

Obesity Update 2021

The 10 Minute Office Visit **Facilitating Behavioural Change** **to Support Healthy Weight Loss**

Faculty/Presenter Disclosure

- **Faculty: Sabrina Kwon MD, MCFP**
- **Relationships with commercial interests:**
 - Grants/Research Support: n/a
 - Speakers Bureau/Honoraria: NovoNordisk, Bausch Health
 - Consulting Fees: Bausch Health, NovoNordisk
 - Other: n/a

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Objectives

Following this session, participants will:

- **evaluate a patient's nutritional needs to achieve healthy weight loss**
- **explain the pros and cons of various popular diets**
- **assess the role of meal replacements in weight management**
- **create an appropriate exercise prescription tailoring physical activity to the individual treatment plan**
- **apply communication techniques to facilitate the initiation of pertinent conversations with patients about their weight**
- **propose additional resources and patient self-monitoring tools**

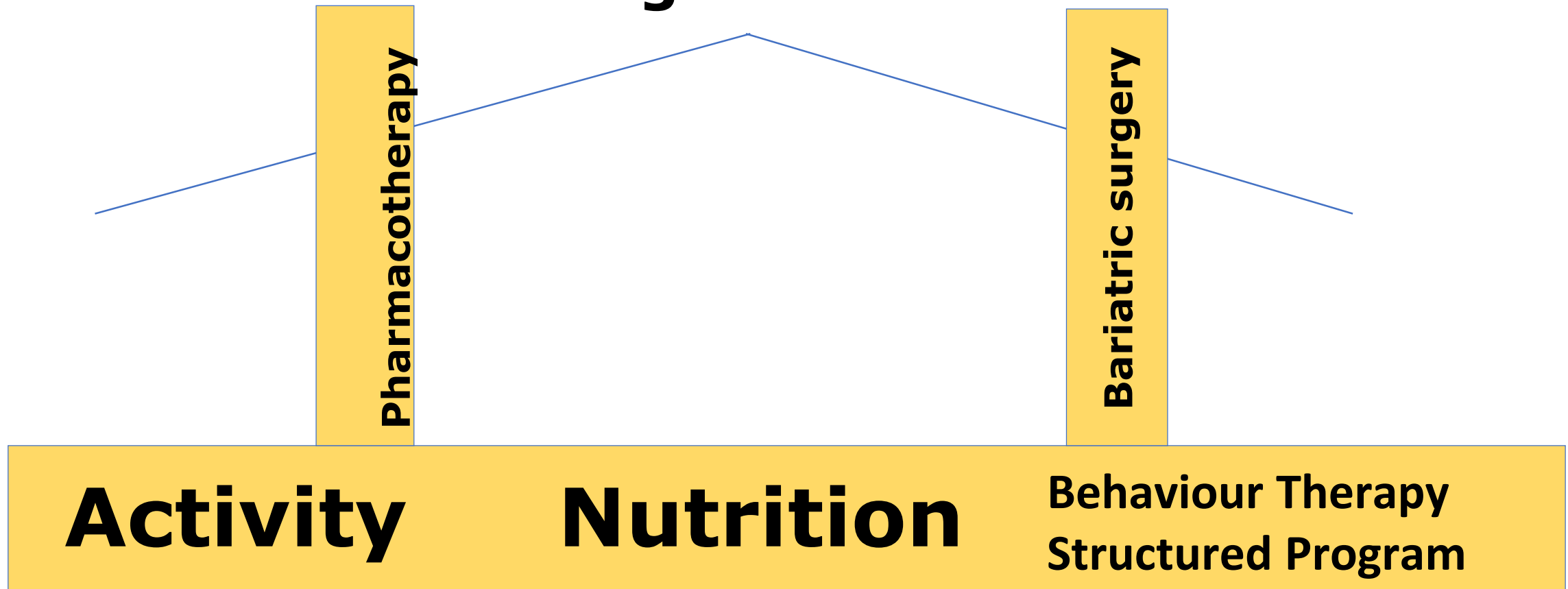
Mrs. X



- **46 y.o. female**
- **BMI 42 (wt. 114.3kg, ht 165cm)**
- **HTN, GERD, early OA knees**
- **Ramipril 5.0mg QD, Pantoloc 40mg QD, Naproxen 500mg QD prn**
- **Sedentary desk job, gained weight over 3 pregnancies**

Lifestyle Modification: a Critical Foundation

Weight Control



STOP OVEREATING, STOP DRINKING,
STOP STAYING OUT LATE, STOP
FIGHTING, STOP WORRYING, STOP
EATING SWEETS, STOP GAMBLING...

