



NORTH
YORK
FAMILY
HEALTH
TEAM

Healthy Lifestyle Strategies for Prediabetes

NYFHT Diabetes Education Program

May 2025



Learning Outcomes

By the end of this session, you will be able to...

- Describe how the body works with and without prediabetes and diabetes.
- List at least 3 principles of balanced eating for managing blood sugars.
- Name 3 types of foods that affect your blood sugar and 3 that don't.
- Relate the impact of physical activity on blood sugars.
- Describe the impacts of stress and strategies to help cope.

Welcome

- Take responsibility for your comfort and learning experience.
- For any questions that come up throughout the session, please type them into the chat
- PDF resources will be made available after the session.
- This presentation is meant for general education and is not meant to replace advice from your health care provider.

What is Diabetes?

- When your body doesn't make enough insulin or can't use insulin as well as it should, resulting in higher blood sugars.
- There are several types of diabetes; most commonly type 1 and type 2

Type 1	Type 2
• 10% of people with diabetes • More often diagnosed in children/adolescents • Pancreas makes no insulin • Insulin is lifesaving/essential	• 90% of people with diabetes • More often diagnosed in people > 40 y.o. • Body may not be making enough insulin or body is unable to respond appropriately to insulin

What is Prediabetes?

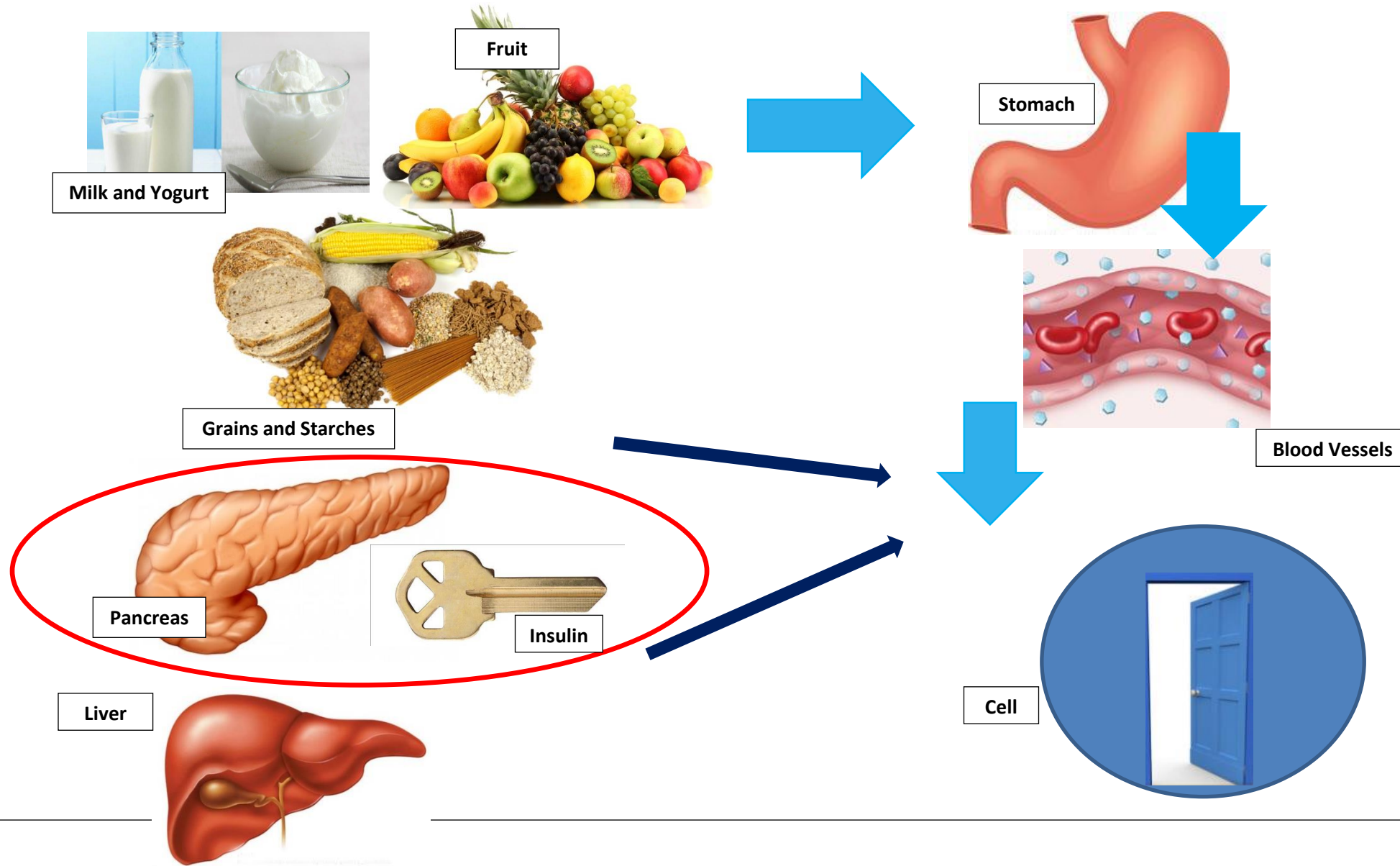
- Blood sugar levels are higher than normal but not quite high enough to be considered diabetes.
- If left unmanaged, there is an increased risk of progression to type 2 diabetes.
- Healthy lifestyle is key to prevent or delay type 2 diabetes!



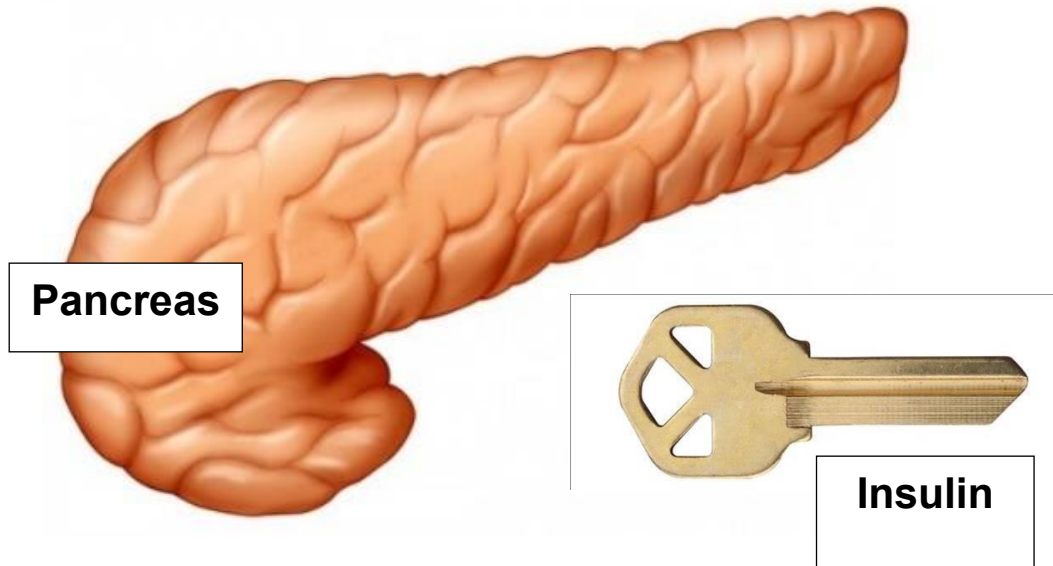
Risk Factors

- Age > 40
- Family history in 1st degree relative
- Being a member of a high-risk population – African, Arab, Asian, Hispanic, Indigenous, or South Asian
- Socioeconomic status also a factor
- History of Gestational Diabetes (Diabetes diagnosed in pregnancy)
- Very little physical activity
- Presence of: high levels of cholesterol (or other fats in your blood), high blood pressure, overweight or obesity (especially around abdomen)
- Smoking

How the Body Works



How the Body Works



Beta cells in the pancreas make insulin.

