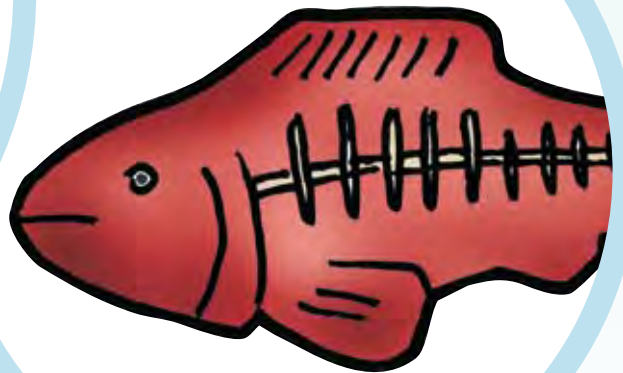


# strong bones!

Calcium Tips & Tidbits



### Tip

Adults should go for at least 30 minutes of activity each day. Make it 90 minutes for your kids!

## What is calcium and why do we need it?

Calcium is a mineral our bodies need. From babies to the elderly, everyone needs calcium to build strong bones and teeth, and to keep them strong. Vitamin D and physical activity help build and keep bones strong.



**Calcium**  
**+ Vitamin D**  
**+ other nutrients**  
**+ physical activity**  
**= strong bones**



## Why worry about calcium?

Many children, adults and elders in the North are not getting enough. Calcium is needed at all ages, especially for young people and people over 50.

### What is Osteoporosis?

A disease that causes bones to be thin, weak and break easily.