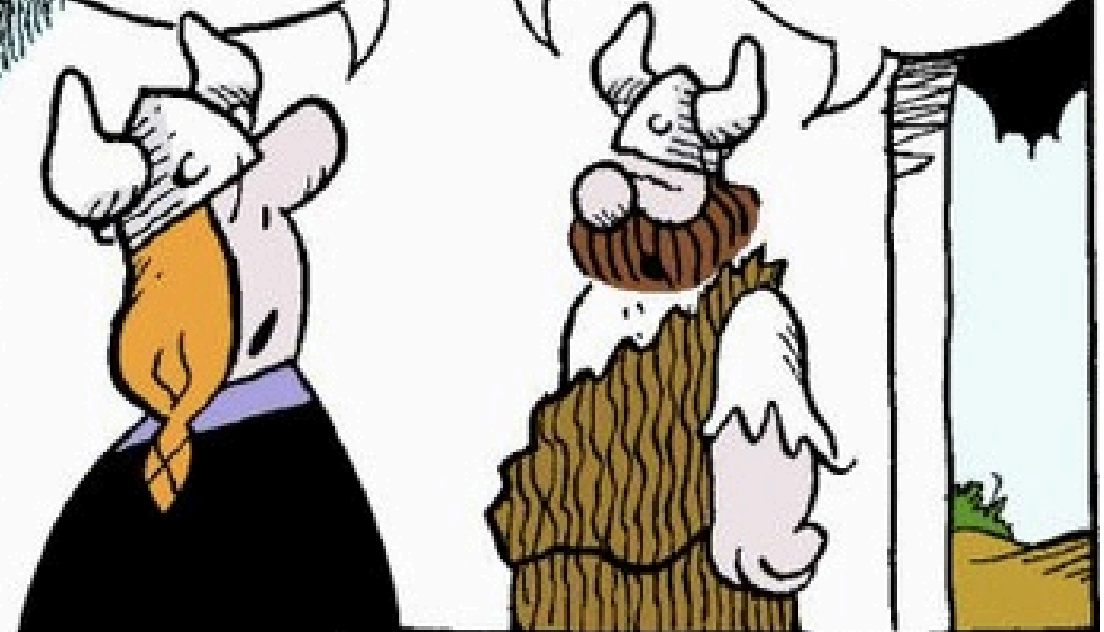


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WHAT DID
THE DOCTOR
SAY?

I DON'T
KNOW...

I
STOPPED
LISTENING



How many years on average is it before a person with obesity discusses weight management with an HCP?

- A) 1**
- B) 3**
- C) 5**
- D) > 10**



How to Start an Effective Dialogue with Patients About Weight Management

In the **ACTION** study, it was reported:

> **10** years

(on average)

before PwO discuss weight management with an HCP

PwO, people with obesity

Use the 5As



ASK for permission to discuss weight



ASSESS obesity-related risk and potential 'root causes' of weight gain



ADVISE on obesity risks, discuss benefits & options



AGREE on realistic expectations and SMART goals



ASSIST in addressing barriers, offer education, refer to provider, and arrange follow-up

Sharma AM, et al. Perceptions of barriers to effective obesity management in Canada: results from the ACTION Study. Canadian Family Practice Nurses Association Biennial Meeting 2018; April 27–29, 2018; Winnipeg, Canada; Canadian Obesity Network. 5As of Obesity Management [last accessed 2018 October 2018]. Available from: www.obesitynetwork.ca.

Opening Conversations and Assessing Readiness

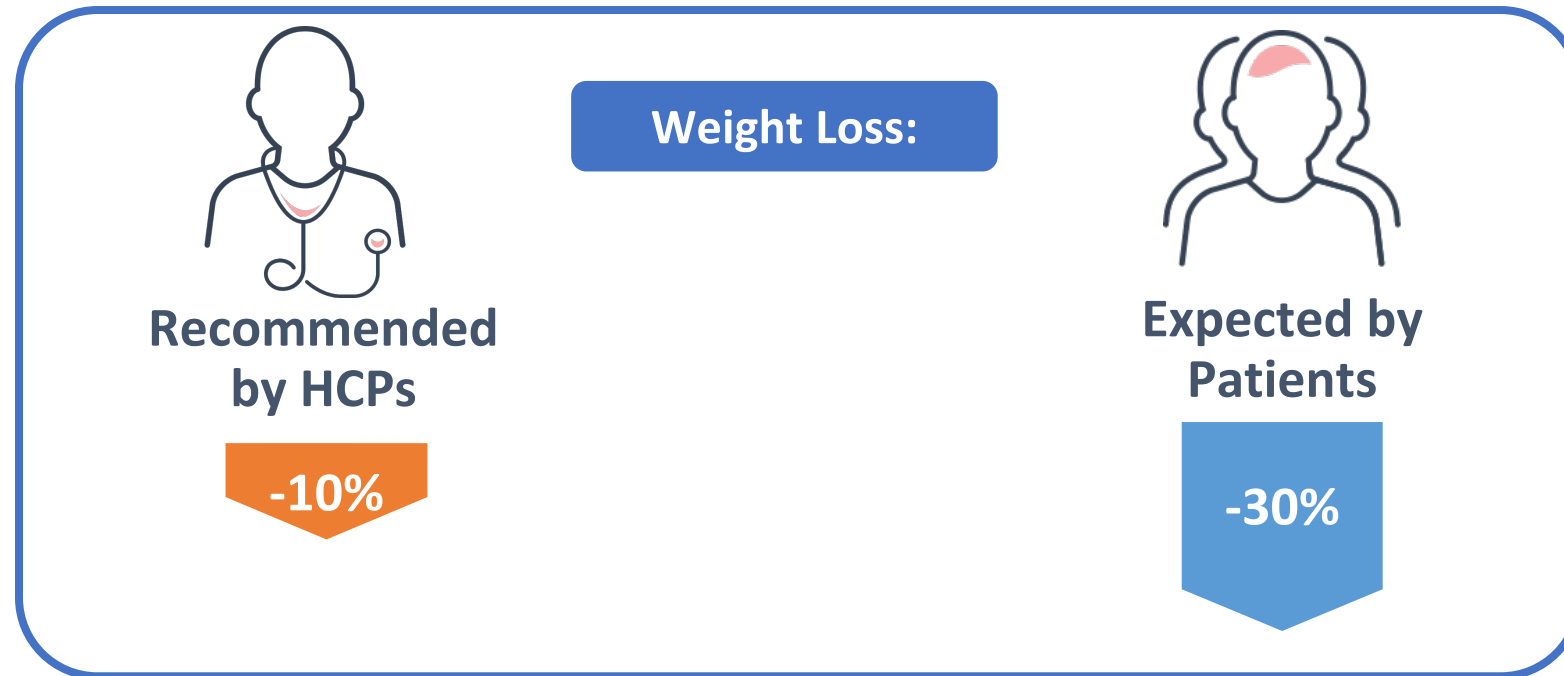
Asking for permission and/or opening with a question to assess motivation:

- “Would it be alright if we discussed your weight?”
- “Can we book a future appointment for you to talk about a weight loss plan?”
- “Would today be a good day to discuss a weight loss plan for you?”
- “Would you be interested in addressing your weight at this time?”



Canadian Obesity Network, 2011. https://obesitycanada.ca/wp-content/uploads/2018/02/Practitioner_Guide_Personal_Use.pdf

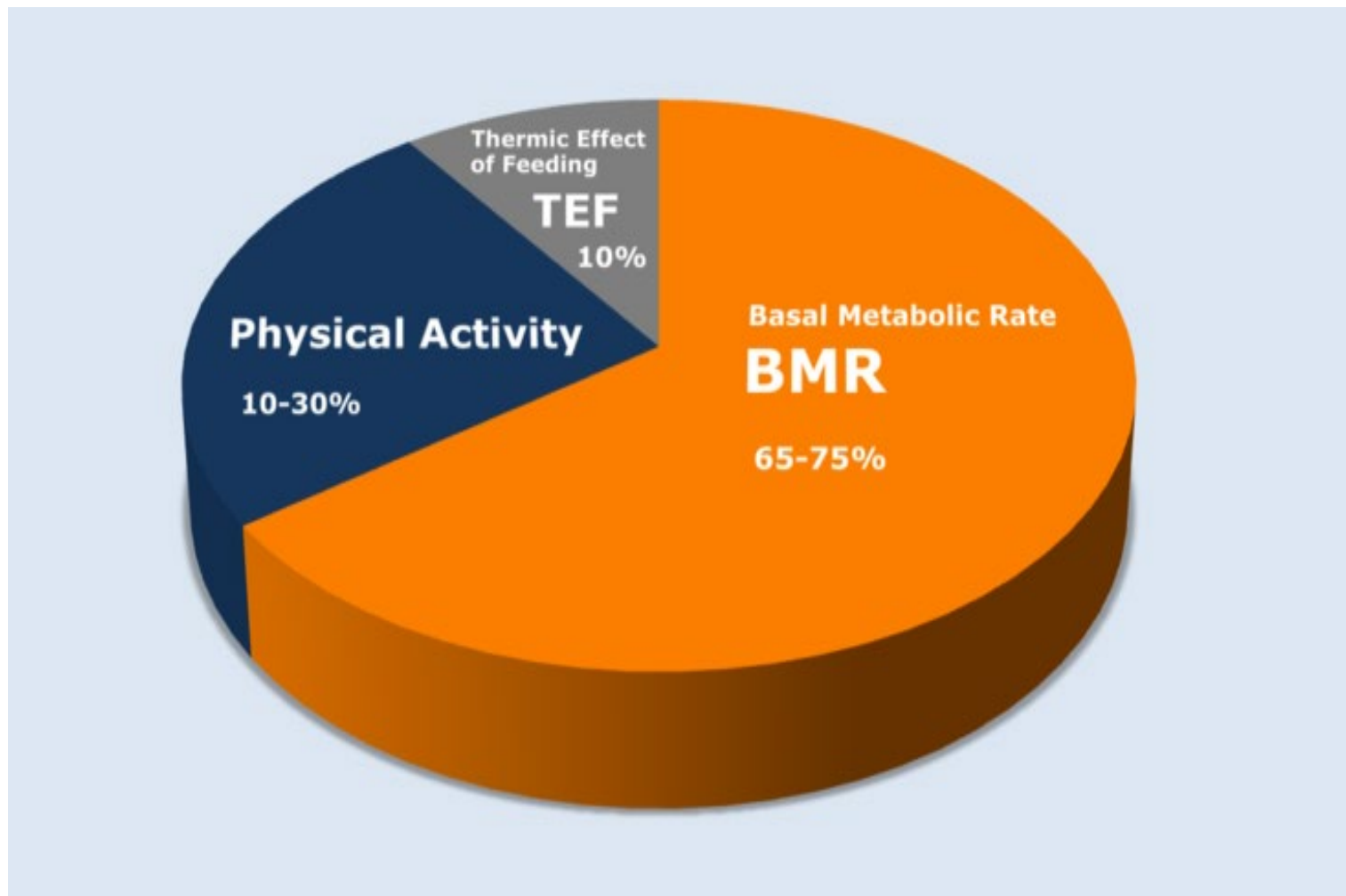
Expectation Management: Aligning HCP/Patient Expectations