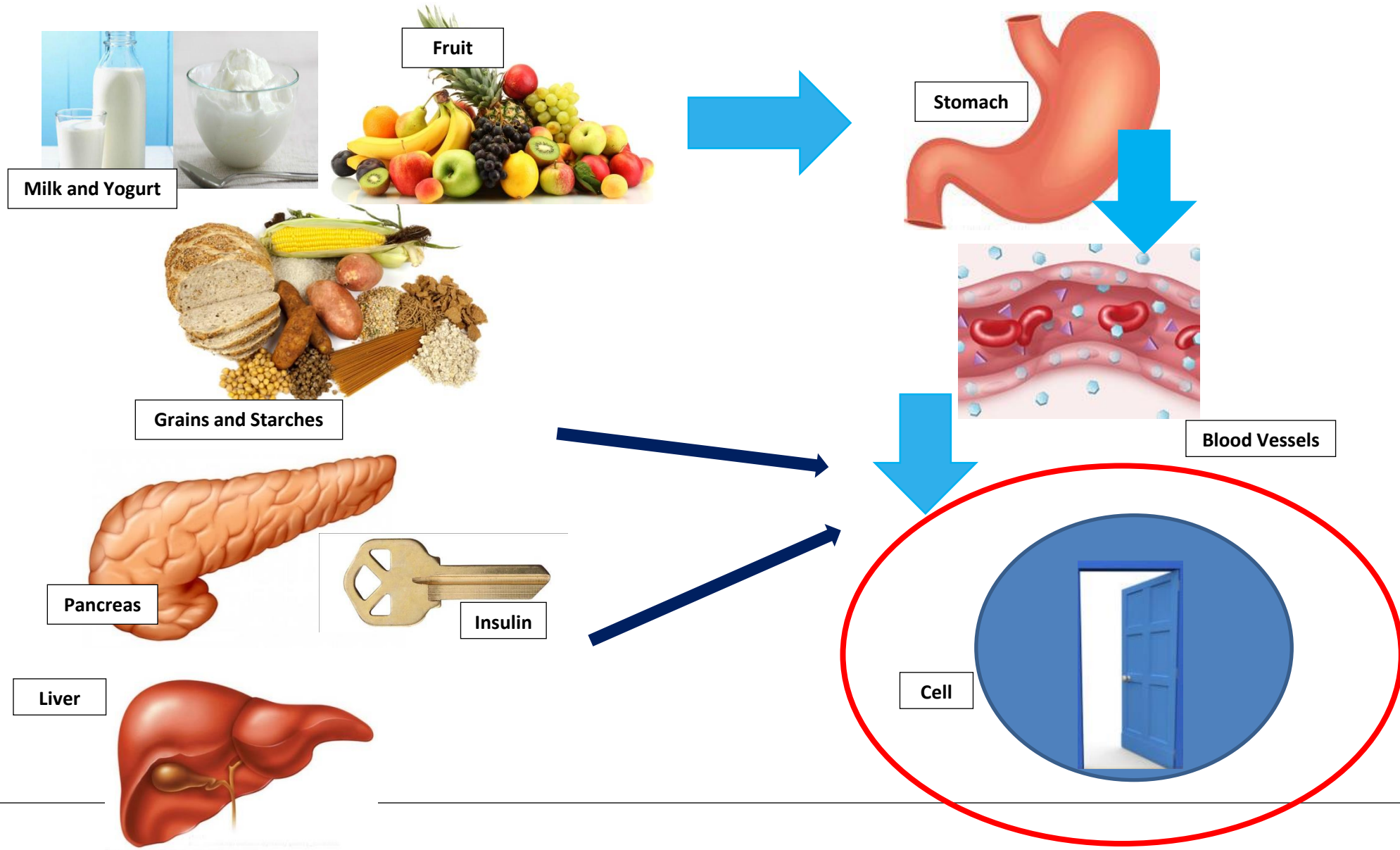
Insulin is released from the pancreas when blood sugars increase.

Insulin works like a key to unlock/open doors in our cells.

Insulin helps move sugar out of the blood and into cells to be used for energy.

In Prediabetes and Type 2 Diabetes, the pancreas may not make enough insulin = less keys to open doors.

How the Body Works



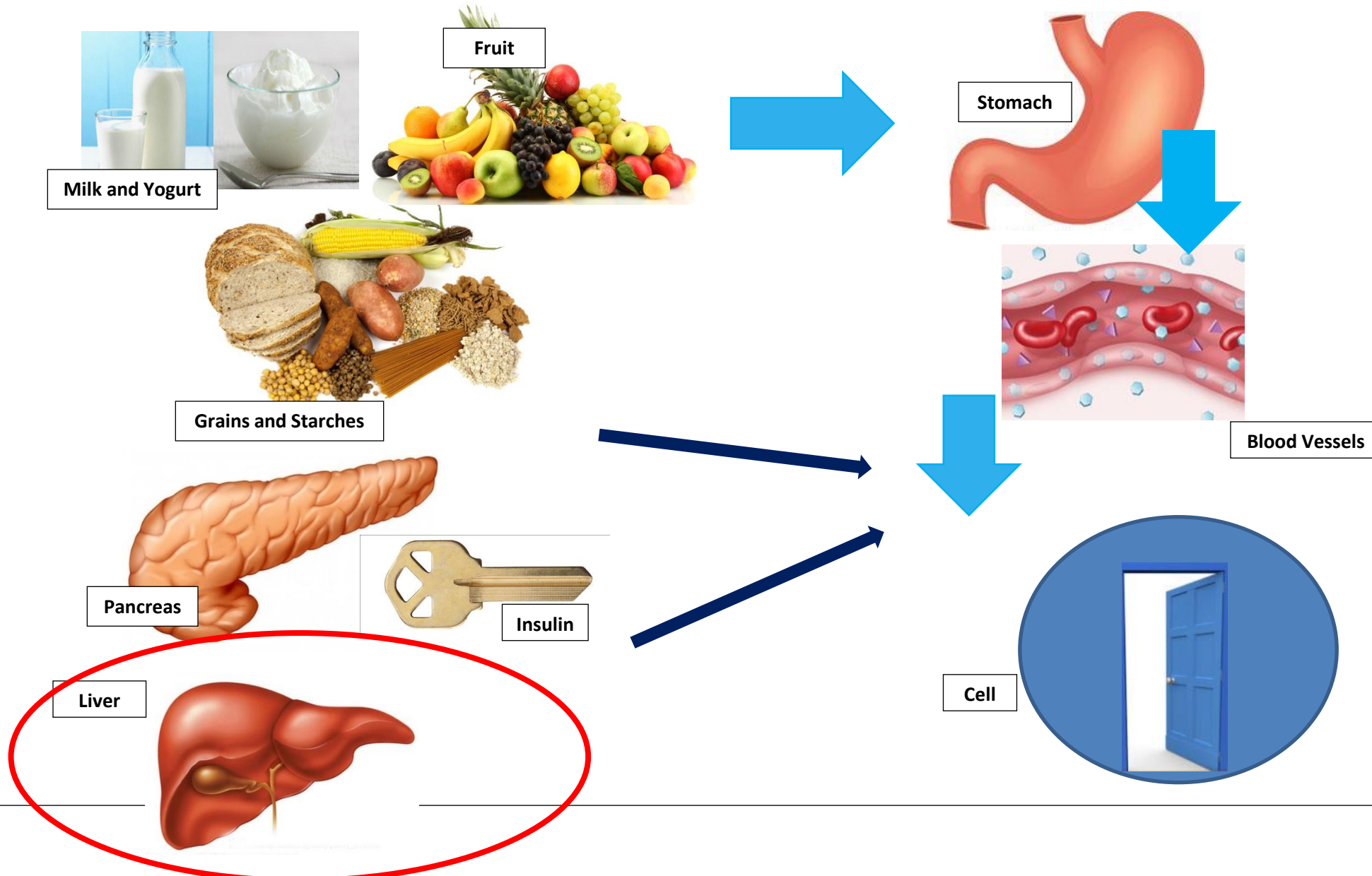
How the Body Works



Our muscle and fat cells have “locks” that fit the insulin “key” so the doors can open for sugar to enter.

