

### An Interview with Melissa Diane Smith

# Should People Eat Against the Grain?



BY RICHARD A. PASSWATER, PH.D.

**G**rains are low in fat and have long been touted as nutritional good guys. They form the base of the U.S. government's "food pyramid" diet guidelines and most of us think grains are healthy foods for everyone. Health food advocates historically have emphasized staples including whole grains, wheat germ oil, bran, yogurt, acidophilus, honey, black-strap molasses, sprouts, lecithin, cold-pressed oils and brewer's yeast. Surprisingly, however, there is another side to the grain story. Grains are associated with a number of nutritional problems most people have never heard about. Many of us would experience better health by reducing our intake of grains. Astonishingly, some people can experience good health only when they eat no grains at all.

Nutritionist and health journalist Melissa Diane Smith is the author of the just-released *Going Against the Grain: How Reducing and Avoiding Grains Can Revitalize Your Health* (Contemporary Books, \$14.95). The book explains the nutritional pros and cons of grains and the role of grains in the development of common health problems ranging from obesity to autoimmune diseases to heart disease. It offers three different "Against-the-Grain" diet plans along with supplement suggestions to help prevent and reverse grain-related sensitivities, symptoms and ailments.

Smith is a Tucson, AZ-based nutritionist and health educator who counsels clients across the country and has impressive writing accomplishments. I first met Melissa a few years ago when I interviewed her and her co-authors about *Syndrome X: The Complete Nutritional Program to Prevent and Reverse Insulin Resistance* (John Wiley & Sons, 2000). That book became a national bestseller. Smith also is the author of *User's Guide to Chromium* (Basic Health Books) and the co-author of *User's Guide to Vitamin E* (Basic Health Books) and *Why Am I Always So Tired?* (Harper San Francisco). In between books, she writes extensively on nutrition topics for a variety of health magazines, including *Let's Live*, *Delicious Living* and *Great Life*. She is a Phi Beta Kappa journalism graduate from the University of Arizona and holds a diploma in comprehensive nutrition from the American Academy of Nutrition.

The natural products industry is all about helping people enjoy better health. Smith has a message that goes "against the grain" of many of our beliefs, but it's an important message that we in the health food industry all should hear.

**Passwater:** What's the main message of *Going Against the Grain*?

**Smith:** Grains are connected with many nutritional problems

that most people are completely unaware of. Most of us would experience far better health if we reduced our intake of grains and ate more vegetables. Some of us would do better with no grains at all in our diets.

**Passwater:** Wow, that answer certainly goes against the grain of what many of us have been led to believe! Let's start from the beginning. What are the main problems with grains?

**Smith:** In our society, most people eat refined grains—primarily white-flour products such as pasta, bread and baked goods, but also white rice and foods and drinks (such as soft drinks) sweetened with high-fructose corn syrup (which is another highly refined grain product).

Nutritionally speaking, refined grains aren't much better than eating sugar: they tend to be high on the glycemic index, are high in carbohydrates and are low in nutrients. They produce similar metabolic consequences as sugar in the body, stimulating sharp rises in blood glucose (blood sugar) and insulin levels. Over the long term, this accelerates aging in the body and increases the risk of the major (if not all) degenerative diseases, including heart disease, type II diabetes, some types of cancer, and dementia. These are ideas that were covered in *Syndrome X*, but I expand upon them in *Going Against the Grain*.

**Passwater:** Most people would say that they eat refined grains every day and don't have any problems. How do you respond to them?

**Smith:** Eating refined grains doesn't usually cause immediate, direct, adverse effects on health. Instead, it sets off a cascade of events in the body that promotes disease over time.

The nature of degenerative diseases such as heart disease or cancer is that they don't develop overnight. They can be developing beneath the surface for years or decades without our knowing about them. Eventually, as we're well into the insulin resistance process of disease—the condition in which the blood-sugar-lowering hormone insulin doesn't work as efficiently as it should—we can show some warning signs such as excess weight around the middle. But this is so common that most people don't think twice about it. We just go along eating our typical American diet and think everything is fine and then, boom—we're diagnosed with heart disease, high blood pressure, type II diabetes or whatever.

## One-on-one with Melissa Diane Smith

Dr. Richard Passwater, who has offices in Berlin, MD, has authored several books on nutrition, including *The New Supernutrition*, *Cancer Prevention and Nutritional Therapies*, *Selenium Against Cancer and AIDS*, and *Selenium as Food & Medicine*.

