

Bread Making

Today's Health and Temperance presentation is on "Bread."

From "Counsels on Diet and Foods," page 475, we are told that "There is practical religion in a loaf of good bread."

It is not my intention today to teach you how to make your own bread. Rather, I propose to discuss the ingredients and the process of making yeast raised bread. And, then, to draw some lessons in practical religion from this. We do make our own bread at home so this is not some theoretical, scholastic exercise but, rather, lessons learned through the experience and the joy of eating our own homemade fresh bread.

There are three types of bread.

- Unleavened flat breads,
- Yeast raised breads, and
- Quick breads raised by baking powder or other chemically reactive compounds.

Our family makes two types of unleavened flat breads.

1. Corn–Oat waffles, and
2. Sweet potato roti (flatbread).

Flat breads are "unleavened"—they do not have any yeast or chemical reaction to make the small bubbles. Our corn–oat waffles and the sweet potato roti depend upon the included water turning to steam when baked to make the bubbles.

The most notable bread recipe in the Bible is that of the unleavened bread that is placed upon the Table of Shewbread once each week. Leviticus 24:5 says, "And you shall take fine flour and bake twelve cakes with it." *NKJV*

There is only one ingredient mentioned—that being "fine flour." Obviously, there must also be some liquid with which to mix the flour—water being the obvious answer. These twelve loaves, placed on the table each Sabbath, must last for one whole week to the next Sabbath and, then are to be eaten for the following week by the priests of the temple. Using any oil would prohibit the bread loaves from remaining fresh for two whole weeks—at least not without the miraculous intervention of God. There is no leavening agent so the bubbles in the bread must be from the steam of the water when baking.

Our family regularly makes three types of yeast raised breads.

1. 100% whole wheat pecan bread,
2. Whole wheat pizza shells, and
3. Occasionally, whole wheat dinner rolls.

"It is a religious duty for every Christian girl and woman to learn to make good, sweet, light bread from unbolted wheat flour." *Christian Temperance and Hygiene, page 157 (Ellen G. White)*

Bolted is a term that goes back at least as far as the 16th century. It is another term for sifting but is used throughout the milling industry. For our purposes it means that whole grain flour has most of the bran sifted out but all of the germ and other nutrients remain. ... This lightens the flour. Unbolted, then, means the use of the entire grain seed finely ground.

From the *The Ministry of Healing, page 300, by Ellen G. White*: "For use in breadmaking, the superfine white flour is not the best. Its use is neither healthful nor economical. Fine–flour

bread is lacking in nutritive elements to be found in bread made from the whole wheat. It is a frequent cause of constipation and other unhealthful conditions.”

There are five basic ingredients employed to make yeast raised bread: 1) flour, 2) water, 3) yeast, 4) sugar to feed the yeast, and 5) salt to retard the growth of the yeast so that the bubbles do not become too large.

From Counsels on Diet and Foods, page 316, we are told, “Bread . . . loaves should be small, and so thoroughly baked that, as far as possible, the yeast germs shall be destroyed. When hot, or new, raised bread of any kind is difficult of digestion. It should never appear on the table. This rule does not, however, apply to unleavened bread.”

Milk should not be used to make bread; only water. Bread made with milk ferments more readily in the stomach. *Ibid*

The yeast breaks sugar down into carbon dioxide and water. Enzymes present in yeast and flour also help to speed up this reaction.

When there is plenty of oxygen present, the yeast consume the sugar and use the oxygen to make carbon dioxide gas, water, and energy. In a bread dough where the oxygen supply is limited, the yeast can only partially breakdown the sugar. Alcohol and carbon dioxide are produced in this process known as alcoholic fermentation. During fermentation each yeast cell forms a center around which carbon dioxide bubbles form. Thousands of tiny bubbles, each surrounded by a thin film of gluten, form cells inside the dough piece. The carbon dioxide produced in these reactions causes the dough to rise, and the alcohol produced mostly evaporates from the dough during the baking process. The increase in dough size occurs as these cells fill with the carbon dioxide gas.

When alcohol production is desired, specific types of yeast which are more prolific at producing alcohol are used in a very limited oxygen environment—sealed barrels, tanks or bottles. Under these conditions, the yeast produces ethyl alcohol, some carbon dioxide, and energy.

The third type of bread we never make. That is baking powder raised quick breads—sometimes known as sweet breads. Cakes, biscuits, pancakes and many more.

Chemical leavens are mixtures or compounds that release gases when they react with each other, with moisture, or with heat. Most are based on a combination of acid and a salt of bicarbonate (HCO_3^-). After they act, these compounds leave behind a chemical salt.

Chemical leavens are used in quick breads and cakes, as well as cookies and numerous other applications where a long biological fermentation is impractical or undesirable. I also find them in many cereals.

The testimonies of Jesus for these last days tell us that “The use of soda or baking powder in breadmaking is harmful and unnecessary. Soda causes inflammation of the stomach and often poisons the entire system. Many housewives think that they cannot make good bread without soda, but this is an error. If they would take the trouble to learn better methods, their bread would be more wholesome, and, to a natural taste, it would be more palatable.” *The Ministry of Healing, page 300 (Ellen G. White)*

Sodium (hydrogen) bicarbonate is found in many commercial baked goods including packaged dry cereals. When heated, it decomposes into water, carbon dioxide—which makes the bubbles—AND sodium carbonate which is a carbonic acid disodium salt—a chemical irritant to the digestive system, and a very strong alkaline substance which retards the digestive action of the stomach acids.

Another chemical used in many baked goods is Trisodium Phosphate (also known as sodium phosphate) which is also a chemical irritant and a strongly alkaline substance found in many breakfast cereals. Other similar chemical leavening agents are Sodium Aluminum Sulfate (SAS), Sodium Aluminum Phosphates (SALPs), and Sodium Acid Pyrophosphates (SAPPs).

“Hot biscuit raised with soda or baking powder should never appear upon our tables. Such compounds are unfit to enter the stomach. Hot raised bread of any kind is difficult of digestion.”
Counsels on Diet and Foods, page 341, Ellen G. White

In *Counsels on Diet and Foods*, page 343, Ellen White is quoted as writing in *Testimonies to the Church, Volume 2*: “We see sallow (today we would say, “sickly yellow”) complexions, and groaning dyspeptics (or “sullen disposition”) wherever we go. When we sit at the tables, and eat the food cooked in the same manner as it has been for months, and perhaps years, I wonder that these persons are alive. . . She farther says, “Saleratus (sodium or potassium bicarbonate used as a leavening agent) in any form should not be introduced into the stomach; for the effect is fearful. It eats the coatings of the stomach, causes inflammation, and frequently poisons the entire system.”

³⁰ Therefore they said to Him, “What sign will You perform then, that we may see it and believe You? What work will You do?” ³¹ Our fathers ate the manna in the desert; as it is written, ‘He gave them bread from heaven to eat.’” ³² Then Jesus said to them, “Most assuredly, I say to you, Moses did not give you the bread from heaven, but My Father gives you the true bread from heaven. ³³ For the bread of God is He who comes down from heaven and gives life to the world.” ³⁴ Then they said to Him, “Lord, give us this bread always.” ³⁵ And Jesus said to them, “I am the bread of life. He who comes to Me shall never hunger, and he who believes in Me shall never thirst. *John 6:30–35 NKJV*