

Diabetes Management: Active Living 101

Session Five
Diabetes 101 Education Series

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and Certified Diabetes Educator**



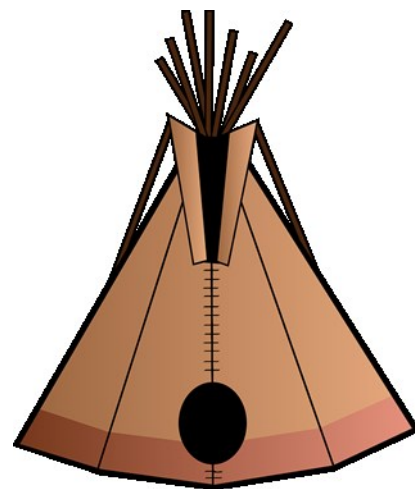
Outline

- What is diabetes prevention and management?
- What does active living mean?
- Why is active living important in diabetes?
- Types of exercise
- What gets in the way of people being active?
- How can I support someone living with diabetes?
- Where can I get more information?
- Questions
- Evaluation

Are Prevention and Management Different?

- In diabetes, the steps you take to prevent diabetes are the same steps you take to manage diabetes.
- This idea is helpful when you plan programs and/or talk to clients
- The basics of diabetes prevention and management are: Nutrition, Active Living and Medications.
- Culture is at the core of prevention and management.

Medications



Nutrition

Active Living

How Effective is Diabetes Management?

Nutrition



A1C by 1 – 2%

Active Living



A1C by 0.4 – 0.9%

Medications

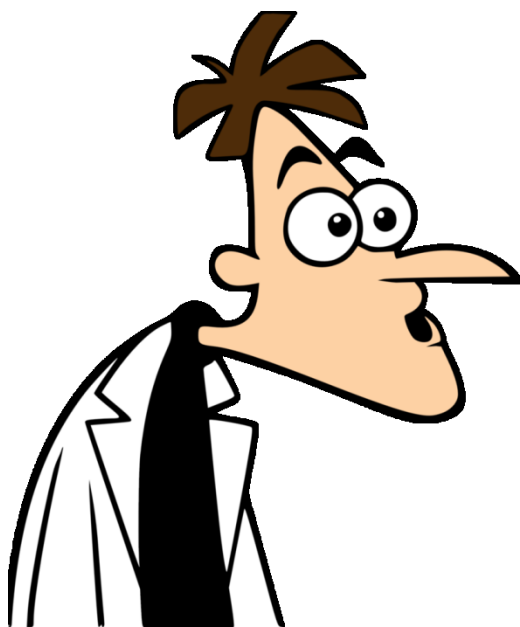


A1C by 0.5 – 1.5%

ABCDE³ of Diabetes Care

		Target
A	A1C targets	Less than or equal to 7.0%
B	BP targets	Less than or equal to 130/80
C	Cholesterol targets	LDL-C less than 2.0 mmol/l
D	Drugs to protect the heart	BP meds, statin, ASA, SGLT2
E	Exercise goals and healthy Eating	150 minutes moderate aerobic activity plus resistance 2-3 times weekly; follow healthy diet pattern
S	Screening for Complications	Heart, Foot, Kidney, Eyes
S	Smoking Cessation	Ask permission to give advice
S	Self-management	Set personalized goals

Would you take this medication?



BENEFITS:

- ✓ Better health
- ✓ Better self-esteem
- ✓ More energy
- ✓ Reduced stress

SIDE EFFECTS (REDUCED risk of):

- ✓ Heart disease
- ✓ Diabetes
- ✓ Obesity
- ✓ High blood pressure
- ✓ Osteoporosis

What is Active Living?

Active Living can also be called Physical Activity. Important for everyone!

Active Living is moving your body and muscles everyday.



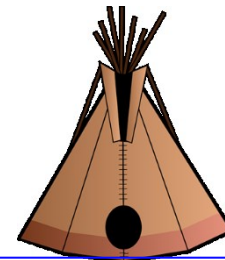
Sports: competitive activities that follow a set of rules

Exercise: planned, structured activities that improve health and/or fitness

Activities of Daily Living: activities of self-care, housework, at work, travel

Traditional: hunting, gathering, fishing, dancing, snowshoeing, canoeing

Why is Active Living so important?



