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Wellness PROFILE

Dr. Mark Hyman

Simplifying Weight Loss

By Kelli Miller Stacy



Mark Hyman, MD

The New York Times bestselling author Dr. Mark Hyman wants to reprogram the way Americans eat and think about food. His latest book, *Ultrametabolism: The Simple Plan for Automatic Weight Loss* (2006, Scribner), dispels long-held myths about carbohydrates, calories, and fats.

The book also offers a novel prescription for individualized weight loss that does not involve traditional dieting. It promises that if you choose the right foods and supplements for your body, you will awaken your fat-burning DNA and never struggle with your weight again. Dr. Hyman's recommendations promote lifelong wellness, an important objective shared by the Life Extension Foundation.

"Life Extension magazine is a great resource for people who want to promote their longevity," notes Dr. Hyman. "The organization carefully evaluates the changes that affect adults and their health, and bases nutritional advice on an individual's specific needs."

The human body is a complex biological machine that requires certain nutrients to keep it in optimal working order. The proper foods keep your body's metabolism in balance and help fight off obesity, heart disease, and other illnesses.

"Food is more than calories, it is information," says Dr. Hyman. "Eating the right food will 'turn on' gene messages that promote health and cause weight loss almost automatically."

On the other hand, the wrong foods wreak metabolic havoc that can make you gain weight, feel tired, or ache all over. What is right for one person, however, can be totally wrong for another. That is why so many "one size fits all" fad diets fail. Each one of us is genetically programmed to react to food and supplements in a unique way. Some bodies simply cannot run on certain foods, just as a gasoline-powered car will not run if you put diesel in its tank. However, cars come with a set of maintenance instructions; people do not.

Weight management, then, has long been a game of chance. Rarely does a person maintain weight loss for an extended period of time. In fact, less than 6% of those who try to lose weight actually succeed in dropping pounds and keeping them off.¹

"It is not about counting calories, carbs, or fat grams. It is about understanding how your body works and using that information to extend your life," says Dr. Hyman, a faculty member at Georgetown University's Center for Mind-Body Medicine and the Institute for Functional Medicine.

The Ultrametabolism approach is based on the revolutionary field of nutrigenomics, the science of how food affects our genes and, ultimately, our health.² Dr. Hyman has translated this science into strategies you can customize for long-term health and wellness.

The unraveling of the human genome helped usher in the era of nutrigenomics, which is based on several key points:

1. The impact of diet on an individual's health greatly depends on his or her genetic blueprint.
2. Improper diets can, in most cases, be risk factors for chronic disease.
3. Specific dietary chemicals and nutrients can alter gene function.
4. Many genes are controlled by our diets.
5. A genetically sound diet can optimize health, which could have a beneficial impact on the aging process.²

Lactose intolerance is a good example of the nutrigenomics principle. Certain people have a DNA alteration that makes them

unable to digest lactose.

“Nutrigenomics allows us to reprogram our genetics based on the input we provide,” says Dr. Hyman. “Dietary input, lifestyle input, supplements, and medications all affect our biochemistry, our gene function, from moment to moment. Our genes turn on messages of health and disease, and weight gain or weight loss.”

FUNCTIONAL MEDICINE

Dr. Hyman did not set out to become a weight-loss expert. However, during his nearly 10 years as medical co-director at the prestigious Canyon Ranch health resort in Lenox, MA, he was routinely confronted with patients who simply could not lose weight, despite trying every diet plan, pill, and surgery available.

“I was the doctor of last resort,” he says. “I always call myself the ‘accidental weight-loss doctor’ because it was never my intention to tackle obesity.”



He combined the best of conventional and alternative medicine, and looked at the body as a whole, using principles of functional medicine. Functional medicine, which can also be thought of as systems medicine, is a fast-growing field of science that takes into consideration a person’s entire picture of health. Instead of doling out prescriptions for symptoms here and there, doctors who practice functional medicine look for and treat the underlying causes of disease, while providing the raw materials for optimal function.

“I never really tell people to go on a diet,” he explains. “I say, ‘Here is what is out of balance, here’s what you need to fix that, and here’s what your body needs to thrive,’ and then the weight loss is really accidental, or automatic.”

