



Newsletter

S U M M E R  2 0 1 9

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Current Events:

Do you have a story about diabetes that can help or encourage others? We would like to hear from you.

One of the most powerful tools in managing is information. Although our diabetes team can provide medical information, your lived experience is equally as powerful.

We are looking for people who would like to share their personal journey with diabetes. This could be about your difficulties and challenges or about successes and pleasant experiences living with diabetes. We welcome creativity so don't feel limited. We accept anything form of a poem to a story or any way you feel is appropriate for you to share. The purpose of this is to help other people living with diabetes feel supported, encouraged and most importantly not alone.

If you are interested please e-mail us up to 500 words by Sept 1st 2019. We will choose the top two pieces to be published in the diabetes newsletter and the Taddle Creek Family Health Team Newsletter (The Taddler). **The winners will also receive a \$75.00 grocery store gift card.**

E-mail jzupan@tcfht.on.ca by Sept 1st 2019 to submit your story. *Thank you.*

Diabetes 101:

HOW DOES STRESS EFFECT DIABETES?

The Short Answer

Stress can affect diabetes because it causes the body to produce hormones that increase your blood sugar.¹ It can also negatively affect sleep quality, food choices,² and exercise habits.¹ When living with diabetes, consider including mindfulness, social support, exercise, and counselling as tools to help cope with daily challenges.

What is the Stress Response?

Stress is a normal response when our bodies face situations we perceive as physically or mentally threatening. This includes short term stressors like driving a car for the first time, or long-lasting difficulties at work or within a marriage. When facing these circumstances, our internal system reacts by engaging its' fight-or-flight response. The body begins to produce hormones aimed at making as much energy as possible available to our muscles and brain to handle situation.¹ One way this happens is these hormones signal the liver to release its' sugar stores into the bloodstream where they are accessible. When the stress is short term, the extra sugar allows the muscles to work harder and the brain to think clearer.³

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Diabetes 101: Stress and Diabetes

Everyone experiences some stress. Stress is normal. Saying that, if you are finding yourself stressed out for an extended period of time with little control, you may be experiencing what's called chronic stress.¹ When you are living with type II diabetes, this can lead to high blood sugars. On top of the hormonal response, stress can also affect you:

- **SLEEP QUALITY**² • **EXERCISE HABITS**¹ • **FOOD CHOICES**²

Stress and Sleep Quality:

- Chronic stress can affect your ability to fall asleep, stay asleep throughout the night, and feel restored when you wake up.⁴
- Getting enough sleep is essential for our bodies to be able to regulate appetite, body weight,⁵ and immune function.⁶ Without it, these factors can result in high blood sugars and difficulty managing type II diabetes.

Stress and Exercise Habits:

- Both short- and long-term psychological stressors can make it challenging to exercise. When the body is under chronic stress, your muscles may be fatigued, your mind may be exhausted, and exercise may feel like yet another thing to put on the to-do list.
- The paradox is that exercise can be useful in stress management and also lowers blood sugars.

Stress and Food Choices:

- Long-term stress causes the release of cortisol, a hormone that increases appetite.⁷
- Stress may also result in cravings for foods high in sugar and fat. Once eaten, these "comfort foods" may help you feel at ease by reducing these stress hormones.⁷

STRATEGIES TO REDUCE MENTAL STRESS



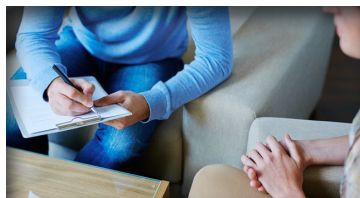
Mindfulness-Based Stress Reduction (MSBR). This is a form of therapy that aims at allowing the mind and body to be better connected. MSBR techniques include body-scan meditation, breathing techniques, yoga, and more; all aimed at developing better awareness. People observe their feelings and emotions in a non-judgmental way cultivating better recognition of their thoughts. This therapy has been shown to have positive effects on stress management and improved health outcomes.⁸



Social support. Keeping strong ties to friends, family, and the community reduce the amount of stress experienced daily. Moreover, when stressful situations do arise, these social ties give you someone to lean on. Some ways you can build your social support network are by reconnecting with old friends, joining a book club, or finding a local church or community organization.⁹



Exercise. Exercise has been shown to be beneficial for coping with stress. It reduces tension, anxiety, and even depression by sending signals throughout the body that help you feel calm and get a sense of accomplishment.¹⁰ Try going for walks daily or choosing any physical activity that you enjoy.