Nutrition and Active Living

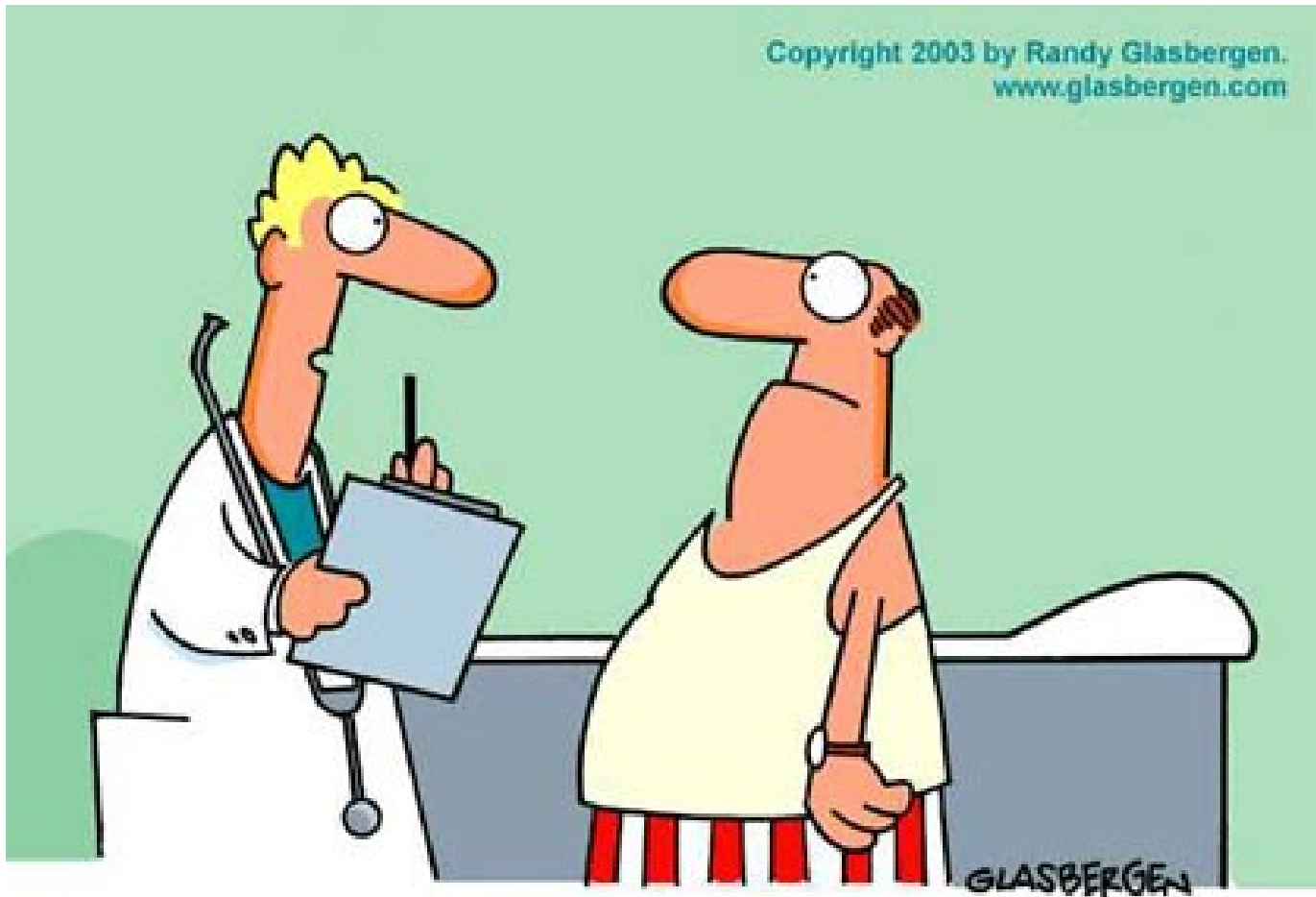
- Active living is important for health. Along with nutrition, active living creates the solid ground for our health.
- The lack of activity is a leading risk factor for type 2 diabetes.
- Sedentary behaviours like sitting at a desk, watching TV on the couch and driving are linked to adverse health outcomes like poor heart health and early death.

Two things to consider for improved health:

1. Increasing the amount of physical activity that happens each day.
2. Reducing the time spent in sedentary behaviours each day.

Both of these are important to your health!

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www.glasbergen.com



“What fits your busy schedule better, exercising one hour a day or being dead 24 hours a day?”

A bit about history

The human body is designed to move.



