PART 5

NUTRITION
I’m as sick of the Diet Wars as everyone else. I cringe every time I read about some “magic” food or combination of foods that will produce instant and permanent weight loss. I weep for the people whose weight fluctuates wildly; they go on diet after diet, and they end up fatter and weaker each time.

But nothing makes me more frustrated than the endless repetition of this simple statement:

“If you want to lose weight, eat less and exercise more.”

What makes me nuts is the fact it’s absolutely true, in the short term. You will lose weight if you consume fewer calories and burn off more. But without a good strategy to cut the foods you don’t need and keep or add the ones you do, it’s as useless as spurs on swim fins.

Look at it in a business context: If you’re a manager and your boss tells you to cut 20 percent of your workforce, you’re going to be damned careful about whom you keep and whom you cut loose. You wouldn’t send all your accountants packing if that meant you had no one left who knew how to balance the books.

And yet most of the popular diets encourage you to cut calories so drastically that
you end up paying the price in your corporeal bottom line: You lose muscle and slow down your metabolism. Downsized muscle and a downshifted metabolism mean most of the weight you regain will be in the form of fat. And, unless you have a metabolism-friendly weight-maintenance plan, you will regain whatever you lost. Plus some, in most cases.

“Exercise more” sounds good, too, until you try to figure out where the energy to do it will come from if you’re cutting calories from your diet.

I have two goals with this chapter. The first is to explain a concept called “energy flux,” which is a more sophisticated way to look at the classic “calories-in, calories-out” model of weight control.

The second part of this chapter looks at calories themselves: what effect they have on your muscles and metabolism, how to estimate your needs, and how to manipulate your daily intake to lose or gain weight. Then I’ll discuss specific foods in the next chapter.

Engage the Flux Capacitor

Back in Chapter 7, I squashed the idea that you’ll increase your metabolism by fifty calories a day per pound of muscle you build. But exercise is very much linked to your metabolism—the number of calories you burn each day. So is the food you eat. If you exercise more and eat more, your metabolism speeds up. If you exercise more and eat less, your metabolism could very well slow down. The combined effect of exercise and food on your metabolism is energy flux. I believe it’s the lost key to weight control. It’s certainly a phenomenon that almost every article and book gets wrong. If more people understood it, we could wipe most of the popular diet books right off the shelves.

First, some basic physiology. Your metabolism has three components:

Resting metabolism is the number of calories you burn no matter what you eat or do that day. For simplicity, let’s call this one RMR, for “resting metabolic rate.” That’ll save me a few keystrokes. RMR accounts for about 60 to 80 percent of the total calories you burn each day.

Activities of daily living include everything you get up and do, from stumbling to the bathroom when you wake up in the morning to that hour of weight lifting you’re going to perform this afternoon.
Thermic effect of food is the number of calories you burn when you digest the food you eat. Not only is it the easiest part of your metabolism to increase, it’s the part that most popular diet plans overlook. You have to eat anyway, and by making a few adjustments to your food choices and meal timing, you can burn hundreds of extra calories a week.

Now, a bit of math: If RMR accounts for 60 to 80 percent of all calories burned, then physical activity and digestion account for 20 to 40 percent.

But here’s what few people know (or bother to mention): Your daily activity level and food intake have an effect on your resting metabolism. If you deliberately increase your energy flux by increasing your activity level and increasing your food intake, you also speed up your resting metabolism.

The converse is also true: If you exercise less and eat less, you slow down your resting metabolism.

This is the most crucial point I’ll make in this chapter, so I want to make sure you grasp it before I move on. Activity and diet choices are linked to your resting metabolic rate. You can increase RMR with more activity and food, and you can decrease it with less activity and food. Clearly, the former beats the hell out of the latter if you’re trying to control your weight.

Next:
Most of us know that RMR slows down as we age. A man in his sixties, on average, will burn about 65 calories per hour at rest, whereas a man in his twenties will burn about 75. If each man weighs 180 pounds, we’re talking about 1,600 calories a day burned by the older man versus 1,800 burned by the whippersnapper before either guy eats or exercises. So, on average, the older guy wakes up each day with a 200-calorie handicap.

But a University of Colorado study published in 2001 found something amazing: When older and younger men did the same amount of exercise and ate the same amount of food, there was no difference in their resting metabolic rates.

The physically active men in this study were mostly doing endurance-type exercise. (The researchers described their weight lifting as “minimal.”) Traditionally, that type of exercise has not been seen as having an impact on RMR. But this study showed that diet and exercise—energy flux—do make a difference in RMR, no matter your age.