- **Your patients may not be aligned with your expectations and definition of success regarding their weight loss**
- **Ensure that they have realistic expectations and understand how much weight loss will provide benefits to their health and quality of life**

NUTRITION

Breakdown of Total Daily Energy Expenditure



Basal Metabolic Rate (BMR)

The total number of calories per 24hrs a body at rest requires to sustain life-preserving functions

Which BMR equation is recommended by the American Diabetes Association?

- A) Harris-Benedict**
- B) Schofield**
- C) Mifflin St Jeor**
- D) New Oxford**



The Mifflin St Jeor BMR equation

Men

$$\begin{aligned} &10 \times \text{weight (kg)} \\ &+ 6.25 \times \text{height (cm)} \\ &- 5 \times \text{age (y)} + 5 \end{aligned}$$

Women

$$\begin{aligned} &10 \times \text{weight (kg)} \\ &+ 6.25 \times \text{height (cm)} \\ &- 5 \times \text{age (y)} - 161 \end{aligned}$$

What is Mrs. X's predicted BMR using the Mifflin St Jeor equation?

- A) 1990 kcal/day
- B) 1949 kcal/day
- C) 1944 kcal/day
- D) 1783 kcal/day



46 y.o. female
BMI 42 (wt 114.3kg, ht 165cm)

Creating a Calorie Deficit

3500 kcal ~ 1 lb

How many calories does Mrs. X need per day in order to lose 1lb per week?

- A) 783**
- B) 1083**
- C) 1283**
- D) 1483**



True or False?

If caloric intake is less than 1200kcal/day, nutrition should be supported with a daily multivitamin

A) True



B) False

Daily Protein Requirement

**1.2 – 1.6g / kg of
Ideal Body Weight (IBW)**

IBW calculation

$$24.9 \times \text{height}^2 \text{ (in m)}$$

Calculating what their weight would be at the high end of normal BMI range for their height

What is Mrs. X's ideal body weight and daily protein requirement?

- A) 57kg, 56 - 71 g/day
- B) 68kg, 74 - 98 g/day
- C) 57kg, 68 - 91 g/day
- D) 68kg, 82 - 109 g/day



Mrs. X Wants to Know...

- **Keto?**
- **Intermittent fasting?**
- **Low fat?**
- **A commercial weight loss program?**

Reduced-calorie diets result in clinically meaningful weight loss **regardless of which macronutrients they emphasize**

Comparison of weight loss diets with different compositions of fat, protein and carbohydrates – NEJM 2009

Both intermittent and continuous calorie restriction resulted in similar weight loss, maintenance and cardiovascular risk factors after 1 year. However, feelings of hunger may be more pronounced with intermittent energy restriction.

Effect of intermittent and continuous calorie restriction on weight loss, maintenance and cardiometabolic risk: A 1 year trial
–Nutr Metab Cardiovasc Dis 2018

2 Simple Questions to Determine if a Diet is Going to be Successful Long-term

1 - Is it **safe?**

2 - Is it **sustainable forever?**

Whatever you Do to Lose the Weight...

**you need to continue to do
to keep it off**

When Would You Consider Using a Meal Replacement?

- A) To add in a meal that would otherwise be skipped**
- B) To facilitate pre-operative weight loss**
- C) To replace the meal that is most difficult to control**
- D) To help reduce the day's overall caloric intake**
- E) To improve nutritional quality**
- F) All of the above**



Meal Replacements



Mrs. X's Meal Pattern

- **NO breakfast – not hungry and too busy; needs to get self and kids out the door**
- **Lunch – either eats out with co-workers or has a can of pop at her desk**
- **Dinner – large portions of a pre-packaged meal or orders in 2x/week**
- **Snacking – “goodies” at work, chips/candy/popcorn in evening while watching TV**

ACTIVITY

What is the recommended minimum number of minutes of activity per week as per the Canadian Physical Activity Guidelines?

- A. 90 minutes**
- B. 120 minutes**
- C. 150 minutes**
- D. 200 minutes**



Canadian Physical Activity Guidelines

FOR ADULTS - 18 – 64 YEARS

Guidelines



To achieve health benefits, adults aged 18-64 years should accumulate at least 150 minutes of moderate- to vigorous-intensity aerobic physical activity per week, in bouts of 10 minutes or more.



It is also beneficial to add muscle and bone strengthening activities using major muscle groups, at least 2 days per week.



More physical activity provides greater health benefits.

Let's Talk Intensity!

Moderate-intensity physical activities will cause adults to sweat a little and to breathe harder. Activities like:

- Brisk walking
- Bike riding

Vigorous-intensity physical activities will cause adults to sweat and be 'out of breath'. Activities like:

- Jogging
- Cross-country skiing

Being active for at least 150 minutes per week can help reduce the risk of:

- Premature death
- Heart disease
- Stroke
- High blood pressure
- Certain types of cancer
- Type 2 diabetes
- Osteoporosis
- Overweight and obesity

And can lead to improved:

- Fitness
- Strength
- Mental health (morale and self-esteem)

Pick a time. Pick a place. Make a plan and move more!

