

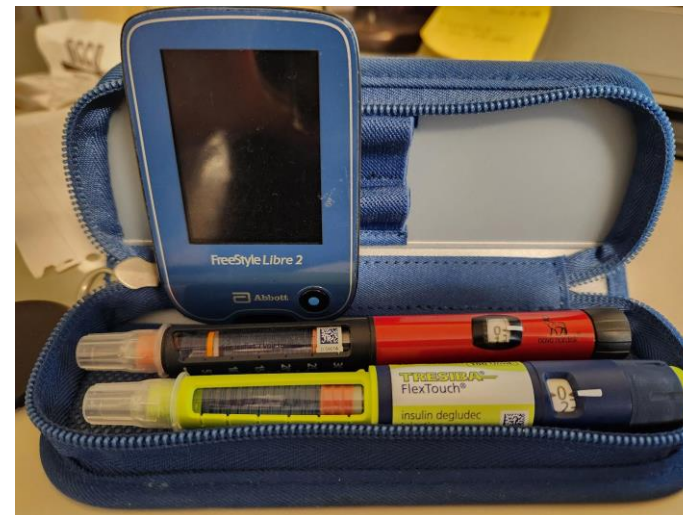
Nutrition, Diabetes and Wound Care

Kathleen Gibson RD CDE
Community Nutrition Advisor

November 2025



A bit about me



Today's Objectives

1. Understand the importance of nutrition for both wound healing and diabetes management
2. Learn how much additional nutrition is needed to help wound healing
3. Review of diabetes complications
4. Learn some special considerations for people with diabetes and wound care

Nutrition Recommendations

- Focus on a well-balanced diet.
- FOOD FIRST if possible.
- Consider FOOD as MEDICINE.
- Variety is key.
- Nutrition support as needed.
- Important for everyone!



Food is Medicine

Vegetables & Fruit

Carbohydrate
Fibre
Vitamin A
Vitamin C
+ many more



Protein

Protein
Fat
Carbohydrate*
Fibre*
Vitamin A
Zinc
+ many more



Grains

Carbohydrate
Fibre
Fat
Zinc
+ many more



Role of Nutrition in Wound Healing

- Nutrition is usually overlooked when discussing wound healing.
- Good nutritional and hydration status promotes wound healing.
- Wounds have very high needs for energy (calories) and protein to promote healing.
- Insufficient energy and nutrients will mean the body breaks down muscle to meet its needs.
- Factors that increase risk of infection:

Poorly Controlled Diabetes	Food insecurity
Protein-energy Malnutrition	Poor appetite
Anemia	Inability to chew
Substance use and abuse	Depression

Key Nutrients for Wound Healing



Calories

30 – 35 kcal/kg/day



Protein

1.25 – 1.5 g/kg/day



Fluids

30 mL/kg/day

Iron

8 mg/day (older than 50 y)

Vitamin A

F: 700 mg RAE, M: 900 mg RAE

Vitamin C

F :75 mg/day, M: 90 mg/day

Zinc

F: 8 mg/day, M: 11 mg/day

Extra Calories

Energy requirements for wound healing are 30-35 kcal/kg.

Extra calories prevent weight loss and promote wound healing.

Try to add extra calories at every meal and snack

- Healthy Fats
 - Olive oil, canola oil,
 - Nuts, peanut butter, seeds
 - Full fat dairy products (cheese, yogurt, fluid milk)
 - Fatty fish (sardines, salmon, mackerel)
- Carbohydrates
 - Whole grain foods
 - Vegetables (fresh, frozen and/or canned)
 - Fruit (fresh, frozen and/or canned)
 - Beans and lentils



Extra Protein

- Protein is essential for wound healing.
- Body needs 1.25 to 1.5 g/kg/day
- Protein helps build and maintain muscles, heal tissue and support a healthy immune system
- Try to have protein at each meal and snack.
- Choose extra servings:
 - Eggs
 - Cheese, Milk, Yogurt
 - Fish, chicken, beef, pork, wild game
 - Nuts and seeds
 - Beans and lentils (including soy)



Fluids

- Wounds are thirsty. Hydration is important for keeping the skin healthy.
- The fluid needs during wound healing are 30 mL/kg. This is about 9-12 cups per day.
- Examples include:
 - Water
 - Milk or fortified soy beverage
 - 100% fruit juice or vegetable juice
 - Broth soups
 - Coffee or tea

Recommend your clients keep a glass or bottle of water nearby.