**Passwater:** Most people in the health food movement know about the problems with refined grains. But aren't whole grains a lot better for us?

**Smith:** Well, yes and no. Whole grains have more fiber and stimulate lower blood glucose responses than refined grains, so they protect more against heart disease and type II diabetes. That's their big plus over refined grains.

Nevertheless, they have some minuses, too. Like refined grains, whole grains are high in carbohydrates and low in antioxidants such as vitamin C and beta-carotene. So they are not as protective against degenerative diseases as non-starchy vegetables and fruits, which are low in carbohydrates and rich in antioxidants.

**Passwater:** Just before we started chatting, a new study was released suggesting that whole wheat is a good source of antioxidants. I guess "good" is relative. I never looked at grains as being a good antioxidant source, even though wheat

germ oil was about the only good natural source of vitamin E about 50 years ago.

**Smith:** Even though wheat has some antioxidants, it still is high in carbohydrates and calories, has allergenic and druglike proteins that can be very problematic for some people, and has "anti-nutrients" that impair the absorption or utilization of

*Wheat contains  
"anti-nutrients" that impair the absorption  
and utilization of vitamin B-6, biotin,  
calcium, iron and zinc.'*

such nutrients as vitamin B-6, biotin, calcium, iron and zinc. People should be aware of these drawbacks.

**Passwater:** Whole grains may not have vitamin C or A but they're more nutritious than refined grains.

**Smith:** Whole grains contain more of most nutrients than refined grains but they also contain more of the *antinutrients*.

**Passwater:** Why are vegetables better for bone health than grains?

**Smith:** Calcium balance is far more important for healthy bones than calcium intake and the acid-base balance of the diet determines calcium balance.

All foods, after digestion and absorption, yield either a net acid or net alkaline load. If the total diet ends up being acidic, the kidneys normalize the balance by using pH buffers from the skeleton to counteract the excess acidity and also by excreting the acid. Foods that are acidic after digestion and absorption are grains, dairy products, nuts, meat and fish. Whole grains are more acidic than refined grains. The only alkaline foods are fruits and vegetables.

Therefore, a diet with a lot of grains, meats and dairy products and very few fruits and vegetables (like the typical American diet) has a negative impact on calcium metabolism and bone health. Switching to a diet high in whole grains and meats or to a lactoovovegetarian diet (high in dairy products, eggs and whole grains) is just as bad if not worse. A key point to remember is that vegetables and fruits always need to be eaten with grains, meats and other foods for good calcium balance.

I know it's a surprise to many people, but one of the best things you can do to protect against osteoporosis and promote better bone health is to eat more vegetables and fruits in place of grains, even whole grains.

**Passwater:** Has there been too much promotion of the idea that whole grains are so good for us?

**Smith:** Studies show that people who eat a lot of whole grains are generally healthier than people who eat a lot of refined grains. However, researchers haven't teased all the variables out of this equation.

First, whole-grain eaters tend to lead overall healthier lives: they exercise more, tend not to smoke, don't drink as much alcohol, and eat more health-protective fruits and vegetables. These factors, both separately and synergistically, all promote health.

Second, whole-grain products generally do not contain as many harmful, new-fangled ingredients (such as sugar, high-fructose corn syrup, trans-fats and food

## The Chlorella Mystery

Why is it that Tung Hai Chlorella costs less? After all, it is demonstrably the best chlorella on the market. Our scientists have spent years developing a strain of genetically advanced chlorella with a softer cell wall, for better assimilation characteristics. And we use ultrasound to gently crack this cell wall, a technique that preserves the nutrient value of the chlorella far better than the heat treatments, enzymes, chemicals or milling used by other brands. So why do other brands cost so much more than Tung Hai? It's a mystery to us.

300 Tablets (200 mg) Suggested Retail \$15.50

TUNG HAI  
東海  
Chlorella

Look for it at your health food store.  
For information and a free sample, call

**Life TIME**®

Nutritional Specialties, Inc. (800) 333-6168

TUNG HAI  
東海  
Chlorella

additives) as refined-grain products do. All of these troublesome ingredients contribute to the development of degenerative diseases. The claim has come out that "whole grains protect against disease," but this is only partly true, while, at the same time, being partly misleading.

Whole grains get the slight edge over refined grains, but it's important to understand that neither one promotes health and protects against disease—from type II diabetes to osteoporosis—as well as vegetables.

