

## **Quinoa (pronounced keen-wah)**

### **History**

While relatively new to the United States, quinoa has been cultivated in the Andean mountain regions of Peru, Chile and Bolivia for over 5,000 years, and it has long been a staple food in the diets of the native Indians.

In their attempts to destroy and control the South American Indians and their culture, the Spanish conquerors destroyed the fields in which quinoa was grown. They made it illegal for the Indians to grow quinoa, with punishment including sentencing the offenders to death. With these harsh measures, the cultivation of quinoa was all but extinguished.

Yet, this super food would not be extinguished forever. In the 1980s, two Americans, discovering the concentrated nutrition potential of quinoa, began cultivating it in Colorado. Since then, quinoa has become more and more available as people realize that it is an exceptionally beneficial and delicious food.

The tiny, bead-shaped grain with a slightly bitter flavour and firm texture, may not be a household name just yet, but it is set for a starry future - as far as grains go. The Incas have known it all along, for thousands of years regarding it as the 'mother grain' as they grew it high up in the Andes.

Although it is cooked like a grain, botanically it is actually a seed. Like grains, it is a good source of complex carbohydrates. However, it has a greater protein content than most grains, and unlike other grains, contains all the amino acids needed for health.

Unlike wheat or rice, Quinoa is a complete protein - containing all eight of the essential amino acids. It has been recognised by the United Nations as a supercrop for its health benefits: packed with dietary fibre, phosphorus, magnesium and iron. It is also gluten free and easy to digest. The facts suggest it is close to a perfect ingredient as you can get.



Quinoa also contains useful amounts of manganese, magnesium, potassium, calcium, iron and phosphorous as well as B vitamins and small amounts of the essential fats. The fibre in quinoa makes it useful for cleansing the intestines and preventing cardiovascular disease.

**Being such a complete protein, quinoa provides a lot of benefits for the following groups:**

- Vegetarians and vegans looking for alternative sources of protein
- Those on wheat or gluten free diets
- Those with food intolerance or on rotation diets
- People with imbalanced blood sugar control
- Anyone with problems associated with the cardiovascular system
- Athletes or anyone who exercises regularly

**Specific Health Benefits**

**Help for Migraines**

If you are prone to migraines, try adding quinoa to your diet. Quinoa is a good source of magnesium, a mineral that helps relax blood vessels, preventing the constriction and rebound dilation characteristic of migraines. Increased intake of magnesium has been shown to be related to a reduced frequency of episodes reported by migraine sufferers. Quinoa is also a good source of riboflavin, which is necessary for proper energy production within cells. Riboflavin (also called vitamin B2) has been shown to help reduce the frequency of attacks in migraine sufferers, most likely by improving the energy metabolism within their brain and muscle cells.

**Cardiovascular Health**

Since low dietary levels of magnesium are associated with increased rates of hypertension, ischemic heart disease and heart arrhythmias, this ancient grain can offer yet another way to provide cardiovascular health for those concerned about atherosclerosis.

### **Antioxidant Protection**

Quinoa being a very good source of manganese and a good source of copper, it is an antioxidant that helps to protect the mitochondria from oxidative damage created during energy production as well as guard other cells, such as red blood cells, from injury caused by free radicals.

### **Gallstone Prevention**

Eating foods high in insoluble fiber, such as quinoa, can help women avoid gallstones, shows a study published in the *American Journal of Gastroenterology*.

### **Quinoa and Other Whole Grains Substantially Lower Type 2 Diabetes Risk**

Quinoa and other whole grains are a rich source of magnesium, a mineral that acts as a co-factor for more than 300 enzymes, including enzymes involved in the body's use of glucose and insulin secretion.

Now, research suggests regular consumption of whole grains also reduces risk of type 2 diabetes. In this 8-year trial, involving 41,186 participants of the Black Women's Health Study, research data confirmed inverse associations between magnesium, calcium and major food sources in relation to type 2 diabetes that had already been reported in predominantly white populations.

Get the benefits of both quinoa and dairy by serving your quinoa with a little low-fat cheese. Try adding a little crumbled feta or parmesan cheese, some pine nuts, chopped onion and parsley to your quinoa for a tasty lunch or dinner whole grain dish.

