

Wheat Belly: Fact or Fiction

By Sue Becker

Wheat Belly by William Davis, MD, a New York Times best selling book, is a “provocative look at how eliminating wheat – even so called healthy whole grain wheat – from our diets is the key to permanent weight loss and can offer relief from a broad spectrum of health and digestive issues”. Dr. Davis considers wheat to be the “world’s most destructive dietary ingredient and claims that with the elimination of this “perfect chronic poison” most health issues can be resolved or reversed. I have read the book and researched many of the claims extensively. In this review, many of these claims will be discussed. Dr. Davis’ position will be stated first then my findings on the claim will be presented in detail.

I have been teaching others about the benefits of healthy eating, particularly freshly milled whole grains, including wheat, since 1992, through my business The Bread Beckers, Inc. I have a degree in Food Science and am a Certified Nutrition Counselor. I have continued my independent studies of physiology, biochemistry and anatomy for more than 30 years. I am currently enrolled in the Naturopathy program at Trinity School of Natural Health.

I am, however, first and foremost, unashamedly a Bible-believing Christian. Unfortunately, *Wheat Belly*, as well as most of the public information in the healthy eating category, comes from a “hunter-gatherer”, evolutionary viewpoint. Dr. Davis states that “after *Homo sapiens* and our immediate predecessors spent **millions of years** (emphasis mine) eating from the limited menu of hunting and gathering, wheat entered the human diet, a practice that developed only during the past ten thousand years.” This “hunter-gatherer” philosophy is based on the idea that man has evolved over millions of years and did not start farming until much later in the evolutionary chain. While I do not deny that there are people groups that are more agricultural than others, the Bible tells us that farming and agricultural living have been around since the beginning of time. As a Christian, I embrace the world view that creation and the human race, as we know it, began as recorded in the book of Genesis. The Bible tells us, “In the day that the Lord God made the earth and the heavens – When no plant of the field was yet in the earth and no herb of the field had yet sprung up, for the Lord God had not yet caused it to rain upon the earth and there was no man to till the ground” (Genesis 1:4-5). Adam and Eve were created by God and placed in a **garden** and instructed to tend it. The first mention of bread is in the punishment put on Adam because of disobedience: “By the sweat of his face would he eat bread” (Genesis 3:19). From this Biblical account of man, we can see that Adam and Eve were indeed farmers. Their first son, Cain, was “a tiller of the ground”. The first biblical mention of bread made from flour is as early as the time of Abraham and Sarah. My final authority on all things will be the Bible. From the Bible, I can see that the “hunter-gatherer” basis for eating is unscriptural.

God created and gave us food to perfectly nourish our bodies. He knows how our bodies work and what nutrients are needed for good health. He made food to give us those nutrients. When we alter God’s design and plan, we discredit His wisdom and we will suffer the consequences.

I have great concerns when diets eliminate entire food groups, especially ones that God has declared as good for food.

“But the Holy Spirit declares that in the latter times some will turn away from the faith, giving attention to deluding and seducing spirits and doctrines that demons teach...who teach people to abstain from certain kinds of foods which

God created to be received with thanksgiving by those who believe and have an increasingly clear knowledge of the truth." I Timothy 4:1,3 (AMP version)

Page after page of the *Wheat Belly* book is filled with arguments against wheat. Much of the substantiating evidence against wheat is based on the detrimental affect wheat has on people with celiac disease. One would certainly expect detrimental health responses to wheat for a celiac person. Celiac disease is caused by an inability to digest a particular protein component of gluten, known as gliadin. Gluten is the **naturally** occurring protein of most grains, particularly wheat. If you can not properly digest a food, then it is toxic to you. It is not surprising then that people with celiac disease will have health issues if they do not eliminate gluten from their diets and will certainly feel remarkably better when they do. The diet recommended in *Wheat Belly* is basically a high protein, low carbohydrate diet, with the elimination of ALL grains, not just wheat.