#### Children & Teens

Builds strong bones & teeth

Supports growth spurts

Forms the base for healthy bones & teeth later in life

#### Adults

Maintains strong bones & teeth

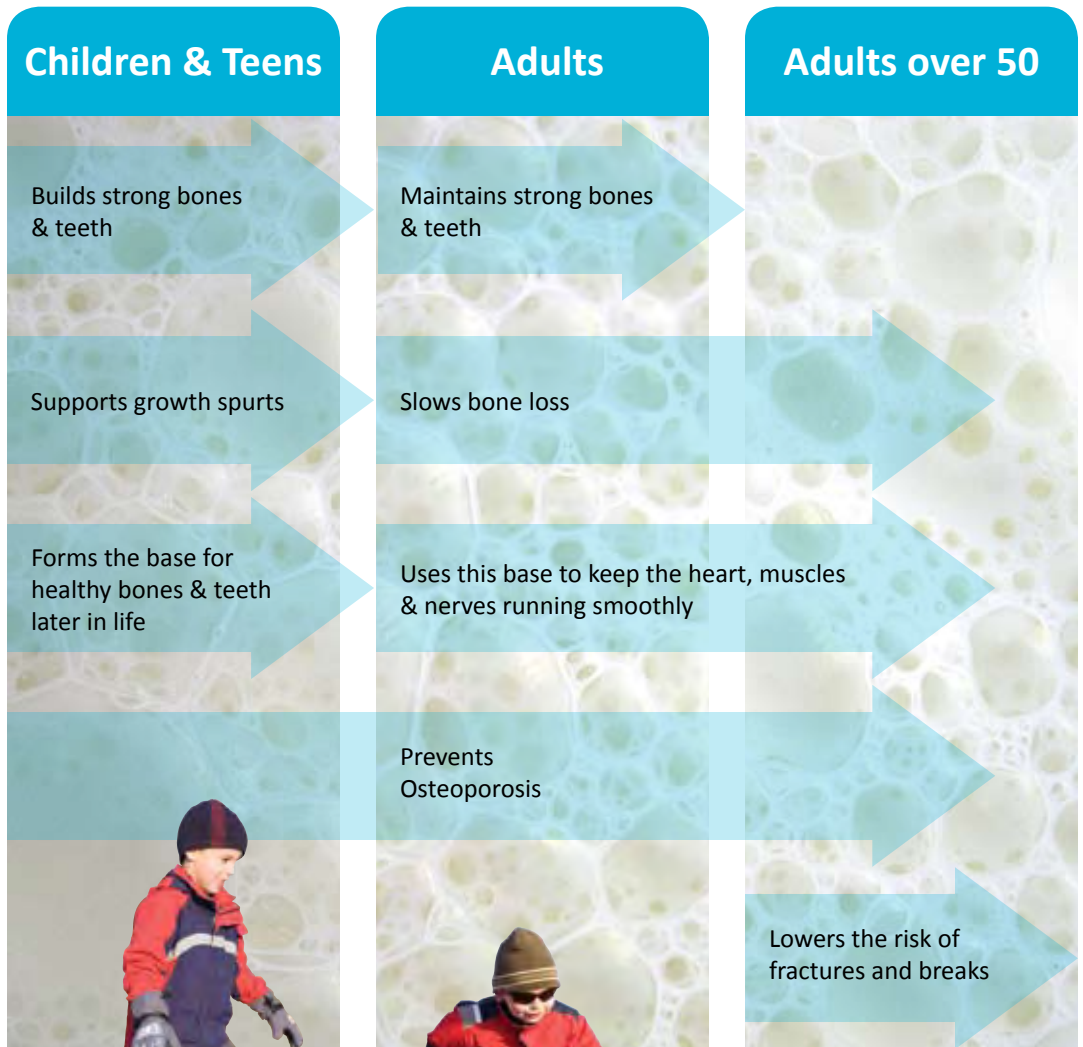
Slows bone loss

Uses this base to keep the heart, muscles & nerves running smoothly

Prevents Osteoporosis

#### Adults over 50

Lowers the risk of fractures and breaks



# Where do we get calcium?

## Traditional Sources of Calcium

- Fish fillets with skin
- Bannock made with baking powder
- Seaweed
- Sorrel and willow
- Fish heads
- Bone soups and stews \*
- Soft spongy bones \*

\* Soft well-cooked bones are likely to be sources of calcium

(Source: Nutrition Fact Sheet Series, Government of Nunavut, 2005)

## Common Sources of Calcium

Milk products are packed with calcium, Vitamin D, protein and B vitamins – all key for building strong bones and teeth.

- Yogurt
- Milk
- Skim milk powder
- Cheese
- Evaporated milk
- UHT milk
- Canned salmon with bones

### Did you know...

Baking powder is high in calcium. Bannock, biscuits or scones with baking powder are a good source of calcium. Add skim milk powder for an extra boost!

### Tip

Go for low-fat or fat-free milk products for yourself and children over 2 years old: skim, 1% and 2%. (Babies 1-2 years old need whole milk.)

# How much calcium do you need?

Age	Amount of Calcium Each Day	
0-6 months	210 mg	175ml of breast milk
6-12 months	270 mg	225ml of breast milk
1-3 years	500 mg	1 cup of milk + 1 piece of cheese
4-8 years	800 mg	½ cup of yogurt + ½ cup of macaroni & cheese + ½ cup of baked beans + 1 cup of soy milk
9-18 years	1300 mg	¾ cup fruit yogurt + 1 cup lasagna + 1 cup chocolate milk + 1 cup fish head soup + 1 cup of milk
19-50 years	1000 mg	1 medium piece of bannock + 2 slices of cheese + 1 cup of fish chowder + 1 cup of homemade hot chocolate
51 and older	1200 mg	½ cup oatmeal made with 1 cup of hot milk + 1 cup of milk + 2 slices of cheese + 1 cup cooked broccoli
Pregnancy	1000mg	3 cups of milk + ¼ cup of almonds (one small handful)
Breast-feeding	1000mg	¾ cup of fruit yogurt + 1 cup cream of tomato soup + 1 medium biscuit made with baking powder + 1 cup of milk + 1 char fillet with skin

Source: DRI for Calcium, NAS, 2004

**Did you know...**

Vitamin D is like a key that unlocks your bones. Your body needs enough Vitamin D so that it can let calcium into bones and make them strong. Fish and milk are excellent sources of Vitamin D.

**Did you know...**

1/3 cup of skim milk powder has 300mg of calcium and 100 IU's of Vitamin D. So does 1 cup of fresh milk, UHT or soy milk.