Top Tips for Getting the Nutrition You Need

- ✓ Use full-fat dairy products such as yogurt, milk or cheese.
- ✓ Mix honey, jam, syrups or molasses into yogurt or hot cereals
- ✓ Add lentils or beans to soups.
- ✓ Cook hot cereals with milk or soy milk.
- ✓ Snack on nuts and seed. Add nut butters to crackers or fruit.
- ✓ Blend cottage cheese or Greek yogurt into a smoothie.
- ✓ Add skim milk powder to a glass of milk. Mix into mashed potatoes, soups or puddings.
- ✓ Grate cheese onto vegetables.
- ✓ Add canned fish to salads or pasta.
- ✓ Sprinkle raisins or dried cranberries onto cereals, salads, or yogurt.

Summary

- Nutrition is **essential** to wound healing.
- Food is Medicine.
- People will need more calories and protein to promote healing.
- Fluids, Vitamin A, Vitamin C and Zinc promote wound healing.
- If getting enough food is too hard, consider NIHB for nutritional supplements.



Nutrition Supports for Wound Healing

Food First

- Income Assistance: Supplementary Benefit for Special Diet
- Income Assistance/Home Care: Meals on Wheels
- Community: other food programs for community members
 - Food bags, Good Food Boxes
 - Aboriginal Diabetes Initiative resources for people living with diabetes
 - Resources for Elders in the community

Nutritional Supplements

- NIHB: Offer nutritional supplements for diabetes (e.g., Glucerna)
- NIHB: Open benefit for vitamin A, vitamin C and zinc

There is a presentation on FNTN about Getting to Know the NIHB Nutrition Processes and Products from April 2025.

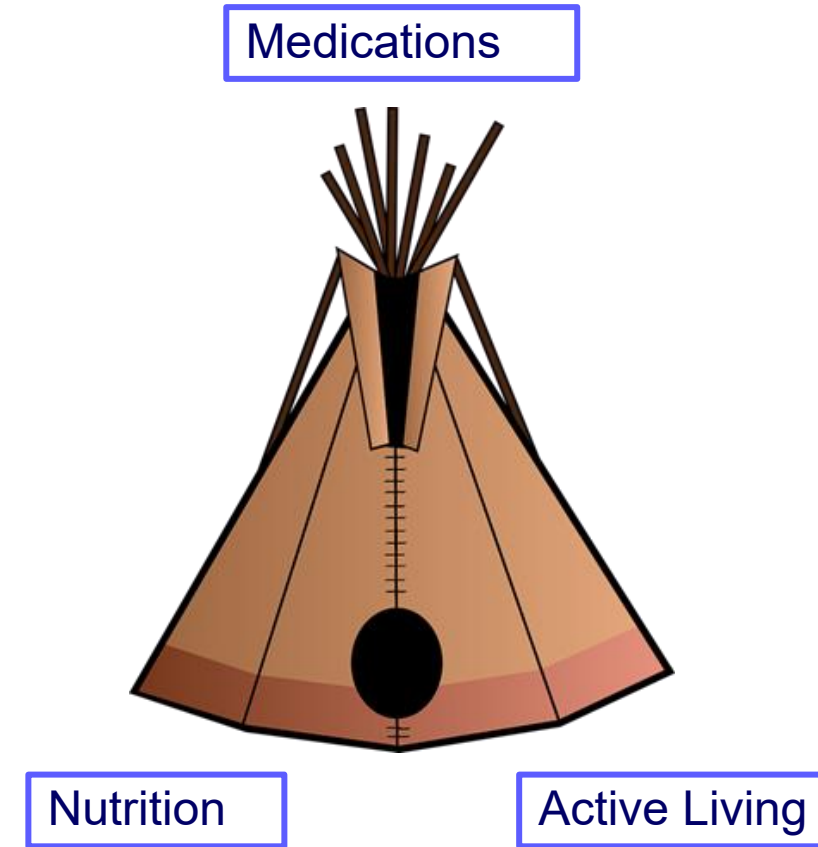
Search the FNTN.ca Library:
Session Type: Invite Education Session
Topic: Nutrition