Quinoa is generally available in prepackaged containers as well as bulk bins. Just as with any other food that you may purchase in the bulk section, make sure that the bins containing the quinoa are covered and that the store has a good product turnover so as to ensure its maximal freshness.

Whether purchasing quinoa in bulk or in a packaged container, make sure that there is no evidence of moisture. When deciding upon the amount to purchase, remember that quinoa expands during the cooking process to several times its original size. If you cannot find it in your local supermarket, look for it at natural foods stores, which usually carry this super grain.

Store quinoa in an airtight container. It will keep for a longer period of time, approximately three to six months, if stored in the refrigerator.

### **Tips for Preparing Quinoa:**

#### **Serving suggestion and amounts**

Quinoa should be rinsed or soaked before cooking as there may be residues of natural saponins on the skin. To cook it just put 1 cup of quinoa in 2 cups of water, cover and simmer until all of the water has been absorbed. For a lighter, fluffier dish cook in more water for longer. Flavours such as ginger, turmeric, miso, tamari and herbs can all be added. Quinoa can be used as an alternative to porridge, to accompany stews and casseroles, in salads and to thicken soups.

Quinoa is easy to prepare and its fluffy texture and slightly nutty flavour make it an excellent alternative to white rice or couscous. When cooked, its grains quadruple in size and become almost translucent. Quinoa can be prepared much like rice and is great in stuffings, pilaus and breakfast cereals.

While the processing methods used in the commercial cultivation remove much of the soapy saponins that coats quinoa seeds, it is still a good idea to thoroughly wash the seeds to remove any remaining saponin residue. An effective method is to run cold water over quinoa that has been placed in a fine-meshed strainer, gently rubbing the seeds together with your hands. To ensure that the saponins have been completely removed, taste a few seeds. If they still have a bitter taste, continue the rinsing process.

To cook the quinoa, add one part of the grain to two parts liquid in a saucepan. After the mixture is brought to a boil, reduce the heat to simmer and cover. One cup of quinoa cooked in this method usually takes 15 minutes to prepare. When cooking is complete, you will notice that the grains have become translucent, and the white germ has partially detached itself, appearing like a white-spiralled tail. If you desire the quinoa to have a nuttier flavor, you can dry roast it before cooking; to dry roast, place it in a skillet over medium-low heat and stir constantly for five minutes.

Since quinoa has a low gluten content, it is one of the least allergenic "grains," but its flour needs to be combined with wheat to make leavened baked goods. Quinoa flour can be used to make pasta, and quinoa pastas are available in many natural foods stores.

#### **A Few Quick Serving Ideas:**

Combine cooked chilled quinoa with pinto beans, pumpkin seeds and coriander. Season to taste and enjoy high protein salad.

Add nuts and fruits to cooked quinoa and serve as breakfast porridge.

For a twist on your favourite pasta recipe, use noodles made from quinoa.

Sprouted quinoa can be used in salads and sandwiches just like moong sprouts.

Add quinoa to your favourite vegetable soups.

Ground quinoa flour can be added to cookie or muffin recipes.

Quinoa is great to use in tabbouleh, serving as a delicious (and wheat-free) substitute for the couscous with which this Middle Eastern dish is usually made.

Vegetables and seasonings can also be added to make a wide range of dishes. Chicken or vegetable stock can be substituted for water during cooking, adding flavour. It is also suited to vegetable pillaus, complementing bitter greens like spinach.

Quinoa can serve as a high-protein breakfast food mixed with honey, almonds, or berries; it is also sold as a dry product, much like corn flakes.

Lastly, quinoa may be germinated in its raw form to boost its nutritional value. Germination activates its natural enzymes and multiplies its vitamin content. In fact, quinoa has a notably short germination period: only 2-4 hours resting in a glass of clean water is enough to make it sprout and release gases, as opposed to, e.g., 12 hours overnight with wheat. This process, besides its nutritional enhancements, softens the grains, making them suitable to be added to salads and other cold foods.

