

Nutrition & Insulin Therapy

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Disclosure

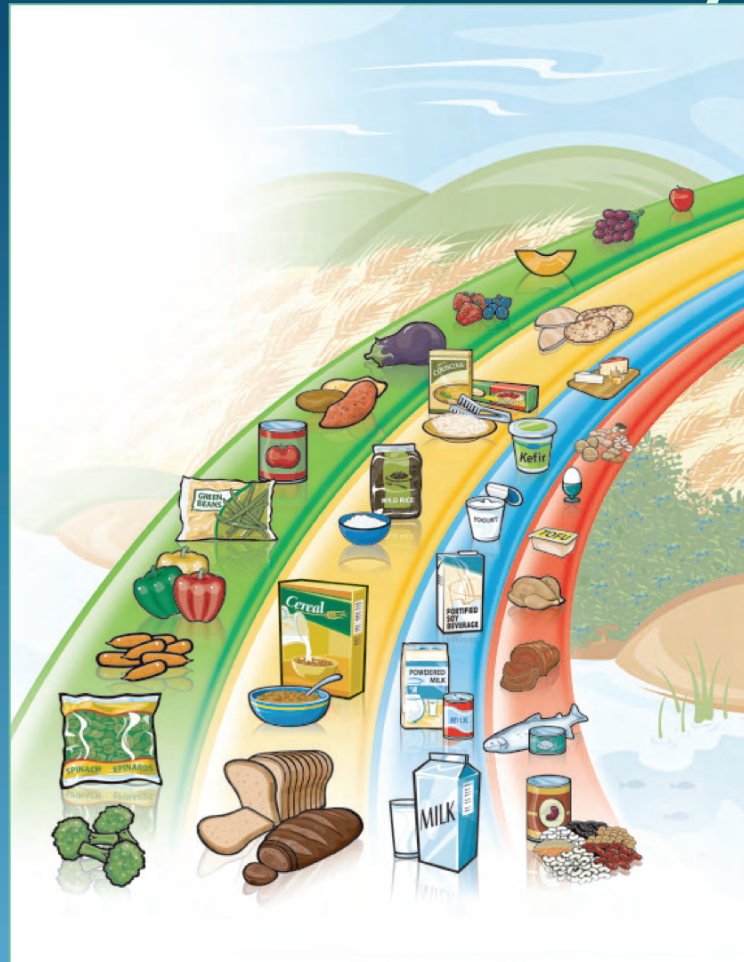
- I, *Irene Higgins-Bowser*, cannot identify any potential conflicts of interest with this presentation.

Nutrition Essentials

- Consistent carbohydrate intake
- Portion control
- Label reading
- Night snack
- Hypoglycemia treatment guidelines

Carbohydrate Consistency

- balanced meals- 3 out of 4 food groups
- Meat & alternates
- Starch grains
- Fruits
- Milk
- 1 choice = 15 grams carbohydrate(CHO)
- Thus 3-4 choices of CHO containing food group = 45-60 grams CHO, per meal



Canada's Food Guide

portion sizes

1 CHO
food
choice
=
15 grams
CHO



Grain Products 5-12 SERVINGS PER DAY	<div style="display: flex; justify-content: space-between;"> <div style="width: 45%;"> <p>1 serving</p> </div> <div style="width: 45%;"> <p>2 servings</p> </div> </div>
Vegetables and Fruit 5-10 SERVINGS PER DAY	<div style="display: flex; justify-content: space-between;"> <div style="width: 45%;"> <p>1 serving</p> </div> <div style="width: 45%;"> <p>Salad 250 mL / 1 cup Juice 125 mL / 1/2 cup</p> </div> </div>
Milk Products Servings per Day Children 4-9 years: 2-3 Youth 10-16 years: 3-4 Adults: 2-4 Pregnant and Breast-feeding Women: 3-4	<p>1 serving</p>
Meat and Alternatives 2-3 SERVINGS PER DAY	<p>1 serving</p>
Other Foods <p>Taste and enjoyment can also come from other foods and beverages that are not part of the 4 food groups. Some of these foods are higher in fat or Calories, so use these foods in moderation.</p>	

Canada's Food Guide

suggested servings

- 58 year old Mr Jones would ideally choose the recommended servings per day of carbohydrate rich food groups, with a consistent number of choices from one breakfast to the next, one lunch to the next and so on.