Practical example:
Let’s say you have a guy who wants to lose twenty pounds of fat. His trainer whips
out a calculator and shows him exactly how much more exercise he needs to do and exactly how much less food he should eat to lose those twenty pounds.

If it works, fine. But if it doesn’t, the assumption is that there’s something wrong with the exerciser. He didn’t exercise hard enough. He didn’t eat a precise number of calories at precise intervals throughout the day. Or maybe the trainer will conclude that the guy has a slow metabolism, the solution to which is simple: Exercise even more, and eat even less.

But a working knowledge of energy flux tells us that the solution is only half-right, which means it’s also half-wrong.

Cutting calories while increasing exercise will merely get you to stasis. It won’t help you increase your RMR, which is the best weight-control mechanism your body possesses. Think about it: If you can somehow speed up the process that’s responsible for 60 to 80 percent of the calories you burn each day, of course you’ll find it easier to lose fat.

In the past ten years, researchers have tested the theory in both directions. A 1995 study at Colorado State University showed that RMR can be manipulated upward or downward by changing energy flux. Sedentary men and trained athletes had similar metabolic rates when their energy flux was equal—in other words, when the athletes weren’t training and simultaneously eating like athletes.

When the athletes trained but ate fewer calories than it would take to maintain their weight—which is exactly what almost every trainer on the planet would tell a man trying to lose weight to do—their metabolic rates were no different from those of the sedentary men.

A 2004 study by a combination of University of Colorado and Colorado State researchers provided more evidence of the effect energy flux has on RMR. When older athletes quit exercising for a few days and ate less to compensate, their RMRs declined by about fifty calories a day.

Remember, when we talk about RMR, we’re talking about a part of metabolism separate from daily activity and nutrition. It’s almost like adding insult to injury: If you stop exercising for whatever reason, and then slow down your spoon and fork to compensate, you still get socked with the penalty of a declining resting metabolism.

But, for our purposes, it’s more helpful to look at the bonus that energy flux confers on the guy who is exercising. Really, it’s a bonus that extends across all parts of metabolism, a universal multiplying effect:

**You have more energy for exercise.** Scientific publications use the word “energy” the way we use “food.” Calories are units of energy. Every calorie you eat is fuel for
something; your body either burns it, eliminates it, or stores it. With adequate fuel, you get more out of your workouts—you can exercise harder and/or longer, and that means you burn more calories during the workout.

A **harder workout produces a bigger afterburn.** I talked in Chapter 7 about the concept of afterburn, the excess calories you continue burning after you’ve finished your workout. The harder and longer you exercise, the greater the afterburn. Weight lifting, as I noted, has a much greater potential afterburn than does endurance exercise. Some studies have shown elevated metabolic rates for two days after a brutal workout. So if you’re working out hard and eating enough to maintain a high energy flux, and then using those calories to help you work out harder, you get the added bonus of burning more calories via the afterburn effect.

The food you eat after a workout increases the thermic effect of that meal. I mentioned that the thermic effect of eating—the calories burned during digestion—can easily be manipulated by several hundred calories a week. The easiest trick is to eat immediately after exercise. A study at the University of Nevada, Las Vegas, showed that the thermic effect increased 73 percent following a weight-lifting session, compared to the same meal eaten apart from a workout. A University of Colorado study published in 2004 showed that regular exercisers have a thermic effect of feeding that’s 25 percent higher than that of non-exercisers. That’s regardless of the timing of the meals and workouts.

Thus, the power of energy flux becomes self-perpetuating. And it explains why you can get better results from a diet that delivers close to the number of calories you need to maintain your weight, as opposed to a diet that drastically cuts calories.

So now let’s take a closer look at the calories themselves.

**MUSCLE CHOW**

I get asked a lot of questions about meal composition—how much protein someone should eat for this, or how many carbohydrates for that. My honest answer is, I don’t know. I can guess, but that’s about it.

I can, however, tell you this without equivocation: *Food builds muscle.* Food, in and of itself, is anabolic. Eat enough food to add weight, and you will add muscle. That’s regardless of exercise, and aside from all the finer points I’ll discuss in this section.
When lean people gain weight, about 60 to 70 percent of it is usually “lean tissue,” a category that includes muscle but also bone and everything else that isn’t fat. (Anorexics are an exception. They’re so screwed up metabolically that their weight gain is mostly fat, even though they’re very lean at the start of their weight-regain program.) When obese people gain weight, about 30 to 40 percent of it will be muscle. Either way, there’s a mix of muscle and fat, according to a paper by Gilbert Forbes, **, in *Annals of the New York Academy of Sciences*.