Counselling. Sometimes stress can be overwhelming. If you feel like you are unable to cope using the strategies discussed in this article, then it can be helpful to turn to a professional. A therapist can help with stress management by identifying healthy coping mechanisms and resources. Many therapists specialized in a variety of specific stressors, including marriage, grief, addiction, and more. For more information or to find a therapist see the resources below.

Resources:

Mindfulness-Based Stress Reduction phone apps: Headspace: www.headspace.com Calm: www.calm.com Smiling Mind: www.smilingmind.com.au/smiling-mind-app

Counselling: Taddle Creek Family Health Team, Single-session Drop-In Counseling Clinic: This is an OHIP covered counselling session that requires no appointment or referral.

Clinic Hours: Tuesdays at 1:15 pm – 3:15 pm at 726 Bloor Street West, Suite 207 or Fridays 9:00 am to noon at 790 Bay Street, Suite 306

Family Service Toronto, Walk-In Counselling: Free service offered **Clinic Hours:** Wednesdays 3:30-7:30 pm at 355 Church street

For remote counselling services, check out: www.warmline.ca/. Here you can chat online, text or call a Warm Line peer support worker.

Hours: Everyday 8:00 pm-Midnight **Text:** 647-557-5882 **Call:** 416-960-9276

References:

1. www.diabetes.org/living-with-diabetes/complications/mental-health/stress.html
2. www.heartandstroke.ca/-/media/pdf-files/canada/other/coping-with-stress-en.ashx
3. www.ncbi.nlm.nih.gov/articles/PMC3672537/
4. www.ncbi.nlm.nih.gov/articles/PMC1933584/
5. www.sleepfoundation.org/articles/connection-between-sleep-and-overeating

6. www.sleepfoundation.org/articles/how-sleep-affects-your-immunity
7. www.health.harvard.edu/staying-healthy/why-stress-causes-people-to-overeat
8. www.ncbi.nlm.nih.gov.ezproxy.lib.ryerson.ca/pmc/articles/PMC2909138/
9. www.mayoclinic.org/healthy-lifestyle/stress-management/in-depth/social-support/art-20044445
10. www.heart.org/en/healthy-living/healthy-lifestyle/stress-management/working-out-to-relieve-stress



WHAT IS SOLUBLE FIBRE?

More than one type of fibre?

Fibre is a component of food that the body cannot digest; it passes through the gut intact. In the gut, fibre can act in two separate ways; if it is soluble it dissolves in water and can form a gel; if it is insoluble it cannot dissolve in water and moves straight through.¹

Why should you include soluble fibre in your diet?

- The gel-forming action of soluble fibre slows down the rate that sugar is absorbed into the bloodstream. This is useful because meals with lots of soluble fibre will help keep your blood sugar under control.²
- For an added benefit, it has a cholesterol-lowering effect as it binds to fat in the diet allowing you to eliminate it in stool.²
- Moreover, meals high in soluble fibre tend to be more filling and result in less food being eaten throughout the day.³

Is there a recommended amount of soluble fibre?

Currently, the recommendations do not differentiate between soluble and insoluble fibre. Health Canada recommends total daily fibre intake should be 38 grams for adult men and 25 grams for adult women.²

What foods have soluble fibre?

Soluble fibre can be found in a variety of foods, including legumes, grains, vegetables and fruit. The following table is a list of foods that stand out as particularly high in soluble fibre.

LEGUMES²	Black beans Lima Beans Navy Beans Tofu
GRAIN²	Psyllium fibre
VEGETABLES²	Brussels sprouts Sweet Potato
FRUIT²	Avocado Orange Figs

Take home message:

Soluble fibre is a central nutrient that should be included in every healthy diet as it helps with appetite,² blood sugar control,² and cholesterol levels.³ Find legumes, whole grains, vegetables and fruit that you enjoy and consider how you can include them in each meal.

References:

1. www.mayoclinic.org/healthy-lifestyle/nutrition-and-healthy-eating/in-depth/fiber/art-20043983
2. www.unlockfood.ca/en/Articles/Fibre/Facts-on-Soluble-Fibre.aspx
3. www.dietitians.ca/Downloads/Factsheets/Food-Sources-of-Soluble-Fibre.aspx



PLANT-BASED DIETS

What does it mean to eat plant-based?