**Passwater:** Are some grains more problematic than others? Judging from the number of health food shoppers who have wheat sensitivities, it seems that wheat is a particularly problematic grain.

**Smith:** Yes, wheat is the number one grain people have problems with. Most of us have eaten wheat in various forms—



bread, pasta, pizza, pretzels, tortillas, cookies, and so on—every day, usually several times a day, for most of our lives. We're much more likely to develop sensitivities to foods we eat repeatedly.

In addition, out of all the grains, wheat has the highest amount of gluten, a gluey collection of proteins that can be very aggravating to the digestive and immune system. Gluten can provoke an amazingly wide range of health problems—anything from minor small intestine irritation and symptoms such as fatigue, bloating and digestive upset, to a full-blown autoimmune reaction in the small intestine, and complications including osteoporosis, infertility, autoimmune diseases, and small intestine cancer.

**Passwater:** Which grains contain gluten?

**Smith:** Gluten grains include wheat, kamut, spelt, rye, triticale, barley and oats. Gluten is also found hidden in many processed foods in food additives derived from gluten grains.

**Passwater:** What is the difference between gluten sensitivity and celiac disease?

**Smith:** Gluten sensitivity is an umbrella term that includes a wide variety of reactions to gluten, including celiac disease. Celiac disease is an autoimmune-type reaction to gluten in which the body reacts so strongly to gluten that it begins to destroy the lining of the small intestine. It is

the worst, most dramatic form of gluten sensitivity. Celiac disease, and its cousin, dermatitis herpetiformis—a gluten-dependent, blistering and itchy skin disease—are the only gluten reactions recognized by conventional doctors.

Celiac disease used to be characterized only in its classic form, by symptoms such as bloating, diarrhea, acute abdominal pain, fatty stools, and, often, weight loss. Today it's known that many people

who have celiac disease have "silent celiac disease," a condition in which all of the damage to the small intestine normally found in classic celiac disease is present, without any obvious or dramatic gastrointestinal symptoms.

Other people have lesser forms of gluten sensitivity, experiencing either obvious or minor symptoms. These people sometimes have enough damage in their intestine to cause malabsorption of nutri-

## ADVANCED SCIENTIFIC ACHIEVEMENT MADE IN JOINT-HEALTH NUTRITION

**kolla2<sup>tm</sup>** UnHydrolyzed Chicken Collagen Type II

The Latest Development in Maintaining  
Healthy Joint Cartilage

**Powder or Liquid Concentrate**

Derived from Chicken Sternum  
Cartilage. (WW Patent Pending)



The only liquid  
concentrate on  
the market



- ◆ Kolla2<sup>TM</sup> is a natural, safe and effective dietary supplement
- ◆ Supported by current clinical research
- ◆ Superior process insures maximum assimilation and immediate recognition by the body as the essential structural component of joint cartilage
- ◆ Kolla2<sup>TM</sup> is supported by national advertising

### Collagen II Nutrition, Inc.

2465 Campus Drive • Irvine, CA 92612 - USA Tel: (949) 660-1673 • Fax: (949) 724-8976  
Web Site: [www.kolla2.com](http://www.kolla2.com) e-mail: [c2n@kolla2.com](mailto:c2n@kolla2.com)  
Distributor Information please inquire TOLL-FREE 1-800-346-2922

Visit us at SupplySide East Booth #1541

Circle No. 21 Reader Service Card

ents, but they don't have the severe damage that characterizes celiac disease.

**Passwater:** How many people have gluten sensitivity?

**Smith:** Here's the really shocking part: research suggests that 10% to 50% of the American population (or 28 million to 140 million people) has gluten sensitivity, most without knowing what the true culprit behind their health problems is!

Celiac disease, the most pronounced form of gluten sensitivity, occurs in at least 1 in 167 healthy children and 1 in every 111 healthy adults in the United States. In other areas of the world, such as Finland and parts of Italy, the disease occurs even more frequently.

Gluten, therefore, acts as sheer poison for some people or as a mild or strong irritant that slowly sets the stage for disease in others. The good news is it doesn't have to: numerous blood tests and stool tests recently have been developed that make it far easier and more affordable to detect celiac disease and gluten sensitivity before structural damage has been done to the system.