That lean guy trying to gain weight has his work cut out for him. My friend Susan Kleiner, **, came up with these numbers for an article in *The Physician and Sportsmedicine*: A strength-trained athlete needs 20 calories per pound of body weight just to maintain his muscle mass. If you weigh 160 pounds, you need 3,200 calories a day just to break even—to work out hard and not lose muscle. Gaining muscle requires 25 to 30 calories per pound of body weight per day. You’re now looking at 4,000 to 4,800 calories a day to add some muscle to your 160-pound frame.

And, as shown in Dr. Forbes’s study, some of that is surely going to be in the form of fat.

Is there a way to guarantee that a higher percentage of that weight gain comes in the form of muscle? Probably, although the successful cases tend to be anecdotal. That is, if you tell me your friend’s second cousin’s training partner built fifteen pounds of solid muscle without gaining any fat... okay, I’ll believe you. But that doesn’t mean I can do it, or you can do it, or anyone not using steroids can do it with any certainty.

One way to ensure the weight gain favors muscle is to exercise, which is so bleepin’ obvious that I’m almost embarrassed to mention it. Almost. A 2004 study by the U.S. Department of Agriculture showed that, among men, body-fat percentage is lowest among those with the highest daily energy expenditure. (The same wasn’t true of women, which should give you newfound sympathy for your wife or girlfriend when she works her rear off in the gym and never actually loses any weight off her rear.)

But, again, none of that makes the case for or against muscle-specific weight gain for the reader of this book, the guy who’s lifting weights and willing to tweak his diet any which way to build that muscle.

So now let’s look at protein, the stuff of which muscles are actually made. Just a few years ago, the accepted wisdom held that the most protein a body could use was about 1.7 grams per kilogram of body weight per day, or about three-quarters of a gram per pound. Most of us just rounded that up to an even one gram of protein per pound of body weight per day. That means 200 daily grams of protein for a 200-pound lifter.
Your body uses the protein for two purposes: to keep your body from breaking down muscle protein during and after exercise and to help it add new protein to your muscle fibers. I can’t count how many factors aside from protein intake go into the muscle-building equation (meal frequency, meal timing in relation to exercise, sleep quality, stress levels . . . ), but I can tell you that the ultimate goal is “positive nitrogen balance.” Since protein is mostly nitrogen, positive balance means your body is adding more protein to your muscles than it’s breaking down.

One study, published in 2001, made the case for increased protein leading to bigger muscles: When experienced lifters were given about a gram of protein per pound of body weight per day, they gained about six pounds of muscle in six weeks. Another group of lifters, eating about half that amount of protein, gained just two pounds of muscle in the same six-week period.

Case closed? No, not because of one study . . . although it is nice to see research confirming the effectiveness of what so many of us do anyway.

Probably the best current information about the interaction between dietary protein and muscle mass comes from researchers Kevin Tipton, **, and Robert Wolfe, **, at the University of Texas Medical Branch in Galveston. Tipton and Wolfe believe that the amount of protein you need to put your body into a muscle-building mood is surprisingly small; they’ve shown it takes just six grams of essential amino acids right after a workout.

But every answer we get brings up new questions. In this case, what the hell is an essential amino acid, and how do I know how many I’m getting in a pork chop, or an egg, or even a whey-protein shake?

Protein consists of twenty-two amino acids, of which eight or nine are essential (depending on who’s counting), meaning your body can’t create them from other materials. You have to get the essential aminos from food or food-based supplements.

At a conference I attended recently, a researcher mentioned milk as a perfect food for stimulating muscle growth, and it’s easy to discover that a cup of milk has eight grams of protein—that information is printed right on the milk carton. But how do you figure out how many of those grams are essential aminos? The answer is three. (Jose Antonio, **, a friend who happens to be a nutrition researcher, found it for me.) That means you’d have to drink two cups of milk to get your six grams of essential aminos.

If you don’t have friends like Dr. Antonio, you have to look these things up yourself, generally by scanning nutrition databases online and then adding up the amounts of each essential amino acid. If you decide to do this, here are the eight
essential aminos: tryptophan, lysine, methionine, phenylalanine, threonine, valine, leucine, isoleucine. A ninth, glutamine, is said to be “conditionally essential,” because our bodies can’t make it from other aminos in certain highly stressful situations, including major surgery, starvation, and even long-distance exercise. Personally, I don’t have that kind of time, so I settle for simply rounding up. A shake mix with forty grams of protein per serving is certain to have at least six grams of essential aminos, and that’s close enough for me.