Following a plant-based diet can have many meanings depending on whom you ask. For some, this might be a vegan diet where all animal products are completely excluded from the diet. Others have more flexible definitions and consider eggs, dairy, fish or even chicken under the umbrella of plant-based eating. While a single definition is difficult to pinpoint, here a plant-based diet describes food and nutrition practices that promote whole, plant-based foods and reduce or eliminate meat, dairy, eggs, refined grains, and processed foods. This diet is considered safe and appropriate by the Canadian Diabetes Association for people living with type II diabetes.¹

R E S E A R C H :

Type II Diabetes Prevention:

Plant-based diets have been consistently associated with lower instances of developing type II diabetes. In some populations, people following this dietary pattern had a 50% lower odds of developing type II diabetes.²

Type II Diabetes Management:

Several experiments have looked at people living with type II diabetes who ate either a plant-based diet or a standard diet recommended by health care workers. They found that after 12 weeks, people following a plant-based diet had a lower fasting blood sugar.²

Type II Diabetes Management:

One long-term study compared a plant-based diet to the healthy plate (including animal proteins). They found that people following plant-based diets had a greater reduction in A1c, LDL cholesterol, and total cholesterol. Furthermore, patients were more likely to have their dosages lowered for diabetes medications when following a plant-based diet.²

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If I want to go plant-based, what should I consider?

Long term studies suggest that following this dietary pattern is no more difficult than any other dietary changes recommended by health practitioners to manage diabetes. When surveyed, most participants were able to maintain the diet, enjoyed the food, and had no stronger cravings than on other diets.² However, if you are considering following this dietary pattern, there are a few nutrients that you need be mindful of.

Protein. When following a plant-based diet, you may be eliminating many high-protein foods and should be mindful of alternatives.³ Foods like red meat, chicken, and fish should be replaced with beans, nuts, and seeds.

Iron. Iron is a nutrient that is needed to develop healthy red blood cells. In the diet, there are two types of iron; heme-iron found in animal, and non-heme iron in plant sources. Our bodies are less efficient at absorbing non-heme iron in plants meaning a conscious effort must be made to consume more of these foods when following a plant-based diet.⁵ Luckily, many of the same foods that are high in protein are also high in iron, including tofu, tempeh, beans, and seeds.⁴ If you are considering following this diet, speak to a dietitian about strategies to ensure you will get enough iron from food sources.

Calcium. Dairy products are a significant component of the Canadian diet and a high source of calcium. While there are many benefits of dairy, its consumption is typically limited in a plant-based diet. Without it, careful dietary planning should be considered for optimal bone health. Include high calcium vegetable alternatives like calcium-set tofu, cabbage, white beans, almonds, bok choy and many other Chinese vegetables.⁴

Vitamin B12. This vitamin is essential for a variety of systems, including immune function and the formation of red blood cells. This nutrient is unique in that it is found almost exclusively in animal products.⁶ As a result, when following a plant-based diet, you should consult your family doctor and dietitian to determine if your B12 levels are adequate for optimal health. They may recommend a supplement to prevent any deficiencies.

Sample Plant-Based Plate



EXAMPLES OF HIGH PROTEIN PLANT-BASED FOODS

Food ⁴	Protein per 100 grams ⁴
Peanut Butter	24.5 g
Almonds	21 g
Tempeh	18 g
Tofu	17 g
Cashews	15 g
Chickpeas	9 g
Lentils	9 g
Kidney Beans	8.5 g
Black Beans	8 g

Bottom Line

A plant-based diet can be an excellent dietary choice to help prevent and manage type II diabetes. Research suggests that it can help with blood sugar control as well as blood cholesterol levels.² However, without careful planning, reducing or eliminating animal products could result in some deficiencies including protein, calcium, iron, and vitamin B12.³ Speak to your dietitian if you are considering or have started a plant-based diet for more information.

References:

1. <https://guidelines.diabetes.ca/docs/cpg/Ch11-Nutrition-Therapy.pdf>
2. <https://www.sciencedirect.com/science/article/abs/pii/S1499267115300186>
3. <http://www.unlockfood.ca/en/Articles/Vegetarian-and-Vegan-Diets/What-You-Need-to-Know-About-Following-a-Vegan-Eati.aspx>
4. <https://food-nutrition.canada.ca/cnf-fce/index-eng.jsp>
5. <https://www.dietitians.ca/Downloads/Factsheets/Food-Sources-of-Iron.aspx>
6. <https://www.dietitians.ca/getattachment/45413d68-0639-4ad6-8de6-10eb97556e5f/Factsheet-Food-Sources-of-Vitamin-B12.pdf.aspx>

