Country Real Estate, #302: October 17, 2013

Low grain makes for good brain

By Curtis Seltzer

BLUE GRASS, Va.—Like most Americans, I'm not a nutritionist, disease researcher, neurologist or medical doctor. So I depend on those who are to explain the origins of diseases and what I -- an ordinary, run-of-the-mill person -- can do to lower my chances of getting them.

As I've gotten older, I've given more thought to what I eat as a way to minimize health problems. I've cut out or cut down many of the consensus carb-heavy and high-sugar bad boys—sweetened beverages, candy, chips, highly processed foods, pizza, bread, bagels, pancakes, doughnuts, cakes, cookies, cereals and potatoes, to name a few.

I've substituted almonds, lean beef (grass-finished, not grain-finished), chicken, pork, eggs, salmon, tuna, cheese, dark chocolate, olive oil, salads, sugar-free Popsicles/Fudgsicles and fruit. I still avoid cooked vegetables, for which I berate myself on a daily basis.

I have assumed that my overall health would be good enough if I ate fewer calories by eating less and weighted my diet toward low-carb, low-sugar, low-fat calories. I also try to do an hour of cardio exercise five or six mornings a week.

I've pegged carbohydrates (sugar in another form) as my personal, weight-gain nemesis. But I never considered them as evil.

David Perlmutter, a certified neurologist and nutritionist, has written Grain Brain: The Surprising Truth About Wheat, Carbs, and Sugar—Your Brain's Silent Killers (2013). He runs the Perlmutter Health Center in Naples, Fl., and is president of the Perlmutter Brain Foundation. His father, now 96, was a prominent brain surgeon who now suffers from Alzheimer's.

David and I are very, very distantly related. I recall visiting his home in Coral Gables almost 60 years ago. The pool made a big impression; he -- several years younger -- did not.

As a brain doctor and a nutritionist, David's practice focuses on how food contributes to brain problems, how food can solve some of them and how food can keep our brains healthy.

The argument in his book, which is based on current science and his own practice, is that the origin of some brain diseases -- such as

Alzheimer's -- "…is in many cases predominantly dietary." He cites recent research to show that Alzheimer's shares the same dietary and lifestyle origins as type 2 diabetes.

He identifies these common origins for both diseases: 1) living with chronic high blood-sugar levels even in the absence of diabetes; 2) eating too many carbohydrates throughout life; 3) opting for a low-fat diet that minimized cholesterol; and 4) having undiagnosed sensitivity to gluten, the protein found in wheat, rye and barley.

He argues that all of us are sensitive to grain-based gluten, a "silent germ…that can inflict lasting damage without…" your knowledge. Accordingly, we should "evict this modern poison from our diet."

Sticky gluten, he says, interferes with the breakdown and absorption of nutrients. This causes our immune system to send out killer cells to wipe out "the enemy," which can end up damaging our intestinal tissue. In the extreme, this results in celiac disease

Gluten, he says, is also linked to neurological harm. It triggers a defensive response that releases cytokines, chemicals that can attack the brain and leave it vulnerable to dysfunction and disease. Gluten sensitivity can occur neurologically without any expression as an intestinal disorder. And, he says, *all* of us may be neurologically sensitive to gluten.

Elevated cytokines are seen in Alzheimer's, Parkinson's, MS and even autism.

Gluten breaks down in the gut to various polypeptides that can bind to the brain's morphine receptor. That's why I feel better when I eat cookies. It's also why gluten and carbs are mildly addictive.

And this helps to explain why gluten is packed into many products, including condiments, cocktails, cosmetics, hand cream, soup, sweeteners, soy foods, beer, chocolate milk, cold cuts, energy bars, hot dogs, ketchup, mayonnaise, non-dairy creamer, root beer, salad dressings, tabbouleh, trail mix, veggie burgers, ice cream and Play-Doh.

David recommends purging our diets of gluten and high-carb foods in favor of alternatives. Instead of wheat flour, he suggests coconut flour almond flour and ground flaxseed; instead of sugar, he suggests stevia or whole fruits; instead of vegetable oils, he says stick with butter and extra virgin olive oil.

He believes the campaign against cholesterol that's been conventional wisdom since the late 1950s and the related substitution of high-carb foods has produced our current high rates of obesity and diseases, such as type 2 diabetes, Alzheimer's and migraines, among others. Becoming a diabetic doubles your risk of Alzheimer's.

He argues that cholesterol helps to maintain brain health and function. Cholesterol, he says, is a critical brain nutrient that's essential for the functioning of neurons and plays a fundamental role in building cell membranes. It is an essential fuel for neurons Good fat/cholesterol increases health and brain function, but bad fat (trans fats) doesn't.