Regardless of whether the amount of protein you eat throughout the day matters as much as we think it does, plenty of research has suggested a benefit to timing your protein intake to coincide with your workouts—either before, during, after, or some combination. (See “Is It All in the Timing?” below.)

If I’m going to err, it’s on the side of making sure I have plenty of protein available when my muscles are most ready to use it.

Meanwhile, remember the most important lesson for anyone trying to pack on muscular weight: Food is your friend. Calories matter. Without enough of them, it’s unlikely you’ll get the results you want, no matter how much protein you eat or how cleverly you time it.

**Is It All in the Timing?**

The idea that the timing of your meals matters almost as much as their content has taken hold the past few years. And the meals surrounding your workouts are perhaps the most important of all.

Here’s the rationale: The purpose of a workout is to shake up your muscle cells, to increase both the breakdown of old muscle protein and the synthesis of new protein. Your goal is a net gain—more protein in your muscles. A meal containing protein and carbohydrates taken right before or right after a workout has been shown to limit protein breakdown and increase protein synthesis. It’s the ultimate win-win.

If, however, you wait several hours after a workout to have a meal, you don’t win on either end. Protein breakdown continues unabated, and protein synthesis can’t happen fast enough to make up for the deficit. So you end up in negative territory, with less protein in your muscles than you started with.

I think it’s too soon to tell if it’s best to have your protein and carbohydrates shortly before or immediately after your workout. But I do think one thing is abundantly clear: If this is your best opportunity to maximize muscle growth and to minimize muscle breakdown, you’d be nuts not to take advantage of it.
COUNTING CALORIES

There is no simple and accurate way to estimate your daily calorie needs. But that doesn’t stop me from trying. The following formula is one I’ve used before with some success, based on the response of readers. To use it, you need a calculator and a scale.

You also need to estimate something I call your “activity factor.” That is, the amount of exercise and non-exercise activity you get in an average day. First, place yourself in one of these four categories:

Generally sedentary (desk job, very little exercise, your only hobby is stamp collecting)

Somewhat active (you exercise an hour a day, and spend at least one other hour a day on your feet, moving around)

Really active (your daily exercise involves buckets of sweat, or you lift like a warrior three or four times a week and have the muscle mass to show for it)

Off the charts (you’re training for a couple of hours or playing a high-adrenaline sport like soccer or basketball virtually every day of the week)

I’ve assigned each category a multiplier, based on your age. (Don’t worry, I’ll show you what to multiply right after the chart.) The idea behind activity factors is that they help you estimate how many calories you burn during the course of a day, aside from the calories you’d burn just to keep your brain and internal organs functioning. I did it as percentages of your weight for a very simple reason: The more you weigh, the more calories you burn with every step you take.

<table>
<thead>
<tr>
<th>Activity Factor</th>
<th>Under 30</th>
<th>30–40</th>
<th>Over 40</th>
</tr>
</thead>
<tbody>
<tr>
<td>Generally sedentary</td>
<td>30%</td>
<td>25%</td>
<td>20%</td>
</tr>
<tr>
<td>Somewhat active</td>
<td>40%</td>
<td>35%</td>
<td>30%</td>
</tr>
<tr>
<td>Really active</td>
<td>50%</td>
<td>45%</td>
<td>40%</td>
</tr>
<tr>
<td>Off the charts</td>
<td>75%*</td>
<td>60%</td>
<td>50%</td>
</tr>
</tbody>
</table>

*Yes, I had to take an extra-long step in the formula to make it work for the young, super-active athlete. I know some under-30 readers will fall into the big gap between “really active” and “off the charts.” As I say below, choose the numbers that correlate with your goals—higher to gain muscle, lower to lose fat.
So here’s how to estimate the number of calories you’d need in an average day to maintain your weight:

1. **Step 1:** Multiply your weight in pounds by 11. This is how many calories an average guy would burn if he went through the day without eating or moving. Side note: Isn’t it amazing how much energy it takes to keep your heart beating, your lungs working, and your brain generating the occasional thought?

2. **Step 2:** Multiply that number by your activity factor.

3. **Step 3:** Add those two numbers together.