We need to be cautious about the elimination of entire food groups, especially when the recommendations are based on how that food group affects a particularly small representation of people. For example, Phenylketonuria is a rare disease in which a person is born lacking the enzyme to digest the amino acid, phenylalanine. Phenylalanine is a naturally occurring amino acid found in most protein rich foods such as meats, eggs and milk. Babies are tested for this disease at birth (PKU), and if found to have it are placed on a very low protein diet. Those people who do not adhere to the diet suffer many serious health issues including mental retardation. The high protein diet recommended by Dr. Davis would be debilitating for someone with phenylketonuria, causing many health issues, just as gluten does for a celiac. Yet, Dr. Davis does not think meat is a poison, but it certainly is to a phenylketonuria patient. If we based our opinions on how meat affects someone with phenylketonuria, we would conclude that meat, eggs, and milk are very dangerous foods, because they contain phenylalanine. Phenylketonuria is indeed less common than celiac disease, but celiac disease affects less than 1% of Americans.

In the remainder of this study, you will find only a **few** of my own findings when I began to research some of the "facts" presented in the *Wheat Belly* book. Dr. Davis' viewpoints will be presented first, in **bold type**, and are either direct quotes or implications from statements made in the book. My analysis will follow.

- **Dr. Davis mingles the terms "genetic modification", "hybridization", and "human modification" throughout his discussion of modern wheat.**

The use of these terms interchangeably throughout the same discussion, sentence or paragraph is confusing and misleading to the reader. Though never stated directly, it is certainly implied that the modern dwarf wheat is the result of genetic modification. Dr. Davis also uses examples of other truly genetically modified foods, such as soybeans, as examples for his arguments against wheat. This is deception at its best, causing the reader to draw wrong conclusions.

Despite the implication in the book, the modern dwarf wheat is NOT a result of genetic modification but of traditional plant breeding techniques. The modern dwarf wheat was developed by cross breeding thousands of strains of wheat to produce a seed with higher crop yield and finally crossing the variety with Japanese dwarf wheat. This produced a shorter plant that would not bend under the heavier heads of grain. The cross breeding was done wheat-to-wheat, unlike genetic modification that crosses genes from other species with wheat. Wheat has NOT been approved for genetic modification in the US. There is NO genetically modified commercially grown wheat in the US.

For the record, I am totally against the use of genetic modification in our food.

It is important for us all to realize that the US is the largest exporter of wheat in the world. Mexico and Japan are our largest importers. There is widespread global resistance to genetically modified grains. Other countries won't import genetically modified wheat. Wheat farmers in this country have resisted the development of genetically modified wheat and, in 2005, a trial project was dropped and government approval was never requested. The last trials were supposedly done in 2001, however, I have been told that trials are being done in ND and HI. The recent finding of genetically modified wheat in Oregon actually has wheat growers outraged. They do not want their crops contaminated anymore than we do.

I want to encourage readers everywhere to be informed. Dig deeper than the popular publications, as the information cited can often be traced back to only one source. Do not be deceived. Look for facts. Seek wisdom from God and His word. Fear is a tool of the enemy, not of God.

For clarification, let me just state again that wheat has NOT been approved for genetic modification in the US. There is no GMO wheat grown commercially in the US.

Finally, organic by definition cannot be genetically modified, so when in doubt, buy organic.

- **Dr. Davis claims that "wheat has been modified by humans to such a degree that modern strains are unable to survive in the wild without human support...". (page 22)**

Again, the use of the term "modified" can be misleading. Though the statement does not say it, most concerned readers might interpret that statement to mean genetically modified.

To obtain higher yields, the dwarf wheat may indeed require heavier nitrogen fertilization, but without the fertilization, the crop will most definitely survive and yield an adequate crop. In fact, the dwarf wheat was developed to direct its energy to produce "fruit" instead of a large plant and to grow in areas with less desirable soil and growing conditions. Dr. Davis actually contradicts himself a few pages later by stating that "short stalks reach maturity more quickly, which means a shorter growing season with less fertilizer required to generate the otherwise useless stalk."

To say that modern wheat can not survive in the wild is nothing short of ridiculous. We are not talking about a wild animal that has been domesticated and lost its natural survival instincts. We are talking about a plant that needs water, soil, and sunshine. The Bible tells us to "consider the lilies of the field and learn thoroughly how they grow, they neither toil nor spin." Matthew 6:28

- **Dr. Davis implies that the modern dwarf wheat is some kind of reproducing machine gone bad, coining such terms as "synthetic wheat" and claims that 5% of the proteins in the modern wheat is unique to the variety meaning that they are found in neither parent.**

Let me just say emphatically, this is genetically impossible. Plants can only express proteins they have the genetic code to produce. Certain conditions can affect the expression of these proteins but the plant cannot produce a protein when the code for that protein is not there. To put it simply, in human terms, you can not have a blue eyed child if there is no gene for blue eyes. You may never have a blue eyed child even if the gene is there, but you absolutely

can not have one if there is no gene or code for it. I do not mean to oversimplify here, but genetics is genetics.