Diabetes Review

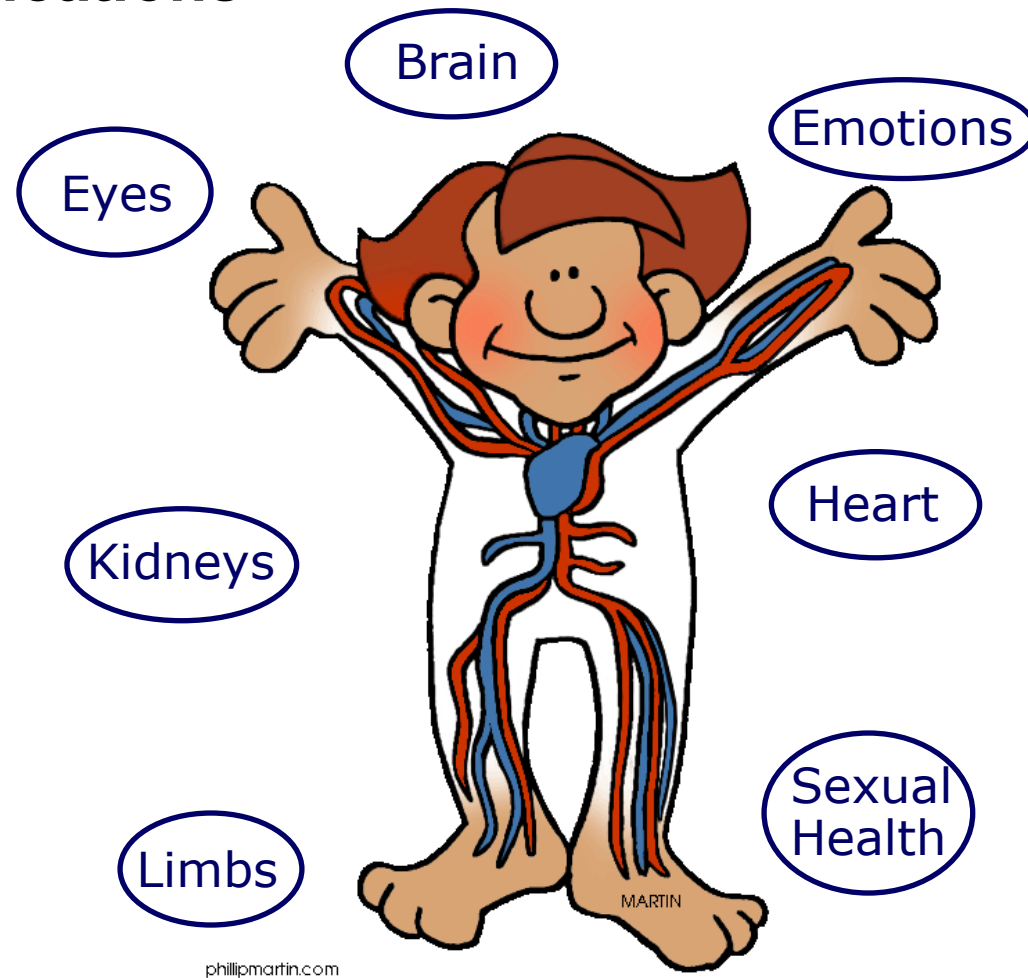


Diabetes Prevention and Management

- In diabetes, the steps you take to prevent diabetes are the same steps you take to manage diabetes.
- The basics of diabetes prevention and management are Nutrition, Active Living and Medications.
- Culture is at the core of prevention and management.
- This way of being is important for everyone!



Overview of Complications



Key considerations for diabetes and wound healing

1. Nutritional Status

- **Nutrition is essential for wound healing**
- Increased calories (30-35 kcal/kg/day)
- Increased protein needs (1.25 – 1.5g/kg/day)
- Fluids support wound healing (9-12 cups a day)
- Promote food first.
- Spread carbohydrate foods throughout the day:
 - Eat every 2-3 hours
 - Carbohydrate and protein foods at each meal and snack
 - Try to keep the amount of carbohydrates the same
 - Try smaller meals and larger snacks