Recommended Number of Food Guide Servings per Day

Age in Years	Children			Teens		Adults			
	2-3	4-8	9-13	14-18		19-50		51+	
	Sex	Girls and Boys		Females	Males	Females	Males	Females	Males
Vegetables and Fruit	4	5	6	7	8	7-8	8-10	7	8
Grain Products	3	4	6	6	7	6-7	8	6	7
Milk and Alternatives	2	2	3-4	3-4	3-4	2	2	3	3
Meat and Alternatives	1	1	1-2	2	3	2	3	2	3

The chart above shows how many Food Guide Servings you need from each of the four food groups every day.

Having the amount and type of food recommended and following the tips in Canada's Food Guide will help:

- Meet your needs for vitamins, minerals and other nutrients.
- Reduce your risk of obesity, type 2 diabetes, heart disease, certain types of cancer and osteoporosis.
- Contribute to your overall health and vitality.

Consistent Carbohydrate Meals

- Breakfast

- 1 cup cereal = 2 CHO food choice
- 1 cup milk = 1 CHO food choice
- 1 banana = 1 CHO food choice

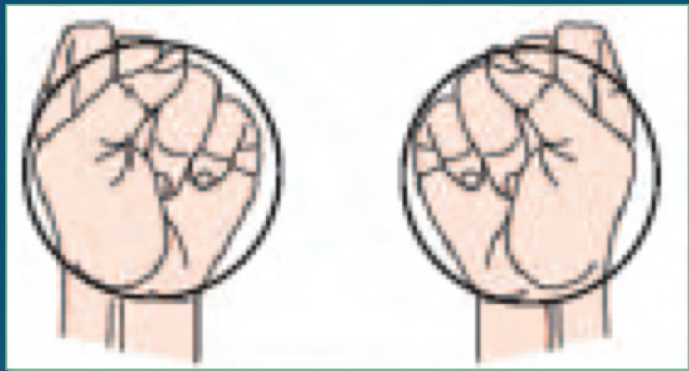
Total = 4 CHO food choices
(60 grams CHO)

- Breakfast

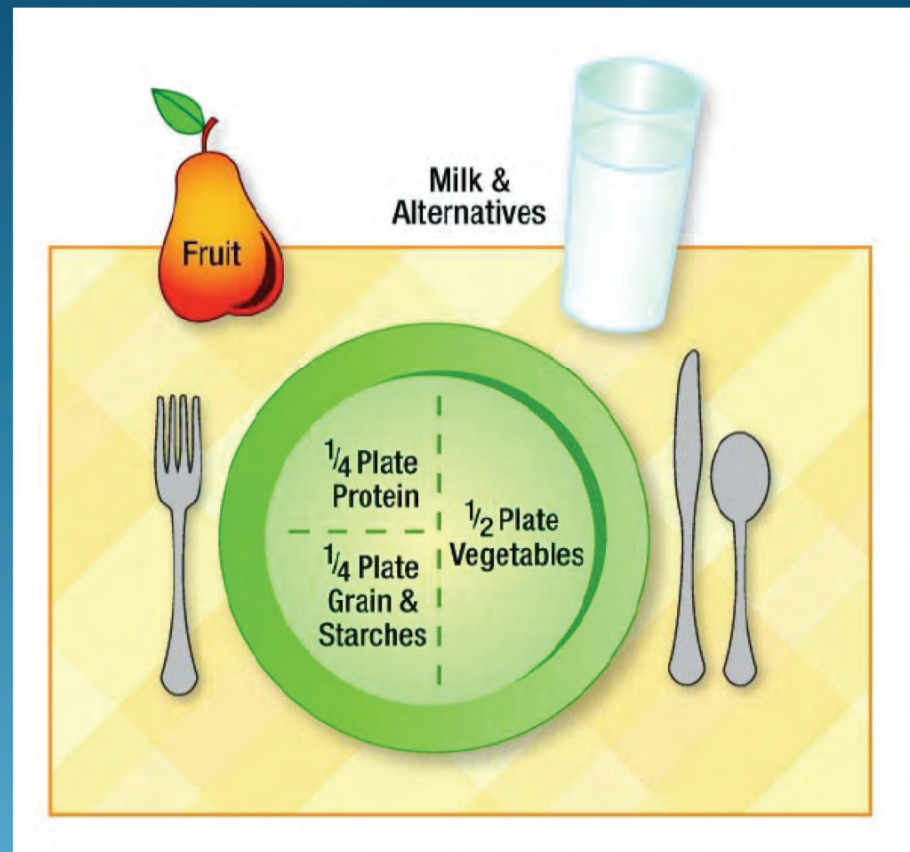
- 2 slices toast = 2 CHO food choice
- 1 egg
- 1 cup juice = 2 CHO food choice