- **Dr. Davis discusses how even freshly milled modern wheat caused adverse affects for him, comparing his reactions to freshly milled einkorn with freshly milled organic hard red wheat in the section "A Good Grain Gone Bad?". (page 26-27)**

The reactions Dr. Davis mentions having to red wheat are very typical of some one that has a wheat sensitivity. Dr. Davis states that he indeed has a wheat sensitivity. It is a fact that people with wheat sensitivity can often better tolerate the ancient grains such as Kamut® khorasan wheat, einkorn, spelt, and emmer. But for the rest of the 90% of Americans who do not have a wheat sensitivity there should be no adverse reactions. Dr. Davis also admits that his isolated reaction hardly constitutes a clinical trial. I completely agree. His personal experience is completely contrary to what we have seen in thousands of customers, of more than 20 years, who start milling predominately wheat.

- **Dr. Davis makes continuous references to "healthy whole grains" claiming they are no healthier than the white flour counter parts. He claims that his patients feel better and lose weight when they give up their "healthy whole grain" waffles and bagels for breakfast and replace them with a 3 egg omelet.**

There is no such thing as "healthy whole grain" processed bread products in the regular grocery store. Between 1870 and 1890, all commercial grain milling methods in the US were replaced by automated rolling mills. These rolling mills separate the bran and germ portions from the endosperm, or the white flour portion. White flour is basically protein and starch. Most all of the vitamins, minerals, fatty acids, and fiber are located in the bran and germ. The removal of the bran and germ leaves the white flour virtually devoid of nutrients except of course for the protein and starch.

By 1910, the new white flour had taken over the market, making white flour and white bread food for the masses. Shortly thereafter, three vitamin deficiency diseases became epidemic. Enriching the flour was necessary to replace the nutrients that were lost in the milling process. For the more than thirty nutrients lost with the removal of the bran and germ, only four were returned – three synthetically produced B vitamins and iron. A fifth nutrient, folic acid, was later added to enriched flour because of the rising incident of birth defects. Chlorine derived bleaching agents are also used making the flour whiter, as well as conditioners such as potassium bromate, that are certainly unwelcome additions.

Most people do not realize that ALL commercially milled flour in the US today is made on these huge roller mills. Commercially milled whole wheat flour is not at all the same as what you get if you milled the flour yourself. Even flour labeled whole grain is not what one may think.

"During the milling process, steel rollers crush the grain, and the white flour released from the endosperm is separated by sifters into different grades according to fineness. The protein portion of white flour is roughly 75% gluten. The bran and germ, which make up about 28% of the wheat kernel, are totally removed in commercially milled flour. Components may be recombined later to form a variety of flours to be sold for varying uses." ([Nutritional Characteristics of Organic Freshly Milled Stone-Ground, Sourdough and Conventional Breads](#) by Campbell, Hauser, and Hill, Ecological Agricultural Projects (EAP publication 35))

Whole Wheat Flour is produced commercially by recombining ground bran with the white flour. The wheat germ and oil is left out, as it would cause the flour to go rancid quickly. No legal specifications are required for this labeling. Most people think "whole wheat" means "whole grain".

Whole Grain is actually a legal term with specific content requirements for labeling. To "make" whole grain flour, the white flour must be recombined with the bran and germ according to legal specifications for flour to fiber ratio. Gluten, the protein portion of white flour, can be completely extracted from the white flour. Even though white flour is predominately gluten and starch, the extracted gluten, however, is not considered "flour" by legal standards. Gluten can therefore be added in abundance to flour products, even those labeled "**whole grain**". The addition of extra gluten greatly alters the fiber to flour ratio of the "whole grain" product. This is an unnatural amount of gluten in these "healthy whole grain" products, the consumption of which will not give the desired health benefits, if any at all. This isolated gluten is also found in many non bread products such as soy sauce and taco seasoning.