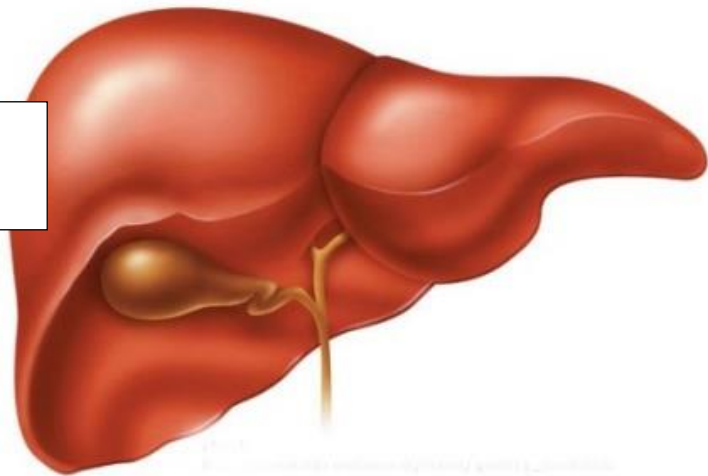
In Prediabetes and Type 2 Diabetes, the keys may not work properly so insulin doesn’t work as well to allow glucose into the cells (insulin resistance).

How the Body Works



How the Body Works

Liver



The liver stores glucose from food and can release the stored sugar in times when our body needs it (for example, long times without eating).

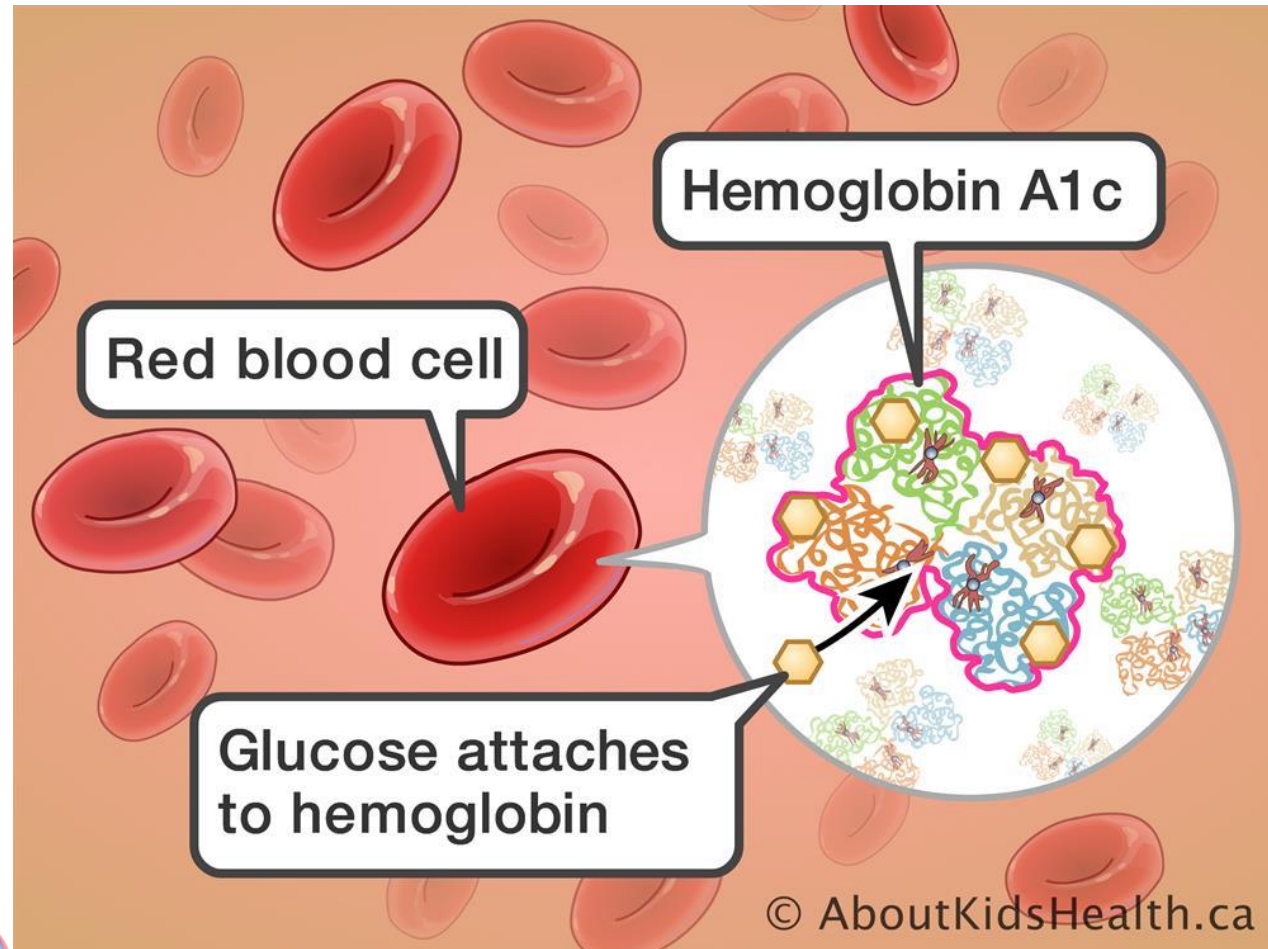
In Prediabetes and Type 2 Diabetes, the liver tends to release glucose when we don't need it or releases too much glucose at once.

Lab Values

Lab Test	Without Diabetes	Prediabetes	Diabetes
Fasting Blood Glucose (mmol/L)	<6.0 mmol/L	6.1-6.9 mmol/L (Impaired fasting glucose)	≥7.0 mmol/L
Hemoglobin A1C (%)	<6.0 %	6.0-6.4%	≥6.5 %
2-hr OGTT (mmol/L)	<7.8 mmol/L	7.8-11.0 mmol/L (Impaired glucose tolerance)	≥ 11.1 mmol/L

Hemoglobin A1C

A reflection of your average blood sugars from the previous 3 months



Balanced Eating & Prediabetes



True or False?

