

# Living Well With Prediabetes

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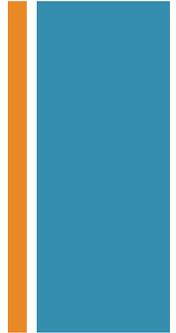
# + Outline

- What is Prediabetes and Diabetes?
- Review Your Numbers
- What can I do?
  - Diet Changes
  - Activity Changes
  - Other Lifestyle Changes
  - Metformin
- SMART Goals
- Follow-Up



# + What is Diabetes?

- The pancreas does not make enough insulin OR the body does not effectively use the insulin that is produced
- About 90% of people with diabetes have type 2 diabetes
- Usually develops in adulthood, but can develop at any age

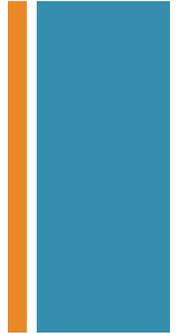


# + Prediabetes

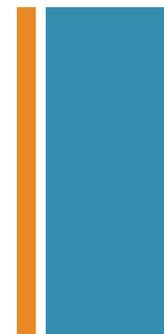
**Prediabetes** = blood sugar levels that are higher than normal but not high enough to be considered Type 2 Diabetes

So, my blood sugar is a little high. So what?

- Prediabetes is a risk factor for developing type 2 diabetes
- Making diet & lifestyle changes, especially if they result in a 5-10% weight loss, can prevent or delay developing type 2 diabetes



# + How Do I Know If I Have Diabetes or Prediabetes?

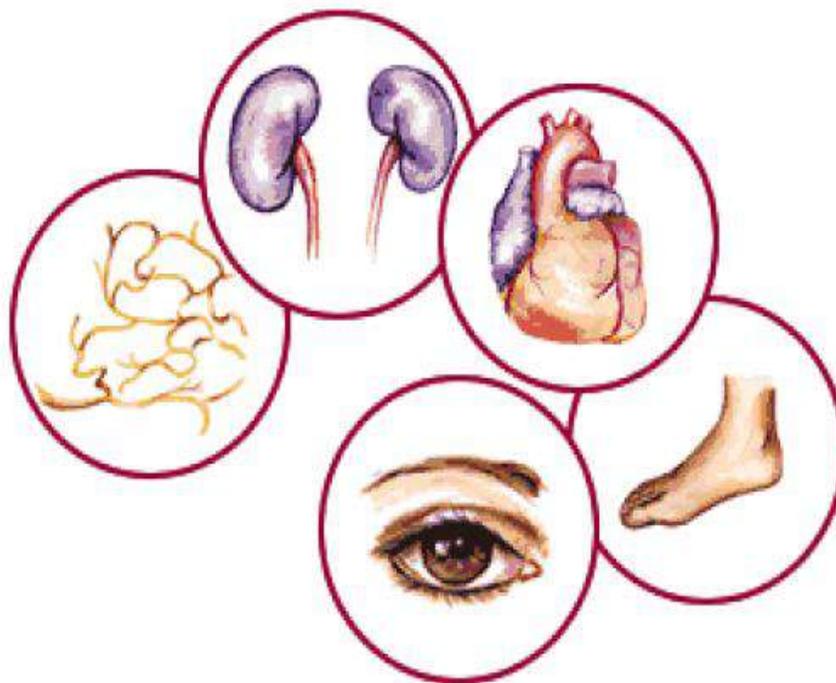


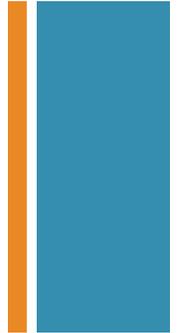
	<b>Normal</b>	<b>Prediabetes</b>	<b>Diabetes</b>
A1C	<5.9%	6.0-6.4%	6.5% or higher
Fasting	Less than 6.1	6.1-6.9	7.0 or more
2h OGTT	Less than 7.8	7.8-11.0	11.1 or more

# + Poorly-Controlled Diabetes

If not treated or properly managed, diabetes can result in a number of complications, including:

- Heart Disease
- Kidney Disease
- Eye Disease
- Nerve Damage
- Erectile Dysfunction

