**All About Muffins**

**Muffins** belong to the group of flour mixtures called **quick breads** because they are leavened with baking powder or baking soda instead of yeast. They also require very little mixing … little or no kneading and shaping … and they bake in minutes.

**What is a leavening agent?**

Many flour mixtures are not necessarily nutritious because they contain high amounts of sugar and fat and contain very few vitamins, minerals or fibre. However, **flour mixtures are a good source of energy** because **they are high in carbohydrates from their main ingredient, flour**.

By choosing healthy, ***nutrient dense*** ingredients, you can make your flour mixtures nutritious as well as delicious! Try substituting half the flour with whole wheat flour or sprinkling in bran flakes or rolled oats for some extra fiber. Recipes with fruit purees often have less added sugar and provide additional nutrients. Instead of chocolate chips use nuts or dried fruit for flavor.

An ingredient which causes dough to expand by releasing gas bubbles (Carbon dioxide) once mixed with liquid, acid or heat. Leavening agents help make baked products rise and contribute to their texture. Baking powder and baking soda are both leavening agents but be careful which one you reach for when making your next muffin. Although both are used in muffin recipes, Baking soda needs to be mixed with an acidic ingredient such as buttermilk, fruit juice or cocoa powder. Choosing the wrong container can create a terrible outcome.

**The Muffin Method:**



1. Sift dry ingredients together in a large bowl.
2. Mix liquid ingredients in a medium bowl.
3. Add liquid ingredients all at once to dry ingredients.
4. Stir with a fork just until moistened and dissolved
5. Fill greased or lined muffin cups 2/3 to ¾ full.

**Characteristics of a Standard Muffin:**

Appearance: - golden brown

- slightly rounded, rough and pebbled top

Tenderness: - light and tender

 - little resistance when bitten and chewed

Texture: - uniform texture, free from tunnels

 - slightly moist

Flavour: - slightly sweet, pleasing flavour

**Reasons for Poor Characteristics:**

1. Peaked top, smooth top rather than pebbled = overmixing
2. Pale in colour = oven too cool, missing sugar
3. Dry rather than moist = over baked, oven too hot, too much flour
4. Too dark = incorrect time and temperature, too much sugar
5. Did not rise = forgot the leavening agent

**Are they done yet?**

Use a timer and check for doneness several minutes before the recommended baking time to avoid overbaking. Muffins are done when you stick a toothpick in the center of the muffin and it comes out clean with no sticky batter on it then the muffins are cooked. You can also press the center of a muffin lightly with your finger. If it springs back and shows no indent then it’s done.

**Tips for Muffin Makers:**

1. Preheat oven. Unless directed otherwise, muffins should go directly into a hot oven as soon as the wet ingredients have dissolved the leavening agents. Leavening agents are activated once dissolved and have begun creating tiny gas bubbles which will work to help stretch and make the muffins grow. Getting the batter in the oven quickly helps set the volume of the muffin before the gas bubbles burst.
2. Grease bottoms only of muffin cups. Muffins have better shape when sides are not greased. Use shortening, oil or spray fat instead of butter or margarine (they may burn). You can also use paper liners.

**What is gluten?**

A pair of proteins called gliaden and glutenin found in flour join together to form a new molecule we call **gluten** when we add water to flour and mix. Gluten molecules arrange themselves into elastic chains. This elasticity is what allows the dough to stretch and grow.

1. Don’t over stir the batter. It is the way that muffins are mixed that makes them tender or tough, fine-crumbed or coarse. It is important that the liquid and dry ingredients are mixed only enough to be moistened – no more. Nothing toughens a muffin faster than overmixing. If you mix muffin batter too long or too hard, you develop the gluten (protein) in flour. Over activated **gluten** makes the texture tough and leathery. It is also what sends tunnels (large holes) through the muffins.
2. Fill all the muffin cups with the same amount of batter. Use a spoon to carefully fill each muffin cup with a small amount of batter before returning to top them up so that you can equally divide the batter. Muffins that are the same size will take the same amount of time to bake and prevent some from drying out while you wait for others to finish.

For quick portioning, try an ice cream scoop like commercial kitchens do to save time and ensure that each muffin is the same size!

1. Take care of the empties. If you grease too many muffin cups for the amount of batter, fill empty cups half full with water. This prevents the grease from scorching, pan from warping and the muffins will bake more evenly because the heat is more equally distributed in the pan.
2. Choose shiny pans. Shiny metal reflects heat to give muffins a delicately browned, tender crust. Place the pan in the center of the oven so the heat can circulate evenly around the muffin tin.
3. When placing pans in the oven, they should be on the center rack. Also, make sure pans do not touch each other or the sides of the oven to promote heat circulation.
4. Cool in the pan for 5 minutes. Muffins which are cooled in the pan too long may become soggy however leaving them in the pan for a brief amount of time will help to firm up the ingredients and keep a better shape.

**How long do homemade muffin keep?**

A homemade muffin will last several days (3-4) if stored in an air tight container or zip-lock bag on the counter. It is important to ensure the muffins are cooled completely before sealing them to ensure that steam does not get trapped and turn your muffins soggy. If you cannot eat them all in the next few days you can also try freezing them in the same air tight container. Just remember to go back and eat them soon as they should not be stored for more than about a month if you wish to maintain their best flavor and texture.