He argues that ***oxidized*** LDL (low-density lipoprotein, which is not a cholesterol molecule at all), has more to do with coronary heart disease than cholesterol and LDL. Oxidized LDL is related to the presence of glucose molecules-- high blood sugar -- not fat.

Heart attack is related to modifiable risk factors such as smoking, excess alcohol consumption, lack of aerobic exercise, overweight and a diet high in carbs, not cholesterol.

High fat levels, even high-saturated fat and high cholesterol, are not correlated with heart disease, stroke and cardiovascular disease.

People with higher levels of cholesterol, he says, show less dementia and lower incidence of Parkinson's disease and better memory. Individuals with low cholesterol are at a much greater risk for dementia and other neurological problems.

Diseased brains, he finds, are deficient in cholesterol. The human brain works better on fat as fuel than glucose coming from carbs and other sources.

Taking cholesterol-lowering statin drugs, like Lipitor, can lessen brain function and increase the risk of heart disease.

His preferred every-person's diet is very-low-gluten, low-carb, high-saturated fat; his bad diet is high-gluten, high-carb and low-fat. This is just the opposite of what we've been told for the last 60 years, the very years when heart disease, stroke, dementia and Alzheimer's have been increasing..

His list of healthy fats, which protect neurological health, includes omega-3s, monounsaturated fats (avocados, olives and nuts), natural saturated fats (egg yolks, cheese and butter) and ketogenic fats (coconut oil). Included are extra virgin olive oil, sesame oil, coconut oil, walnut oil, almond milk, nut butters, cheese (except blue cheese) and seeds (flax, sunflower, pumpkin and sesame).

Bad fats, which harm neurological function, are the modified hydrogenated fats/trans fats found in margarine and processed foods, and vegetable oils, such as corn, cottonseed, safflower, soybean and sunflower.

David sees gluten, grain and carbs behind the rise in obesity, type-2 diabetes and many neurological diseases and problems that seem to strike randomly. The rise of American foods packed with gluten and carbs that began in the 1940s tracks the rise in weight, obesity, type-2 diabetes and

neurological problems above and beyond what can be explained by our longer-lived population.

He believes that carbs, not dietary fats, cause weight gain.

From an evolutionary perspective, he argues that fat, not carbs, is our preferred fuel. Grain and high-carb foods were added to the human diet, starting with wheat agriculture about 11,000 years ago in Turkey. Our bodies haven't had time to adjust to the change.

Carbs are mainly long chains of sugar molecules. Carbs are not essential for synthesizing other molecules, and humans can get all of their energy needs from protein and fats.

Carbs in grain, refined flour, starches and liquids trigger surges in blood sugar that lay the foundation for obesity and type-2 diabetes. Whole-wheat and multi-grain products raise blood sugar as much as white flour. Wheat increases blood sugar more than table sugar.

America's weight gain is based on a diet that's high in bad fats, carbs and sugars—many of which are embedded semi-visibly in processed foods. Most of the 3,700 calories the average American adult consumes daily come from these three sources. This caloric load is about 523 more calories per day than we consumed in 1970.

"Normal" caloric intake would be about 2,000-2,100/d for women and 2,550-2,700/d for men, with adjustment up or down depending on physical activity.

Simply lowering calorie intake is associated with reduced risk of stroke and neurodegenerative disorders, such as Alzheimer's and Parkinson's.

He writes that waist circumference is a better predictor of migraine activity than general obesity. Women carrying extra fat around their belly were 30 percent more likely to suffer from migraines than women who were not.

It's easier to cut calories by targeting grain, refined carbs, bad fats and sugars than by reducing protein and fiber from meat, eggs, salad, veggies and healthier foods. Since good fat and bad fat essentially carry the same number of calories per gram, substituting good fat for bad fat will maintain your energy intake and bring health benefits.

A healthy brain is also a function of regular physical exercise.

I'm always skeptical of magic bullets when it comes to diet, weight loss and healthiness. I wish we had a pill for good health.

The Perlmutter approach seems reasonable to me, if only because it comes from both his daily experience and from current research. It's not contrarian for the sake of being contrary.

Better health for me requires change and sacrifice. I don't need a gluten-free, zero-carb plan, but I can see the rationale for replacing "bad-brain" foods with "healthy-brain" foods.

David's thesis will be challenged by other doctors and scientists. Organizations -- the Institute of Medicine, Food and Agricultural Organization and World Health Organization -- recommend that carbs supply between 45 and 75 percent of dietary energy. David's alternative would be a good bit more than half of dietary energy from non-grain, non-carb and non-sugar sources.

It's hard to strip grain and carbs out of typical American foods. But I've found that eating less of both produces weight loss, which, even apart from brain benefits, is healthier than the alternative.