## Evaporated Milk Recipe

**Makes same amount as one 12-ounce can (354ml)**

1 1/3 cup water  
1 cup skim milk powder

Mix water and skim milk powder in a glass jar or bowl. Shake or stir well.

**½ cup serving: 338mg Calcium**

## Skim Milk Powder Recipe

**Makes 1 serving**

5 Tbsp. (1/3 cup) skim milk powder  
1 cup of cold water

Mix the above. Stir well. Use in recipe, chill if it's to drink and keep in the fridge if it's not used right away. Store dry powder in a cool dry place.





















## Have a high calcium day!

Meals	One Serving	Average Amount of Calcium (mg)
Lasagna	1 cup (250ml)	285
Cheese pizza, 12"	¼ of pizza	234
Bannock (made with baking powder)	4" diameter	220
Pancakes made with milk/skim milk powder	3 medium	185
Soups made with milk (fish chowder, cream of tomato/mushroom etc)	1 cup	165
Pudding	½ cup	155
Fish head soup	1 cup (250ml)	150
Macaroni & cheese (Kraft), prepared	1 cup (250 ml)	150

**strong bones!**

# Foods high in calcium

Foods	One Serving	Average Amount of Calcium (mg)		
Evaporated milk	½ cup (125ml)	350		
Cheddar cheese	50g (1 ½ oz.; about 2 slices)	350		
Milk, skim, 1% or 2% (chocolate/flavoured, UHT, soy)	1 cup (250ml)	300		
Skim milk powder, dry	5 Tbsp. (1/3 cup)	300		
Yogurt, fruit-flavoured	¾ cup (190 ml)	240		
Canned salmon with bones	½ can (105g)	235		
Yop	1 bottle (200ml)	200		
Clams	½ cup (125ml)	140		
Almonds	¼ cup (about 19 nuts)	95		
Ice cream	½ cup (125ml)	90		
Char fillet with skin	1 fillet	90		
Netted willow, raw	1 cup (250ml)	80		
Baked beans	½ cup (125ml)	75		
Cottage cheese, 1% or 2%	½ cup (125ml)	75		
Seaweed (kelp), raw	½ cup (125ml)	60		
Arctic willow, raw	1 cup (250ml)	55		
Broccoli, cooked	½ cup (125ml)	35		

**Did you know...**  
 Skim milk powder is a great substitute for milk in recipes and to drink. It's just as nutritious as milk, costs less, and lasts much longer.

**Did you know...**  
 It takes 5 cups of cooked broccoli to get the same amount of calcium in one cup (250ml) of milk.

## Did you know...

UHT milk has been processed at a higher temperature than regular milk so that it doesn't have to be refrigerated until after opening. It lasts from 3-6 months (check the label) and is just as nutritious as regular milk.

## Tip

Aim for one serving of a milk product or calcium rich food with each meal plus a calcium-rich snack each day.

## More Tips

- Know which foods are high in calcium
- Keep calcium-rich foods on hand
- Get to know the serving sizes of the high calcium food throughout this booklet
- Check out your food guide:
  - Eating Well with Canada's Food Guide
  - Eating Well with Canada's Food Guide First Nations, Inuit and Metis
  - Nunavut Food Guide
- Have a high calcium food with each meal and snack
- Save money and replace fluid milk with skim milk powder in cooking, baking or drinking

## Have a calcium meal or snack

Go for at least one of these ideas at each meal:

### Breakfast

- Cereal with milk
- Yogurt and granola
- Bannock with peanut butter
- Make oatmeal or cream of wheat with milk or skim milk powder

### Snack

- Have a small bowl of yogurt with fruit
- Go for flavoured milk or soy milk (chocolate or strawberry)
- Mix cottage cheese with fruit

### Lunch

- Add cheese to your sandwich
- Sprinkle cheese on salads, soup or casseroles
- Have a glass of milk, UHT, fortified soy milk or a yogurt drink
- Serve leftover pizza or macaroni and cheese
- Add milk or skim milk powder to canned cream soups
- Make a pot of fish head soup

### Snack

- Make a dip with yogurt for fruit or veggies
- Mix fruit, ice and milk, skim milk powder or yogurt for a fruit smoothie
- Serve cubed cheese with crackers or cut up fruit