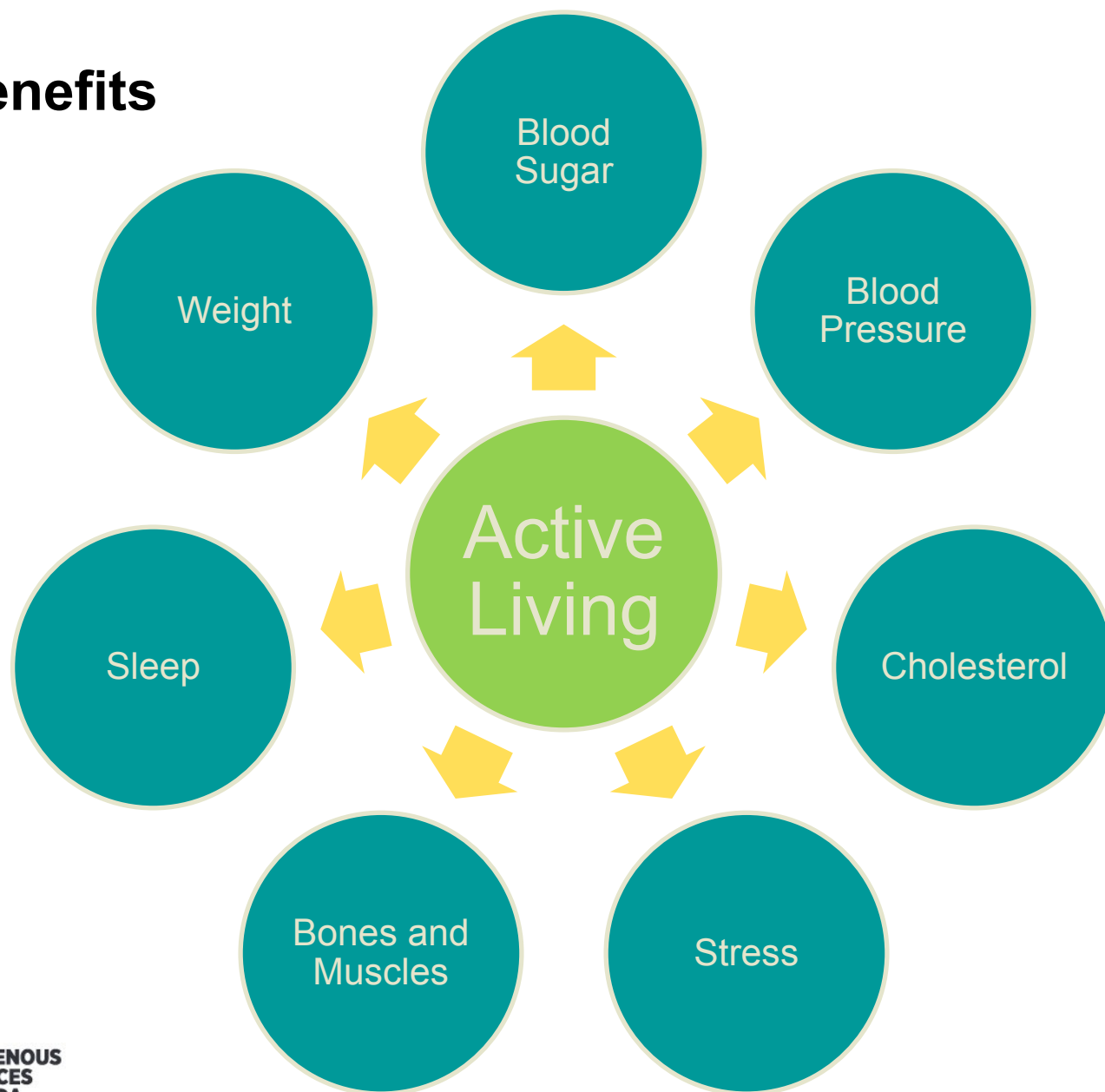
Long ago, hunters would have walked between **20 and 50 km a week**