- Join a weekday community running or walking group.
- Go for a brisk walk around the block after dinner.
- Take a dance class after work.
- Bike or walk to work every day.
- Rake the lawn, and then offer to do the same for a neighbour.
- Train for and participate in a run or walk for charity!
- Take up a favourite sport again or try a new sport.
- Be active with the family on the weekend!

**Now is the time. Walk, run,
or wheel, and embrace life.**



How many minutes of activity are required per week for weight maintenance?

A) 120

B) 150

C) 175

D) 200



The American College of Sports Medicine and the American Diabetes Association state that
“Recommended levels of PA may produce weight loss.
**However, up to 60 min/day may be required
when relying on exercise alone for weight loss.”**

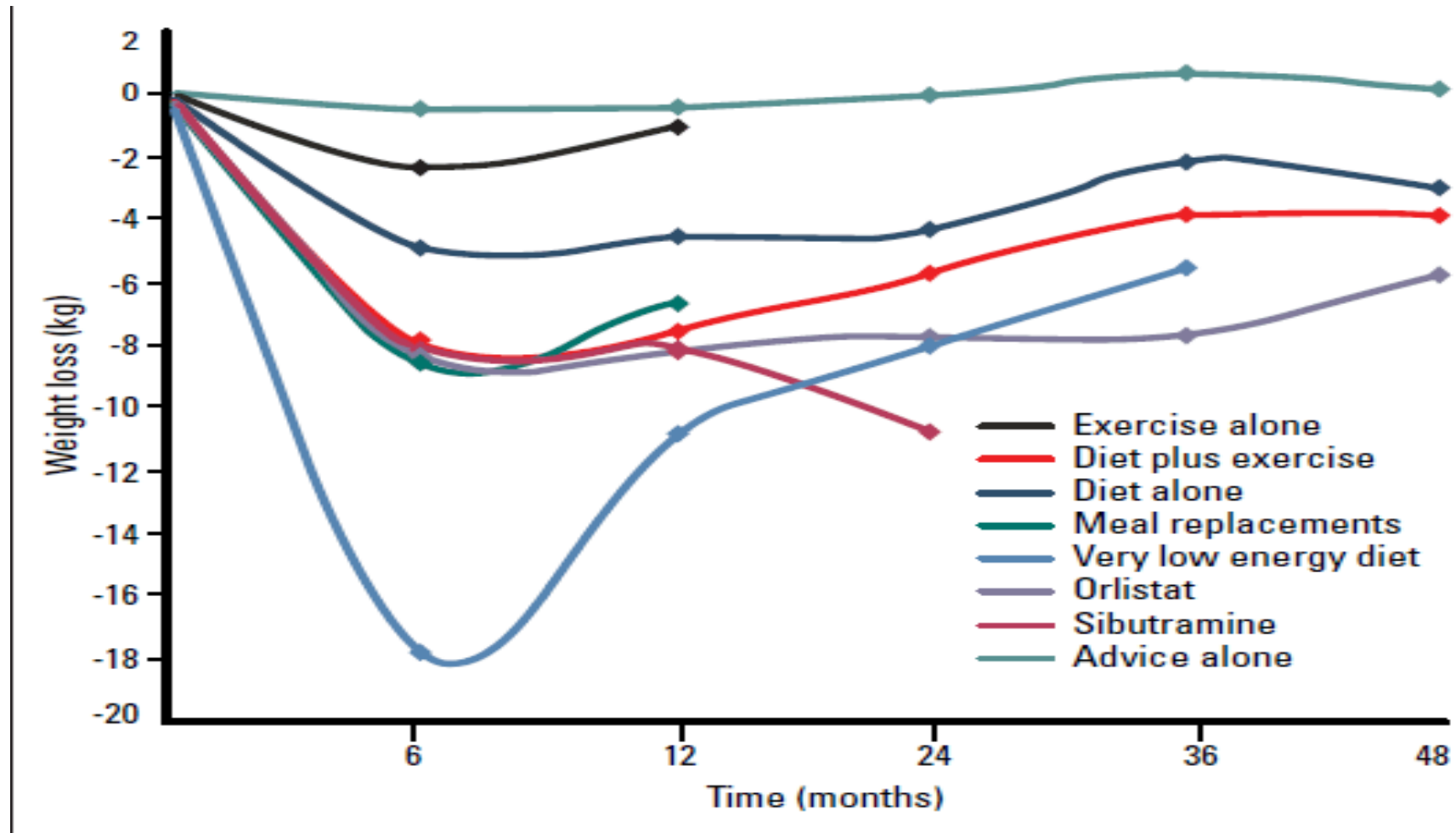


Figure 1. Average weight loss of subjects completing a minimum 1 year weight – management intervention; based on review of 80 studies (N= 26,455; 18,199 completers [69%])

How many minutes would you need to walk (3.5mph) to burn off a medium mocha coffee (290kcal)?





