Barry Sears, Ph.D. is a pioneer in biotechnology and nutritional research. He holds 12 patents for cancer treatments and dietary control of hormones. He is the author of the #1 New York Times bestseller The Zone, as well as eight other books including Mastering the Zone, The Anti-Aging Zone, and The Omega RX Zone.

**Dennis Hughes:** Your first book, The Zone, came out in 1995, and I know it has been very popular. But I am wondering, does the public perceive your book as a diet book or a general health book?

**Dr. Barry Sears:** I think people perceive it as a diet book, but in reality it was written for cardiologists to teach them how to use food as if it were a drug—to treat heart disease and diabetes. Those two diseases are also tied in to the underlying hormonal disturbance that also causes obesity, which is the excess production of the hormone insulin.

**Dennis:** So The Zone is not really a diet book, but a testimony to the power of food in controlling hormonal response.

**Dr. Sears:** That is correct, and that is very important because hormones are hundreds of times more powerful than drugs. Every time we eat, something hormonal is going to happen—either very good things, or very bad things. We have the power to control that fate, if we treat food with the same respect as we treat any prescription drug. It does not mean food has to taste like a drug, but we have to stand back in awe of the power of food to orchestrate these hormonal changes in our body.

**Dennis:** Some people who’ve read your books might think your method is similar to the high protein diet such as that proposed by Dr. Atkins. I was wondering if you have encountered that, even though what you are recommending is much different than the Atkins Diet.

**Dr. Sears:** The Zone has always been characterized mistakenly as a high protein diet. Of course, it is very hard to call it a high protein diet when you are always eating more carbohydrates than protein. There are some similarities, however, between the Aktins Diet and the Zone Diet. In both the goal is to reduce the levels of insulin in the body. It is like trying to kill a fly that is always flying around in your room. There are two ways you can do it. One, you can use a fly swatter. The second way is to use a shotgun. One way has a lot more collateral damage than the other. The Atkins Diet is basically a shotgun. The Zone Diet is a fly swatter.

**Dennis:** Because the Zone Diet is more specific?

**Dr. Sears:** It’s more specific in that you are looking to maintain insulin in a discreet zone. This means you have to have enough carbohydrates at each meal to make sure you have adequate energy for the brain. You just can’t say, “Don’t eat carbohydrates.” That is not going to fly, anymore than you can say “Eat no fat.” That will have adverse effects too. So it’s really looking for the balance. Those are the words Americans really hate to hear: balance and moderation. But that is really the hallmark of the Zone Diet.

**Dennis:** The essence of the plan seems to be controlling the balance of proteins, carbohydrates, and fats for each meal. It seems the heart of the message is to eat less at each meal, eat more often, more frequently through the day and to cut back on the carbohydrates. Is this correct?

**Dr. Sears:** Yes, except that when we talk about cutting back on the carbohydrates, we have to make a distinction...
between grains and starches, and fruits and vegetables. Many Americans still don’t realize that fruits and vegetables are carbohydrates. So what you are doing is you are cutting back on the amount of carbohydrates by reducing the amounts of grains and starches in the diet, but increasing significantly the consumption of fruits and vegetables.

Dennis: When I interviewed Dr. Andrew Weil, his opinion was that it’s important to balance protein, carbs, and fats per day, but not at each meal, because it averages out.

Dr. Sears: The fact is, you can’t eat all carbohydrates for one meal and all proteins the next meal. It just isn’t that simple. It really is about a balance at each meal. You are only as good as your last meal—and hormonally you are only as good as your next meal. You need to pay attention to what you eat just like you pay attention when you drive your car. You can’t operate on cruise control. Each meal you consume will have a new hormonal impact for the next 4–6 hours.

Dennis: So in a sense, each meal is like a lab experiment. We are mixing the ingredients right then and there to create a ratio between nutrients.

Dr. Sears: Exactly! People think that seems so difficult, but in reality, it is very simple. At each meal, simply divide your plate into three equal sections. On one third of the plate, put some low-fat protein that is no bigger and no thicker than the palm of your hand. Now, the other two thirds of the plate, fill it until it’s overflowing with fruits and vegetables. Then you add a dash (that’s a small amount) of heart-healthy mono-unsaturated fat—this can be olive oil, guacamole, slivered almonds, etc., and there you have it: a drug that you constructed, a very tasty drug, that will keep insulin levels under control for the next 4–6 hours. How do you know if you’ve been successful? You look at your watch 4 hours after you’ve eaten that meal. If you have no hunger and you have good mental acuity, you know your last meal was hormonally correct for your biochemistry.

Dennis: That makes sense, especially when I think about our ancestors. I don’t know when they started digging tubers and other root crops, but I understand grains and modern agriculture came much more recently in our historic past.

Dr. Sears: That’s right. Genetically, we are no different from our neo-Paleolithic ancestors. Though our genes have not changed, our food patterns have changed dramatically. For much of our evolutionary time on this planet, man has been exposed to only two food groups: low-fat protein, and fruits and vegetables. That’s what we’re genetically designed to eat.