People gathering foods and medicines would have walked **9 -15 km a day**

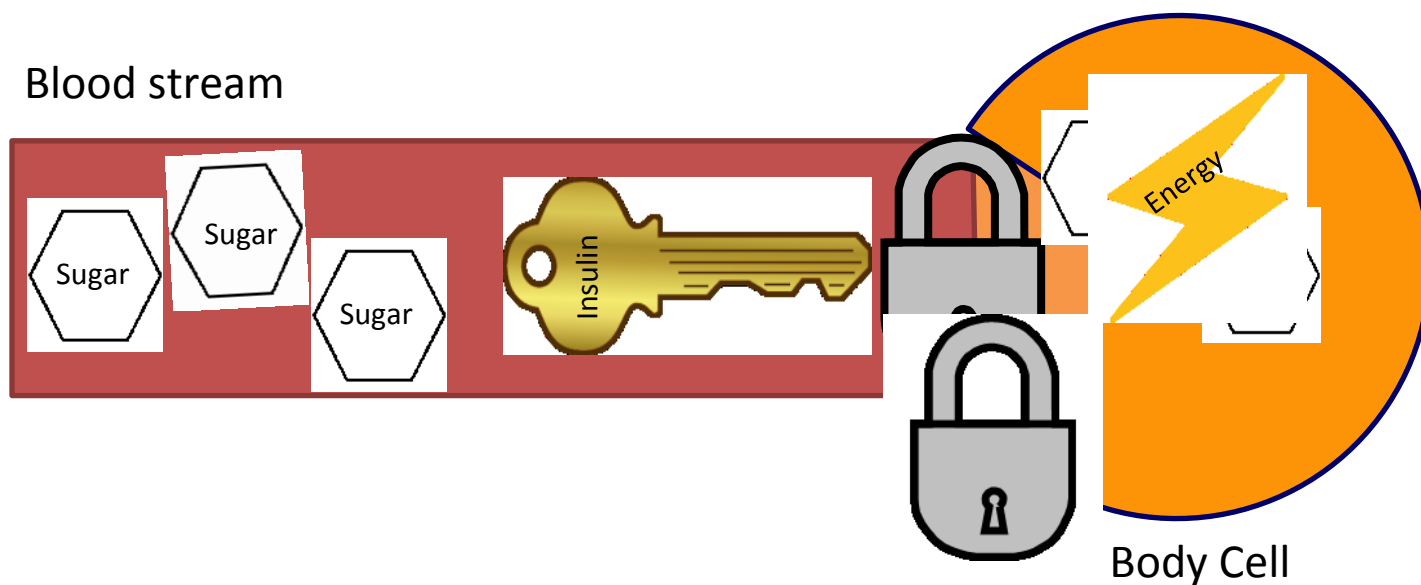
And it took a huge amount of physical work to preserve the food.

This would mean people were active **8-10 hours each day!**

Health Benefits



How does activity help diabetes?



Active Living is the most UNDERUSED diabetes prevention and management tool!

Types of Exercise - Aerobic

- Aerobic exercise is the continuous, rhythmic and repeated movements of large muscle groups for at least 10 minutes at a time.

Effort	Examples	Heart Rate	Breathing	Both heart rate and breathing
Light	Casual walking, most housework, light gardening	Mild increase	Mild increase	No
Moderate	Brisk walking, swimming lanes, raking leaves, social dancing	Increased	Increased	No
Vigorous	Jogging, hockey, fast dancing, fast swimming	Drastic increase	Drastic increase	Yes

Types of Exercise - Resistance

- Resistance exercise is movements involving brief, repetitive exercises with weights, weight machines, resistance bands or your own weight to increase muscle strength or endurance.

Effort	Examples	Heart Rate	Breathing	Both heart rate and breathing
Low	Resistance bands	Mild increase	Mild increase	No
Moderate	Dumbbells	Increased	Increased	No
Vigorous	High intensity circuit training	Drastic increase	Drastic increase	Yes

Types of Exercise – Interval Training

- The latest Clinical Practice Guidelines talk about the importance of interval training.
- This means alternating between higher-intensity and lower-intensity activities in the same session.
- This type of activity helps people increase their physical fitness more and may help improve blood sugars better than continuous moderate-intensity exercise.
- An easy example would be for someone to walk briskly for 3 minutes and walk more slowly for 3 minutes.
- Once people have built up their fitness levels, it could be running as quickly as possible for 30 seconds and walking slowly for 90 seconds.



Recommendations for Activity

Both Aerobic and Resistance exercise are important for people living with diabetes!

Aerobic Exercise: Try to get **at least 150 minutes** of moderate to vigorous aerobic activities each week. This could be 30 minutes a day on 5 days.



Resistance Exercise: Try to do resistance training **2-3 times a week**. If this is new for you, consult with a trained exercise specialist.



If 30 minutes at once is too much, you can break it down into **10 minute blocks**. Moving your body any way you can is important.

Recommendations to reduce being sedentary

Prolonged sitting is harmful to your health!

Prolonged sitting includes driving, at work, and at home. And we all do it.

Try to take a break from sitting every 20-30 minutes.

Stand up at your desk. Set an alarm if you need to.

Go for a small walk.

Shake your legs.

Stand up for one item in a meeting.

Watch part of the videoconference standing up.

Add a standing activity to your workshop.

Get a drink of water.



Step Counting

- Can be helpful as a tracking tool for people, especially when starting out.
- No matter where you start, the goal is to increase the number of steps you take in a day over the course of a year.