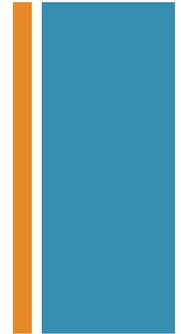




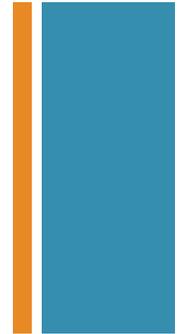
**“I was on the low-carbohydrate diet for a week  
and lost three inches off my smile.”**

# + What Can I Do?

- 1) Eat regular, balanced meals
- 2) Limit refined carbohydrate
- 3) Manage fat intake
- 4) Choose beverages wisely
- 5) Get moving



+ Eat Regular, Balanced Meals

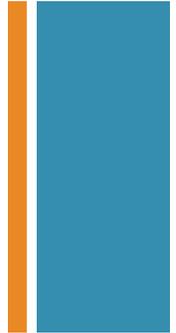


Refer to your copy of the Diabetes  
Food Guide

# + Eat Regular, Balanced Meals

## **Have regular meals throughout the day**

- Include at least 3-4 food groups
- Include some protein and some carbohydrate
- Don't forget the fruit & vegetables!
- Follow the balanced plate (next page)



# + The Balanced Plate



- What are some good breakfast choices?
- Lunch?
- Supper?

# + Eat Regular, Balanced Meals

Have regular meals throughout the day

Space meals no more than 4-6 hours apart



# + Eat Regular, Balanced Meals

## Space meals no more than 4-6 hours apart

- When we go longer than 6 hours between our meals:
  - We tend to overeat at the next meal
  - Our liver has the opportunity to put sugar into our bloodstream



# + Eat Regular, Balanced Meals

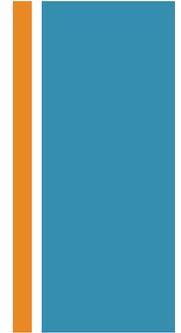
Have regular meals throughout the day

Space meals no more than 4-6 hours apart

Include balanced snacks as needed



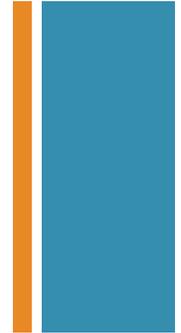
# + Eat Regular, Balanced Meals



Include balanced snacks **as needed**

- Have a balanced snack before bed and between meals if meals are more than 6 hours apart
- What is a balanced snack?
  - Protein
  - Carbohydrate
- If you are hungry between meals, but meals are not more than 6 hours apart, have fruit or vegetables + protein

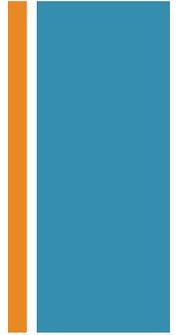
# + Limit Refined Carbohydrate



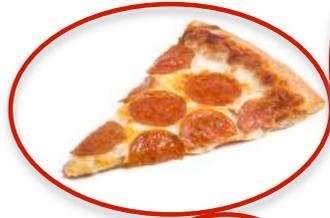
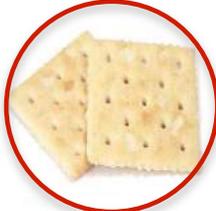
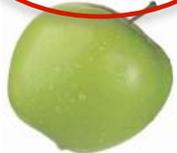
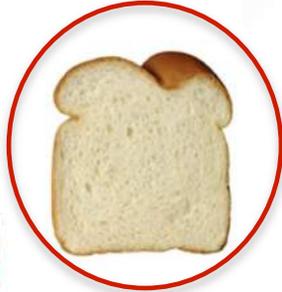
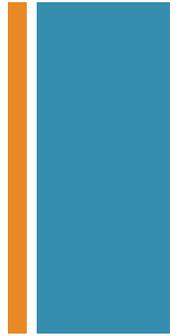
**Carbohydrate** = sugar + starch + fibre

- Sugar and starch turn into sugar when we eat them
- We don't digest fibre, so it does not turn to sugar
  - Fibre slows down our digestion = feel full longer & blood sugar rises more slowly
- Refined carbohydrates are carbohydrates with very little or no fibre
- Refined carbohydrates turn into sugar very quickly = hungry sooner & blood sugar rises faster