In order to lower my blood sugars,
I have to **avoid** carbohydrates

☐ True

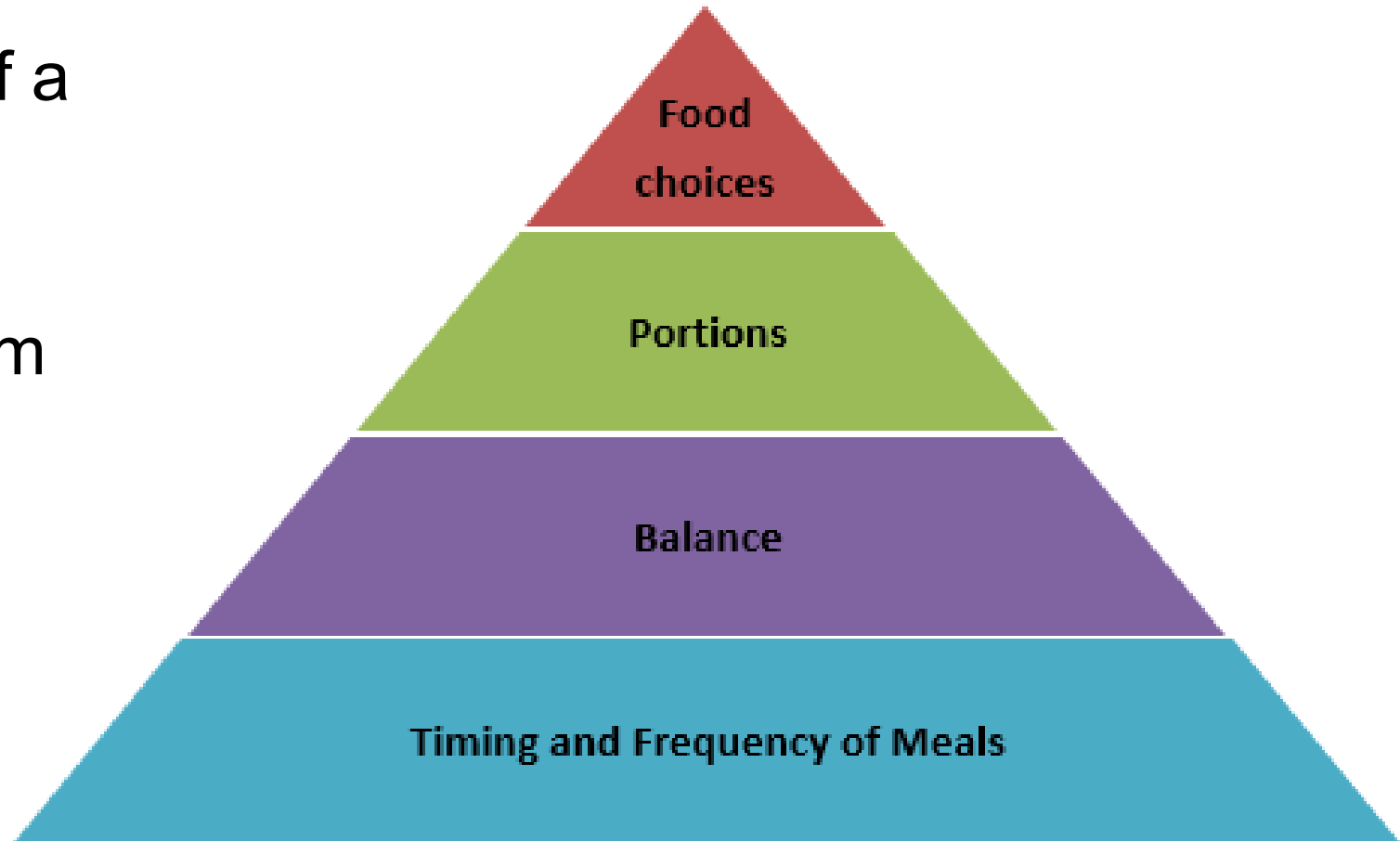
☒ False



Balanced Eating Principles

Carbohydrates are part of a balanced diet.

It's about how you **fit** them into these 4 principles



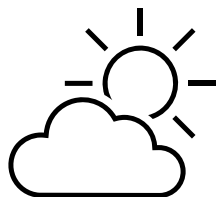
Before we begin...

Unhelpful



Helpful





Timing and Frequency of Meals



B



4-6 hours

L



4-6 hours

D



Within 2
hours of
waking

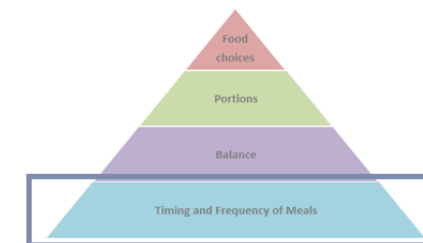
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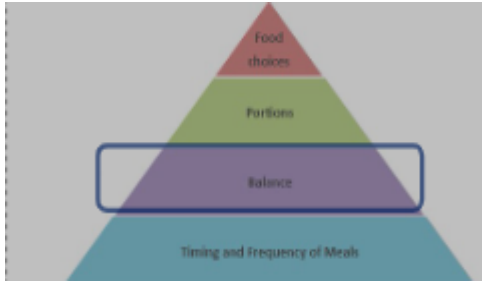
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Snacks are optional

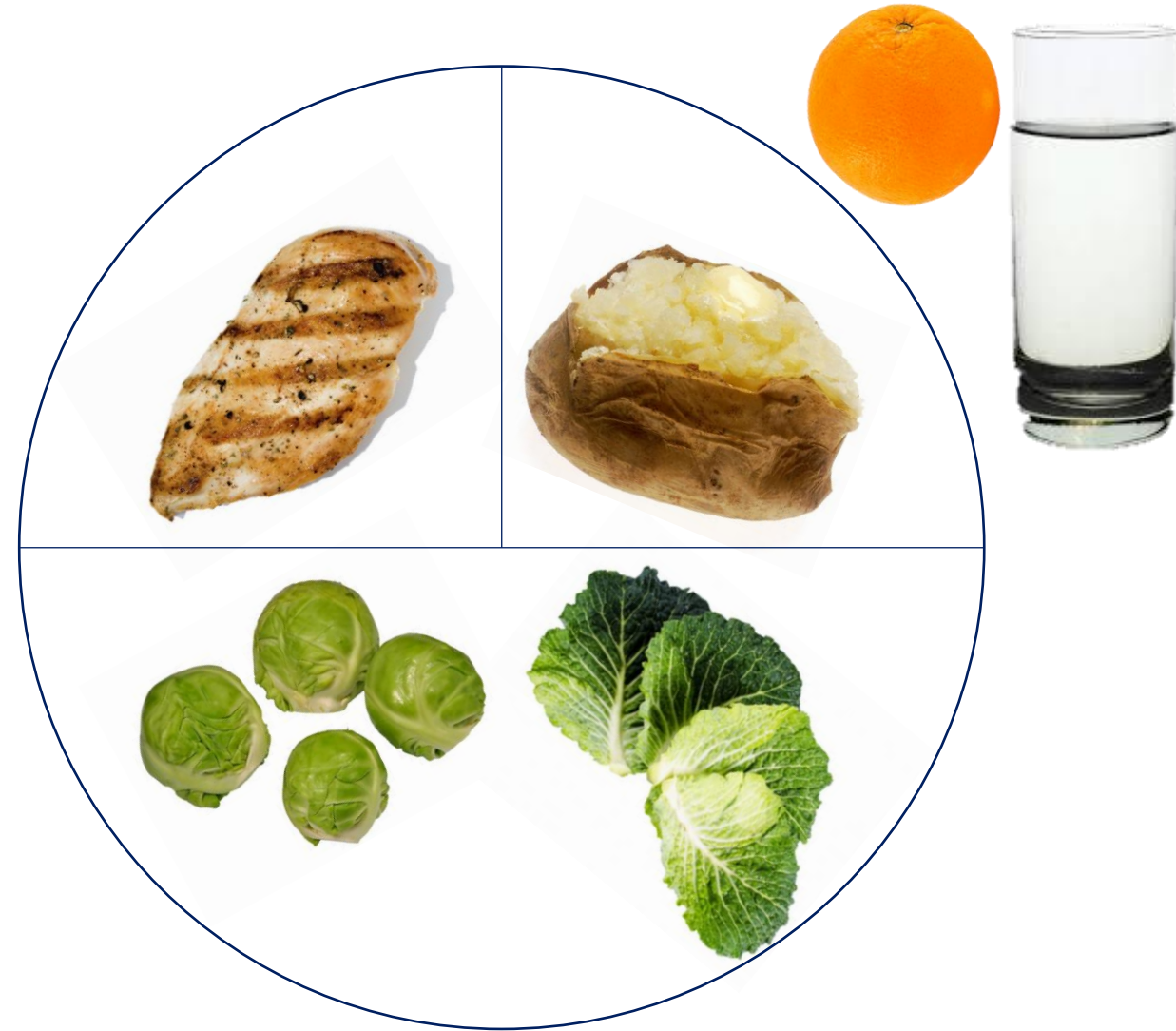
Delayed meals?
Physically active?
Follow hunger cues



