# **Understanding Grains: A Comprehensive Guide**

## Parts of a Grain:

#### **GRAIN PARTS**

## **THE BRAN**

The bran is the multi-layered outer skin of the edible kernel. It contains important antioxidants, B vitamins, and fiber.

### THE ENDOSPERM

The endosperm is the germ's food supply, which provides essential energy to the young plant so it can send roots down for water and nutrients, and send sprouts up for sunlight's photosynthesizing power. The endosperm is by far the largest portion of the kernel. It contains starchy carbohydrates, proteins and small amounts of vitamins and minerals.

## THE GERM

The germ is the embryo which has the potential to sprout into a new plant. It contains many B vitamins, some protein, minerals, and healthy fats.

- 1. **Bran:** The outer layer, rich in fiber, antioxidants, and B vitamins.
- 2. **Germ:** The nutrient-packed core, containing vitamins, minerals, healthy fats, and protein.
- 3. **Endosperm:** The middle layer, primarily composed of carbohydrates and a small amount of protein.

#### Whole Grains vs. Refined Grains

#### Whole Grains:

- Include all three parts of the grain (bran, germ, and endosperm).
- Retain more nutrients and fiber.
- Examples: Oats, quinoa, barley, millet, sorghum, bulgur, farro.

#### **Refined Grains:**

- Have the bran and germ removed, leaving only the endosperm.
- Lose many nutrients and fiber during processing.
- Often enriched with some vitamins and minerals after refining.

### **List of Whole Grains**

- 1. Oats
- 2. Quinoa
- 3. Barley
- 4. Millet
- 5. **Sorghum**
- 6. Bulgur
- 7. Farro

## **Cooking Instructions**

#### 1. Oats

### • Ingredients:

- 1. 1 cup rolled oats
- 2. 2 cups water or milk

## Stovetop Instructions:

- 1. Combine oats, water (or milk), and salt in a saucepan.
- 2. Bring to a boil, then reduce heat to simmer.
- 3. Cook for 5-7 minutes, stirring occasionally.
- 4. Remove from heat and let sit for a couple of minutes before serving.

#### • Pressure Cooker Instructions:

- 1. Combine oats, water (or milk), and salt in the pressure cooker.
- 2. Cook on high pressure for 3 minutes.
- 3. Allow a natural pressure release for 10 minutes, then quick release any remaining pressure.

#### 2. Quinoa

#### • Ingredients:

- 1. 1 cup quinoa
- 2. 2 cups water

#### • Stovetop Instructions:

- 1. Rinse quinoa under cold water.
- 2. Combine quinoa, water, and salt in a saucepan.
- 3. Bring to a boil, then reduce heat to low.
- 4. Cover and simmer for 15 minutes.
- 5. Remove from heat and let sit for 5 minutes. Fluff with a fork before serving.

#### • Pressure Cooker Instructions:

- 1. Rinse quinoa under cold water.
- 2. Combine quinoa, water, and salt in the pressure cooker.
- 3. Cook on high pressure for 1 minute.
- 4. Allow a natural pressure release for 10 minutes, then quick release any remaining pressure.

## 3. Barley

### • Ingredients:

- 1. 1 cup pearl barley
- 2. 3 cups water or broth

## Stovetop Instructions:

- 1. Rinse barley under cold water.
- 2. Combine barley, water (or broth), and salt in a saucepan.
- 3. Bring to a boil, then reduce heat to low.
- 4. Cover and simmer for 45-60 minutes until tender.
- 5. Drain any excess liquid and fluff with a fork before serving.

#### Pressure Cooker Instructions:

- 1. Rinse barley under cold water.
- 2. Combine barley, water (or broth), and salt in the pressure cooker.
- 3. Cook on high pressure for 20 minutes.
- 4. Allow a natural pressure release for 10 minutes, then quick release any remaining pressure.

