

# Exercise & Depression TOOLKIT

Exercise is now recommended as a stand-alone treatment for mild-moderate depression, and an adjunctive treatment for moderate-severe depression<sup>1</sup>.

This collaborative toolkit has been specifically designed to help you successfully engage with your clients in considering exercise as a treatment option.

This toolkit was informed by the best available evidence and created in collaboration with adults who have lived experience with depression, health care providers, exercise specialists, and researchers.

## Collaborators



## Scope and Purpose of the toolkit

### Overall objective

- To support health professionals in collaborating with clients to explore exercise as a treatment option for mild-moderate depression.

### Population toolkit is targeting

- Adults (aged 18-65) with mild-moderate depression in Canada.

### Potential users of the toolkit

- Health care providers who work with adults with depression, inclusive of (but not limited to): Family Physicians, Psychiatrists, Counsellors, Mental Health Workers, Occupational Therapists, Recreation Therapists, Nurses, Social workers
- Community, Primary Care, Inpatient, Outpatient settings

#### References:

1. Ravindran, AV et al. (2016). Canadian Network for Mood and Anxiety Treatments (CANMAT) 2016 Clinical Guidelines for the Management of Adults with Major Depressive Disorder. *Can J Psychiatry*, 61(9), 576-587.
2. Glowacki, K et al. (2017). Barriers and Facilitators to physical activity and exercise among adults with depression: A scoping review. *MENPA*, 13, 108-119.
3. Glowacki, K et al. (2019). Barriers and facilitators to health care providers' promotion of physical activity for individuals with mental illness: A scoping review. *MENPA*, 16, 152-168.
4. Cane, J et al. (2012). Validation of the theoretical domains framework for use in behaviour change and implementation research. *JS*, 7(37).
5. Cane, J et al. (2015). From lists of behaviour change technique's (BCTs) to structured hierarchies: Comparison of two methods of developing a hierarchy of BCTs. *BJHP*, 20, 130-150.
6. Michie S, Atkins L, West R. (2014). *The behaviour change wheel: a guide to designing interventions*. GB, UK: Silverback Publishing.
7. Parikh, S.V., Kcomt, A., Fonseka, T.M., Pong, J.T. (Eds). 2018. *The Choice—D Patient And Family Guide To Depression Treatment*. Toronto, Mood Disorders Association of Ontario.

## Toolkit Development Process

The Canadian Network for Mood and Anxiety Treatment (CANMAT) is an organization of clinical and research leaders who help interpret research to improve clinical practice. CANMAT revised treatment guidelines in 2016, and now recommend exercise as a primary stand-alone treatment for mild-moderate depression, or in conjunction with other treatments<sup>1</sup>. This toolkit was developed to help with the implementation of these guidelines into clinical practice. However, the toolkit could be used to discuss exercise with anyone experiencing depressive symptoms.

This resource was developed over four phases to determine needs and preferences for its use within health care. It was developed through systematic review of research evidence and in consultation with adults with lived experience with depression, health care providers, exercise specialists, and researchers.

### Phase 1 | Review of the Literature

Two scoping reviews have been conducted concerning the barriers and facilitators to physical activity participation among individuals with depression<sup>2</sup> and the barriers and facilitators that health care providers experience when promoting physical activity to individuals with a mental illness<sup>3</sup>.

A behavioural analysis driven by theory was used in both reviews to determine behaviour change strategies. This was done using the Theoretical Domains Framework<sup>4</sup>, and the Behaviour Change Wheel to determine behaviour change strategies to be included in the toolkit<sup>5,6</sup>.

### Phase 2 | Formative Research

Interviews were conducted with adults diagnosed with depression in Canada and health care providers with experience working with adults with depression in Canada.

### Phase 3 | Expert panel meeting

A multidisciplinary panel of adults with lived experience with depression, health care providers, exercise specialists and researchers appraised the evidence from phase 1 & phase 2, and provided input to the content of the toolkit.

### Phase 4 | Development & Evaluation

Members of the expert panel were consulted to ensure that content and format recommendations were appropriately addressed. Pilot work was conducted with clients and health care providers to evaluate the toolkit.

## Using the Toolkit

Below is a description of what is included on each page of the 'Collaboration' part of the toolkit, and how it can be used with your client. Clearance by a physician may be needed prior to starting an exercise program. A physician should be consulted if your client wants to replace any current treatment with exercise. If you are unsure if a physician needs to be consulted, you can use the *Get Active Questionnaire* to help inform your decision (link provided on the last page of this document).