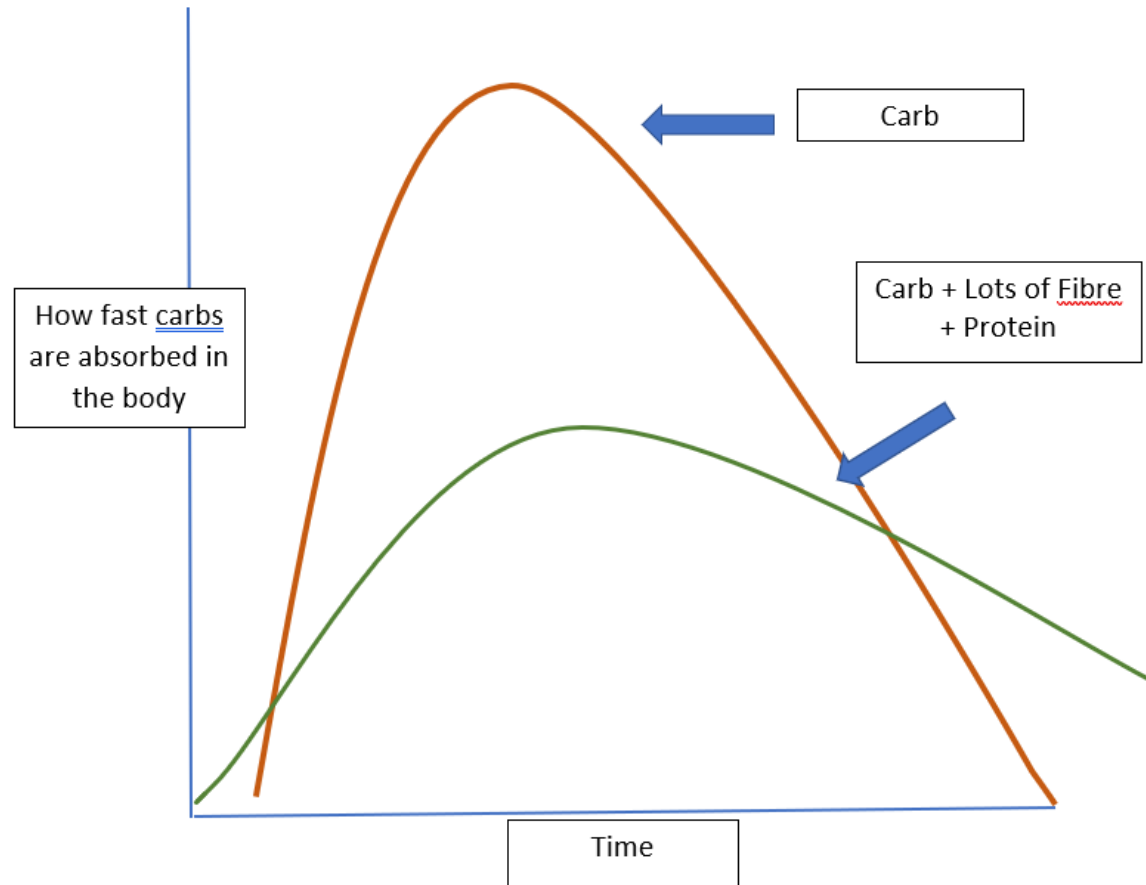


Balance

- Include a protein source, for example:
 - ✓ Meat
 - ✓ Fish
 - ✓ Eggs
 - ✓ Cheese
 - ✓ Beans/lentils
 - ✓ Tofu
- Include a minimum of 3 of the 5 food groups (Vegetables, Grains and Starches, Fruits, Milk and Alternatives and Meat and Alternatives)



Why is balance important?



Building a Balanced Meal

MEDITERRANEAN STYLE

There are many benefits to following a mediterranean eating pattern including a healthy heart and mind

Vegetables
Consume a variety of vegetables. The more the better! Aim to include at a minimum of two meals per day

Whole Grains and Starches
Go for whole grains or less processed grains.

Fruits
2-3 fruits per day

Protein
YOGURT

Balanced meals can look like...

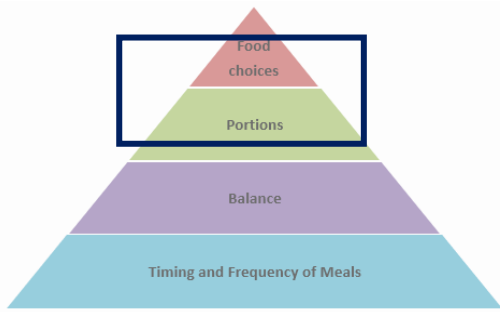


Balanced Snacking

Some ideas to try:

- Banana and peanut butter
- Whole grain crackers with hummus
- Apple and cheese
- Granola and yogurt
- Oatmeal with walnuts
- Milk





Portions and Food Choices:

Foods that affect your blood sugar



Grains and Starches

- The higher the **fibre**, the better!
- Choose **whole grains** more often, over quick digesting carbohydrates...
 - Blood sugar rises more slowly
 - More nutrient rich
 - Helps support our mental health and sleep



1 cup =
your fist

Following a mediterranean eating pattern is good for your heart and mind

Whole Grains and Starches

Go for whole grains or less processed grains.

Starch

Choose more often:

- Whole grain products: brown rice, oats, whole grain pasta, whole wheat tortillas/bread/naan/roti, quinoa, buckwheat/kasha, fufu, bulgur, barley
- Starchy vegetables: squash, sweet potato, yams, corn, cassava

Sources of Simple Carbohydrates to include less often:

- White bread, white rice, white pasta
- Baked goods (cookies, cake, muffins, donuts, pastries)
- Candy and chips

Fruit

Fruit also gives our bodies the **fibre, antioxidants and a variety of micronutrients** we need to keep our bodies working the best it can.

Enjoy a variety!

Aim for 2-3 fruits per day

Better whole, rather juiced or dried.



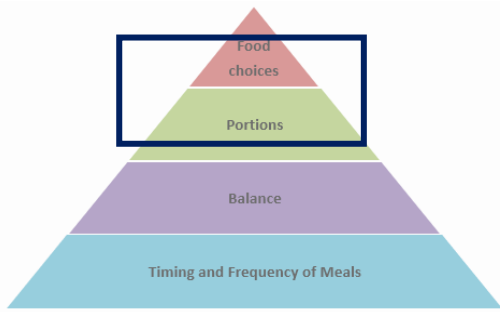
- 1 medium: apple, orange pear
- 2 medium: kiwi, plums, clementines
- ½ medium mango
- 1 small banana
- 1 small grapefruit
- 1 large peach or nectarine
- 2 cups: strawberries, blackberries, raspberries
- 1 cup blueberries
- 1 cup melon or mixed fruit or papaya
- ¾ cup fresh pineapple
- 10-15 grapes or cherries
- 2 guava

Milk and Yogurt

Milk and yogurt are important foods to give us **energy, protein** and the much-needed **calcium** we need to **keep our bones strong**.

