

“Wheat Belly” by William Davis, MD: A Book Review

What is a “Wheat Belly?”

Wheat belly represents the accumulation of fat around the midsection. This fat is unique in that it causes an inflammatory response, interferes with insulin response, and creates abnormal metabolic signals to the rest of the body. In men, this fat also produces estrogen which leads to “man breasts.”

In what foods is wheat found?

Wheat is found in anything that contains flour, including bread (white, wheat, multigrain, Italian, French, etc), bagels, muffins, pretzels, crackers, cereals, pasta, and noodles.

How is current/modern wheat different from the wheat our grandparents ate?

In the past 50 years, wheat has been hybridized and crossbred by scientists in order to make the wheat plant resistant to environmental conditions, such as drought, heat, and fungi. Also, these genetic changes have caused an increase in the average yield of wheat that is 100 times greater than it was one hundred years ago, and the current crop is only 18 inches tall.

Are there any nutritional differences between modern wheat and ancient wheat?

Dr. Davis did his own experiment measuring his blood sugar before eating bread and then eating a slice of bread, made from ancient or modern wheat, and re-measuring his blood sugar level after. The first day, his blood sugar measured 84 mg/dL and after having a slice of bread made from ancient wheat his blood sugar rose to 110 mg/dL. The following day, he measured his starting blood glucose at 84 mg/dL again and redid the experiment eating the slice of bread from modern wheat and his blood sugar skyrocketed to 167 mg/dL.

Also, 75% of the carbohydrate in wheat is Amylopectin A. Amylopectin A is considered a super carbohydrate because it is highly digestible and is more efficiently converted to blood sugar. This means that the amylopectin A in wheat makes wheat no better than eating a sugary candy bar or drinking a can of sugar-sweetened soda.

How does this increase in blood glucose lead to “Wheat belly?”

When a person eats wheat, there is a great spike in blood glucose. The greater this spike, the more insulin is released by the body, which leads to more fat being deposited. When a person has high blood glucose repeatedly or for sustained periods, more fat accumulates, especially around the abdomen/stomach area leading to a “wheat belly.” This larger belly leads to a poorer response to insulin which can contribute to diabetes, more fat in males leading to more estrogen production by fat tissue, and more inflammatory responses are triggered which can cause heart disease and cancer.

What kinds of health consequences can wheat lead to?

Wheat can act as an appetite stimulant by producing morphine-like compounds that cause a feeling of reward and give wheat its addictive properties. It can also contribute to:

- Obesity (page 60): The repeated cycles of high blood sugar and high insulin lead to fat around the midsection and contribute to obesity. This fat can produce an inflammatory response in the body. Also, all body fat except that around the midsection produces a protective cytokine that reduces the risk for hypertension, diabetes, and heart disease. This inflammation and lack of the protective cytokine can lead to the development of these conditions.
- Diabetes (96): Wheat products cause blood sugar to increase to high numbers which leads to high insulin levels. This cycle leads to fat around the midsection and this fat causes insulin resistance. Also, these high blood sugars cause damage to the beta cells of the pancreas which are responsible for producing insulin, which can lead to diabetes.

- *Osteoporosis (116)*: Wheat is among the most acidic foods consumed in today's society which can alter the acid-base balance in the body. For the body to adjust to the change in pH, it removes calcium from the bone leading to weaker bones and over time, osteoporosis and bone fractures.
- *Arthritis/Joint Inflammation (124)*: As previously mentioned, wheat can lead to excess fat around the midsection and inflammation which can lead to other health conditions. This inflammation can also develop in a person's joints causing cartilage and joint damage. It also explains why joints in the hands and fingers are also affected and not just joints that bear weight, such as the joints of the knees and hip.
- *Advanced Glycation End Products (AGEs) (133)*: These AGEs are useless debris produced by the body as a by-product of high blood sugar and can deposit in various parts of the body. The higher the blood sugars, the more AGEs are produced. Depending on where these AGEs deposit can lead to health consequences. If the AGEs deposit in the eyes then cataracts develop, in the brain then dementia, and in the heart can lead to blockage of the arteries (atherosclerosis).
- *Heart disease (147)*: Other than the production of AGEs leading to atherosclerosis, eating wheat also causes the body to produce more insulin which triggers the production of triglycerides. These triglycerides are packaged into tiny LDL particles (VLDL) which can lead to plaques developing in the arteries and blocking blood flow.
- *Liver disease (154)*: Wheat consumption leads to increased triglycerides and LDL particles to be produced by the liver. This excess fat production can get in the liver and cause nonalcoholic fatty liver disease which can lead to liver cirrhosis.
- *Brain Health (168)*: Gluten is the main protein in wheat and many people may have a gluten sensitivity without displaying any signs or symptoms of intestinal disease. In some people, there is an immune response that develops against gluten which is directed against brain tissue and can lead to cerebellar ataxia (loss of balance and coordination) or dementia. If this immune response is directed to nerves in other parts of the body, peripheral neuropathy can occur (loss of sensation to legs).
- *Acne (179)*: Eating wheat causes insulin to be produced, which stimulates the release of growth factors. These growth factors cause tissue in the skin layer below the surface to grow and increase the sebum (oil) production, which in combination cause acne.
- *Hair loss (185)*: Wheat can cause hair loss to occur in patches. This is due to a gluten sensitivity which causes skin inflammation and the hair follicle cannot hold onto the individual hair causing it to fall out.

What should I eat?

Eat plenty of vegetables, raw nuts and seeds, meats, fish, and eggs, dairy products (particularly cheese), olives, pickled vegetables and some fruit (watch quantity because they can be rich in sugar). Beans, potatoes, oats, and rice can be consumed in small quantities due to the potential of increasing blood sugars. Also, there is no such thing as healthy whole grains, so they should be eliminated from the diet. Simply put: eat foods that do not require a label.

What should I expect when I quit wheat?

Quitting wheat can cause a withdrawal effect which can include feeling tired, mental foggy and irritability, but most people feel better after one week. Also, after removing wheat, most people start losing weight, have more energy, sleep better, eat fewer calories, and lower their blood sugar, blood pressure, and cholesterol.

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