### page 1 **Why Exercise?**

This page should be used to discuss treatment options with a client, and what personal factors to consider when choosing a treatment. It provides information on why exercise can be considered, benefits of engaging in exercise and facts about its effectiveness. Exercise should be considered in light of other treatment options. The CHOICE-D document provides information about these options<sup>7</sup>. While the exact mechanism on how exercise works for depression is unknown, some prominent theories about possible mechanisms are presented.

### page 2 **How are exercise and depression related?**

This page should be used to have a conversation with a client about their personal current and past experiences related to their depression and activity levels. Two cycles are provided as an educational tool to use with a client.

When using the cycle model, describe to the client that inactivity can lead to depression, and depression can lead to inactivity. But it is possible to break up this cycle by increasing physical activity which can lead to improved mood, and engagement in other meaningful activities. Prompts are provided above the cycles on how this can be explained to a client.

The aim is for the client to reverse inactivity, experience the "feel good" factor when engaging in exercise, and turn the cycle to an upward cycle out of their feelings of depression.

These cycles are included as a critical piece based on the behavioural analysis driven by theory. Using the cycles provides information about emotional and mood consequences of engaging in the behaviour of exercise. This is a recommended behaviour change technique to help adults with depression overcome barriers<sup>2</sup>.

### page 3 **CANMAT guidelines at a glance**

This page provides more details on the guidelines, and how much exercise is recommended. The level of evidence from the CANMAT guideline is provided, as well as the evidence based 'dose' of how much exercise is recommended as a treatment for depression. Evidence is strongest for supervised and structured exercise as this may help with adherence.

You as the clinician may need to orient yourself to available exercise programs in your area that are accessible to your client(s) since this varies by province and city. Suggestions for a starting point include contacting your local gym (e.g. community centre or YMCA) or Canadian Mental Health Association to find out about physical activity and exercise programs. The YMCA and CMHA are national associations in Canada. Other resources are provided for use such as Additional Supplementary Material, and the Canadian Physical Activity Guidelines.

### page 4 **Moving More**

This page should be used to help a client identify their own personal concerns and barriers to engaging in exercise. A list is provided as a starting point and clients could identify how they relate to this list or identify other barriers. Strategies (or actions clients can take) are also provided as suggestions for clients to help overcome barriers. This is not meant to be prescriptive. The thought of exercise can be daunting to start, especially when mood is low. Empathy, respect and a person-centered approach are recommended.

The toolkit ends with a collaborative decision between clinician and client to try exercise as a treatment option for depression. Three end points to the toolkit are provided:

1. Referral to an exercise program
2. Further physical activity counselling to help someone move more (by the clinician using the toolkit or referral to another clinician for same)
3. Asking clients to think more about whether they would like to be more active, and revisit this issue at a later date

## Action Materials

Extra resources are provided as handouts that can be given to clients to help them develop the self-regulatory skills (e.g., monitoring, planning) to increase their activity. These handouts are based on the behavioural analysis and recommended behaviour change techniques<sup>5</sup>. These handouts could be given to clients as desired with an explanation from you on how to use them. Short instructions on their use and tips for success are included in each handout. This is supplementary and can be used at your discretion. Included handouts:

1. **Mood and Activity Diary:** A mood and activity diary can be used to track activity levels, and reflect on how it impacts mood. This can be used by a client as a self-reflective tool or as a collaborative tool to discuss with your client after they fill it out.
2. **SMART goal setting:** This describes SMART goal setting and how to set goals.
3. **Weekly Schedule:** This provides two examples of weekly schedules of exercise to achieve the CANMAT recommended 'dose'. A blank one is also provided for a client to use to fill out and plan their week related to exercise.
4. **Individuals with lived experience:** Quotes are provided from real people in Canada with lived experience with depression and exercise. These can be given to clients for them to relate to and highlight positive experiences with exercise.
5. **Positive statements and behavioural contract:** This can be used to show examples of positive statements about committing to engaging in exercise. Blank space is provided for clients to create their own statements. A date and signature can also be added for your client to make a contract with themselves.

## Acknowledgements

### PROJECT LEADS

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### NATIONAL RESOURCES

Get Active Questionnaire  
[http://www.csep.ca/CMFiles/GAQ\\_CSEPPATHReadinessForm\\_2pages.pdf](http://www.csep.ca/CMFiles/GAQ_CSEPPATHReadinessForm_2pages.pdf)

Canadian Physical Activity Guidelines  
<http://csep.ca/en/guidelines/guidelines-other-languages>

If links not available:  
<http://csep.ca/home>

# Why exercise?

There are 3 primary treatments recommended for mild-moderate depression.