**Passwater:** Can grains cause any other health problems?

**Smith:** Yes. People can develop delayed allergies or sensitivities to one or more grains and consequently a wide variety of troublesome symptoms. The only way to clear up the symptoms is to eliminate the problematic grain(s). Some grains, such as nonorganic corn, are genetically modified, which exacerbates the allergy problems they can provoke.

In addition, grains, such as wheat, corn and barley (and also dairy products) contain morphine-like substances called opioids or exorphins that are similar in structure and function to narcotic-like drugs. Over time, these exorphins can lead to the development of food addictions.

At the beginning, we feel great when we eat grains and dairy products, but that feeling wears off. Then we crave these foods and want more of them to get our "hit." As time goes on, we eat grains and dairy products often to feel their drug-like effects and we feel like we physiologically and psychologically need them in our diet. We're true grain junkies at that point—just like an alcoholic who needs regular hits of alcohol throughout the day. (It's interesting to note that grain addiction may be a key factor in many cases of

alcoholism.) The only way out of this cycle is to completely eliminate the grains we're addicted to.

**Passwater:** You're making it sound like grains are bad for everything. Aren't they needed in the diet at all?

**Smith:** We've all been socialized to believe that grains are necessary for health, but the fact of the matter is they're not. History shows us that our earliest ancestors (and hunter-gatherer societies around the world) thrived without any grains in their diets. Our nutrient requirements today are shaped by the nutrients they obtained in their diets—those found in meat,

*'Our earliest ancestors (and hunter-gather societies around the world) thrived without any grain in their diets.'*

fish, vegetables, fruits and nuts. When our ancestors switched from the diet they were designed for to a diet based mostly on grains, their health plummeted in many ways. We should learn from those historical lessons. Genetically speaking, our bodies are very much like those Stone Age models of so long ago. We haven't had enough time to adapt to lots of grains in our diet, and because of that, grains can cause problems for us in many ways.

**Passwater:** Are you saying everybody should remove all grains from the diet?

**Smith:** Not at all. We're all biochemically unique and no one diet will work for everyone.

How far against the grain each of us individually needs to go for our best health varies, and the book helps a lot here: It has questionnaires and rundowns on easy and affordable medical tests that people can have done. Basically, there are three main grain-related sensitivities that can cause health problems: wheat sensitivity; gluten sensitivity; and carbohydrate sensitivity. Most Americans, who eat refined wheat products every day, are at risk for all three conditions.

Common symptoms of wheat sensitivity are frequent cravings for wheat-based foods and unexplained aches, pains, digestive upset and sinus or nasal congestion that goes away after wheat is

eliminated from the diet. Gluten sensitivity, in its early stages, can show up with symptoms of gastrointestinal bloating and upset, frequent headaches, fatigue, psoriasis and unexplained illness of any type, which doesn't respond to standard treatment. In later stages (including when celiac disease is present), possible signs include severe diarrhea and/or constipation, frequent canker sores, dental enamel defects, autoimmune diseases of all types, unexplained nutrient deficiencies, osteoporosis or infertility.

Symptoms of carbohydrate sensitivity include frequent cravings for sweets and refined grains, weight gain, mood swings and trouble with mental focus (in early stages)—and excess weight around the middle, high blood pressure, high blood cholesterol or triglycerides, and prediabetic and diabetic blood glucose levels (in later stages).

Depending on your health, you can determine whether you should start eating a wheat-free, gluten-free or grain-free diet to overcome illness or improve health and lessen your risk for degenerative diseases. A wheat-free diet is the place to start for most people who are healthy but need to lose weight and reduce their risk for conditions such as heart disease. By avoiding all wheat products (and sugars) and eating more nonstarchy vegetables (such as salad greens, broccoli, asparagus and green beans), the carbohydrate and calorie content of your diet automatically drops. That's a surefire way to trim up, lose weight and reduce the risk of diseases such as heart disease and type II diabetes.

**Passwater:** There's a lot more in your book that I would like to explore, but this time, I wanted just to focus on the "unadvertised" or lesser known troubles with grains. Readers may want to read your book for additional topics such as to see what you have to teach about legumes and fiber and so much more. Since we can't cover everything in one sitting, is there a final thought that you would like to leave us with?

**Smith:** Yes. Food really is our best medicine. For problems such as celiac disease, gluten sensitivity, carbohydrate sensitivity, and wheat or corn allergy or addiction, there really is only one cure: to remove the offending cause, the grains that are causing the problems.

**Passwater:** Thank you for sharing your information with us. WF