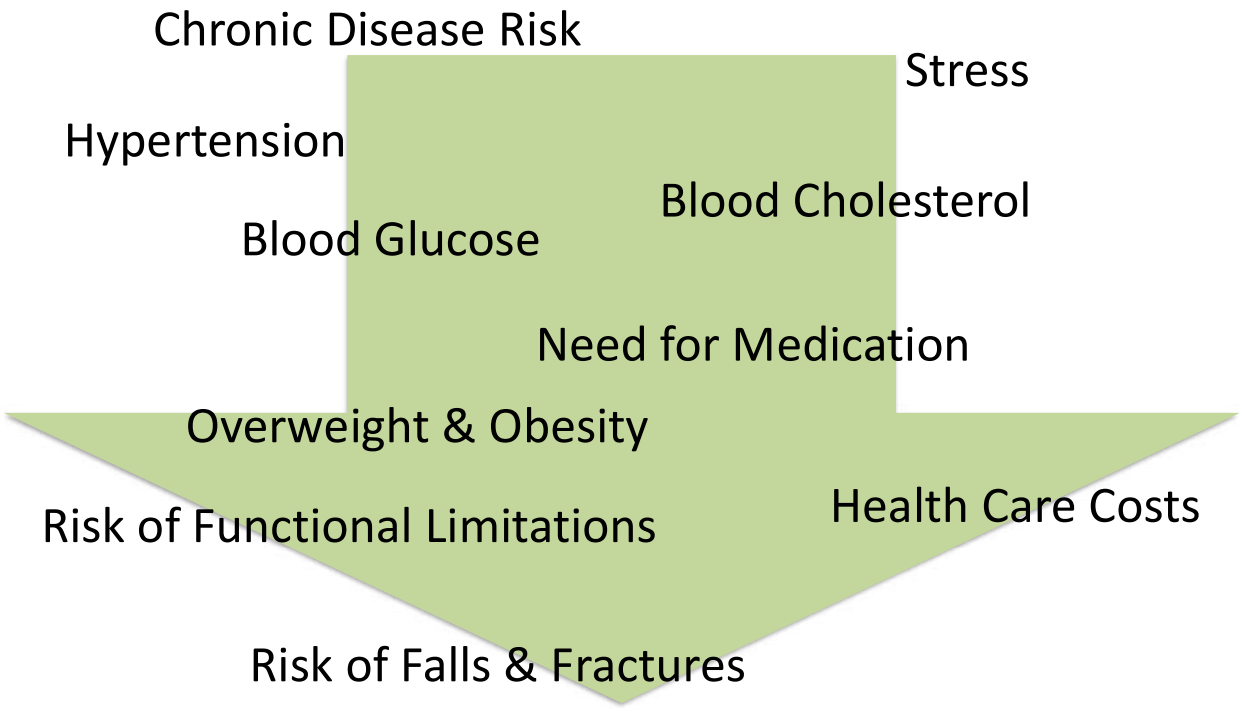
2. “I am already active in my job, I don’t see how exercising more would benefit me…”

	Not Changing Behavior	Changing Behavior
Pros	**Box 1**: What is something good that could come from *not* taking this action?	**Box 4**: What is something good that could come from taking this action?
Cons	**Box 2**: What is something bad that could come from *not* taking this action?	**Box 3**: What is something bad that could come from taking this action?

Benefits of Physical Activity



Benefits of Physical Activity



The only agent with "lipid-lowering, antihypertensive, positive inotropic, negative chronotropic, vasodilating, diuretic, anorexigenic, weight-reducing, cathartic, hypoglycemic, tranquilizing, hypnotic and anti-depressive qualities."

—William C. Roberts, MD

Believe in Baby Steps

- People want big changes fast.
- The slower the change the longer it lasts
- Start by changing in small steps and build momentum over time.
- You will increase your skills and you will adapt your environment.
- Change will stick!

CASE STUDIES

Questions

1. What are this individual's issues?
2. What are their potential motivations/ barriers?
3. Would physical activity be recommended?
   - What are medical considerations to be thinking about?
4. How would you recommend physical activity?
   - Be specific

Case #1: Lynda

- 64 yrs
- Type 2 Diabetes for 24 yrs
  - Meds: 30/70 mix bid and NPH hs (basal + bolus insulin injections)
  - FBS 15 mmol/L, A1C 11% (high- not good sugar control)
- Bilateral lower limb amputee
- Low-income & limited family support

Case #2: Mohammed

- 69 yr male
- MI (8 wks ago) PTCA + stent x 3
  - Completed cardiac rehab
- DM2: 5 yrs
  - Meds: metformin, gliclazide, NPH hs
  - FBS: 7-9 mmol/L, throughout day 6-10 mmol/L, A1C 8.3%.
- Other: HTN, dyslipidemia, smoking
- English second language
- Relies on son for transportation

Case #3: Joanne

- 45 y female
- Gained 30 lbs since work related back injury
- Motivated but limited by knee pain from OA
- Working full time as a school secretary
- Mother of 3 children under the age of 14
- Past experience with exercise: limited - high school gym class

Case #4: James

- 59 yo male
- smoker x 46 years
- MI and DM2 dx (3 months ago)
- Owner, tool & die facility
- Married, three adult children
  - One 3 year old grandchild

Case #5: Janice

- 40-year-old single mom
- Two boys ages 8 and 10
- Works as a personal support worker from 8 to 6 plus commute time
- No financial support from children's father
  - No benefits or savings
- Health coaching support through CHC
- Recent diabetes diagnosis
- doesn't see how she can fit it in
- Worried about her health – future of her children

Q&A

Resources

Canadian Physical Activity Guidelines

- 150 min moderate to vigorous intensity aerobic activity per week
- 2 days per week muscle and bone building

- Available at https://csepguidelines.ca/

Diabetes and Cardiac

- Resources:
  - Diabetes Canada: https://www.diabetes.ca/
  - Diabetes Education Centres: https://www.ontario.ca/page/diabetes-education-program
  - Cardiac Rehab: http://www.crno.ca/

Certifications

- CSEP Certified Personal Trainer (CSEP-CPT)
  - Can work with healthy 15-69 year olds
  - Refer outside area of expertise to CSEP-CEP or physician
- CSEP Certified Exercise Physiologist (CSEP-CEP)
  - Can work with clinical clients and those with more than one medical condition
  - Monitor the influence of commonly used medications
  - Dietary advice
  - Accepts referrals from licensed health care professionals
- ACSM
  - Personal Trainer, Group Exercise Trainer, Exercise Physiologist

Other Certifications

- Other personal training certifications:
  - Certified Strength and Conditioning Specialist
  - CanFitPro
  - Canadian Personal Trainers Network (CPTN)
  - American Council on Exercise

Potential Partners

- Physician
- Physiotherapist
- Kinesiologist
- Occupational therapist
- Osteopath
- Chiropractor

Exercise Options

- Medically supervised groups
- Gym
- Personal trainer
- Community groups
- City programming
- Home-based activities
  - DVDs
  - iTunes episodes