### Supper

- Offer milk, half milk and half skim milk powder, or soy milk as the drink of choice
- Serve broccoli, netted willow or baked beans
- Boil fish fillets with skin until bones are soft
- Serve bannock with soups and stews
- Make homemade fish/seafood chowder with milk

### Snack

- Serve homemade puddings
- Layer yogurt with fruit for a parfait
- Serve hot chocolate made with milk





## What is lactose intolerance?

Lactose intolerance is not a food allergy, and most people who have it can still have milk products. A person who is lactose intolerant doesn't make enough of the enzyme (lactase) to break down large amounts of the natural sugar found in milk and milk products (lactose). Some symptoms are gas, bloating, cramping and diarrhea.

*If you think you or a member of your family is lactose intolerant, check with your doctor to make sure.*

## If you are lactose intolerant:

- Find out how much and which milk products are easier to handle
  - Try small amounts at a time, and slowly increase it until you start to feel symptoms
- Have milk products only with other foods
- Drink milk in small amounts at a time
- Choose lactose-free milks, soy milk or fortified rice milk
- If you are unable to handle any milk products, contact a registered dietitian, or talk to your doctor



## Fish Chowder

Makes 8 servings

3 cups water + extra for vegetables

1 cup skim milk powder\*

2 ½ lbs char or salmon filleted and cut into bite size pieces

½ lb bacon, diced small

3 cups potatoes, peeled and diced into ½" pieces

3 large carrots, sliced

2 medium onions, chopped

3 stalks celery, sliced

1 tsp. salt

1 tsp. pepper

Optional:

1 tsp. thyme

1 tsp. lemon juice

½ cup fresh parsley, finely chopped, or ¼ cup dried

**\*Note: can use 3 cups of fluid milk, UHT, soy milk or evaporated milk instead)**

1. Mix 3 cups of water with 1 cup of skim milk powder in a glass bowl or measuring cup, until no lumps are left. Set aside.
2. In a pan, fry bacon until crisp. Drain fat (making sure to keep 2 Tbsp. of it), and break bacon into small pieces. Set aside.
3. In a large stew pot, fry onions in 2 Tbsp. bacon fat until clear and soft.
4. Stir in potatoes, carrots and celery. Add in water to just cover vegetables. Bring to a boil, reduce heat, and simmer until vegetables are soft (about 10-15 minutes).
5. Add fish and simmer until almost done... about 10 minutes.
6. Add salt and pepper. Also add thyme, lemon juice and parsley if desired.
7. Add the 3 cups of milk and heat until hot. Do not boil.
8. Serve in bowls topped with a sprinkle of bacon bits.

**One serving (1 cup): 160mg Calcium, 304 IU Vitamin D**

Source: Adapted from *The Cravers (Cape Dorset), 1997 NWT Prenatal Nutrition Workshop Cookbook*

## Baked Bannock

Makes 12 pieces

4 cups flour (half white and half whole wheat)

3 Tablespoons baking powder

1 cup water mixed with 1/3 cup skim milk power

1 tsp salt

¼ cup liquid vegetable oil (like canola)

1 ½ to 2 cups water

1 cup fruit (cut up dried apricots, raisins, cranberries, etc.)

Mix dry ingredients. Stir in oil. Add water and then fruit. Shape dough. Bake at 375 degrees F for about 35 minutes.

**One piece of bannock: 141mg Calcium, 10 IU Vitamin D**

Source: *Nutrient Fact Sheets, Department of Health and Social Services, Government of Nunavut (2005)*

## Additional Nutrition Resources

[www.gov.nu.ca](http://www.gov.nu.ca)

[www.hlthss.gov.nt.ca](http://www.hlthss.gov.nt.ca)

[www.hss.gov.yk.ca](http://www.hss.gov.yk.ca)

[www.nichd.nih.gov/milk](http://www.nichd.nih.gov/milk)

[www.moreaboutmilk.com](http://www.moreaboutmilk.com)

[www.getenough.ca](http://www.getenough.ca)

[www.dietitians.ca](http://www.dietitians.ca)

[www.bcdairyfoundation.ca](http://www.bcdairyfoundation.ca)

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