It is important to mention here that gluten, as it naturally occurs in grains, is not a "bad guy" any more than cholesterol is a bad guy as it appears naturally in eggs and fats. In fact, gluten, as it occurs naturally in most grains, contributes several valuable amino acids to our diets. Amino acids are the building blocks of all protein. Protein foods are important as they supply the body with the necessary amino acids for strength and good health. Glutamine is just one such amino acid. It is known to promote gut health and brain function. The richest food source of glutamine is wheat gluten. Wheat is considered a good protein source for adults as it supplies significant amounts of all essential amino acids, except lysine. The addition of legumes, meat, or milk will supply the needed lysine, making wheat a complete protein source even for growing children.

So, there is simply no comparison between a breakfast of store bought waffles or bagels, which are not healthy no matter what they are labeled, and a breakfast of a three egg omelet and cheese. Of course you feel more sustained on the omelet, but a breakfast of freshly milled whole grain waffles will stabilize your blood sugar and satisfy your hunger for hours, giving you lots of energy. People have different body chemistry. Some people do better on more carbohydrates while others do better on more protein, but always the carbohydrates must be real – real fruits, real vegetables, and real whole grains.

The invention of the steel roller mills in the late 1800s revolutionized the American diet. Some statistics show that a real decline in America's health began around 1910. Over one hundred years of eating basically protein and starch, isolated from the rest of the many valuable nutrients found in wheat and all other grains, has contributed to many of the health issues we now see in this country.

- **Dr. Davis makes a bold correlation between the rise of obesity and the increase in consumption of wheat: "The sad truth is that the proliferation of wheat products in the American diet parallels the expansion of our waist. Advice to cut fat and cholesterol intake and replace the calories with whole grains that was issued by the National Heart, Lung, and Blood Institute through its National Cholesterol Education Program in 1985 coincides precisely with the start of a sharp upward climb in body weight for men and women. Ironically, 1985 also marks the year when the Centers for Disease Control and Prevention began tracking body weight statistics, tidily documenting the explosion in obesity and diabetes that began that very year." (Page 6)**

There is something simplistically wrong with this statement. If the Center for Disease Control only began tracking in

1985, how is it possible to know when the “explosion” in obesity started? What was happening before 1985? Statistics I have read report the decline in America’s health beginning as early as 1920, with a drastic drop from 1978 to 1980. In 1978, America’s health was ranked 79 out of 100 countries studied. In 1980, the US had dropped to 95 out of 100. This was just in two short years and all prior to 1985.

Could this rapid decline have started in the 1970s when the high protein/low carbohydrate diets were first introduced by Dr. Robert Atkins? Diets such as the Paleo Diet and the Wheat Belly diet are nothing more than the high protein/low carb diet by a different name.

The REAL truth, according to the USDA Economic Research Service, is that wheat consumption has actually DECLINED in the past 100 years, while meat and sugar consumption have drastically increased.

In 1829, wheat consumption averaged about 225 lbs/person/year. It dropped steadily to 180 lbs/person in 1925, bottoming out in 1972 to an all time low of 110 lbs/person/year. There was a slight increase up until 1997, but only up to 147 lbs/person/year. According to the USDA Economic Research Service, “the 10 year growth ended in 1997 with the adoption of the low carbohydrate diets”, leading again to a decline in wheat consumption, rapid at first, reaching a low in 2005. In 2011, the estimated consumption of wheat is only 132.5 lbs/person/year. That is nearly 100 lbs/person/year less than what it was 100 years ago.

A striking change in wheat flour use occurred in the past century. At the turn of the 20th century, home baking accounted for 90 percent of total flour consumption, with commercial bakeries accounting for 10 percent. By 1945, the bakery portion rose to 60 percent as home baking dropped with the entry of women into the workforce. By 1990, less than 10 percent of flour was consumed in the home. As one can see, these facts do not coincide with the statements presented in the *Wheat Belly* book, since wheat consumption has actually decreased while the obesity rate and waistlines have increased.

Also interesting is the fact that by 1980, the dwarf wheat was accepted worldwide to prevent food shortages and hunger in other countries. If wheat is the problem, then why have China, Mexico, and many Third World countries, which all use the dwarf wheat variety, not seen the rise in obesity and decline in health like America?