## Some things to consider when choosing a treatment:

- The severity of depression
- Preferences & past experiences with treatments
- The availability & cost of treatments where you live
- Special circumstances such as pregnancy
- Consult the CHOICE-D patient and family guide to find out more about different treatment options



## Anti-Depressant Medication



## Exercise

*may be right for you if...*



You have a mild-to-moderate case of depression or low mood  
You have concerns about side-effects of medication  
If psychotherapy is not easily accessible (cost, long wait times, remote location)



## Psychotherapy

### Benefits of exercise may include



Improved mood & energy



Reduced stress



Social benefits



No negative side-effects



Improved sleep



Reduced risk of diabetes & heart disease

### The Facts

- CANMAT guidelines recommend exercise as a primary treatment for mild-moderate depression
- Exercise is as effective as medication or psychotherapy
- Exercise is low risk

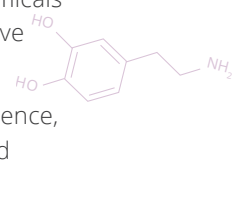


### How does exercise help?

### Potential mechanisms include

**Biological:** Increases in serotonin and dopamine—neurotransmitters or “feel-good” brain chemicals that are released while being physically active

**Psychological:** Increases feelings of confidence, self-esteem and sense of control over mood



Which of the benefits (if any) of exercise are **important** to you?  
How can these important benefits be used as **motivation** for you?

Answer highlights: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

# How are exercise and depression related?



How much physical activity or exercise do you currently do?

Was there a time in your past you were more active?

Have you become less active since you started experiencing feelings of depression?

Answer highlights: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_



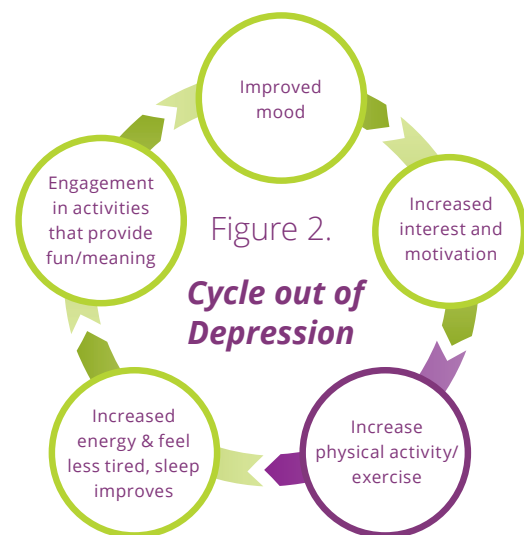
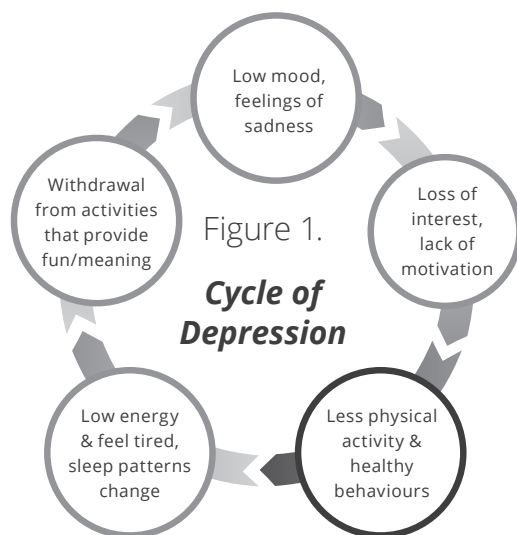
Physical inactivity and withdrawal from enjoyable activities can lead to depression, and depression can lead to more inactivity and withdrawal. It can become a difficult cycle to get out of.



Changing one thing can help to break up this cycle. Increasing physical activity can help to improve your mood and make you feel better and start engaging in other enjoyable activities.



Increasing physical activity could help to start a new positive cycle out of feelings of depression.



How can you relate to the mood cycle above?

Where do you feel you currently fit in the mood cycle?

Answer highlights: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

**CANMAT recommends exercise as a monotherapy (stand-alone treatment) for adults aged 18-65 with mild-moderate Major Depressive Disorder (MDD).**

**Exercise can also be combined with other treatments.**

## GLOSSARY OF TERMS

### Exercise

structured & planned activity done to improve or maintain fitness/health

*\*To treat depression*

### Physical activity

any movement that requires energy expenditure

*\*May provide other health benefits*

### Moderate Intensity

causes heart rate and breathing to increase

### Supervised

With an instructor or exercise specialist



A structured and supervised exercise program is ideal, but this may not always be possible. Actions that can be taken to help increase physical activity are provided as supplementary materials to this toolkit.