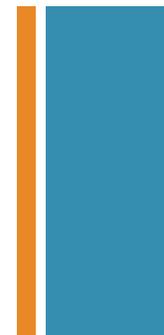
# + What Foods Have Carbohydrate



# + What Foods Have Refined Carbohydrate



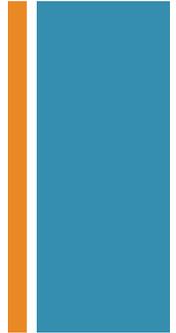
# + Limit Refined Carbohydrate



- Limit added sugar (e.g. tea/coffee/cereal etc)
- Have smaller portions of sweets/treats/snack foods or have them less often
- Choose higher-fibre foods:
  - Fruit
  - Vegetables
  - Whole grains
  - Cereals with more than 4 grams fibre per serving
  - Legumes (cooked dried beans and lentils)

# + Glycemic Index

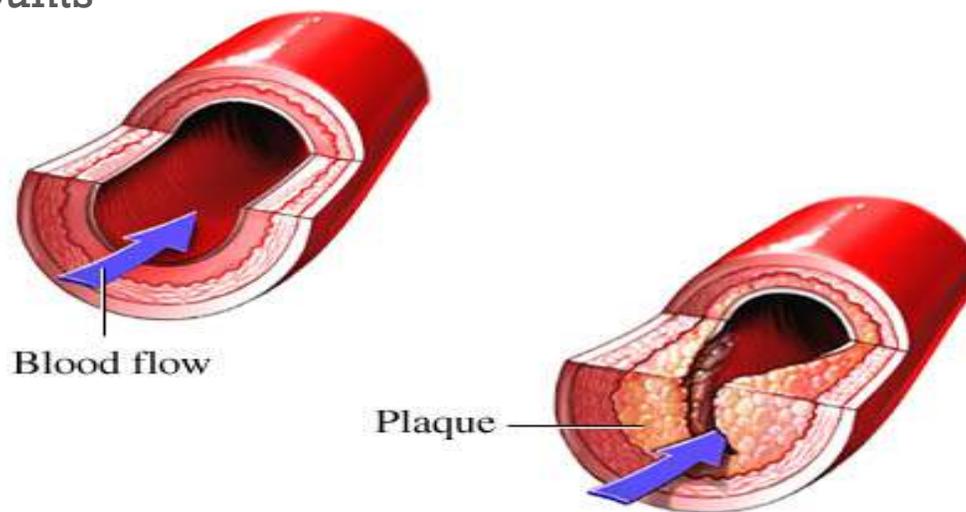
- Glycemic index is a ranking of carbohydrate or starchy foods and how quickly or slowly they raise blood glucose levels
- Choosing low glycemic index options mean more stable blood glucose levels and better appetite regulation
- Examples: choose sourdough or pumpernickel bread instead of white bread or bagel OR choose sweet potato vs. white or baking potato
- Portion and cooking method is still important!
- Check out the [Glycemic Index Food Guide](#) on the Diabetes Canada web-site!



# + Manage Fat Intake



- Fat does not affect your blood sugar directly
  - Excess fat = excess calories = weight gain
  - Saturated and Trans fats may increase “bad” cholesterol levels
- Unsaturated fats can help to lower bad cholesterol levels & increase good cholesterol levels
  - Use small amounts



# + Manage Fat Intake

## Choose Less

### Trans Fat:

- Partially hydrogenated oils, shortening, hydrogenated margarine
- Some packaged foods (cookies, crackers, potato chips, commercial baked goods, etc)
- Deep fried foods, fast foods

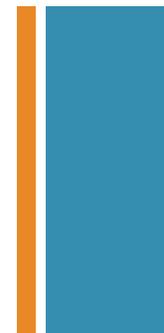


### Saturated Fat:

- Animal fats: meat, dark poultry meat, poultry skin, high fat dairy products, egg yolks, butter, lard
- Tropical oils: palm oil, palm kernel oil, coconut oil, chocolate

# + Manage Fat Intake

## Choose More



### Unsaturated Fat:

- Vegetable oils: olive, canola, peanut, sesame, non-hydrogenated margarines
- Nuts & Seeds: almonds, cashews, chestnuts, hazelnuts, macadamias, pecans, peanuts, pistachios
- Olives, avocado

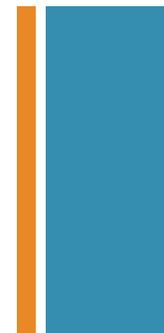


### Omega-3 Fat:

- Fish and seafood, omega-3 eggs, omega-3 fortified foods, wild game
- Oils: canola, flax, hemp, non-hydrogenated margarines
- Nuts & Seeds: walnuts, pumpkin seeds, ground flax seeds
- Soybean products