## Recipe Ideas

#### 1. Quinoa Salad

#### • Ingredients:

- 1. 1 cup cooked quinoa
- 2. 1 cup cherry tomatoes, halved
- 3. 1 cucumber, diced
- 4. 1/4 cup red onion, finely chopped
- 5. 2 tbsp olive oil
- 6. 1 tbsp lemon juice
- 7. Pepper herbs to taste

#### Instructions:

- 1. In a large bowl, combine quinoa, cherry tomatoes, cucumber, red onion, and feta
- 2. In a small bowl, whisk together olive oil, lemon juice, salt, and pepper.
- 3. Pour the dressing over the salad and toss to combine.
- 4. Serve chilled or at room temperature.

#### 2. Oatmeal with Fresh Fruit

## Ingredients:

- 1. 1 cup cooked oats
- 2. 1/2 cup mixed berries (blueberries, strawberries, raspberries)
- 3. 1/4 cup nuts (almonds, walnuts)
- 4. 1 tsp flax seeds

## • Instructions:

- 1. Prepare oats as per cooking instructions.
- 2. Top with mixed berries, nuts, and flax seeds.
- 3. Serve warm.

## 3. Barley and Vegetable Soup

## • Ingredients:

- 1 cup cooked barley
- o 1 tbsp olive oil
- o 1 onion, chopped
- o 2 carrots, sliced
- o 2 celery stalks, sliced
- o 3 cups vegetable broth
- o 1 can (14.5 oz) diced tomatoes
- 1 tsp dried thyme
- Pepper to taste

## Instructions:

- 1. In a large pot, heat olive oil over medium heat.
- 2. Add onion, carrots, and celery. Cook until vegetables are tender.
- 3. Add vegetable broth, diced tomatoes, cooked barley, and thyme.
- 4. Bring to a boil, then reduce heat and simmer for 20 minutes.
- 5. Season with salt and pepper to taste.
- 6. Serve hot.

# Identifying Whole Grains vs. Refined Grains on Food Labels

## Look at the Front of the Package

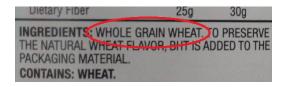
## 1. Whole Grain Stamp:

 Look for the "Whole Grain" stamp, which indicates the product contains significant whole grain content.

#### 2. Whole Grain Claims:

 Claims like "100% Whole Grain," "Whole Wheat," or "Made with Whole Grains" suggest the presence of whole grains.

## **Check the Ingredients List**



## 1. First Ingredient:

 Ensure the first ingredient listed is a whole grain, such as "whole wheat," "whole oats," "whole grain [name of grain]," or "brown rice."

### 2. Specific Whole Grain Terms:

Look for specific terms like "whole," "brown rice," "oats," "quinoa," "barley,"
"millet," "sorghum," "bulgur," and "farro."

## **Red Flags for Refined Grains**

## 1. Ingredient Terms:

 Terms like "enriched wheat flour," "white flour," "degermed cornmeal," and "rice" (without "brown" or "whole" before it) indicate refined grains.

## 2. Absence of "Whole":

o If the word "whole" is missing from the first ingredient, it is likely a refined grain.

## This product may look healthy but is made from white flour:



INGREDIENTS: ENRICHED UNBLEACHED WHEAT FLOUR (WHEAT FLOUR, MALTED BARLEY FLOUR, NIACIN, REDUCED IRON, THAMINE MONONITRATE, RIBOFLAVIN AND FOLIC ACID), WATER, WHOLE GRAIN OATS, YEAST, HONEY, NUT BLEND (HAZELNUTS, CASHEWS,



# **Examples**

## Whole Grain:

- Front of Package: "100% Whole Wheat Bread"
- Ingredients List: "Whole wheat flour, water, honey, yeast, salt"

## **Refined Grain:**

- Front of Package: "Enriched White Bread"
- Ingredients List: "Enriched wheat flour (wheat flour, niacin, reduced iron, thiamine mononitrate, riboflavin, folic acid), water, high fructose corn syrup, yeast, salt"

By paying close attention to these details, you can easily identify whole grain products and make healthier choices.