



HEALTH ARTICLE

RAW FOOD AND ENZYMES

RECIPES FOR BREAD, PANCAKES, & OATMEAL

By V.E. Irons, A.B. (Yale 1919)



Orthodox View - The Case AGAINST Enzymes and Raw Foods

The role of enzymes in the food for both man and animals all too frequently has been a neglected subject scientifically, so far as nutrition is concerned. For example, in 1952 before eight witnesses, Dr. Elmer Nelson, one time chief medical consultant of the FDA stated that, in his opinion, a person could live from birth to a ripe old age just as well on all cooked foods where the enzymes have been killed, as he could on all raw or a mixture of cooked and raw foods. It has been established by some so-called



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experts that whole grains contain an insoluble substance known as PHYTIN, which inhibits the assimilation of calcium. Many experiments have been performed which demonstrate that some animals die more quickly on whole grains than on white flour because this insoluble phytin prevents the assimilation of the calcium in the whole grain, thus causing rickets in the animal. This occurs despite the fact that the whole grain has four times as much calcium and phosphorus as the white flour. The food processors, refiners, and certain persons in the FDA have seized upon these experiments, stating that "there is no evidence to indicate that white flour isn't just as good as a food and just as nutritious as whole wheat flour."

Nature's View – The Case FOR Enzymes and Raw Foods

The inability of pasteurized milk to afford assimilable calcium is no doubt based on loss of phosphatase enzymes through heat treatment. Those who say there is no evidence for the need of enzymes in food should explain why Mother Nature put half a dozen or more in milk. Dr. F. Pottenger showed, in his celebrated cat experiments, that calcium was not properly delivered to bones and teeth if the animals were fed pasteurized milk, and that condensed milk was even worse. His cats developed pyorrhea and arthritis very quickly - and became sterile within three generations. The control group of cats that were fed raw milk lived healthy, undisturbed lives - generation after generation. It is very significant that experiments with human subjects showed that even on starvation diets, they had no pyorrhea or arthritis, and practically no tooth decay when they used a minimum of cooked foods.

In animal feeding, it has been recognized for years that exogenous enzymes (from the intestinal flora) are important in the digestion of cellulose. In 1949, Mellanby et al. of London established, with animal experiments over five generations, that the phytin combination (of phosphoric acid, magnesium, and calcium) of the whole grain unbleached flour is broken down into an assimilable form by enzymatic action. This occurs when lukewarm water is added to the whole unbleached flour during the yeast



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rising period, or by the action of the phytase (phosphatase) enzymes of the unbleached whole grain during digestion.

Perhaps as an outgrowth of Edward Mellanby's experiments - which proved the need for soaking cereal grains in advance so the enzymatic action could break up the phytin into its soluble component parts - several scientists in the Department of Poultry Science at the State College of Washington performed experiments comparing the nutritive value of native barley soaked 7 hours against the nutritive value of imported corn. These experiments established the fact that the enzymatic action is sufficient after 7 hours to enable the animals to utilize the barley ingredients with better overall results than when fed the corn.

THE IMPORTANT POINTS, THEREFORE, ARE: First, that the whole grain must not be bleached, for bleaching kills the enzymes. Second, that the whole unbleached grain should be soaked in water for a substantial period (7 hours) before baking to permit time for the phytase (phosphatase) enzymes to break up the phytin so as to release the phosphates for combining with the abundance of calcium found in the whole grain. Thus, we find that bread made as MY GRANDMOTHER made it, by letting the unbleached whole grain flour soak overnight, produced a food which, though cooked, was just as good as other foods are when eaten raw because the enzymatic action HAD done its job before heat was applied.

NOTE: Soaking grains to make nutrients more available may not be necessary for optimally nourished people, such as the Hunzas who consume highly mineralized diets of quality foods. However, where food quality is questionable, or the intake of minerals is minimal, particular attention should be given to this method of preparing grains. Special attention should be given to grain preparations for the elderly, who may assimilate nutrients less efficiently, for the young; and for those whom grains constitute the major dietary staple.