# + Manage Fat Intake



- Have smaller portions of meat and include fish more often!
  - Palm of your hand
- Limit fast foods/commercial baked goods
- Read labels to help avoid trans fat
- Choose unsaturated fats most often

<b>Nutrition Facts</b>	
<b>Valeur nutritive</b>	
Per 1 bowl (300 g) / Pour 1 bol (300 g)	
Amount Teneur	% Daily Value % valeur quotidienne
<b>Calories / Calories</b>	440
<b>Fat / Lipides</b> 19 g	<b>29 %</b>
Saturated / Saturés 4 g	<b>21 %</b>
+ Trans / Trans 0.2 g	
<b>Cholesterol / Cholestérol</b>	35 mg
<b>Sodium / Sodium</b> 860 mg	<b>36 %</b>
<b>Carbohydrate / Glucides</b> 53 g	<b>18 %</b>
Fibre / Fibres 4 g	<b>16 %</b>
Sugars / Sucres 6 g	
<b>Protein / Protéines</b>	15 g
Vitamin A / Vitamine A	45 %
Vitamin C / Vitamine C	4 %
Calcium / Calcium	20 %
Iron / Fer	20 %

# + Choose Beverages Wisely



- Drinks are hidden sources of fat, carbohydrate, and calories
- Unhealthy drink choices can raise your bad cholesterol, weight, and blood sugar



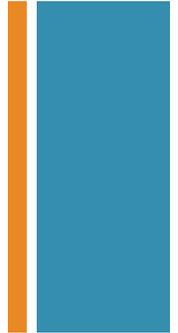
# + Choose Beverages Wisely



- If you are thirsty, drink water
- Limit juice or regular pop to no more than  $\frac{1}{2}$  cup (4 oz) per day
- Limit sugar in your coffee or tea
  - Try gradually reducing how much you add
- Watch out for flavoured coffees and specialty drinks
- Sports drinks are usually not necessary – hydrate with water instead



# Coffee comparisons



	Serving size	Calories	Fat	Saturated fat	Trans fat	Sugar
Med iced coffee	515mL	160	7g	4g	0.3g	13g
Med iced capp	515mL	360	15g	9g	0.5g	47g
Med d/d coffee	425mL	212	12g	8g	0g	22g
Med 2m/1s coffee	425mL	78	2g	1g	0g	13g

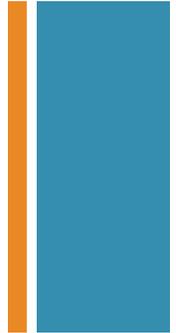
# + Alcohol

## ■ Recommendations

- No more than 2 drinks a day for women with no more than 10 drinks in one week
- No more than 3 drinks a day for men with no more than 15 drinks in one week

## ■ What is one drink?

- 12 oz beer
- 1.5 oz liquor/watch the mix!
- 5 oz wine



## Carbohydrate and calorie content in some common alcoholic beverages and mixes

(The amounts listed are a general guide only)

Beverage	Standard serving size	Energy (kcal)	Carbohydrate content (g)
<b>Beer:</b>			
regular	341 mL (12 fl.oz)	147	12
light	341 mL (12 fl.oz)	99	5
non-alcoholic*	355 mL (~12 fl.oz)	50-80	11-17
low carb*	341 mL (12 fl.oz)	92	3
<b>Spirits/Hard liquor</b>	45 mL (1.5 fl.oz)	98	0
<b>Liqueurs &amp; Cordials</b>	45 mL (1.5 fl.oz)	155-190	10-25
<b>Wine:</b>			
regular	150 mL (5 fl.oz)	123-127	1-4
dessert	150 mL (5 fl.oz)	232	23
non-alcoholic	150 mL (5 fl.oz)	9	1
<b>Cooler:</b>			
regular	355 mL (12 fl.oz)	178-258	21-38
light*	330 mL (12 fl.oz)	100	1
<b>Mixes:</b>			
Sugar free pop	250 mL (8 fl.oz)	0	0
Regular pop	250 mL (8 fl.oz)	88-99	23-25
Club soda	250 mL (8 fl.oz)	0	0
Tonic water	250 mL (8 fl.oz)	88	23
Orange juice	250 mL (8 fl.oz)	118	27
Tomato juice	250 mL (8 fl.oz)	44	11
Tomato and clam juice†	250 mL (8 fl.oz)	123	28

