



Orange Cardamom Chai Cupcakes

By Erin Fletter

Prep Time 40 / **Cook Time** 20 / **Serves** 6 - 12

Fun-Da-Mentals Kitchen Skills

zest: to scrape off the outer colored part of a citrus fruit's rind (skin or peel) using a metal tool with small sharp blades, such as a zester, microplane, or the small holes of a grater (avoid the "pith," the white, spongy lining of the rind that can be bitter).

beat: to vigorously mix ingredients with a whisk, spoon, fork, or mixer.

cream: to mix foods together until they become a smooth, uniform blend, like butter and sugar.

squeeze: to firmly press or twist a food with fingers, hands, or a device to remove its liquid, like shredded potatoes, frozen and thawed spinach, or tofu.

steep: to soak a food, like tea, in water or other liquid so as to bring out its flavor.

Equipment

- Oven
- Muffin pan
- Paper cupcake liners
- Kettle or saucepan (to heat water)
- Medium mixing bowl
- Large mixing bowl
- Dry measuring cups
- Measuring spoons
- Liquid measuring cup
- Handheld electric mixer

- Zester (or grater with small zesting plate/side)
- Citrus juicer (optional)
- Toothpicks

Ingredients

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- 1 decaf chai tea bag
- 1 C warm water
- 2 C all-purpose flour ****(for GLUTEN ALLERGY sub gluten-free/nut-free all-purpose flour)****
- 1 1/2 tsp baking powder
- 1/2 tsp salt
- 1/2 tsp ground cardamom
- 1/2 C room-temperature butter ****(for DAIRY ALLERGY sub dairy-free/nut-free butter, like Earth Balance)****
- 1 1/4 C granulated sugar
- 2 large eggs ****(for EGG ALLERGY sub 2 ripe mashed bananas)****
- 1 tsp pure vanilla extract ****(for GLUTEN ALLERGY use certified gluten-free pure vanilla extract, not imitation vanilla flavor—check label)****
- 1/4 C milk ****(for DAIRY ALLERGY sub dairy-free/nut-free milk)****
- 1 orange, washed, for zest + 1/4 C orange juice

Food Allergen Substitutions

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Gluten/Wheat: Substitute gluten-free/nut-free all-purpose flour. Use certified gluten-free pure vanilla extract, not imitation vanilla flavor.

Dairy: Substitute dairy-free butter and dairy-free milk.

Egg: For 2 eggs, substitute 2 ripe mashed bananas.

Instructions

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steep + preheat

Prepare chai tea with **1 decaf chai tea bag** and **1 cup of boiling water**. Set it to the side to steep for up to 15 minutes and let cool to room temperature. Preheat your oven to 350 F and have kids line your muffin pan with paper liners.

whisk + cream + beat

In a medium bowl, have kids whisk together **2 cups flour**, **1 1/2 teaspoons baking powder**, **1/2 teaspoon salt**, and **1/2 teaspoon cardamom**. In a large bowl, cream together ****1/2 cup of room-temperature butter and 1 1/4 cups of sugar**** until fluffy and light. Beat in **2 eggs** (or mashed bananas) one at a time, followed by **2 teaspoons of vanilla extract**. Add in **1/4 cup milk** and **1/2 cup of chai tea**. (If you are also making Chai Tea Glaze and Orange Chai Cream Soda (see recipes) as part of a meal plan, reserve 3 to 4 tablespoons from the remaining 1/2 cup.)

wash + zest + juice + mix + fill

Have kids wash, dry, and zest the peel of **1 orange** into the batter, then squeeze **1/4 cup of orange juice** into the batter. Have the kids mix the batter only until all the ingredients are combined, and no streaks of flour remain. Then have kids fill the pre-lined muffin pan wells with the batter until about 3/4 full.

bake + cool

Bake in a preheated oven for 15 to 20 minutes at 350 F, or until a toothpick inserted into the center comes out clean. Let your cupcakes cool completely before adding glaze or frosting.

Featured Ingredient: Orange!

Hi! I'm Orange!

"I'm both sweet and tart, and I'm best when I'm very juicy. Be careful when you peel my skin because my juice might squirt you in the eye! I make a refreshing breakfast juice and a tasty, nutritious snack. Since I'm a navel orange, my orange inside matches my orange outside, but my cousin, who's a blood orange, has orange skin and a dark red interior."

History & Etymology

The sweet orange (*Citrus sinensis*) is a citrus fruit and part of the Rutaceae family, also known as the rue or citrus family. It is a hybrid, a cross between the mandarin orange, a small citrus fruit, and the pomelo, the largest of the citrus fruits, similar in flavor to a grapefruit.