Total = 4 CHO food choices
(60 grams CHO)

Portion Control




1 starch, grain or
1 fruit



Label Reading

- serving size
- grams of CHO, per serving
- subtract grams of fibre
- compare to a CHO food choice (15 grams of CHO)

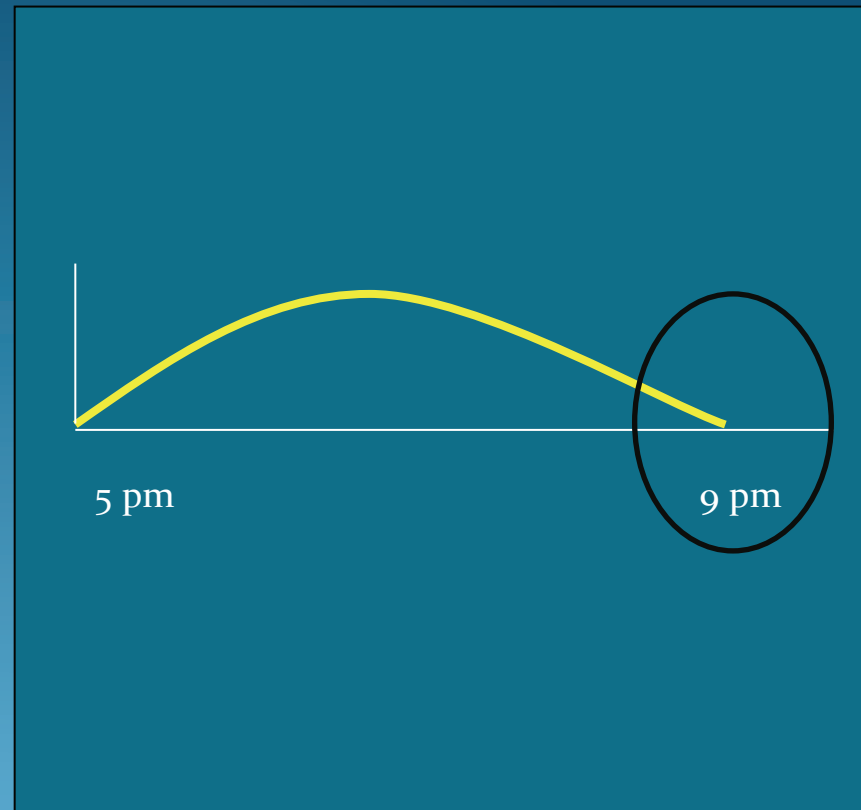
Cereal



Nutrition Facts	
Per	
Amount	% Daily Value
Calories	
Fat g	%
Saturated + Trans g	%
Cholesterol mg	
Sodium mg	%
Carbohydrate g	%
Fibre g	%
Sugars g	
Protein g	
Vitamin A %	Vitamin C %
Calcium %	Iron %

Night Snack

- Minimize nocturnal hypoglycemia
- Long time from supper to breakfast with no food
- Insulin type- may have a peak
- Basal at HS vs supper
- Snack -carbohydrate source with protein, slows release of carbohydrate



Treatment of Hypoglycemia (< 4 mmol/l)

Test, treat and test again *If blood glucose remains less than 4 mmol after 15 minute, retreat with 15g glucose

Treat with 15 grams fast acting carbohydrate:

- 3/4 cup regular soft drink or orange juice
- 1/2 cup apple juice
- 3 tsp sugar
- 5 regular hard candies
- 3-5 glucose tablets
(depending on CHO content)



When Adjusting Insulin and Beyond

- Have patient keep a food record occasionally to review CHO consistency of meals
- Remind the patient the importance nutrition plays in achieving blood glucose control
- Reassure that sometimes it is a juggling act