Reference: Canadian Nutrient File, 2010; USDA, 2011; \*Actual Label

The caloric and carbohydrate content may vary by brand, be sure to check the labels

# + Mediterranean Diet

- Everyday:
  - Fruit and vegetables
  - Whole grains
  - Healthy fats
  - Legumes
- At least twice per week:
  - Fish
- A few times per week:
  - Poultry, eggs, dairy
- Less often (1-2 per month):
  - Meat and sweets

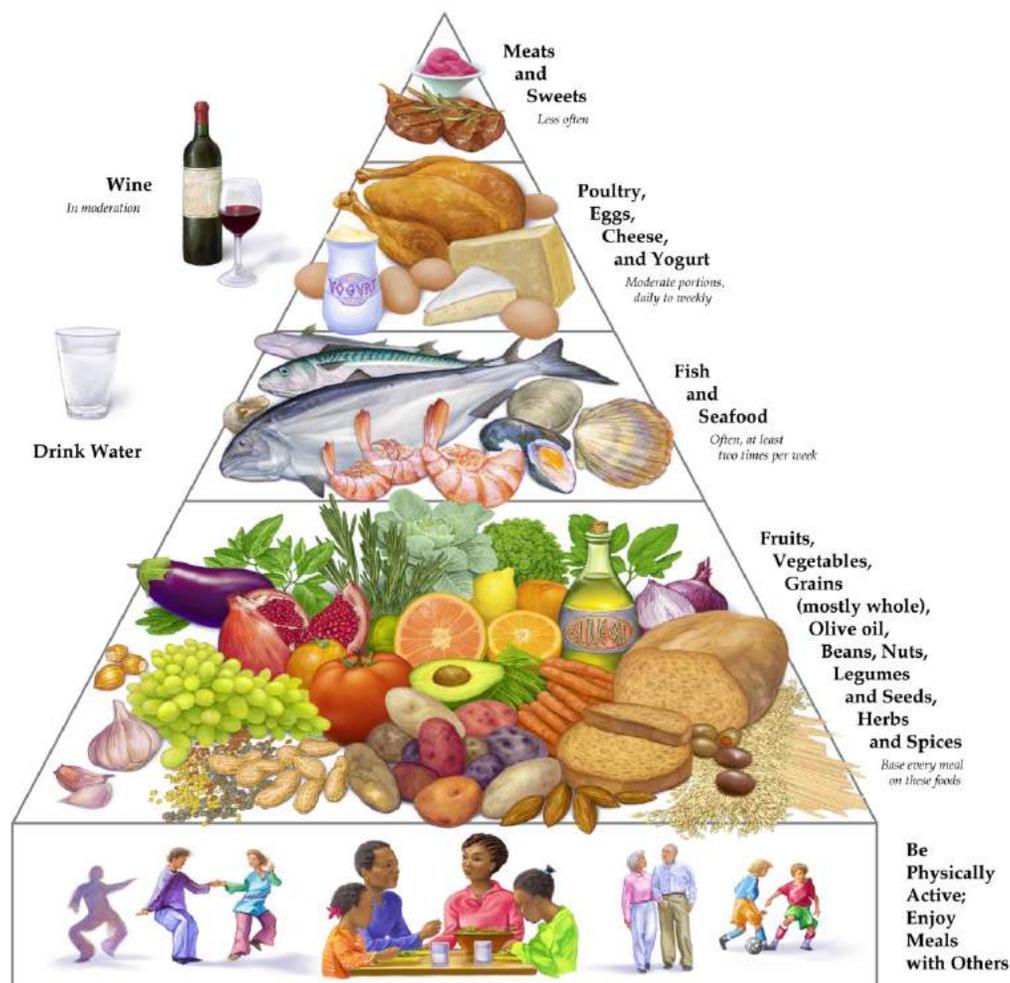
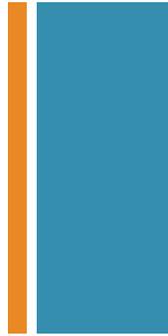


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# + Sample Menu



# + Sample Menu



# + DASH Diet

- Dietary Approaches to Stop Hypertension

- Emphasizes

- Fruits and vegetables
- Whole grains
- Low fat dairy
- Nuts, seeds, and legumes

