OSU EXTENSION FAMILY & COMMUNITY HEALTH

Health Benefits of Millet



WHAT IS MILLET?

Millets are a group of small-seeded grasses with more than 6,000 varieties. Among our most ancient grains, millets have been consumed by our ancestors for 10,000 years.

The most popular varieties of millet include pearl, finger, proso and foxtail, with pearl millet being the most widely-found in the US. The seeds are tiny and can range from white or gray to yellow or red.

The seeds are often used as bird seed, but millet is great for human health, too. It can be boiled for a whole grain side dish or breakfast porridge, ground for making flatbreads, or fermented to make alcohols. Since millet is gluten-free, it is often ground and used in combination with other flours.

WHAT MAKES MILLET GREAT?

Nutrition

Millet is a whole, intact grain (technically a seed) that is rich in B vitamins (folate, pantothenic acid, niacin, riboflavin and B6), vitamins C, E and K. It is also a good source of minerals (calcium, copper, iron, magnesium, phosphorus, potassium and selenium). It is a source of both soluble and insoluble dietary fiber. Together, these nutrients contribute to protecting us from disease and illness.

B Vitamins and phosphorous

- Necessary for the body's production of energy, metabolism of sugars and amino acids
- Precursor to enzymes for metabolism, growth and development, repair of tissues
- Coenzyme for many reactions in the body

Antioxidant vitamins C, E and mineral selenium

- Powerful antioxidants protect tissues from dangerous free radicals and oxidation
- Slow aging and reduce risk of developing disease

Calcium

- Essential for healthy bones and teeth, works with phosphorus
- Maintains blood pH, blood clotting, muscle contraction and nerve function

Magnesium, potassium, phosphorus

- Electrolyte minerals help carry electrical impulses
- Potassium is critical for muscle contraction, particularly the heart. It also plays a crucial role in fluid balance
- Magnesium maintains heart rhythms, acts as a catalyst for making DNA and RNA, and improves insulin sensitivity in type 2 diabetes
- Phosphorus plays a role in energy metabolism, building bones and teeth, regulating pH and helping nerve and muscle transmissions
- Phosphorous also helps the kidneys filter out waste, builds DNA and RNA, and maintains a regular heartbeat

Warding off Disease

- Potassium, magnesium and phosphorous help protect the heart
- Magnesium is also involved with glucose metabolism, making it important for protecting against diabetes
- Insoluble fiber protects against hemorrhoids, gallstones and diverticulosis
- Soluble fiber helps regulate blood sugars and lower cholesterol
- High fiber protects against breast and colon cancer, and provides prebiotic for healthy gut flora
- Whole grains reduce the risk of childhood asthma
- Polyphenol antioxidants are particularly helpful in protecting blood vessels from plaque buildup, reducing risk for heart attack, stroke and PAD, and improving blood flow in diabetes



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PREPARING MILLET

Millet is generally available in its hulled whole grain form, in packages or in bulk. Since millet contains a small amount of oil, it can go rancid. Store in an airtight container in a cool, dark place. Refrigerate or freeze for long storage. Like all intact grains, millet should be rinsed before cooking.

Millet can have a variety of textures and uses depending on how it is cooked.

- Bring one part millet and 2 parts water or broth to a boil. Cover and reduce heat to simmer for about 15 minutes. Allow it to rest 10 minutes for a texture like fluffy rice. This makes a nice whole grain side dish.
- Increase the water or broth to 3 parts to one part millet to create a creamy consistency, more like porridge, for a warm breakfast cereal.
- Millet prepared as porridge can be poured into a shallow pan and cooled. Slice it as you would polenta.
- For a nutty flavor, roast millet seeds before cooking. Place a few tablespoons in a dry, hot pan for 3-5 minutes, stirring constantly. Do a few tablespoons at a time to prevent burning. When they have achieved a golden color, add them to the boiling water for cooking.
- Millet can easily be ground into flour in a spice or coffee grinder. Since it is gluten free, millet flour can be used in flatbreads or in combination with gluten or other flours in muffins or breads.
- Millet can be tossed raw into cookies, muffins or granola for an extra crunch. It is especially delicious if toasted slightly which brings out the nutty flavor.
- It can be used as a thickener in soups or stews.
- Toss cooked millet with vegetables to bulk up the nutrition and extend portions of a side dish.
- Simmer onions and garlic until soft. Add water or broth and millet and cook 20 minutes. Stir in curry powder or other spices to serve.

TIPS AND CAUTIONS

 Soak millet by covering with 2" of water and refrigerating overnight. Drain before cooking. This will decrease cooking time.

REFERENCES

EatingVibrantly.com Health.clevelandclinic.org Health.harvard.edu Mayoclinic.org Ncbi.nlm.nih.gov Nccih.nih.gov Nutritionfacts.org

- Millet is a mild thyroid peroxidase inhibitor. It can interfere with iodine update due to thyroid disease.
- To avoid thyroid complications, avoid using millet as your only grain. Be sure to try other nutritious whole intact grains like buckwheat groats, steel cut oats, amaranth, teff or quinoa.

Millet Delight

Recipes adapted from allrecipes.com

Ingredients:

1 cup cooked millet	5 1/2 cups hot water
1/2 cup soy milk powder	2/3 cup chopped dates
1/2 cup flaked unsweetened	coconut 1 tsp vanilla

Directions:

- 1. Preheat over to 350F.
- 2. Combine all ingredients in a 9 x 13 casserole dish.
- 3. Bake 30 minutes. Remove and stir. Return to oven and bake additional 30 minutes.
- 4. Serve hot.

Millet Stuffed Peppers

Ingredients:

4 cubes vegetable bouillon

5 medium bell peppers

1 cup millet 4 cups water

1 (15 oz) can black beans, drained

3 medium tomatoes, chopped

Directions:

- 1. Combine millet, water and vegetable bouillon in saucepan and bring to boil. Reduce heat to low, cover and simmer 1 minutes or until all water is absorbed.
- 2. Slice off the top of peppers and remove seeds and cores. Set aside.
- 3. When millet is done, add tomatoes 7 black beans.
- 4. Spoon mixture into peppers until filled.
- 5. Place peppers in glass baking dish and cover.
- Cook on rotating platform in microwave (or rotate every 2-3 minutes) for 10 minutes or until peppers are tender.

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