Recipes for proper soaking and preparation of grains are listed below...



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Recipes

Basic Bread Recipe (1)

2 1/2 cups water or milk	3 tblsp. sesame oil	1 pkg yeast
6 cups whole wheat flour	Butter or shortening	or
1/4 cup honey	2 tblsp. water	1 tblsp. yeast granules

You may wish to use rice, corn, soy, barley, oat, or other grains in varying proportions. MIX yeast and 2 tblsp. water and let sit while you prepare the other ingredients. COMBINE water or milk, honey, and sesame oil in a bowl. SLOWLY ADD the flour or grains while mixing. ADD yeast solution. KNEAD dough on floured board or countertop for 5-10 minutes. LIGHTLY GREASE a large bowl with butter or shortening. PLACE

Basic Bread Recipe (1) part 2

dough into greased bowl, then TURN dough over so that both sides of dough are greased. COVER with a towel or cloth and let sit in a warm area overnight, or for at least 7 hours. KNEAD for 5-10 minutes. DIVIDE dough into two loaves and place into bread pans. BAKE at 325° for 75 minutes, or until done.



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Bread Recipe (2)

2 pkgs yeast or 2 tblsp. yeast granules	1/2 cup butter or shortening
1/2 cup warm water	2 1/2 cups boiled water
1/2 cup honey or molasses	3 cups whole wheat flour
3 tsp. salt	5 cups unbleached white flour

MIX yeast and 1/2 cup water and let sit while you prepare the other ingredients. BRING remaining water to a boil. COMBINE boiled water, honey or molasses, salt, and butter or shortening in a bowl. MIX thoroughly. LET mixture cool until it is warm. MEASURE and MIX flour in a separate bowl. SLOWLY ADD the flour to the liquid solution while mixing. ADD the yeast solution to the dough mixture. KNEAD dough

Bread Recipe (2) part 2

on floured board or countertop for 5-10 minutes. LIGHTLY GREASE a large bowl with butter or shortening. PLACE dough into greased bowl, then TURN dough over so that both sides of dough are greased. COVER with a towel or cloth and let sit in a warm area for about 4 hours. KNEAD for 5-10 minutes. RETURN dough to bowl and let sit for another 4 hours. KNEAD for 5-10 minutes. DIVIDE dough into two loaves and place into bread pans. LET SIT for 10 minutes. PREHEAT oven to 375°. BAKE for 10 minutes, then REDUCE temperature to 350° and BAKE for 27 minutes.

(Note: If you let the dough sit overnight and the dough rises over twice its original size, it might collapse. If this happens, at the end of the 7 hours, knead the dough as you normally would and place it into the bread pans - then bake immediately.)



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Pancake Recipe *a la* V.E. Irons

2 cups whole wheat flour	2 tsp. melted butter
2 cups water or milk	2 tsp. maple syrup
2 dashes yeast granules	1 tsp. kelp or salt (optional)
2 eggs	

MIX flour, milk or water, and yeast in a bowl. COVER and LET sit overnight. In the morning, ADD the other ingredients. For the initial batch of pancakes, lightly GREASE the iron skillet. You don't need to use any grease for subsequent batches. When bubbles start to form, TURN the pancake over. DO NOT TURN over the pancakes more than once.

Pancake Recipe *a la* V.E. Irons *part 2*

We use blends of flour in our pancake mixture but the proportions of ingredients are always the same. However, we find that if the batter thickens, then we add more liquid. You may wish to try various types of flour, ground nuts, etc., for variety. (Note: For waffles, simply add more butter to the batter and cook in a waffle iron.)



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Oatmeal

1 3/4 - 2 cup water	1 dash salt (optional)
1 cup oatmeal	1 pat butter (optional)

PLACE all ingredients into the top chamber of a double boiler. In the bottom chamber, bring 2-3 cups of water to a boil. PLACE top of double boiler over the bottom. REMOVE from heat immediately. COVER with lid and LET STAND overnight. EAT as you normally would. (Note: You can add raisins, or substitute other grains for the oatmeal.)