## What is the evidence?

The evidence to support recommendations is rated as



### Level 1

Evidence from randomized controlled trials plus clinical support from experts

## What is the evidence-based 'dose' of exercise?



30 minutes

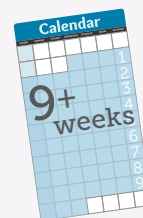


### Moderate intensity

(e.g., walking as if late for a meeting)



2-3 times per week



### A minimum of 9 weeks

but this should be maintained over time

**Structured and Supervised**  
to help with adherence





# Moving More



THE EXERCISE AND DEPRESSION TOOLKIT

page 4

## Common Concerns



## Actions

**1** These symbols refer to additional supplementary material handouts.

- Use a Mood and Activity Diary to record how you feel (mood & energy levels) before/during/after exercise **1**
- Set SMART goals, & celebrate all accomplishments in your journey **2**
- Try different types of exercise to find what you personally enjoy
- Try exercise that does not cost money such as hiking, walking, running, cycling or gardening
- Make a plan for what exercise or physical activity you will do next week **3**
- Determine if you have coverage under extended health benefits for sessions with an exercise professional, or find a local supervised exercise program at low cost with the help of your health care provider
- List any positive benefits you see when others you know have done exercise, or that you see in yourself when you engage in exercise **4**
- Repeat positive statements about exercise and make a commitment to yourself to engage in exercise **5**
- Bring a friend/spouse/partner/health care worker to exercise with you & help with accountability
- Spend time with people who support your decision to exercise and your journey



What are your greatest **concerns**?  
Circle them or list others below:

What **actions** could help you?  
Circle them or list others below:

### What is the best fit at this time?

☐ Referral to an exercise program:

Program Details:

☐ Engage in Physical Activity Counselling  
with a health care provider (HCP)

Date of follow-up:

OR Referral to other HCP:

☐ Think about exercise further  
and discuss at a later date

Date of follow-up:



# Mood and Activity Diary

**This diary can be used to track your physical activity and exercise, as well as your mood.** This can then be reflected upon by yourself, or in collaboration with someone you trust such as a health care provider. It can be helpful to see if activity has an immediate impact on your mood, and to see what different types of activity you are currently doing to build upon.

Try completing this diary for a week. Track all physical activity & exercise in your day. Also track your mood before and after activity, and on days that you do not do any activity.

**Example Activity:** Walked the dog in Pacific Spirit Park. **Time**—10am. **Duration**—45minutes. **Intensity**—moderate. It may also be helpful to make notes about whether you enjoyed this activity or not.

**For intensity:** consider *light* (some effort required, heart rate and breathing may increase slightly), *moderate* (effort required, heart rate and breathing increases) and *vigorous* (a high amount of effort required, out of breath, sweating) levels.

**For your mood:** use a scale of 1-10. 1 being extremely low mood, and 10 extremely high or good mood. It can also help to make any notes about your energy levels.

	SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
 Mood Before							
 Activity							
 Time							
 Duration							
 Intensity							
 Mood After							



- This can be left in a place that you will see every day as a reminder to fill it out (e.g. put it on your fridge, or on your night table)
- Choose a place that you will see often
- Ideally you can fill it out throughout the day, but if you are not able to do this try filling it out at the same time each day (e.g. every evening before you go to bed reflect on your day and complete the diary)

# SMART Goal Setting

**Setting goals is important for any behaviour.** This helps you to track progress, and reflect on what helps you achieve what you want. SMART goal setting is a technique to help set goals that you can achieve, and to help guide your goal setting related to physical activity and exercise.

**S Specific:** Be clear and definitive in what you want to achieve, rather than vague. For example, saying you want to “move more” in a week is not specific. Saying that you want to attend two fitness classes with a trainer for 30 minute sessions in a week is.

**M Measureable:** You should be able to track whether you have met your goals or not.

**A Action Oriented:** Your goals should be set around actions and behaviours that you can control, rather than thoughts and feelings. Goals should also be adjustable, so you can make changes as necessary with your progress.

**R Realistic:** Your goals should be realistic and attainable. This will be different for each person, and should be set around where you are at right now and what is manageable. Your current fitness and activity levels should be considered when setting a realistic goal.

**T Timely:** Your goal should have a time frame for when you hope to achieve it by, or an end date. Committing to a deadline can help you stay focused and on track.

