

The Good Germ That Helped Sustain Mankind

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Bread has historically been referred to as the 'Staff of Life,' though the term in a broader sense may describe the basic necessities of life. Be that as it may, there is no doubt that traditional, unrefined bread containing the seed, or germ, has served a vital and sometimes the sole source of human nutrition for thousands of years. And no wonder!

Consider wheat germ, the tiny embryonic center of the plant (accounting for only 2 ½ percent of the seed's total weight). According to the Mayo Clinic, this 'germ' packs a powerful, positive punch as a highly concentrated nutrient source containing niacin, thiamin, magnesium, zinc, calcium, selenium, riboflavin, potassium, phosphorus, iron, folate, protein, polyunsaturated fat and vitamin E." In fact, wellness coach Lisa Petty endorses the wheat's humble germ as one of the world's best food sources of healing vitamin E (alive.com).

Unfortunately, much modern bread (especially white) is stripped of that most nutritious portion of the wheat kernel during processing, leaving a glutinous mass of starch that clogs our digestive systems and can lead to chronic illnesses. Most people today would have a tough time indeed surviving—as humans have often been forced to in the past—on bread alone!

So, what is the solution for those seeking the nutritional riches—the vitamins, minerals, dietary fiber, protein and complex carbohydrates—offered by the wheat kernel? Why, wheat germ, of course! Wheat germ can lower cholesterol and help your heart, while the bran, which is loaded with fiber, can fight constipation and colon cancer. Wheat germ's success against LDL (bad) cholesterol could stem from the antioxidant powers of vitamin E. Studies show that vitamin E from foods prevented LDL particles from becoming oxidized. When a fat such as LDL undergoes oxidation, it is more prone to collect in blood vessels to form plaque which, over time, can narrow the blood vessels or unleash a clot, possibly resulting in a heart attack or stroke (answers.yahoo.com).

The best wheat germ is found refrigerated in health food stores, as the delicate oils in wheat germ quickly go rancid. Don't keep it longer than three months, even in your refrigerator. It's very simple to enjoy the health benefits of wheat germ. Spoon it on your breakfast cereals or substitute a quarter or half cup of wheat germ for flour or bread crumbs in your baking or other food preparations. Wheat germ can also be taken in the form of oil, which has a pleasant, nutty taste. For vegetarians especially, the 'germ' is a great addition to the diet, as it is more than 30 percent protein. Whether cooked or raw it blends well with other flavors and, best of all, no nutrition is lost through heating!

Not everyone will choose to add wheat germ to their diet, but almost everyone consumes bread. You owe it to yourself and your family to choose the best bread possible, and there are many available. Remember, in the case of bread, usually cheaper is not better! Mayo Clinic advises us to always choose whole grain. Whole grains haven't had their bran and germ—the most nutritious part of the wheat kernel

— removed by milling. White pastas, flour and rice have both the bran and germ removed and are refined grains, which retain only the endosperm (the starchy part). The three parts of the wheat kernel are the bran, germ and endosperm. The wheat bran is the fibrous outer layer, the germ is the center and contains the essential fats and vitamins in wheat. The endosperm is the middle layer in between the bran and germ. and is the only part used in white flour.

It is important to note that 'whole wheat' and 'whole grain' are not always synonymous. In Canada, for instance, it is legal to advertise bread as 'wholewheat' with up to 70 percent of the germ removed. Canadian consumers can be assured of wholeGRAIN products by a label stating '100% whole grain wholewheat.' Much cheap brown bread in U.S. supermarkets is colored by molasses and is little better than white bread, though many consumers mistakenly assume that brown bread is whole wheat. Choosing truly nutritious bread can be confusing. Wikipedia, the online encyclopedia explains how the discerning U.S. consumer can choose the best bread: "WholeGRAIN products can be identified by the ingredients list. Typically, if the ingredient lists 'wholewheat' or wholemeal' as the FIRST ingredient, the bread is wholegrain. If the first ingredient is 'wheat flour' (as we found on many supermarket breads), as opposed to 'wholegrain wheat flour' or 'wholewheat flour,' IT IS NOT A CLEAR INDICATOR OF THE BREAD'S WHOLE GRAIN CONTENT."

Contrary to popular belief, fiber is not indicative of wholegrains. Some products may have things like bran, peas, soy or other foods added to boost the fiber content. While fiber is good, it cannot compare with the recently discovered health benefits of the wheat GERM. Wikipedia goes on to say that regular wholeGRAIN consumption contributes to an overall 26% reduction in coronary heart disease risk factors and lowers the risk of diabetes and obesity, as well as hypertension, when compared to refined grains' negative indicators in total cardiovascular health.

So now we are aware that the humble little 'germ' modern manufacturers removed because of its short shelf life and to produce light, 'pretty' bread— was the heretofore unrecognized superfood in the unrefined bread of old! According to the UN Food and Agriculture Organization, the wheat germ has "the highest vitamin E content of any food that has not undergone prior preparation or vitamin fortification."

The common wheat (*Triticum Vulgare*), native to the prehistoric, untilled plains of Asia, is the oldest grain cereal known to man. In ancient times wheat was the symbol of every god or goddess of harvest. It has been cultivated domestically as long as 9,000 years in what is now Turkey, and in the Nile Valley since 5,000 BC. It was first grown in the U.S. in 1602 off the Massachusetts coast.

Today wheat provides 20 percent of the world's food calories and is the third most produced cereal grain after corn and rice (2007). The world's top ten producers are China, India, U.S., Russia, France, Pakistan, Germany, Canada, Turkey and Argentina. The leading U.S. producers are Kansas, North Dakota, Montana, Oklahoma, Washington, Texas, Colorado, Nebraska, South Dakota and Minnesota.

One warning to be aware of: Approximately one percent of the population suffers from Celiac disease, which is an immune response to the protein (gluten) found in wheat. The symptoms of Celiac disease are general and vary from person to person, says Mayo Clinic. They may include intermittent diarrhea, weight loss, joint pain, depression, anemia, nervous disorders, bloating and abdominal pain. Be sure and

see your doctor if you are suffering from any of those ailments.

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