Dennis: You recommend a set number of proteins, carbohydrates, and fats blocks, based on a person’s lean body mass and amount of activity. This works out to a lot less food quantity-wise than most of us are used to eating—about 1200–1500 calories per day. This seems very low, yet you say that people won’t be hungry on a Zone based diet. Can you explain this?

Dr. Sears: This is what I call the Zone Paradox. Certain hormones are controlled by our food. One of them is the hormone glucagon. This hormone is stimulated by the amount of protein in a meal. If you’re taking in adequate carbohydrates and adequate protein, you will get a maintenance level of this hormone, which has only one mode of action. It’s one reason for existing is to mobilize stored carbohydrates in the liver to maintain stable blood sugar levels. If you maintain stable blood sugar levels you maintain peak mental acuity, and you’re not hungry because the brain says, “I have all the food I need.” The amount of calories that you need to consume on the Zone Diet is still a significant drop compared to what most Americans are consuming. We normally recommend about 1200 calories for females and 1500 for males.

The Zone Paradox is that most people cannot even eat all the food to reach those calorie levels. Let me give you an example. It’s easy to eat a cup of pasta, but eating twelve cups of steamed broccoli, that is hard work! They both contain the same amount of carbohydrates. So which one are you more likely to overeat? The pasta, of course. The more carbohydrates you eat, the more insulin you produce. And the more insulin you produce, the faster you drive down blood sugar levels. As blood sugar levels drop, the brain gets hungry and says, “Feed me.” Our obesity epidemic in the last 30 years is really a result of this process. We are eating more calories, no question about that. However, the reason why we are eating more calories is because we are more hungry—and the reason why we are more hungry is more of our calories are coming from the high density carbohydrates which stimulate the production of insulin that drives down high blood sugar, but leaves us feeling constantly hungry.

Dennis: If I understand you correctly, the hormone glucagon almost acts like a hunger suppressant.

Dr. Sears: That’s right. There are only three ways you can really curb appetite. One, you can use drugs. They work, but they have side effects. The second way, you can be in severe ketosis, which is what happens when you go on a high protein/low carbohydrate diet. The third way to quell hunger is to maintain stable blood sugar levels. If you can do this, calorie restriction becomes very simple, because it is very easy to restrict calories if you are never hungry.

Dennis: It may be difficult to give up bread, cake, pasta, and pizza all at once. How about if a person wants to make the shift gradually?
Dr. Sears: That's the beauty of the Zone; it is very versatile. If I really want to eat pasta, I can do that, but there are rules. Remember I talked before about whatever the amount of protein on your plate, you have to double the size of fruits and vegetables. With pasta it is different. Let's go back to our plate again. I really have to have my pasta. So I say, fine, let's divide the plate into three sections. On one third of the plate, you put some low-fat protein (no thicker and no bigger than the palm of your hand.) Now on another third of the plate, you put your pasta. But the remaining third of the plate you leave empty. Why? You've used up all the carbohydrates you can eat at that meal. If I want the pasta I have to learn to have smaller portions. This is what I call carbohydrate conservation. You have a certain amount of carbohydrates in terms of grams you can eat at any one meal. You can choose how you configure those: it might be seven sugar cubes; it might be 2/3 of a cup of pasta; or it could be five cups of steamed vegetables—that's your decision. Just make sure you have enough protein to balance off those carbohydrates.

Dennis: People can shift gradually, and take one step at a time.

Dr. Sears: Exactly. People think of diet as something that's short-term. But what you are looking to do is pick a way of life you can stay with on a lifetime basis. Why do you want to control insulin on a lifetime basis? There are three reasons. The first is excess insulin makes you FAT. Our obesity epidemic is really an epidemic of hyperinsulinemia. The second reason is that excess insulin accelerates heart disease, the number one killer of men and women in America. The third reason is excess insulin shortens your life span. So you want to pick a diet that you can stay with on a lifetime basis that's the best at keeping insulin levels under control. That takes diet out of the area of politics and of philosophy and puts it squarely in science.

Dennis: So more green vegetables, more salad, and not so big a portion of protein. We should stay away from the red meat, go for the leaner meats, and tofu is good if you're a vegetarian.

Dr. Sears: Right. These are all hallmarks of the Zone Diet. Take the foods you like to eat and learn how to balance them.

Dennis: It seems like we can boil it down to two simple facts, both for hormonal balance and to keep your weight at a level you like: if you eat less in general and less of the bad carbohydrates, you'll be addressing most of the problem. Is this correct?

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Dr. Sears: That’s a good summary. The only proven technology that ever reversed the aging process is called calorie restriction. But who wants to live longer if you’re always hungry? So the whole key is how can you have calorie restriction without hunger and without deprivation? The answer is the Zone Diet.

Dennis: Do you yourself eat any bread or pasta?