- Include

- Poultry, eggs, lean meats

- Limit sweets and fats

- Limit sodium intake to  $<2300\text{mg}$  if no hypertension

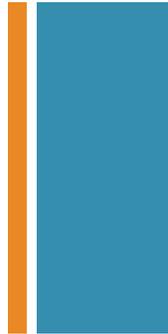
- Lower if: hypertension or on BP medicine, diabetes, or kidney disease



# + Sample Menu



# + Sample Menu



# + Get Moving

- Minimum 150 minutes per week of aerobic (heartbeat-raising) exercise
  - 10 minutes or more at a time
  - More is better!
  - Try something FUN
- Resistance exercise 2-3 days a week
- Flexibility – can be done daily



# + Other Lifestyle Changes



Quit Smoking



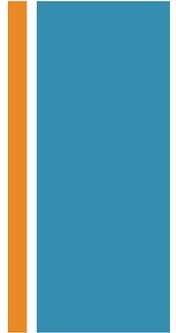
Manage Stress



If you are interested in hearing more about our  
Smoking Cessation or Mental Health Programs,  
call the office.

# + Metformin

- Metformin is the first medicine used for treating type 2 diabetes
- There is evidence to support using metformin in individuals with prediabetes and who are under 60 years of age to help prevent/delay the progression to type 2 diabetes
- Metformin helps your body become more sensitive to insulin, and helps prevent your liver from releasing sugar into your bloodstream
- Talk to your doctor if you are interested in starting metformin



# + SMART Goals

The best way to make changes is to set SMART Goals

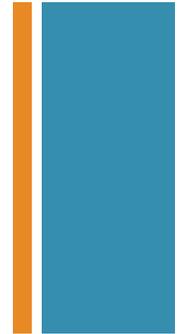
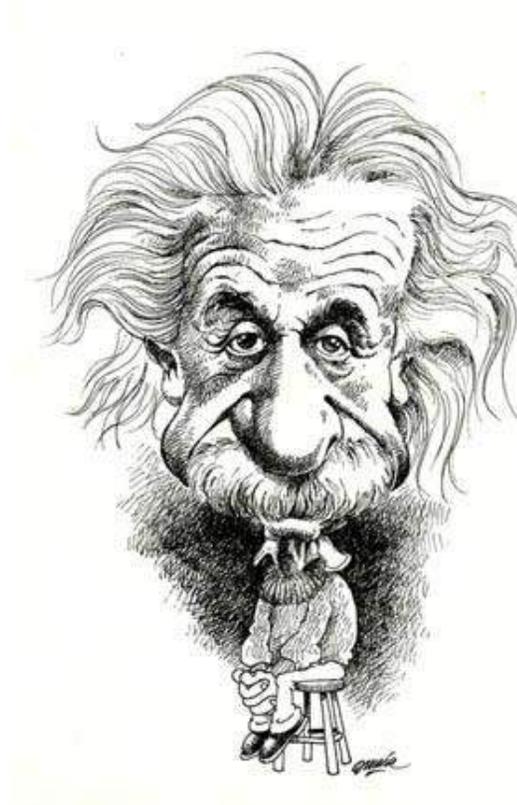
**S**pecific

**M**easurable

**A**chievable

**R**ealistic

**T**imely

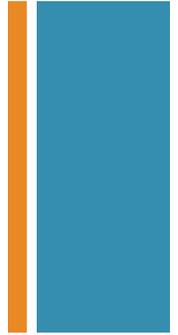


## + Extra reading



- <https://guidelines.diabetes.ca/docs/patient-resources/prediabetes-fact-sheet.pdf>
- <https://www.diabetes.ca/DiabetesCanadaWebsite/media/Managing-My-Diabetes/Tools%20and%20Resources/just-the-basics.pdf?ext=.pdf>
- <https://www.diabetes.ca/DiabetesCanadaWebsite/media/Managing-My-Diabetes/Tools%20and%20Resources/just-the-basics-south-asian-english.pdf?ext=.pdf>
- <https://guidelines.diabetes.ca/docs/patient-resources/glycemic-index-food-guide.pdf>

+ Questions?





If you are interested in booking an individual follow-up appointment,

**Call: 519-629-4615 ext 271.**

You can return for follow-up at any time.

Contact Information:  
Dominique Schellenberg, RD CDE  
Registered Dietitian

Diabetes Education Program  
Two Rivers Family Health Team