Popular fad diets usually look at one underlying cause of weight gain and obesity. For example, the Atkins and South Beach diets focus on the relationship between sugar and insulin levels. Dr. Hyman’s approach is the first science-based program that looks at every cause of weight gain and metabolic distress, and explains exactly how to tailor the program to fit each person’s needs.

SEVEN KEYS TO WEIGHT LOSS

If your body does not break down, or metabolize, food quickly enough, you gain weight. Figuring out what is dragging your metabolism down is essential to successful weight loss.

There are seven major causes of a slow metabolism, all of which can be identified and treated. Dr. Hyman considers each cause a “key” that, when understood, can open the door to optimal health.

“Not only will you experience effortless weight loss and create a healthy metabolism, you will address the underlying causes of chronic disease,” says Dr. Hyman. “This will mean a new feeling of life and energy.”

1. Control your appetite.

The body produces hormones and brain chemicals that make you feel full or hungry. For example, the hormone leptin regulates your metabolism. Low levels of leptin can make you feel hungry.³ Ghrelin, a hormone found primarily in the stomach, stimulates the appetite.⁴ When the appetite-regulating hormones are out of balance, you overeat and gain weight. Blood tests to measure insulin, glucose tolerance, and fats (such as triglycerides and high-density lipoprotein) in your blood can help reveal appetite problems.

2. Subdue stress.

Stress can take a tremendous toll on your overall health. It can increase body fat even if you eat well and get regular exercise. When you are stressed, the body produces a hormone called cortisol. This increases your blood sugar and insulin levels, slows fat burning, and increases inflammation, leading to weight gain around the middle. Chronically high levels of cortisol make you less sensitive to leptin, so your appetite is increased and you gain weight. Some people have a genetic defect that makes it impossible to process cortisol properly.

Persistent stress can also cause insomnia, which throws your normal circadian rhythm and appetite hormones off balance. This leads to further weight gain.

Specific medical tests can determine whether you have an overactive or underactive stress response. Cortisol levels can be detected in urine, blood, and saliva. A blood test can reveal if you have abnormal levels of the growth hormone insulin-like growth factor-1, or IGF-1. Stress and high levels of cortisol lead to reduced IGF-1 levels.

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3. Control inflammation.

Inflammation increases with weight gain, and weight gain promotes inflammation. The result is a vicious cycle of metabolic lethargy and increased insulin resistance.⁵ Medical evidence suggests that obesity-related insulin resistance may be due, in part, to chronic inflammation.⁶

According to Dr. Hyman, sugar is the greatest inflammatory substance in our diet, but trans fats are not far behind. Trans fats promote inflammation by blocking the receptors that normally switch your metabolism on and off. Omega-3 fatty acids, found in certain fish and fish oil capsules, are good fats that help these receptors function properly. Food allergens such as gluten can also promote inflammation.

The high-sensitivity C-reactive protein (hs-CRP) blood test is the best method for measuring the body's general level of inflammation. It does not, however, identify the cause of inflammation. The levels can be elevated in patients with metabolic syndrome, insulin resistance, food allergies, and a host of other diseases. People with high hs-CRP levels typically have problems losing weight.

Blood tests can also be used to check for environmental and food allergies, gluten allergies, and celiac sprue disease. Getting to the root of the inflammation can help you determine how to adjust your diet so you shed pounds and keep them off.



4. Prevent oxidative stress.

While oxygen is essential to life, the wrong kind of oxygen can cause cellular damage. Oxygen molecules like to have a partner. Oxidative stress occurs when a pair of oxygen molecules is split in two. The lone oxygen molecule becomes a highly reactive, unstable molecule called a free radical. Free radicals damage DNA, promote wrinkles, and throw a kink into normal metabolic processes, promoting weight gain and diabetes. Antioxidants, found in colorful plant foods, teas, red wine, cocoa, and many supplements, help reduce the number of free radicals in the body and help restore a healthy metabolism.

