

What's new ... in **dairy** and eggs?



Issue #7

Dairy Products

Have you ever really thought about what is in your milk? Milk contains 87 per cent water and 13 per cent solids. It is the solids that contain the 15 essential nutrients that give our body strength. Let's take a closer look.

Nutrients	Function
Calcium	Builds bones, both in length and strength. Helps muscles contract, blood clot and the heart to beat.
Protein	Forms the collagen matrix upon which minerals like calcium and phosphorous build hard bones.
Magnesium	Links with calcium and phosphorus to harden bone.
Phosphorus	Bonds with calcium in bone for strength.
Vitamin A	Enables bone remodeling (breaks down and rebuilds bone).
Vitamin D	Aids in calcium and phosphorus absorption.
Carbohydrates	Provides energy for our muscles and brain.
Vitamin B-6	Needed for protein metabolism.
Vitamin B-12	Is necessary for growth, maintenance of nerve tissue and normal blood formation.
Folacin	Is a growth factor and required for DNA synthesis.
Thiamin	Needed for carbohydrate metabolism.
Riboflavin	Helps convert food into energy.
Niacin	Needed for carbohydrate utilization & tissue respiration.
Pantothenate	Needed for fatty acid metabolism.
Zinc	Essential for growth and development, wound healing immunity and other physiological processes.

Dairy Industry

Have you every really thought about how your milk gets to your grocery store cooler? Let's take a journey back to the farm to find out how. Dairy cows have to give birth to a calf to give milk. A dairy cow is milked a minimum of two times per day. Some farms milk three times per day. Stainless steel lines carry the milk from the cow directly to the bulk milk tank where it is cooled to 4°C. The milk in the bulk tank is picked up every two days by certified milk haulers. These haulers first test the milk for quality by sight and smell and then they take samples that will be tested at the central milk testing lab.

The milk is then pumped into the insulated tanker and transported to the processor where it is pasteurized and made into a variety of dairy products such as milk, cream, butter, cheese and yogurt.

Featured Dairy Recipe

Easy Creamy Microwave Risotto

Makes 4 servings.

This was cooked in a 900-watt microwave oven.

Ingredients

2 tbsp	butter	30 mL
½ cup	thinly sliced green onions	125 mL
1	garlic clove, minced	1
1 cup	Arborio or Italian-style rice	250 mL
2 cups	chicken or vegetable broth	500 mL
1 cup	milk	250 mL
2 cups	chopped broccoli	500 mL
1 cup	grated carrot	250 mL
½ cup	chicken broth	125 mL

1 cup shredded aged cheddar cheese 250 mL

Freshly ground black pepper to taste

Parmesan cheese and chopped fresh parsley to serve

Method

1. Melt butter in a deep 2 quart (2 L) microwave safe dish on high for about 20 seconds or until melted.
2. Add onion and garlic and stir to coat. Cook uncovered on HIGH for 2 to 3 minutes or until onion is softened.
3. Add rice, broth, and milk and stir. Cook uncovered on HIGH for 20 minutes; stirring halfway through cooking.
4. Add broccoli, carrot and broth and stir. Cook on HIGH for 5 to 7 minutes or until rice and broccoli are tender.
5. Stir in pepper and cheese. Cover and let stand for 5 minutes. Sprinkle with Parmesan and parsley if desired.

nutrients per serving

calories 498.3 carbohydrates 63.7 g protein 25.3 g
fat 18.1 g fibre 8.5 g calcium 453.3 mg

**nutrient analysis based on 1% milk*

Teacher Resources

What's the Scoop on Dairy?

This fact sheet will help you find answers to frequently asked questions about milk products, including dairy nutrition, food safety and storages and ways to cook with dairy.

Smoooothies

Looking for great tasting smoothie recipes, then look no more. This colourful booklet has great ideas and easy recipes. Order your class set today.

Curriculum Resources

Go on-line today www.albertamilk.com and look under Nutrition & Education-click on teachers, click on Nutrition Resources; download Alberta Milk's 2006-07 Nutrition Resources brochure and order what you need today.

Update your Egg-Q ... Egg Chemistry

Eggs are excellent on their own but they're also an important part of cooking and baking. Here are some of the useful functions eggs perform in food preparation:

Binding: Eggs are very good at binding foods together, which means they help the ingredients in a mixture stick together. Meatballs and burgers are two examples of foods where eggs serve as the "glue".

Leavening: Eggs can also be a leavening agent for pancakes, muffins, omelettes or cakes. A leavening agent increases the volume of a food product and lightens its texture.

Thickening: Eggs have a great thickening ability. Many delicious sauces rely on eggs to give them a thicker consistency. Custards rely on eggs for a more gelled texture.

Emulsifying: Eggs are frequently used to emulsify or combine two liquids, such as oil and water, which normally can't be combined. Hollandaise sauce and salad dressings use eggs as an emulsifying agent.

Coating: Eggs can also work as a coating agent. Beaten eggs are applied to the surface of foods such as chicken or fish, so that other coatings like bread crumbs or cheese will stick.

Fast Facts About ... Egg Nutrition

Eggs are one of nature's most nutritious foods. One large egg contains just 70 calories, 5 grams of fat and 14 essential nutrients. The nutrients found in eggs provide many benefits to your health, such as:

- Protein – Helps keep a body strong and healthy.
- Vitamin A – Helps maintain healthy skin and eye tissue, plus assists in night vision.
- Vitamin B12 – Helps protect against heart disease.
- Vitamin D – Helps keep bones healthy and teeth strong.
- Vitamin E – Acts as an antioxidant that protects cells against some cancers.
- Choline – Assists in brain development and function.
- Riboflavin – Helps keep body tissues healthy.
- Niacin – Promotes normal nerve function and helps release energy.
- Folate – Helps produce and maintain new cells, especially red blood cells.

- Iron – Carries oxygen to the cells and keeps blood healthy.
- Zinc – Helps maintain a strong immune system.
- Lutein and Zeaxanthin – Help maintain good vision and protect eyes against harmful UV rays.
- Omega-3 fats – Help improve blood cholesterol and help reduce the risk of Alzheimer's disease.

Featured Egg-speriment

The Bouncing Egg

Did you know that you can make an egg bounce like a rubber ball? It takes a few days but you're sure to impress as long as you make sure to bounce the egg outdoors.

Instructions:

- 1) Place a hard-boiled egg with its shell still on in a tall glass of vinegar.
- 2) Let the egg sit in the vinegar for three days and then gently rinse the egg in warm water so that the shell comes off.
- 3) Once the shell has been removed, you will notice the egg feels like a rubber ball or the soles of your snow boots. This is because the vinegar has eaten away the shell and made the inside of the egg very rubbery.
- 4) Take the egg outside and gently throw it to see if it will bounce. Or, better yet, have a contest to see whose rubber egg bounces the best.

Clean-up Tip:

Try bouncing the egg on a surface covered by a plastic garbage bag or newspaper in order to save on clean-up time. Be sure to pick up any pieces of egg so there aren't any surprising smells.

Teacher Resources

Check out our website at www.eggs.ab.ca for our new newsletter, *The EGGSpress*. Each month, *The EGGSpress* features seasonal content including intriguing egg-speriments, simple recipes, and fun crafts.

The new **2007–2008 EGGcellent Resources for Alberta Teachers** resource list and order form is now available via www.eggs.ab.ca or via our address below. Resources are free of charge, plus a minimal administrative/handling fee.

Contact us for more ideas on integrating eggs into your classroom: info@eggs.ab.ca.