## Quinoa Pullao

### Ingredients

- 250g cherry tomatoes , halved
- 4 tbsp olive oil
- 1 onion , thinly sliced
- 3 sticks celery , sliced
- ½ tsp cumin\_seeds
- 2 garlic cloves , finely chopped
- 100g basmati rice (brown or white)
- 140g quinoa
- 2 x 20g packs dill , chopped
- 500ml chicken or vegetable stock (from a cube is fine)
- 50g pine nuts , toasted
- white fish, such as sea bass , to serve



### Method

1. Heat oven to 180C/fan 160C/gas 4. Put the tomatoes on a baking sheet and drizzle with 2 tbsp olive oil and some seasoning. Roast for 15 mins, remove and set aside.
2. Heat the remaining olive oil in a large pan. Add the onion, celery, cumin and garlic, then season to taste. Fry on a medium heat for 10 mins until golden. Add the rice, quinoa, dill and stock. Cover with a lid and cook for 12-15 mins or until the rice is soft. Add the tomatoes and pine nuts, and gently stir through. Serve with white fish or a green salad.

## Spicy Quinoa

- 250g quinoa
- 1 vegetable stock cube
- 2 roasted red peppers , deseeded and chopped (from a jar is fine)
- 3 tbsp olive oil
- 3 spring onions , sliced
- zest and juice 1 lime
- handful of coriander , chopped

## Method

1. Cook the quinoa according to pack instructions, adding the vegetable stock cube to the cooking water. Leave to cool, then break up any clumps with a fork. Mix through remaining ingredients and serve.

## Quinoa and nut roast with roasted vegetables

### Ingredients

Serves 2

1 tbsp olive oil  
2 sticks of celery, finely sliced  
1 cup of quinoa, rinsed  
1 vegetable stock cube  
1 cup carrots, grated  
125g ground almonds  
50g whole almonds, chopped  
50g sunflower seeds  
2 tbsp brown rice flour or oat flakes  
Vegetables for roasting  
Olive oil



## Method

Heat the oil in a pan and add the sliced celery. Sauté for 5 minutes, then add the quinoa and 2 cups of water with the stock cube. Simmer until most of the water has been absorbed.

Chop some vegetables for roasting, put on a tray and sprinkle with olive oil. Put in the oven at 220°C/Gas 7.

Add the rest of the ingredients to the quinoa and cook until you have a thick mixture. Place in a lined 1-kilogramme (2-pound) loaf tin and turn down the oven to 180°C/Gas 4. Bake for 30-40 minutes.

## Quinoa and Hazelnut Cake

Makes one large layer cake

150g quinoa

150g hazelnuts

25g unsalted butter, melted

4 eggs, separated 175g light soft brown sugar

1 level tsp baking powder

1 level tsp ground cinnamon

2 level tbsp cornflour

150ml whipping cream

1 tbsp caster sugar

2 tsp vanilla extract

Icing sugar to dust

Soft ripe fruit or jam

Butter a 20cm round spring-form cake tin and line the base with a disc of non-stick baking paper. Tip the quinoa on to one baking tray, the hazelnuts on to another, and place in a 200C (180C fan-assisted) oven for about 20 minutes until both are golden brown. Pour the quinoa into a saucepan with 400ml water, bring to the boil, then stick the lid on tight and leave over a gentle heat for about 15 minutes until the water is absorbed and the grain burst and cooked soft. Spread on to a dinner plate to cool. Grind the nuts in a food processor or blender. Heat the oven to 180C (160C fan-assisted). Heat the butter in a saucepan until it turns nut brown, then remove from the heat and leave somewhere warm.

Beat the yolks with about half of the sugar in a large bowl with an electric whisk until very thick and beige-coloured. In a separate bowl, beat the whites with the remaining sugar and baking powder until thick. Fold the quinoa, hazelnuts, cinnamon and sifted cornflour through the yolks, then fold in the egg whites and the melted butter. Pour the mixture into the tin and bake for 45 minutes or until the centre of the cake feels firm to the touch. Remove from the oven and leave to cool. Whip the cream with the caster sugar and vanilla extract, then split and fill the cake with the whipped cream and fruit or jam, and dust the top with icing sugar.

Having whipped up this healthy cake you can feel less guilty every time you reach out for a slice of this delectable treat as well as all the others. Surprise your guests at dinner or lunch with this yet unknown ingredient and widen their horizons whilst tickling their taste buds!!