## Examples of SMART goals



*I will attend two 30 minute aerobic fitness classes at my community centre in the next week.*



*I will go for one 30 minute walk around my neighborhood and one 30 minute bike ride every week for one month.*

### My goal(s) for the week:

### My goal(s) for the month:



- This can be left in a place where you will see it every day as a reminder and for motivation (e.g. put it on your fridge, or on your night table)
- Choose a place that you will see often
- You can share it with family, friends or a health care provider to help keep you accountable
- Reward yourself when you achieve your goals (e.g. go to your favourite restaurant, do something that relaxes you like take a bath or watch your favourite TV show/movie, get yourself new exercise clothes)
- Once you achieve your goals, go through the process again and set new ones

# Weekly Schedule

**It can be helpful to make an action plan for what physical activity and exercise you want to do in a week.**

It can be helpful to schedule it into your calendar to help with accountability, and to help you plan your day accordingly.

There are many different ways you can achieve the CANMAT recommended 'dose'. The best 'dose' is individual. Choose what you enjoy and will do! Below are two different examples of weekly schedules.

You should create yours based on where your activity levels are at now. For example, if you are currently not active, plan to start with one activity per week such as a brisk walk.



## Example Schedule 1: Less structured or supervised

SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
	Brisk walk 20-30 mins 1pm			Aerobics class 45 mins at community centre 6pm		Bike ride 45 mins 3pm



## Example Schedule 2: More structured or supervised

SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
	Group fitness class 1 hour with personal trainer 1pm		Group fitness class 1 hour with personal trainer 1pm			Swim laps 30 mins 12pm

## Your Planned Schedule:

	SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
Activity Type							
Duration							
Time of Day							



- This should be used for planning your weekly schedule *ahead of time*
- The Mood and Activity Diary (handout #2) can then be used to record what activities you do, and how you feel after them

**When creating this toolkit, we spoke to Canadians with lived experience with depression.**

Below are quotes from some of these adults about their experiences with physical activity and exercise. These can be used for motivation, or to help you relate to others who have experienced depression.

Exercise for me personally brought me out of depression—**exercise by itself.** I believe in it.

*Male, age 49*

I think exercise is a great way to help with depression. I find getting out and getting light, and I guess meditating, and the fresh air helps.

And once you get out, you just feel better that you've done something worth feeling better, almost better than medication in a lot of ways. I would just use it alone as a treatment for depression. I find that medication has a lot of poor side effects and it's not easy to take every day for a lot of people including myself.

*Female, age 33*

I was teaching a class at a college and they [an exercise specialist] suggested I could walk part way or walk home and when I did that, I felt wonderful.

I prefer that method [exercise] of dealing with depression. I think it's wonderful, because it's good for your mind, it's good for your body, it's good for your everything. It helps you have a better attitude. I think it should be used more. And I'm really happy to hear that they're talking about this to treat depression. Because I know I definitely feel better after I exercise.

*Female, age 64*

I think exercise is a key to... alleviating depression and getting people feeling better if it is done over a long term."

*Female, age 56*

When I did exercise I noticed I was improving my health and everything. Just everything that I would do, activities. I was just better in my life. It helped me out. Not being lazy. It just got me out it—of my mood.

[Exercise improves] sleep, and my mood and just makes me think clearly. It helps me out because I noticed when I didn't play soccer or I didn't do any exercise I tend to fall back to that depression.

*Male, age 32*



- This can help you start thinking about exercise and how it might fit into your life
- Consider if you have had any similar positive experiences with exercise or physical activity
- List any positive benefits you see when others you know have done exercise or that you see in yourself when you engage in exercise

# Positive Statements

**Making positive statements and repeating them to yourself about engaging in physical activity and exercise can help you avoid negative thinking and thoughts around “I can’t...”.** This is a great opportunity to reinforce your SMART goals and your action plan.

Example statements:

*I will try one group class at my local community centre and one walk next week to see what type of exercise I prefer.*

*I am committed to going for a walk, and going to one group fitness class at the YMCA weekly.*

*I am strongly committed to swimming laps once weekly, and going for a bike ride twice weekly for the next six weeks.*

Write your own positive statements related to physical activity or exercise in the blank space provided below. Treat this as a commitment to yourself and sign and date it. This can help to motivate you and remind you of what you want to achieve.

## Positive Statement #1:

## Positive Statement #2:

Date: \_\_\_\_\_

Name: \_\_\_\_\_

Signature: \_\_\_\_\_



- Repeat the statements to yourself at the same time every day (e.g. when you wake up in the morning or before going to bed)
- Using “I” statements and other strong words like “strongly” “will” and “commit” can help
- This can be kept for yourself, and put in a safe place at home or work
- This can also be given to someone you trust such as a friend, partner or health care provider to help you stay committed