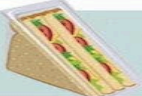







A) 20

B) 35

C) 55

D) 75



10 calorie-dense food and drinks and their activity equivalence				
FOOD TYPE	CALORIES APROX.	 WALK OFF KCAL (medium walk 3-5mph)	 RUN OFF KCAL (slow running 5mph)	
 Sugary soft drink (330ml can)	138	26 min	13 min	
 Standard chocolate bar	229	42 min	22 min	
 Sandwich (chicken & bacon)	445	1 hr 22 min	42 min	
 Large Pizza (1/4 pizza)	449	1 hr 23 min	43 min	
 Medium mocha coffee	290	53 min	28 min	
 Packet Crisps	171	31 min	16 min	
 Dry roasted peanuts (50g)	296	54 min	28 min	
 Iced cinnamon roll	420	1 hr 17 min	40 min	
 Cereal (1 bowl)	172	31 min	16 min	
 Blueberry muffin	265	48 min	25 min	

Exercise Can Improve Health Without Weight Loss

- **Exercise has been associated with reduction in waist circumference (WC) despite minimal weight loss**
- **Acute and chronic aerobic exercise improve health outcomes, even in the absence of clinically significant weight loss**
- **Exercisers who do lose weight receive even more benefit**

Benefits of 3 months of regular activity (40–60 min/day)

Weight change	-0.1 kg
Waist change	-3.1 cm
Fat change	-1.6 kg
Lean change	+1.5 kg
CRF	+18.8%
Insulin sensitivity	+33.2%

Ross R, Janiszewski PM. *Can J Cardiol.* 2008; 24(Suppl D): 25D–31D.
 Ross R, et al. *Ann Intern Med.* 2000 Jul 18;133(2):92-103.

What would the activity prescription look like for Mrs. X?

- A. 150 minutes per week of moderate to vigorous exercise
- B. 10 minutes per day of brisk walking
- C. Pool exercise 60 minutes 2 times per week
- D. Something she enjoys, can do safely and build up over time



BEHAVIOUR THERAPY

What is Motivational Interviewing?

- A directed, patient-centred counselling style for eliciting behaviour change by helping patients explore and **resolve ambivalence**.
- Designed to produce **internally motivated change** by mobilizing the patient's own change resources.

Mrs. X tells you her activity is limited by her OA knee pain. Which of the following would be the most effective response?



- A) "You're going to have to find a way to be active because it's something you need to do for your weight and your health."**
- B) "What do you think you can do to stay active and still have adequate pain control."** ✓
- C) "You should aim for better pain control so that you can be more active."**
- D) "I guess you're not going to be able to be active then."**

Motivational Interviewing: 4 Basic Skills

- **Express empathy – non-judgment, affirmation**
- **Develop discrepancy – where are you now?, where do you want to be?**
- **Roll with resistance – agree, maybe you really can't**
- **Support self-efficacy – what do you think you can do?**

Help Patients Set Behavioral Goals for Lifestyle Change



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Nova Scotia Health Authority
Assistant Professor, Faculty of Medicine,
Dalhousie University
Halifax (NS)

Approach to behavior goal setting



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Nova Scotia Health Authority
Assistant Professor, Faculty of Medicine,
Dalhousie University
Halifax (NS)

Cognitive Behavioral Therapy (CBT)

Focuses on challenging and changing unhelpful cognitive distortions and behaviors, improving emotional regulation and developing personal coping strategies that target solving current problems.



Acceptance and Commitment Therapy (ACT)

Uses acceptance and mindfulness strategies together with commitment and behaviour change strategies to increase psychological flexibility

ACT

Being Present
Focus on the
here and now

Values
Discover what is
truly important to you

Commitment
Take action to pursue the
important things in your life

Self as Context
See yourself as unchanged by
time and experience

Defusion
Observe your thoughts without
being ruled by them

Acceptance
Be willing to experience
difficult thoughts



Self-monitoring and Assessment Tools

Self-monitoring = awareness and accountability

Consistent food journal use is associated with weight loss over 6 months

Harvey J, et al., Obesity. 2019; <https://doi.org/10.1002/oby.22382>

Useful Food Journal Apps

- **My Fitness Pal**
- **Lose It**
- **Baritastic**
- **Fooducate**

OR

**Pen
and
Paper**

myfitnesspal.com



[Log In](#) | [Sign Up](#)

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Fitness starts with what you eat.

Take control of your goals. Track calories, breakdown ingredients, and log activities with MyFitnessPal.

[START FOR FREE](#)





Create Your Free Account - Step 1 of 4

Your Account Information

Email Address:

Password: 6-255 characters, no space

Continue

Continue with Facebook

We will never post anything without your permission

- ▶ **Have an [Under Armour account](#)? You can use it to log in to MyFitnessPal.**
- ▶ [Click here to log in.](#)
- ▶ [Forgot your password?](#)

Tell Us About Yourself

We will use this information to create a personalized diet and exercise profile for you.

[Change units for weight and height \(e.g. kg vs lbs\)](#)

Current Weight: lbs

Height: ft in

Goal Weight: lbs

Gender: Male Female

Date of Birth: | |

Location:

ZIP/Postal Code:

Username: 4-30 characters, no space

How would you describe your normal daily activities?