Smarter Step Count Prescription

Health-Care Provider Guidelines				
Suggest step count increments at each clinic visit to reach goal (an increase of 3,000 steps per day above the baseline step count within 1 year).				
Steps per day at baseline	Clinic Visit 1 (0 months)	Clinic Visit 2 (3 months)	Clinic Visit 3 (6 months)	Clinic Visit 4 (9 months)
<5,000	+500	+750	+750	+1,000
5,000-7,499	+750	+1,000	+1,250	
≥7,500	+1,000/+2,000	+1,000		
Start Date:				
Patient's Name:				
Baseline Step Count: Clinic Visit Number:		Recommended Step Count: Start Date for Step Increase:		



Resources

Diabetes Canada - 5 brochures to help begin being active PLUS 4 videos to help people start simple resistance exercises.



Barriers to Being Active

- There are too many dogs
- I don't like sports
- I wouldn't know where to start
- I can't get to town
- I don't have time
- People will laugh at me
- I can't afford it
- I don't have anyone to work out with
- My feet are too sore
- These pills are taking care of me – I don't need to be active
- I work hard – I deserve to rest
- My blood sugars go too low
- I don't have any equipment
- I don't...
- I can't...
- I won't...



Activity and Checking Blood Sugar - Before

Self-monitoring of Blood Glucose (SMBG)

It is important to know what your blood sugar is before you start. This is about safety.

Before you start: less than **5.6 mmol/l** – **too low**

Before you start: **5.6 – 13.9 mmol/l** - **just right**

Before you start: more than **13.9 mmol/l** - **too high**



Too low? Eat 15 grams of quick carbohydrates. Wait 15 minutes and check again.

Too high? Drink water. Reflect on why your blood sugar might be high.

Activity and Checking Blood Sugar – During and After

Self-monitoring of Blood Glucose (SMBG)

The only way you will know what activity is doing for you is to check your blood sugar.

It is important to know what your blood sugar is during and after exercise. This is about safety.

During Activity: Check every 30 minutes.

After Activity: Check when you finish your activity. Check 2-3 times over the next 2 hours.

Watch for signs of low blood sugar (dizzy, headache, feeling confused).

If you blood sugar is ever **less than 4.0 mmol/l**: STOP and treat for hypoglycemia.



Reminder: Treatment of Hypoglycemia



For mild-to-moderate hypoglycemia, take 15 g of carbohydrate:

- 15 g of glucose in the form of glucose tablets
- 15 mL (3 teaspoons) or 3 packets of table sugar dissolved in water
- 5 cubes of sugar
- 150 mL of juice or regular soft drink
- 6 Life Savers™ (1 = 2.5 g of carbohydrate)
- 15 mL (1 tablespoon) of honey



Test blood sugars again in 15 minutes. If they are higher than 4.0 mmol/l, follow up with a snack if you are more than an hour away from a meal.

If the blood sugars are still less than 4.0 mmol/l, retreat with another 15 g of carbohydrate, wait 15 minutes and retest.

Safety Tips

- ✓ Be active one to two hours after you eat. This will help your body use the food you just ate.
- ✓ If it is longer than 2 hours since you ate, eat a small snack before you are active.
- ✓ Do NOT be active right after you take insulin.
- ✓ Avoid being active right before bed or late in the evening. This will help you avoid a low blood sugar while you sleep.
- ✓ Carry a source of fast acting carbohydrate with you when you are active.
- ✓ Take good care of your feet. Wear shoes that fit and check your feet daily.
- ✓ Drink water before, during and after exercise.
- ✓ Listen to your body and rest when you need to.

Helping people make changes – Decisional Balance

Decisional Balance – Weighing the Pros and Cons of Changing (or Not Changing) Behavior			
The change I'm thinking of making is:			
STEP 1: Consider staying the same	PROS of staying the SAME:	How big a deal is it? 1 = not such a big deal 10 = big deal!	CONS of staying the SAME:
	How big a deal is it? 1 = not such a big deal 10 = big deal!	How big a deal is it? 1 = not such a big deal 10 = big deal!	How big a deal is it? 1 = not such a big deal 10 = big deal!
STEP 2: Consider making the change	CONS of making a CHANGE:	How big a deal is it? 1 = not such a big deal 10 = big deal!	PROS of making a CHANGE:
	How big a deal is it? 1 = not such a big deal 10 = big deal!	How big a deal is it? 1 = not such a big deal 10 = big deal!	How big a deal is it? 1 = not such a big deal 10 = big deal!
STEP 3: Add			
STEP 4: Compare	Which number is bigger?	 If this number is bigger, the balance is leaning towards STAYING THE SAME.	 If this number is bigger, the balance is leaning towards MAKING A CHANGE.