In the more than two decades I have been teaching others the health benefits of freshly milled whole grains, including wheat, I have seen countless lives improved by weight loss. Dr. Davis’ claims about wheat, weight gain, and particularly fat accumulation around the middle contradict many other studies conducted over the years. One such study, the Framingham Heart Study found that those who ate at least 3 servings of whole grains everyday had the least fat accumulation around the middle. Another 12 year study, conducted among women, to investigate the relationship between the intake of dietary fiber, whole grains, and weight gain over time, found that those who consumed the **most** whole grains weighed less than those who consumed less whole grains. Those with a high whole grain intake had a 49% lower risk of major weight gain over time.

● **Dr. Davis makes the claim that wheat is a major contributor to weight gain and that the single elimination of wheat alone will promote weight loss. “If glucose-insulin-fat provocation from wheat consumption is a major phenomenon underlying weight gain, then elimination of wheat from the diet should reverse the phenomenon. And this is exactly what happens.” (Page36)**

Dr. Davis states that "a Mayo Clinic/University study of 215 obese celiac patients showed 27.5 pounds of weight loss in the first six months of a wheat free diet." (Murray JA, Watson T, Clearman B, Mitros F. *Effect of gluten-free diet on gastrointestinal symptoms in celiac disease.* Am J Clin Nutri 2004 April)

First of all, what does this statement even mean? Does he mean 27.5 pounds per person, total for the group, or is it an average?

I found this study and read it for myself. It was not 215 **obese** celiac patients but simply 215 celiac patients. Of them, only 23% had Body Mass Index (BMI) >25 and only 11% of these had BMI >30. A BMI of >30 is considered obese. If you do the math, that puts the obese number in this study at 5-6 patients, not all 215! Half of the patients had a BMI <20. That means half of the 215 were normal or below normal weight. The conclusion of the study then states that the same proportion of males and females gained or lost weight after the institution of a gluten free diet (males – 31% gained, 41% lost, females – 36% gained and 35% lost). Ninety one patients **gained** (emphasis mine) weight between the time of diagnosis and 6 months after starting a gluten free diet. In the same period, 25 patients lost an average of 27.5 lbs. There is the 27.5 lbs Dr. Davis mentions, but it is an average among only 25 patients. According to the conclusions of the study, "this weight loss was most pronounced in the patients who were obese at diagnosis. However, 12 patients who had normal or low weight at diagnosis actually lost weight despite a gluten-free diet. This was largely due to excessive food restriction rather than persistent disease."

These results are significantly different than the statements made by Dr. Davis in the text above. I am not sure why the facts are misrepresented, but they certainly are. As you can see for yourself, these facts do not make a great case for gluten free and weight loss.

In more than 20 years of hearing the testimonies of others, we have seen many people experience great weight loss if needed when they began to eat freshly milled whole grains, including wheat. They also saw improvements in their overall health, skin and hair.

- **Dr. Davis makes claims about the affects of wheat on blood sugar and weight loss using the glycemic index as evidence: "An interesting fact: Whole wheat bread (glycemic index 72) increases blood sugar as much as or more than table sugar, or sucrose (glycemic index 59). (Glucose increases blood sugar to 100, hence a glycemic index of 100. The extent to which a particular food increases blood sugar relative to glucose determines that food's glycemic index.) So when I was devising a strategy to help my overweight, diabetes-prone patients reduce blood sugar most efficiently, it made sense to me that the quickest and simplest way to get results would be to eliminate the foods that caused their blood sugar to rise most profoundly: in other words, not sugar, but wheat." (page 8-9)**

The glycemic index was devised to classify carbohydrate food according to their potential to raise your blood sugar level. Let me first reiterate the fact that commercially milled whole wheat flour does NOT contain the entire components of the wheat kernel. The wheat bran is partially removed and the wheat germ and oil are completely removed. With the bran and germ's removal a valuable portion of fiber is lost. Fiber has been proven to slow the absorption of sugars released from carbohydrate digestion. But let's look at the glycemic index charts for ourselves:

Glycemic Index (GI)

White wheat flour bread – GI 71

Wonder Bread™ , average – GI 73

Whole Wheat bread, average – GI 71 (referring to store-bought "whole wheat bread")

These numbers certainly seem to confirm the above Wheat Belly statements. But continue looking and you will find some interesting numbers that Dr. Davis fails to mention:

50% cracked wheat kernel bread – GI 58

100% Whole Grain™ bread (Natural Ovens)* - GI 58

*Natural Ovens is a locally owned bakery in Manitowac, Wisconsin that makes their bread from whole grain flour with added flaxseed meal.