Sedentary: Spend most of the day sitting (e.g. bank teller, desk job)

Lightly Active: Spend a good part of the day on your feet (e.g. teacher, salesperson)

Active: Spend a good part of the day doing some physical activity (e.g. food server, postal carrier)

Very Active: Spend most of the day doing heavy physical activity (e.g. bike messenger, carpenter)

How many times a week do you plan on exercising?

Workouts / Week

min. / workout

How do you want to track expended energy?

Calories Kilojoules

What is your goal?

I have read and agree to the [Terms](#) and [Privacy Policy](#).

Your Data Consents

You have agreed to allow MyFitnessPal to use your data in the following ways. Withdrawing some of these consents may require you to delete your account as we will be unable to process your data to provide our services.

You can withdraw consent at anytime.

Accept All

Sensitive Data Processing

Under Armour, Inc. and its affiliates are allowed to process my sensitive personal data to provide wellness and fitness services.

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I consent to Under Armour, Inc. transferring personal data to the US to enable the services described in the Privacy Policy and Terms.

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Sign Up For Emails

Yes, I want to receive tips & offers by email newsletters from MyFitnessPal and Under Armour.
You can withdraw consent or unsubscribe later. See our [Privacy Policy](#) or [Contact Us](#) for more information
 1020 Hull Street, Baltimore MD 21230

Members Who Diet With Friends Lose 3X As Much Weight!

Don't diet alone - your friends can provide you the critical support and motivation you need to succeed.

Having a support group is key to losing weight, and keeping it off. So invite your friends, and when they join, they'll automatically be added to your friends list. You'll then be able to track each other's progress and success, and motivate each other to achieve your goals.

Don't Worry!

- ✔ We hate spam just as much as you, so we promise not to spam your friends, family, or colleagues! We will **only** send them your invitation - nothing more.
- ✔ Your weight is kept hidden. We know what it's like to be on a diet, and we are not going to tell anyone — not even your friends — how much you weigh.

Enter the email address of up to 5 friends below:

Your Name: <drsabrinakwon@gmail.com>

Email Address:

Email Address:

Email Address:

Email Address:

Email Address:

[Continue](#)

Your Suggested Fitness And Nutrition Goals

Congratulations! Your personalized diet and fitness profile is now complete. Based on your answers, here are your suggested nutrition and fitness goals.

Nutritional Goals	Target
Net Calories Consumed* / Day	1,270 Calories / Day
Carbs / Day	159.0 g
Fat / Day	42.0 g
Protein / Day	64.0 g

*Net calories consumed = total calories consumed - exercise calories burned. So the more you exercise, the more you can eat!

Fitness Goals	Target
Calories Burned / Week	580 Calories / Week
Workouts / Week	2 workouts

If you follow this plan...

Your projected weight loss is 1 lb/week

You should lose 5 lbs by February 20

[Get Started Now!](#)

[MY HOME](#)
[FOOD](#)
[EXERCISE](#)
[REPORTS](#)
[APPS](#)
[COMMUNITY](#)
[BLOG](#)
[SHOP](#)
[PREMIUM](#)

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[Settings](#)

Your Daily Summary 1 DAY STREAK

No photo provided

[Upload photo](#)

Calories Remaining [Change](#)

1270

1270 GOAL 0 FOOD - 0 EXERCISE = 0 NET

[Add Exercise](#)

[Add Food](#)

0 lbs LOST

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We sent an email to:

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Or, change your email address

Recent Forum Topics

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- [Hello - starting all over again](#)

Useful Fitness Apps/Trackers

- **FitBit**
 - **Garmin**
 - **Map My Fitness**
- OR**
- Pen
and
Paper**

How often should a person weigh themselves for self-monitoring purposes?

A. daily

B. weekly



C. monthly

D. never

Some Tips on Self-Weighing

- **no more than once per week**
- **for women - keep in mind fluid changes throughout the menstrual cycle**
- **when weight plateaus, don't "go rogue" or give up; look at other indicators of health and quality of life benefit**

Alberta Health Services Online Modules



Your Best Health: Adult Weight Management

This online self-learning module will introduce you to an evidence-based approach to managing your weight and health. Some people have shared they've become frustrated with a tendency to gain weight or what seems to be an inability to lose weight and keep the weight off. This may happen even though your behaviours don't seem to be any less healthy than others who don't seem to have a weight problem.

Part of the reason this can happen is because managing weight isn't as simple as eating less and moving more. Although healthy eating and regular physical activity are important for health and weight, it's not the whole story.

Let's Begin



<https://myhealth.alberta.ca/learning/modules/Weight-Management>

Alberta Health Services Community Programs

The Weight Wise workshops are moving to a new format!

The old classes will still be available for the first quarter of 2020 for those who have started the current format this year.

The new program will have three- three session series:
 Weight Management Level One (3 session series)
 Weight Management Level Two (3 session series-Level One pre-requisite)
 Weight Management Level Three (3 session series- Level One and Two pre-requisites)

Weight Management Level One (3 Session Series)

Length 2 hours

Description

- Learn principles of effective weight management
- Learn how to increase your physical activity, manage calories and nutrition and develop healthier habits

If you register for this series, you will be registered for all classes in the series.