Helping people set goals – I want to be more active

Here are three quick questions that can help people meet their goals:

1. How **important** is it for you to <insert self-management goal> - low, medium, or high?

(Goal examples: increase levels of physical activity, reduce weight, improve A1C, lower BP)

If importance (motivation) is rated low, ask what would need to happen for importance to go up?

A high level of importance will indicate that the person is ready to change.

2. How **confident** are you in your ability to <insert target outcome here> - low, medium, or high?

If their confidence is rated low, explore what needs to happen to increase their confidence. Usually this has to do with improving knowledge, skills or resources and support.

A high level of confidence indicates that the person is ready to change.

3. Can we set a **specific** goal for you to try before the next time we meet? What steps will **you** take to achieve it? Think SMART goals: Specific, Measurable, Achievable, Realistic (or relevant) and with a Time Frame.

What Activities help Address the Barriers?

- Walking program (indoors, outdoors or a combination)
 - Schedule foot care clinic before a walking program starts
- Home Support Exercise Program
- Regular access to fitness equipment in health centre or school
- Building 10 minutes of activity into every workshop or class you offer
- Group activities for parents – offer babysitting
- Scheduled transportation to closest recreation centre
- Partnerships with school for extracurricular sports
- Traditional activities like berry/medicine picking and culture camps
- Be a role model – work out at work (lunch, breaks, after work)
- Partnerships within community to coordinate activities (NNADAP, MCH, CPNP, ADI, school, band office)

Resources

Alberta Centre for Active Living

www.centre4activeliving.ca

Northern Population resources:

- Deciding to take the first step
- Making a Physical Activity Plan
- Setting Goals for physical activity
- What stops you from being physically active?
- Physical activity and your blood pressure
- High blood pressure: how to stay safe
- Physical activity and Type 2 diabetes
- Diabetes: how to stay safe when active
- Healthy weight and physical activity

**PHYSICAL ACTIVITY
Counselling Toolkit**

**10
Resources for
Practitioners**

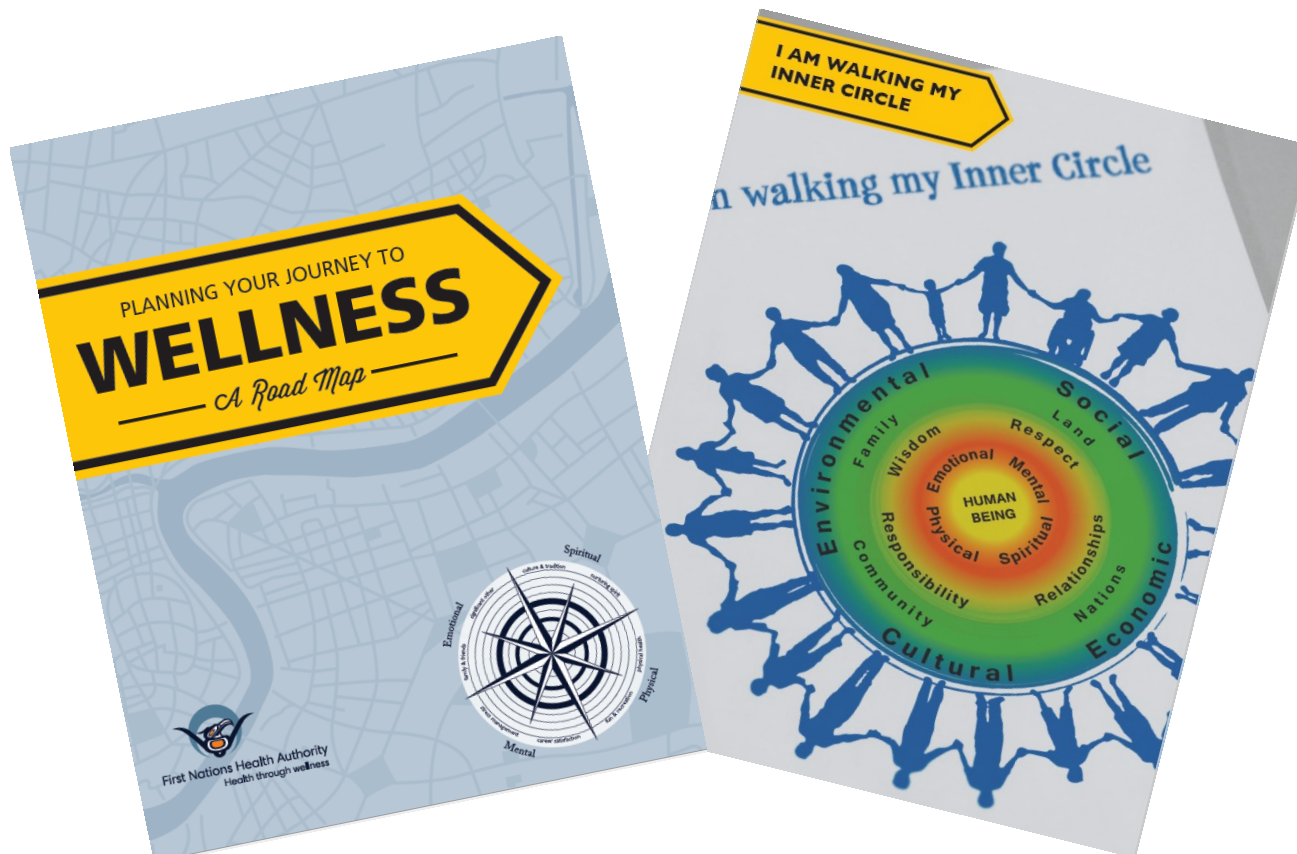
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Languages:**
English
French
Chinese
Korean
Punjabi
Spanish