Enjoy these daily and aim for 2-3 servings per day.





Portions and food choices:

Foods that do not affect your blood sugar

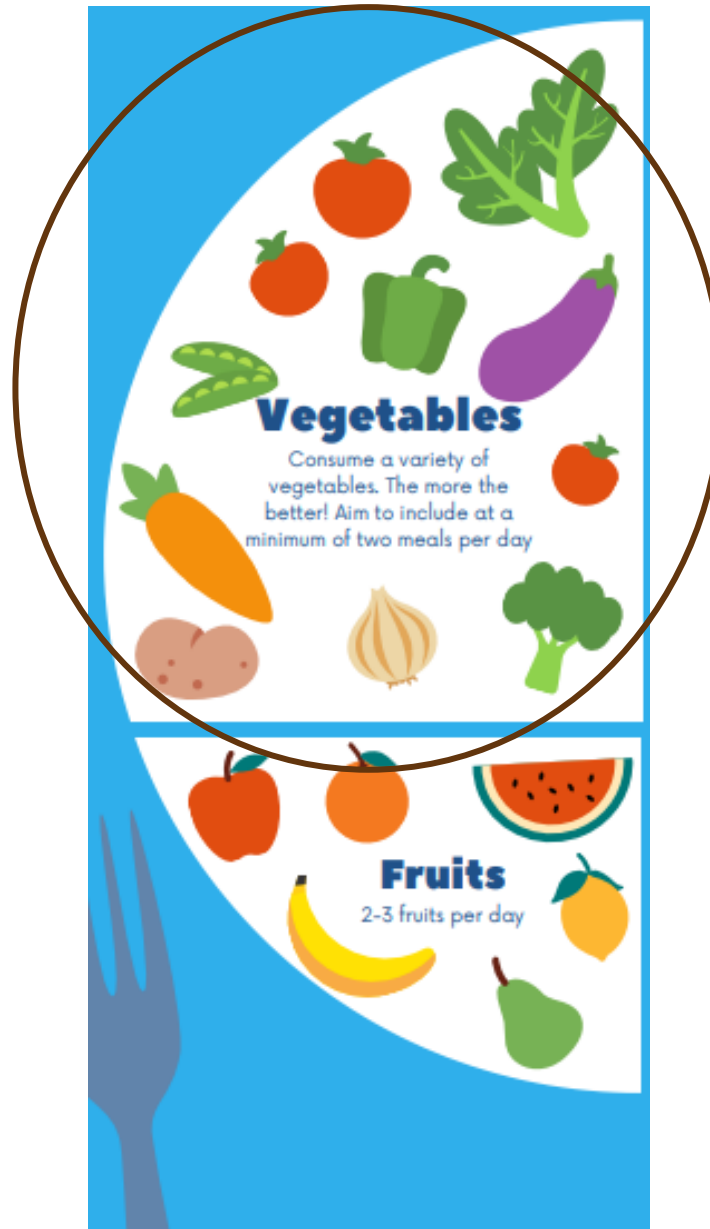


Non-starchy vegetables

Vegetables also give our bodies the **fibre, antioxidants and a variety of micronutrients** we need to keep our bodies working the best it can.

Enjoy a variety!

Aim for half your plate at lunch and dinner.



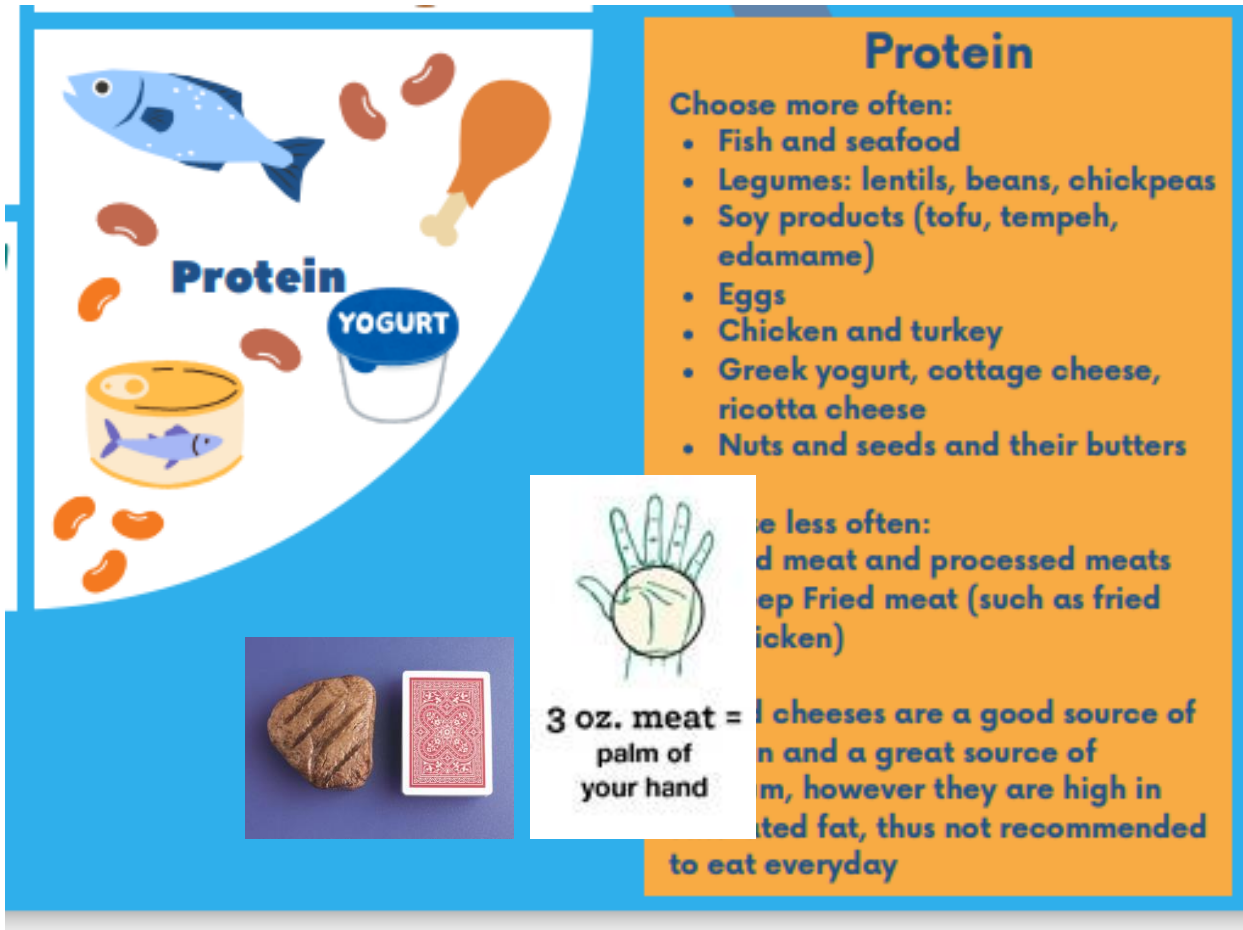
Root vegetables will only affect your blood sugar if you eat more than a 1 cup portion.

So go ahead and eat those baby carrots!

Go ahead and enjoy the carrot, beet squash and parsnip soup too! Just balance it with the carbohydrates on your plate.