Active Living:



RESISTANCE TRAINING FOR DIABETES

We've all heard it before; exercise will help control blood sugars. But what if you are already going for walks, biking, or playing basketball at the community center? Is there anything else that can be done to help manage type II diabetes? These types of exercises all fall into the same category, aerobic exercise. Aerobic exercise is all about getting your heart rate up so that your cardiovascular system gets a workout¹ It improves the bodies sensitivity to insulin, helps bring sugar from the blood into muscles, and improves a variety of health indicators.² But this is just one type of exercise and researchers have begun asking themselves: what if adding other exercise types can produce even larger benefits? With that, they started looking into resistance training; these are exercises that require your muscles to work against a force like weights or bands.

RESEARCH FINDINGS:

- When researchers investigated, they found that those who take part in resistance training saw a significant improvement in blood sugar control compared to those who do not resistance train. Furthermore, resistance training often led to the dose of diabetes medications being reduced.³
- Further studies compared those who resistance train and do aerobic exercise to those who only do aerobics. Amazingly, those who included both types of training found even greater improvements in blood sugar then aerobic exercise alone.⁴

RECOMMENDATIONS? Diabetes Canada recommends 150 minutes of aerobic exercise per week for adults living with type II diabetes. If you can achieve this level of physical activity, the science shows that you have already made a big step in managing or preventing diabetes. However, for an added benefit, Diabetes Canada also recommends that you aim to do resistance training two or more times per week.⁵

BENEFITS OF RESISTANCE TRAINING

- Reduces HbA1c (3-month blood sugar average)^{3,4,5}
- Increases strength⁶
- Maintains muscle mass in older adults⁶
- Improves bone density⁶

TIPS FOR GETTING STARTED

- **Speak to a professional.** Speak to your doctor and an exercise professional before starting any intense strength training program. Your doctor will confirm whether you are healthy enough to engage in these activities, and the exercise professional can teach you how to perform the exercises safely.
- **Equipment.** Consider what equipment you will need in order to perform strength exercises. If you choose to exercise at a gym, weights and cables can be used. For home exercises, resistance bands and your own body can be just as beneficial.
- **Know your limits.** If you are already doing aerobic training like walking, adding more exercise can be tough on the body. Consider including resistance training on days where you are not doing your aerobics to avoid excessive fatigue. Additionally, when doing these exercises for the first time, start slow and use lighter weights or less thick resistance bands. This will help you develop the correct form and prevent injuries.

Resources:

Paid Services: JCC Diabetes Fitness Program
Register at: <https://mnjcc.org/browse-by-interest/fitness/therapeutic-exercise/829-diabetes-fitness.html> or call (416) 924-6211 ext 0

Videos: Diabetes Canada: <https://www.diabetes.ca/managing-my-diabetes/tools---resources/resistance-exercise-videos>

References:

1. <https://www.mayoclinic.org/healthy-lifestyle/fitness/in-depth/aerobic-exercise/art-20045541>
2. <https://guidelines.diabetes.ca/cpg/chapter10>
3. <http://care.diabetesjournals.org/content/25/12/2335.short>
4. <https://annals.org/aim/fullarticle/736439>
5. <https://www.diabetes.ca/managing-my-diabetes/tools---resources/physical-activity>
6. <https://www.cancer.org/latest-news/five-benefits-of-strength-training.html>

Recipe

CORN TOMATO AVOCADO SALAD



4 servings

This is a perfect side dish for barbecue season.

INGREDIENTS

- corn kernels from 1 large steamed corn on the cobb, 1 cup
- 5 ounces diced avocado, from 1 medium
- 1 ¹/₂ cup diced Persian cucumbers, about 3 small
- 1 cup halved cherry tomatoes
- 2 tablespoons diced red onion
- 2 teaspoons extra virgin olive oil
- 2 tablespoon fresh lemon juice, from 1 medium lemon
- 1/4 teaspoon kosher salt
- fresh black pepper, to taste

INSTRUCTIONS

- Toss all ingredients together and serve immediately.

Enjoy!



This recipe was taken directly from: <https://www.skinnytaste.com/corn-tomato-avocado-salad/#ba1aWoJGH6bi3ZZm.99>

Taddle Creek

Want to contribute to the next edition of the DEP Newsletter?

Send in your favorite recipe or tell us your story about how you manage your diabetes!

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