Session Dates	Days	Time	Location
January 7, 14, 21	Tuesday	6:30pm-8:30pm	NEHC
January 9, 16, 23	Thursday	9:00am-11:00am	EWPCN
January 18, 25, February 1	Saturday	9:00am-11:00am	STCH
January 31, February 7, 14	Friday	9:00am-11:00am	WJP
February 13, 20, 27	Thursday	2:00pm-4:00pm	ESPCN
February 25, March 3, 10	Tuesday	6:30pm-8:30pm	NEHC
March 13, 20, 27	Friday	9:00am-11:00am	STCH

! Do you want to learn how to make manageable lifestyle changes to improve your weight and health?

Join us for a three session series where you will learn principles of effective weight management. In a group setting, health professionals will help you learn how to increase your physical activity, manage calories and nutrition, and develop healthier habits.

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Workshop times and locations vary by community. For more information, call 780-401-2665 (BOOK)

Alberta Health Services

Weight Management Level Two (3 Session Series)

Length 2 hours

Description

- Learn how to plan meals, develop a structured physical activity plan and how to deal with thoughts and feelings that affect behavior change.

If you register for this series, you will be registered for all classes in the series.

Session Dates	Days	Time	Location
January 9, 16, 23	Thursday	9:00am-11:00am	EEHC
January 28, February 4, 11	Tuesday	6:30pm-8:30pm	STCH
February 20, 27, March 5	Thursday	9:00am-11:00am	EWPCN
February 28, March 6, 13	Friday	9:00am-11:00am	WJP
February 29, March 7, 14	Saturday	9:00am-11:00am	NEHC
March 17, 24, 31	Tuesday	2:00pm-4:00pm	ESPCN

Weight Management Level Three (3 Session Series)

Length 2 hours

Description

- Learn how to manage eating away from home, increase knowledge of how to overcome challenges and maintain positive habit changes, and learn about current medication and surgical treatment options.

If you register for this series, you will be registered for all classes in the series.

Session Dates	Days	Time	Location
February 11, 18, 25	Tuesday	9:00am-11:00am	SASPCN
February 13, 20, 27	Thursday	6:30pm-8:30pm	WJP
March 5, 12, 19	Thursday	2:00pm-4:00pm	EEHC
March 10, 17, 24	Tuesday	6:30pm-8:30pm	STCH
March 12, 19, 26	Thursday	9:00am-11:00am	EWPCN

Workshops are free. To register, call 780-401-2665 (BOOK) January, February, March 2020

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www.aha.ca/ahp

<https://www.albertahealthservices.ca/info/Page13245.aspx>

Reference Cheat Sheet

Obesity Society Guidelines¹

Nutrition	Activity	Behaviour therapy-structured program
<ul style="list-style-type: none"> Reduce caloric intake: -500 to -750 kcal/day Target caloric intakes: <ul style="list-style-type: none"> Women: 1200–1500 kcal/day Men: 1500–1800 kcal/day Evidence-based diet that restricts certain food types 	<ul style="list-style-type: none"> Minimum 150 min/week of moderate activity 200-300 min/week for weight maintenance 	<ul style="list-style-type: none"> Self-monitoring of: <ul style="list-style-type: none"> Food intake Activity Weight

Dietary Advice from The Obesity Society 2013 Guidelines¹ (Strength of Evidence: High)

No formal prescribed energy restriction but with a realized energy deficit:

- A diet from the European Association for the Study of Diabetes Guidelines focused on targeting food groups
- Higher-protein diet (25% of total calories from protein, 30% of total calories from fat, and 45% of total calories from carbohydrate)
- Higher-protein Zone™-type diet (5 meals/d, each with 40% of total calories from carbohydrate, 30% of total calories from protein, and 30% of total calories from fat)
- Low-carbohydrate diet (initially <20 g/d carbohydrate)
- Low-fat vegan-style diet (10% to 25% of total calories from fat)
- Low-fat diet (20% of total calories from fat)
- Low-glycemic-load diet
- Moderate-protein diet (12% of total calories from protein, 58% of total calories from carbohydrate, and 30% of total calories from fat)

With formal prescribed energy restriction

- Lacto-ovo-vegetarian-style diet
- Low-calorie diet
- Lower-fat (≤30% fat), high-dairy (4 servings/d) diets with or without increased fiber and/or low-glycemic-index (low-glycemic-load) foods
- Macronutrient-targeted diets (15% or 25% of total calories from protein; 20% or 40% of total calories from fat; 35%, 45%, 55%, or 65% of total calories from carbohydrate)
- Mediterranean-style diet
- Provision of high-glycemic-load or low-glycemic-load meals
- Low-glycemic-load diet
- The AHA-style Step 1 diet (prescribed energy restriction of 1500 to 1800 kcal/d, <30% of total calories from fat, <10% of total calories from saturated fat)

Other options beyond Obesity Society Guidelines include:

- Meal replacement²
- Alternate-day fasting³

- Jensen MD, et al. *Circulation* 2014; 129:5102-38.
- Trepanowski JF, et al. *JAMA Intern Med.* 2017; 177(7):930-938.
- Astbury NM, et al. *Obes Rev.* 2019; 20(4):569-587.

QUESTIONS?

THANK YOU