Last but not least:

Whole wheat kernels (the whole grain itself) – GI 30

If real wheat is the problem, then why these low glycemic numbers and why did Dr. Davis leave them out of the book!

Let me reiterate the fact that there is no such thing as healthy whole grains in the regular grocery store. The only way to get real whole grain bread and bread products is to make them yourself from flour that you have milled for yourself or from a reputable bakery (e.g. -[www.realbreadcompany](http://www.realbreadcompany.com)) that mills their own flour and adds no white flour to their products. Any commercially made product is made from flour that has been processed and sifted.

● **Dr. Davis claims that wheat is, in effect, an appetite stimulant. Accordingly, people who eliminate wheat from their diet consume fewer calories...**

The elimination of the heavily processed flour products alone, consumed by most Americans, will result in fewer calories for sure but will leave most people craving these sugar filled, nutrient devoid delicacies. However, our bodies use carbohydrates for energy and brain function. So if you replace those sugar filled high calorie foods with real whole grains, you will be satisfied and have much sustained energy. What we have seen over the past 21 years, in ourselves and countless others who consume their own freshly milled whole grain flour from the entire kernel of whole grain, including wheat, is that sugar and simple carbohydrate cravings virtually disappear and appetites are completely satisfied. The fiber found in whole grains fills you up. The number of calories consumed is reduced and hunger is completely satisfied.

"Jesus replied, 'I am the Bread of Life. He who comes to Me will never be hungry...'" John 6:35.

● **Dr. Davis makes very alarming attacks on wheat in the section entitled, "Whole Grain Brain". He says, "The effect of wheat on the brain is more than just influence over mood, energy, and sleep. Actual brain damage is possible ..."**

"In one particularly disturbing Mayo Clinic study of thirteen patients with recent diagnosis of celiac disease, dementia was also diagnosed." "Of the thirteen, nine died due to progressive impairment of brain function. Yes: fatal dementia from wheat." (page 172-173)

This is sensationalism used to the extreme! In the study cited, the Mayo Clinic searched medical records for more than 30 years to find patients who showed both celiac disease and dementia. Only 13 were found that met the

criteria. Let me say that again – 13 from over 30 years of medical records at a major medical clinic! In the study, it is not clearly stated whether a gluten free diet is followed by all the patients studied. It mentions that several of the patients improved as long as the gluten free diet was implemented. Does this mean that the nine patients that Dr. Davis states “deteriorated and died”, followed a gluten free diet as well? It is not clear. If so, then the diet did not help. If not, then it is only logical that a celiac patient will deteriorate in any aspect if gluten is not eliminated because gluten cannot be digested by someone with celiac disease. Any food that can not be digested properly is a toxin to that person. But we do not all have celiac disease. In fact, celiac disease affects less than 1% of Americans.

Dr. Davis speaks of the fact that gluten when broken down into its polypeptides can cross the blood-brain barrier like it is a bad thing, even likening it to drug addiction because it can “induce a form of reward, a mild euphoria”. I find this section of the book particularly interesting. In my recent studies for my certification in nutrition counseling, I read some intriguing facts when studying particular amino acids:

- Donald Lepore, N.D in *The Ultimate Healing System* states that: “Glutamic acid is a nonessential amino acid (can be constructed within the body). About 90% of the dry weight of the brain consists of protein. Approximately half of the amino acid composition in the brain is represented by glutamic acid and its derivatives, which include L-glutamine. Glutamic acid has a function as a neurotransmitter in the central nervous system. Glutamic acid is called a “Brain Food” because it plays a special role in brain metabolism, essential to improve and maintain the functions of the brain.”
- “L-glutamine is a nonessential amino acid and is a form of glutamic acid. L-glutamine has improved intelligence. It is also reported to improve the IQ of the mentally retarded. L-glutamine is presently being researched as a corrective and controlling nutrient to help alcoholics to recover by diminishing their desire and need for alcohol.”
- “Glutamic acid is the most prominent amino acid in wheat protein.”