Protein

- Protein is an important nutrient for our muscles.
- Eat a variety keep your heart healthy.
- Protein also helps to keep our blood sugars stable and keeps us feeling satisfied after meals and snacks



*Legumes do have carbohydrate, so just balance them with other carbohydrate foods in your meal

Fat

- Foods that contain fat provide our bodies..
 - Get key nutrients our bodies need
 - Keep us feeling satisfied
 - Helps blood sugars rise more slowly

Fat

Sources of Fat to include more often:

- Choose olive oil as your main source of added fat
- Fish or seafood (min 2-3x per week)
- Avocados
- Nuts and seeds (1/4 cup daily)
- Nut and seed butters (unsweetened)



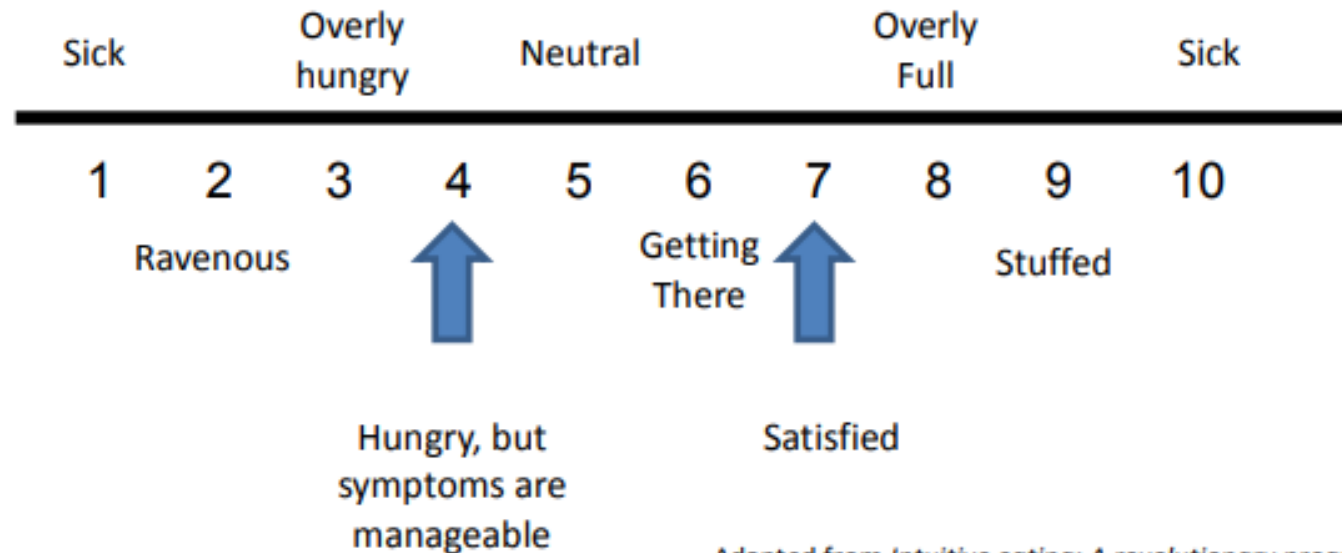
Eating more **plant-based fats** (above) over butter and high fat meats, can help you better manage your blood cholesterol, reduce inflammation and **keep your heart healthy**.

So now that we've plated our meal or snack... what's next?



Listen to your hunger and fullness cues

Your cues can help you decide if you need a snack, when to stop eating and more



Adapted from *Intuitive eating: A revolutionary program that works. it works.*
Copyright© 2012 Evelyn Tribole and Elyse Resch.

Beverages

Sweet beverages (regular pop or juice) have a significant impact on blood sugars.

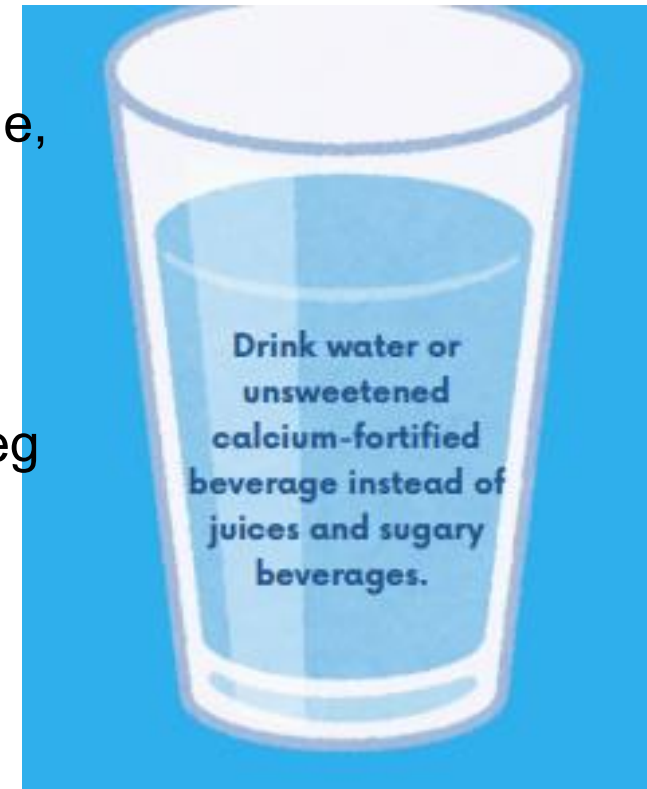
Aim to limit or avoid sweetened beverages.

Instead of this:

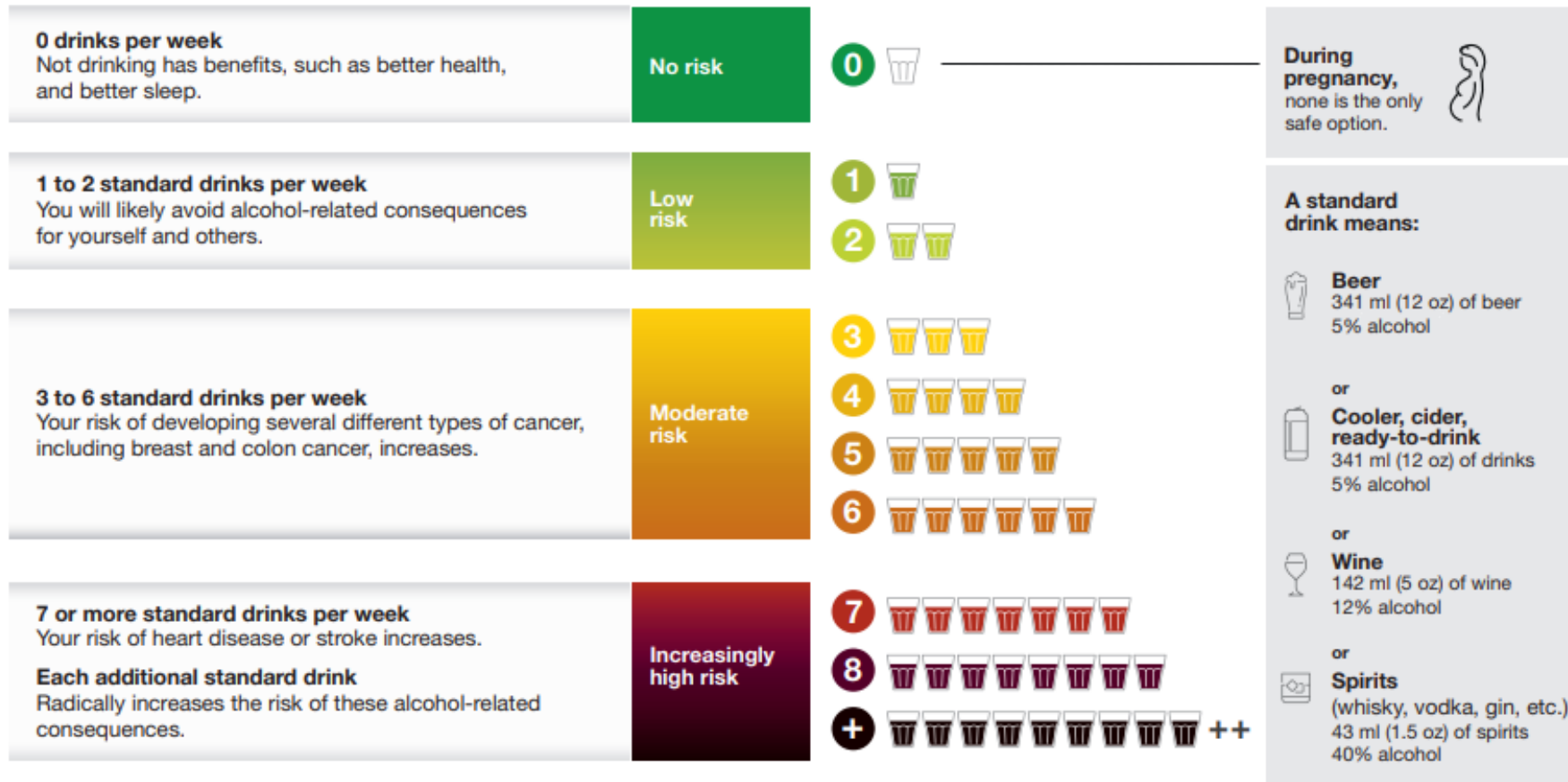


Try this...

- Diet pops
- Carbonated water with a squeeze of lemon, lime, or orange
- Carbonated water with natural flavours (e.g. Bubly, PC Blue Menu, AHA)
- Half soda/half carbonated water
- Water infused with fresh or frozen fruit/herbs/veg
- Water with a splash of juice
- Use a blender to make smoothies instead of using an extractor to make juice
- Eat fresh fruit → fibre !



Alcohol



Benefits of reducing your intake:

- Reduce your risk of certain cancers (e.g. head, neck, breast, colon)
- Reduce your risk of heart attack and stroke
- Better sleep

Balanced eating isn't always so simple...

Everyone lives within their own unique situation and life experience, which impacts the way we eat.

- Health conditions
- Time pressures and energy
 - Childcare, caregiving, work...
- Finances and the (rising) cost of food
- Access
 - Food deserts
- Past experiences that shape our relationship with food



Key Takeaways

- Type, amount and timing of carbs make a difference!
- Use the plate model to guide portions and balance
- Listen to your hunger and fullness cues
- Practice the 80/20 concept
- Limit drinks that have added sugars and juices
- If you enjoy drinking alcohol, have 2 drinks/wk or less to reduce your risk

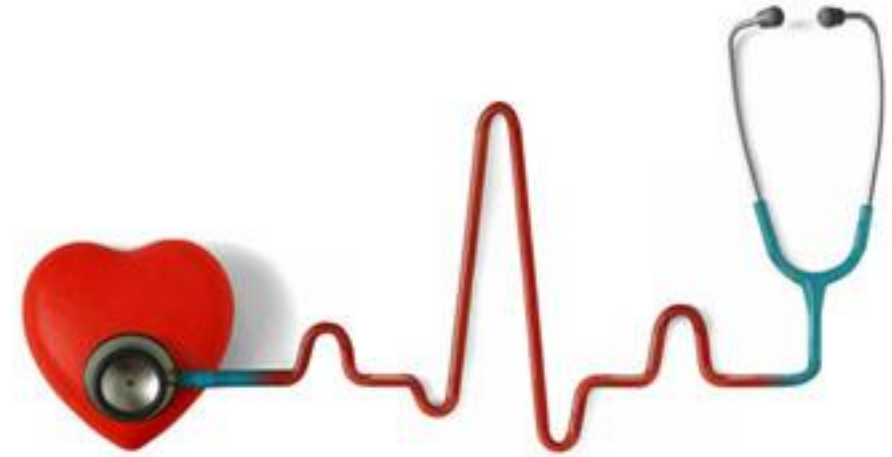


Physical Activity



Physical Activity can help...

- Improve blood sugar levels
- Decrease insulin resistance
- Improve heart fitness
- Improve cholesterol levels
- Reduce blood pressure
- Weight loss or maintenance



<http://theimportanceofbeinganaliment.blogspot.com/2012/02/la-prevencion-de-los-problemas.html>

Physical Activity Recommendations

Reduce
sedentary time

Move more during the day and
limit prolonged sitting

Aerobic
exercise

At least 150 minutes/week OR
30 minutes 5 days/week

Resistance
exercise

2-3 days/week for ~20-30
minutes each session

Getting More Daily Activity



- Mini movement breaks
- Movement reminders (phone, watch, sticky notes)
- Take the stairs
- Park further away
- Get off subway/bus one stop earlier
- Try standing at your desk or for calls

<http://www.beststandingdesks.com/tag/ergonomic-desk/>

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Resistance/Weight Exercises

You can use:

- Weights such as dumbbells
- Weight machines
- Resistance bands
- Your own body weight
- At home supplies such as water bottles, soup cans



At-Home Exercise Resources

- YMCA (aerobic, resistance, yoga, etc.)

<https://www.ymcahome.ca/yfitness>

- 1 mile happy walk

<https://www.youtube.com/watch?v=njeZ29umqVE&list=PLP8POTLDoWs55SuPESHp-xupt7V61qa14>

- Diabetes Canada resistance exercises

https://www.youtube.com/watch?v=FZbF_p2G--Q&t=2s (resistance bands)

<https://www.youtube.com/watch?v=2Y3OX1bC858> (dumbbells)

Remember...

- Small changes can make a BIG difference
- Adding more physical activity to your day is one of the MOST IMPORTANT things you can do to help manage your prediabetes, reduce your risk of developing type 2 diabetes and improve your health.



Stress & Stress Management

- Stress doesn't cause prediabetes.
- Many things can contribute to an individual's stress
 - Major life changes
 - Work
 - Finances
 - Family duties, etc.
- Stress and other mental health challenges can make it difficult to carry out changes to your lifestyle.
- How our body responds to stress can increase blood sugars.

Stress Management

Healthy Coping Strategies:



**DIABETES
CANADA**

diabetes.ca | 1-800-BANTING (226-8464) | guidelines.diabetes.ca

Helpful Resources

- Prediabetes <https://www.diabetes.ca/about-diabetes/prediabetes-1>
- Preventing Type 2 Diabetes <https://www.diabetes.ca/type-2-risks/preventing-diabetes>
- Physical Activity <https://www.diabetes.ca/nutrition---fitness/exercise---activity>
- <https://www.diabetes.ca/managing-my-diabetes/tools---resources/physical-activity>
- Healthy Eating <https://www.diabetes.ca/nutrition---fitness/healthy-eating>
- Meal Planning <https://www.diabetes.ca/nutrition---fitness/meal-planning>
- <https://www.cookspiration.com/menuplanner.aspx>
- <https://www.unlockfood.ca/en/Articles/Menu-Planning/7-Steps-for-Quick-and-Easy-Menu-Planning.aspx>

Thank you!

- If you would like to connect with us for an individual appointment:
 - Have your family physician send a referral
 - Self-refer by calling **416-494-3003 ext. 131**

Visit us at <https://nyfht.com/program/diabetes-education-program/>