Sweet oranges have been grown since ancient times, coming from the region of Southern China, Northeast India, and Myanmar. Chinese literature from 314 BCE mentions them.

Christopher Columbus may have planted orange trees in the New World on his second voyage in 1493.

Because oranges do not spoil quickly and are full of vitamin C, sailors planted orange and other citrus trees

along trade routes to prevent scurvy, which develops from a deficiency of vitamin C.

The navel orange is a variety that gets its name from the belly-button formation opposite the stem end. A 1917 USDA study reports that the navel orange may have developed from a mutation of a single orange in Brazil in the early 1800s. Another theory, though, is that it came from a similarly mutated Portuguese orange around the same time. The navel that forms is actually a second orange that begins to develop in the peel of the primary fruit.

Blood oranges are a colorful variety with deep red or crimson flesh. They have been grown in the region of the southern Mediterranean since the 18th century, especially in Italy and Spain. The anthocyanins that cause the crimson color develop when the temperature is low at night. California has a Mediterranean-like climate, so that state grows the most blood oranges in the United States.

Valencia oranges are a hybrid developed by William Wolfskill, a man who was born in Kentucky and later became a Mexican citizen. Mexico still owned California when he received a land grant there. In addition to other crops, he grew Valencia oranges, named after the Spanish town known for its sweet oranges. These oranges have seeds and are grown primarily for their juice.

Orange marmalade is a fruit preserve. Marmalades made with quince, lemon, and other fruit may have originated in ancient Rome. The first printed orange marmalade recipe was in a 1714 English cookbook. Brazil grows one-third of all the world's oranges. California and Florida are the largest producers of oranges in the United States.

Around 85 percent of all oranges produced are used for juice.

There are more than 400 varieties of oranges worldwide. Varieties are the result of mutations.

The orange is Florida's official state fruit, orange juice its state beverage, and the orange blossom its state flower.

The word "orange" comes from late Middle English, from the Old French "orenge," from the Old Provençal "auranja," from the Arabic "nāranj," derived from the Persian "nārang," and based on "nāraṅga," the Sanskrit word for "orange tree,"

Anatomy

The orange tree is a citrus evergreen flowering plant. Its average height is 5 to 8 feet, but it can reach about 30 feet. They live 50 to 60 years.

Orange tree blossoms are white and have a wonderful fragrance.

The fruit from citrus trees is called a hesperidium, a modified berry with a tough, leathery rind. Oranges have a bright orange outer rind covering the juicy, pulpy fruit. Lining the peel is the pith or white spongy tissue. Then there are the segments or carpels, typically ten of them, with many juice-filled vesicles or citrus kernels in each.

Oranges are seasonal citrus fruits. The flowers bloom in spring, and the fruit ripens in fall or winter.

Can Oranges grow in Chicago or Colorado? No, because the ideal conditions for growing oranges are in subtropical areas with good amounts of sunshine yet moderate to warm temperatures (60 to 84 degrees Fahrenheit).

Oranges are round to oval in shape, can be from 2 to 5 inches in diameter, and weigh 2 to 10 ounces.

How to Pick, Buy, & Eat

When picking oranges from a tree, choose ones that smell sweet and are firm and heavy. Avoid ones that smell moldy. Color does not necessarily indicate ripeness. They will not ripen or get any sweeter once they have been harvested.

When selecting oranges from the store, choose ones heavy for their size, indicating juiciness, and no soft spots on their firm, smooth rinds.

Store oranges at room temperature for about one week or in the fridge for four weeks.

Peeled oranges can be eaten as a snack or added to salads, desserts, main dishes, sorbets, and drinks.

Orange marmalade is made with every part of an orange except the seeds, although sometimes the pith is removed. The peel contains pectin, which helps the marmalade to set. The preferred type of orange to use is the Seville or bitter orange, which has more pectin. The fruit is boiled with sugar and water, and often the juice and zest of a lemon.

Orange zest is used to flavor dishes. Other uses of an orange peel include making fragrant oils for air freshening or cleaning and using the peels to repel insects and slugs.

Orange blossoms are highly fragrant and have long been used for weddings as cake decorations, part of bridal bouquets, and head wreaths. In addition, their essence is a component in some perfumes, and their petals can be used to make orange blossom water.

Nutrition

One orange is high in vitamin C—64 percent of the daily value! Vitamin C boosts immunity, lowers your disease risk, and aids in iron absorption and wound healing.

Oranges also have a moderate amount of B-complex vitamins, especially thiamine (B1) and folate (B9). The B-complex vitamins help improve cell function, form red blood cells, and convert carbohydrates into energy.