It has been found that a brain deficiency of L-glutamine causes confusion in the thinking ability and illogical decision making. Perhaps the reason the gluten components can cross the blood brain barrier is because they are necessary nutrients to brain function. If the most prevalent food source of glutamic acid and glutamine is wheat gluten, perhaps we actually need wheat and grains in our diet for logical thinking process as well as mood stabilization.

From my studies in *The Ultimate Healing System*, I also learned that marijuana use actually displaces L-glutamine from the brain. Perhaps this would explain the misguided thinking of many users of marijuana.

One thing I have found, again and again over the years, is that bread made from freshly milled whole grains is very satisfying. It does not make me want more, but it satisfies. Maybe this “mild euphoria” is a good thing. Perhaps that is why when Jesus compared himself to bread, He said, “he who comes to Me shall never go hungry,” John 6:35.

● **Dr. Davis comments about the decrease in schizophrenia in Finland, Norway, Sweden, Canada, and the United States during World War II when food shortages made bread unavailable – page 46 –**

I have actually read about the rationing of bread during wartime over the years in my extensive readings about bread. I read that health had indeed improved during wartime, not because all bread was rationed, but because flour was forbidden to be fractured, and therefore white bread was prohibited. According to the History Learning Site, it was sliced white bread that was rationed, not wheat or bread in general. Because of food shortages, wheat was

forbidden to be separated. Nothing was to be wasted, so the entire kernel of wheat was to be used for food. White bread and white flour were strictly forbidden to be made. Significant health improvements, less diabetes, and lower death rate were recorded even during wartime. This improvement in health is attributed to the whole grain wheat being consumed instead of the then popular white bread.

The work of Dr. Abram Hoffer showed a direct correlation between schizophrenia and niacin. Niacin is one of the three B-vitamins that had to be added back to enrich white flour due to the significant loss of the nutrient with the extraction of the bran and germ. Perhaps the reason schizophrenia dropped during wartime was not because of the elimination of bread but that the bread was now once again being made from real whole grain flour, which supplied the body with the needed niacin.

- **Dr. Davis says that “eliminating wheat is the easiest and most effective step you can take to safeguard your health and trim your waistline.” (page 11)**

Perhaps nothing could be farther from the truth, especially when it comes to feeding your child. Wheat and grains in general are the largest food group in the grocery store. Once you leave the perimeter of the grocery store and pass the condiments and canned fruits and vegetables aisles, you will find aisle after aisle of shelves filled with heavily processed, altered grain products. Yes, these altered, processed foods need to be eliminated, but not the whole food group. So the easiest and most effective step you can take to safeguard your health is to go back to eating real whole grains and real whole grain breads made easily in your own home. This is healthy food even your children will love. You will be shocked at the immediate, significant, and very noticeable health benefits. As a mother of nine children, it is comforting to know that my children are healthy and strong. In the past 21 years, my children have had no antihistamines or decongestants, and have seldom been sick; in fact, they have only required doctor visits 4 times. Many are adults now, with families of their own, and have all adopted the lifestyle including freshly milled whole grains.

Since 1992, I have been educating families about the benefits of freshly milled whole grains. I teach and lecture extensively on the health issues associated with the consumption of the processed bread products found in the grocery store – even those considered healthy. I explain how the common diseases that plague this nation are directly related to our consumption of processed flour. I agree completely that these empty, high calorie foods have wreaked havoc on the health of our nation. My solution, however, is not to eliminate one of the most nutrient dense food groups we have, but to correct what has been done to the food group.

Many families have communicated that once they began to make real whole grains the mainstay of their diets and mill their own fresh flour to make their baked goods, they began to see overall well-being and wellness improvements such as:

- bowel habits regulated
- warts disappear
- blood sugar issues stabilize
- irritable bowel syndrome corrected
- weight issues resolved
- overall cholesterol levels drop significantly (85-100 points) in just 30-90 days and HDL levels go up, while LDL and triglyceride levels go down

- energy levels increase
- sugar craving decrease
- skin issues such as psoriasis completely heal

In the more than 20 years of teaching others the health benefits of wheat and other whole grains, I have seen thousands of lives changed for the better **including** many of the same health benefits that Dr. Davis claims to have achieved from the complete removal of wheat! The most life changing dietary improvement I ever made for my family was when I began incorporating freshly milled whole grains, including wheat, over 21 years ago - and we are still going strong!