**Plus
Northern
Territories**

Resources

First Nations Health Authority (BC): Wellness Map

http://www.fnha.ca/wellnessContent/Wellness/FNHA_Wellness_Map.pdf



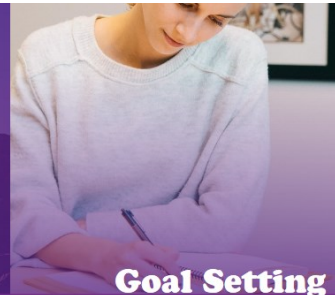
Resources

ParticipACTION – Get Started

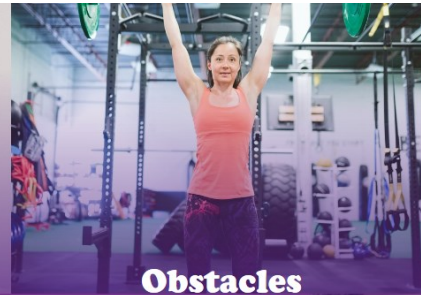
<https://www.participaction.com/en-ca/programs/get-started>

Motivation

Motivation has a way of disappearing. Defining your “why” can help you stay motivated to move.



Goal Setting



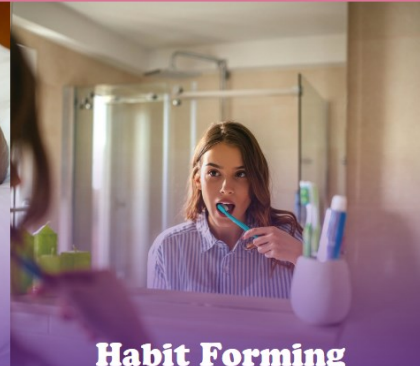
Obstacles



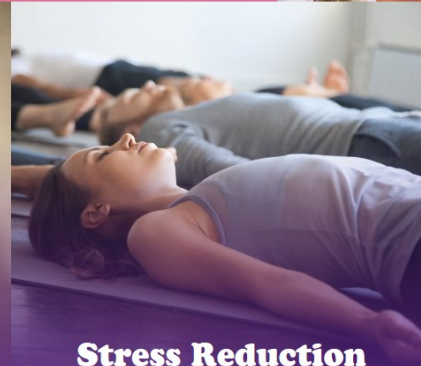
Tracking



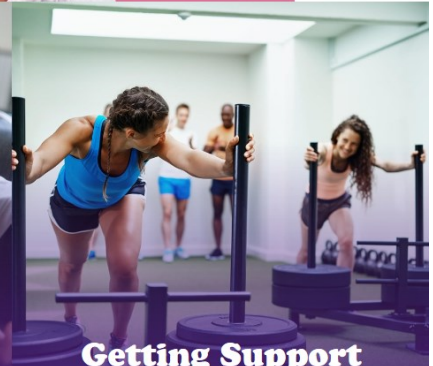
Better Sleep



Habit Forming



Stress Reduction

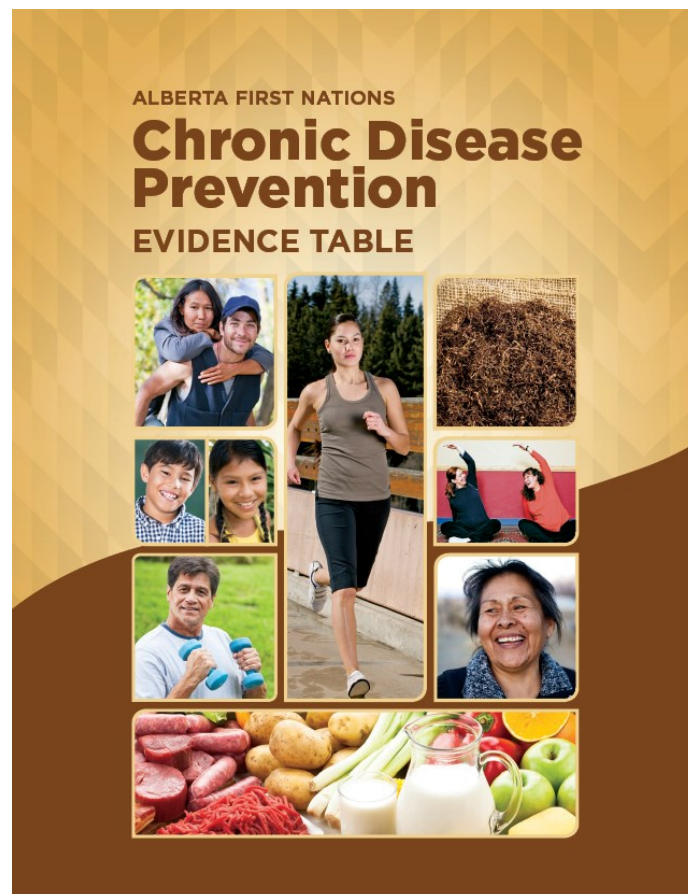


Getting Support

Resources

The First Nations Chronic Disease Evidence Table (2015) is very helpful to help plan activities related to nutrition, being active and stopping smoking.

Found on Onehealth on the Aboriginal Diabetes Initiative webpage.



Resources

Indigenous Physical Activity and Cultural Circle. <http://www.a-pacc.com/>



Home Team Players Sports & Rec Fitness Traditional Activities NIPAAW Research Support Events Contact Us

About Us

- About Us
- Vision
- Board of Directors
- Advisory Committee
- Staff, Volunteers, Employment
- IPACC National Declaration
- IPACC National Proclamation - NIPAAW



Welcome to the...

Indigenous Physical Activity and Cultural Circle (IPACC)

We are a network for Indigenous people who are involved in Sports, Recreation, Fitness and Traditional Activities. The IPACC mission is to create a community of mentors, leaders, participants, and supporters who promote physical activity as a way to health and wellness. Check out our site for news and updates posted below.

NIPAAW

Search...

Found under the Fitness tab:

<http://www.apacc.com/sites/default/files/docs/Aboriginal%20Community%20Warrior%20Program.pdf>