Dr. Sears: I keep it to a real minimum—I use them as condiments. But I tell people to eat a big carbohydrate meal once every 30 days just to see how miserable you feel the next day. For example, I love Mexican food. It is a hormonal disaster for me, but every 30 days I will have a big Mexican meal. It will taste great, but I will have an insulin hangover the next day. My joints will swell, I will be groggy all day, and I will gain 4-5 pounds of retained water. I feel miserable, but I get it out of my system. That’s the beauty of the Zone. If you have one bad meal, that’s okay. You can say, “I’ll make my next meal right on target.” So there is no guilt.

Dennis: Are there other benefits to keeping insulin under control?

Dr. Sears: Yes. It is your first line of defense in keeping what I call “silent inflammation” under control. Silent inflammation is something you can’t feel, that’s why it’s silent. It’s the ongoing process that grinds down the brain, heart, and immune system.

Dennis: Does that include inflammation of the joints, like arthritis?

Dr. Sears: No, that’s what I call screaming inflammation. This is why fat reduction is so important. Fat cells are powerful inflammatory mediators. The more fat you have in your body, the more inflammation may pop up. Therefore, your first line of defense toward keeping inflammation under control...
on a lifetime basis is controlling your amount of excess body fat.

**Dennis:** It says in your books that fat does not make you fat, and that we actually need to eat fat to lose fat. That one may be a tough one for people to grasp.

**Dr. Sears:** It’s a hard one because we’ve been taught that if no fat touches our lips, no fat reaches our hips.

**Dennis:** Right, because fat has been demonized in this society.

**Dr. Sears:** We are eating less fat than at anytime in our history. But you don’t have to be a rocket scientist to see that Americans are the fattest people on Earth. Because fat by itself will not make you fat. What makes you fat and keeps you fat is excess levels of the hormone insulin. How can eating fat make you less fat? Ironic as that statement might seem, fat has a couple of unique characteristics.

One is that it slows the rate of entry of any carbohydrate into the bloodstream—and by doing so, you decrease insulin secretion. Fat also releases a hormone from the gut called CCK that goes to the brain and says “stop eating.” Now if you take fat out of the diet and replace it with fat-free carbohydrates, what have you done? You have changed this process. Now there is no signal to the brain to stop eating, so you just keep eating the carbohydrates.

**Dennis:** I’d like to point out that the amount of fat you are proposing is actually very small—like a teaspoon of olive oil.

**Dr. Sears:** Right, that’s why I say a “dash” of fat. Not a lot of fat, but enough to activate the hormonal signals that tell you to stop eating.

**Dennis:** Isn’t it a 40/30/30 ratio we are looking for? (40% carbs, 30% protein, 30% fat)

**Dr. Sears:** I have written some 10,000 pages of books and rue the day I put that one ratio in there, because on the next page I said it really doesn’t matter. It’s NOT the ratio; it is the absolute grams of protein, carbohydrates and fats. You can get that ratio simply by using the hand-eye method I described earlier. A lot of people say, “Gee, I’ve got to carry around a mini computer!” Not true! All you have to do is carry around one hand and one eye and balance your plate to get the right hormonal “chuck for the buck” every meal for the rest of your life.

**Dennis:** According to your formula, it is better to eat dessert right after dinner (rather than later in the evening), and to count the carbs from dessert in the total dinner ratio. But many people don’t crave something sweet until later.

**Dr. Sears:** The reason you crave something about two hours after a meal is usually because you ate too many carbohydrates at that meal.

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**Dennis:** You say exercise is great, but it won’t overcome the effects of a high carbohydrate diet. Is that why so many people go to the gym faithfully and still don’t lose weight?

**Dr. Sears:** Yes. Exercise does lower insulin, but where you might exercise an hour a day, you can eat 24 hours a day. Your diet can overwhelm all the hormonal benefits of a good exercise program.

**Dennis:** You’ve mentioned walking as one of the better exercises. Are you recommending less intensity for a longer period of time?

**Dr. Sears:** Right. It’s really about the number of calories you burn. I like walking because you are less likely to hurt yourself. People tend to over exercise—then they hurt themselves and don’t exercise at all. So you may walk a little longer to get the same number of calories you might burn by jogging. I think a half-hour walk each day is a good recommendation for all Americans.

**Dennis:** How much do you think weight problems are due to genetics?

**Dr. Sears:** There is a genetic component, but you cannot change your genes. What you can modify is the expression of those genes. So if you were born with bad genes like I was, all you can do is pay more attention to your diet and try to overcome that bad genetic propensity.

**Dennis:** What about folks that are slim and look healthy, even though their diet is very high in carbohydrates. Is this just genetic luck on their part?

**Dr. Sears:** It is genetic luck, but they are not necessarily healthy just because they look good.

**Dennis:** In your books you have mentioned that your family has quite a history of heart disease. Genetically speaking, do you think your diet is helping you?

**Dr. Sears:** Oh yes! From my standpoint, I’m betting the farm. I am making a dietary choice that will allow me to alter my genetic pathway.

For more information about Barry Sears and the Zone Diet, visit [www.drsears.com](http://www.drsears.com)

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