Carbohydrate Foods increase blood sugar

Grains							
Bread  1 slice	Baked bannock  2x2x1 inch (5x5x2.5 cm)	Bagel  ¼	Bun  ½	Soda crackers  7	Hot cereal  ¾ cup (175 mL)	Cold cereal  ½ cup (125 mL)	Pancake or waffle  1 (4 inch or 10 cm)
Cooked pasta, quinoa  ½ cup (125 mL)	Cooked rice, barley  ½ cup (75 mL)	Thick soup  1 cup (250 mL)	Pizza crust  1/12 of 12 inch or 30 cm pizza	Pita  ½ (6 inch or 15 cm)	Roti/chapati  1 (6 inch or 15 cm)		
Starchy Vegetables							
Beans, peas, lentils  ½ cup (125 mL) cooked	Corn  ½ cup (125 mL)	Green peas  1 cup (250 mL)	Potato  ½ cup (125 mL)	Squash  ¾ cup (175 mL)	Sweet potato, yam  ½ cup (125 mL)		
Fruit							
Apple, orange  1 medium	Banana  ½ large	Blueberries  1 cup (250 mL)	Other berries  2 cups (500 mL)	Cherries or grapes  15	Canned fruit  ½ cup (125 mL)	Kiwis  2 medium	Peach, nectarine  1 large
Melon  1 cup (250 mL)	Pear  1 small	Pineapple  ¾ cup (175 mL)	Plums  2 medium	Juice, 100%  ½ cup (125 mL)			
Milk and Alternatives							
Milk or fortified soy beverage, no added sugar  1 cup (250 mL)	Yogurt, plain or no added sugar  ¾ cup (175 mL)	Yogurt with added sugar  ½ cup (75 mL) or 100 g	Milk or fortified soy beverage with added sugar  ½ cup (125 mL)				
Other foods							
Sugar, jam, jelly, honey, syrup  1 Tbsp (15 mL)	Sugary drinks, pop  ½ cup (125 mL)	Popcorn  3 cups (750 mL)					

Non-Carbohydrate Foods do not increase blood sugar

Vegetables							
							
Meat and Protein Foods							
Fish 	Lean meat and poultry 	Eggs 	Cheese 	Cottage cheese 	Tofu 		
Fats							
Oil, tub margarine, butter 	Salad dressing 	Nuts, nut butters, seeds 	Olives, avocados 				
Extras							
Coffee, tea 	Broth 	Herbs, spices 	Diet pop 	Sugar substitutes 			

Alberta Health Services resource

If your clients has diabetes:

1. Consider choosing non-carbohydrate foods to add extra calories and protein.
2. If choosing milk and alternatives, keep the serving size the same and increase the %milk fat. This will maintain the amount of carbohydrate and increase the calories.

e.g. 1 cup of 3.25%MF instead of 1 %MF





Recipes

[Get Enough Calories & Protein -](#)


[Recipes | Alberta Health Services](#)

<https://www.albertahealthservices.ca/nutrition/Page16043.aspx>

Carbohydrate Foods: raise blood sugar

Milk and Alternatives			
Milk or fortified soy beverage, no added sugar  1 cup (250 mL)	Yogurt, plain or no added sugar  ¾ cup (175 mL)	Yogurt with added sugar  ¾ cup (75 mL) or 100 g	Milk or fortified soy beverage with added sugar  ½ cup (125 mL)

Non-carbohydrate Foods: do not raise blood sugar

Vegetables						
						
Meat and Protein Foods						
Fish 	Lean meat and poultry 	Eggs 	Cheese 	Cottage cheese 	Tofu 	
Fats						
Oil, tub margarine, butter 	Salad dressing 	Nuts, nut butters, seeds 		Olives, avocados 		

Key considerations for diabetes and wound healing

2. Glucose Management

- Aim for a target A1C less than 7%
- Increased checking of blood glucose (self or homecare)
 - Glucometer and test strips
 - Flash or Continuous glucose monitors
 - Target between 4-10 mmol/l
- **Take Action** for higher glucose readings
- Perhaps increased need for medications:
 - Short acting insulin?
 - Work with Primary Care and Pharmacy



Summary

Nutrition is essential for wound healing.

- Food is Medicine. Food First.
- People will need more calories and protein to promote wound healing.
- Consider meals and snacks to get enough nutrition.
- Balance carbohydrates across the day.
- If getting enough food is too hard, consider how Assisted Living and NIHB can support.

Glucose control is essential for wound healing!





Thank You!
Questions?