5. Turn calories into energy.

You will not lose weight sitting around on the sofa. The best way to turbocharge your metabolism is to get moving. Physical activity has a positive impact on how fast cells turn food into energy.



6. Check your thyroid.

Your thyroid gland is the master metabolic regulator. An underactive thyroid slows down your metabolism. What you eat, what you breathe, and how you handle stress all affect thyroid function. A simple blood test can tell you if you have a sluggish thyroid.

7. Detoxify your liver.

Toxins from food and the environment can make you fat. Toxins may come in the form of medication, bacteria, industrial chemicals, and heavy metals such as mercury. These pollutants can damage or block the signals that control your appetite. You can detoxify your body with the right balance of protein, fats, fiber, vitamins, minerals, and phyto-nutrients found in plant foods.

SUPPLEMENT YOUR DIET

Most Americans lack one or more essential vitamins or minerals. Dr. Hyman recommends that everyone take the following

supplements daily:

- A multivitamin and mineral combination
- Calcium citrate (800-1200 mg/day)
- Magnesium amino acid chelate (400-600 mg/day)
- Vitamin D3 (400-800 IU/day)
- An omega-3 fish oil supplement from a reputable company that certifies purity; it should provide at least 300 mg of eicosapentaenoic acid (EPA) and 200 mg of docosahexaenoic (DHA) acid per capsule.

As shown in the chart of recommended food sources and supplements on the following page, further supplementation depends on which key best suits you.

BOOSTING LIFE EXPECTANCY

For the first time in history, humans are facing a potential decline in life expectancy. Researchers reporting in the New England Journal of Medicine attribute the potential decline to America's obesity epidemic.⁷ Studies conducted by the US Centers for Disease Control and Prevention estimate that 112,000 Americans die each year as a direct result of obesity.⁸ Dr. Hyman blames the food, drug, and healthcare industries for ignoring what he calls a "treatable, preventable, and completely reversible problem."

"The industry is not given incentives to promote health," says Dr. Hyman. "It is profiting from poor diets, illness, and obesity."

Ultrametabolism taps into years of medical research that has never been translated into clinical practice. Dr. Hyman's new paradigm for automatic weight loss has put personalized medicine within everyone's reach.

According to Dr. Hyman, this means that "people can take advantage of the medicine of the future, right now."

For more information visit www.drhyman.com.

UltraMetabolism Recommended Food Sources and Supplements		
KEY	FOOD SOURCES	SUPPLEMENTS
Control appetite	Ginseng; green tea; fenugreek; cinnamon	Lipoic acid; gamma-linolenic acid (GLA); PGX™ fiber blend
Subdue stress	Ginseng; rhodiola; Siberian ginseng; ashwagandha; licorice	Vitamin B complex; magnesium; vitamin C; zinc
Reduce inflammation	Capsaicin (from cayenne pepper); green tea; ginger; quercetin (from fruit and vegetable rinds); turmeric; cocoa	Probiotics (<i>Lactobacillus acidophilus</i> , <i>Bifidobacterium bifidum</i>); bromelain and proteolytic enzymes; antioxidants
Prevent oxidative stress	Ginkgo; ginger; green tea polyphenols; grape seed extract; milk thistle; rosemary; turmeric	N-acetylcysteine; lipoic acid; coenzyme Q10
Turn calories into energy	All colorful fruits and vegetables; essential fatty acids from wild fish; seaweed; nuts; seeds	N-acetylcysteine; lipoic acid; coenzyme Q10; acetyl-L-carnitine; nicotinamide adenine dinucleotide (NADH); creatine powder; aspartic acid; D-ribose
Fortify your thyroid	Seaweed; sea vegetables; sardines; salmon	Vitamin E; vitamin A; selenium; iodine; vitamin D; zinc
Support liver detoxification	Dandelion; broccoli; collard greens; kale; watercress; pomegranate; green tea	Probiotics (<i>Lactobacillus acidophilus</i> , <i>Bifidobacterium bifidum</i>); vitamin C with mineral ascorbates; N-acetylcysteine; lipoic acid; taurine; glycine; bioflavonoids (quercetin, grape seed extract, rutin)

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