The Aboriginal Community Warrior™ (ACW) Program

With staggering rates of **Diabetes, Obesity, and Heart Disease** in Aboriginal Territories across Canada, we need to intervene **now** if we want our future generations to prosper as they are meant to. Native Way Training Services Inc. (NWTs) has combined **three valuable resources** in order to train First Nations, Inuit and Metis people to become fierce community health leaders who will have the skills to promote culturally centered health practices in a knowledgeable, safe and efficient manner.

If you care about your people and would like to be part of the solution, this exciting **6 day training** is for **YOU**!

Contact us: info@nativewaytrainingservices.com or Isabelle Aubé @ 613-858-2196

Overview of Diabetes 101 Series

- [What is Diabetes?](#) – January 23, 2019 – recorded
- [Diabetes Complications](#) – February 28, 2019 – recorded
- [History Plays a Part in our Health Today](#) – March 7 , 2019 – recorded
- [Diabetes Prevention and Management: Nutrition 101](#) – March 21, 2019 - recorded
- [Diabetes Prevention and Management: Physical Activity 101](#) – April 11, 2019
- [Meaningful Conversations](#) – April 25, 2019
- [Diabetes Prevention and Management: Medications 101](#) – May 9, 2019
- [Diabetes in Special Populations: Diabetes in Pregnancy](#) – May 23, 2019
- [Diabetes in Special Populations: Diabetes and Youth](#) – June 6, 2019

Questions?

Thank you for Watching Physical Activity 101!

- Please fill out the Attendance and Evaluation forms for your site. The forms can be found on www.fnfn.ca.
- This information helps us plan additional sessions or new series.
- Please send by fax to 780-495-7338 or scan and email to kathleen.gibson@canada.ca
- Join us on April 25, 2019 for Meaningful Conversations.