Some practical examples:

<table>
<thead>
<tr>
<th>Name</th>
<th>Age</th>
<th>Weight</th>
<th>Activity level</th>
</tr>
</thead>
<tbody>
<tr>
<td>Joe Workingstiff</td>
<td>35</td>
<td>200</td>
<td>Somewhat active</td>
</tr>
</tbody>
</table>

His basic calorie need is 2,200 (200 × 11). His activity factor is 35 percent of 2,200, or 770 calories. Add them together and he has an estimated maintenance intake of 2,970 calories. Let’s call it 3,000, to make the math easier.

<table>
<thead>
<tr>
<th>Name</th>
<th>Age</th>
<th>Weight</th>
<th>Activity level</th>
</tr>
</thead>
<tbody>
<tr>
<td>Buzz Hyperball</td>
<td>23</td>
<td>160</td>
<td>Off the charts</td>
</tr>
</tbody>
</table>

His basic calorie need is 1,760. With an activity factor of 75 percent (1,320 calories), his daily maintenance need is 3,080.

However, just a few pages back I quoted Susan Kleiner saying that a really active young athlete needs calories equal to twenty times his body weight just to maintain his current muscle tissue. So Buzz would need 3,200 calories a day, not the 3,080 I calculated with my formula. If I were Buzz, and I wanted to gain muscular weight, I’d go with the higher figure for maintenance, and then add 5 to 10 calories per pound to gain weight.

But let’s say Buzz is super-active yet still doesn’t have a physique that’s as lean as he wants. In that case, I’d advise him to go with the lower number—say, 3,000 calories a day instead of 3,200—and see if that does the trick.

If you’re going to be imprecise, always fudge in the direction of your goals.
DIFFERENTIATING CALORIES

I started this chapter by mentioning a statement that drives me nuts: “If you want to lose weight, eat less and exercise more.” There’s another that I find even more maddening: “A calorie is a calorie.” This one isn’t half-true. It’s wholly false.

Your body processes different calories in different ways. It uses much more energy to digest protein than to digest carbohydrates, and more to digest carbohydrates than fat.

Let’s take a closer look at what scientists call “macronutrients,” the three major types of food we eat.

Protein

Protein has a higher thermic effect than the other two macronutrients. Different studies show different results, but I think it’s safe to say that about 20 to 25 percent of protein calories are burned during digestion.

So let’s say you have 3.5 ounces of chicken breast, which is roughly 200 calories. It has about 30 grams of protein. Each gram is 4 calories, so the chicken breast has 120 protein calories. If you assume 25 percent of those are burned during digestion, that means you burn 30 protein calories while leaving your body with 90 to use for muscle repair and other functions.

Joe Workingstiff, described above, needs about 3,000 calories a day to maintain his weight. If 15 percent of those come from protein (as they would in a typical “healthy” American diet), he’s getting 112 grams a day, or about 450 protein calories. Assuming the thermic effect of that protein is 25 percent, he’s burning about 112 calories a day because of it.

Now, let’s look at that same diet with 200 protein grams a day, or 800 calories. (That’s 1 protein gram per pound of Joe.) Now he’s burning 200 calories a day because of the thermic effect of protein, an extra 88 calories a day. That’s more than 600 bonus calories a week. The classic equation says that a pound of body fat contains 3,500 calories, so we can look at these numbers and speculate that he’ll burn off an extra pound of fat every six weeks or so, just because of the added protein in his diet.

Does it work like that in the real world? No one knows; human diet and activity patterns are too complex to quantify with simple “do this, not that” formulas.

Still, I don’t think anyone would argue against the bottom-line idea that more protein means more calories burned during digestion, which gives you a higher energy flux. And I’ve already shown that a higher energy flux means a higher resting metabolism. What’s not to like?
Fat
I think it’s a good idea to get at least 30 percent of your total calories from dietary fat. (I’ll discuss the best types of fat in the next chapter.) That amount supports your testosterone production and leaves you feeling fuller longer—a satiating effect it shares with protein.

One Diet to Rule Them All
If I had to choose one popular diet, mine or anyone else’s, as a default plan, something that would help most guys reach their goals, I’d pick The Zone, with its classic 40/30/30 configuration—40 percent of calories from carbohydrates, 30 percent from protein, and 30 percent from fat.

In a recent study (it came out as I was writing this chapter), researchers at Tufts–New England Medical Center put overweight and obese subjects on one of four popular diets and monitored them for a year. The results show that all four diets—Ornish (super-low-fat), Atkins (super-low-carb), Zone (balanced intakes of fat, protein, and carbs), and Weight Watchers (calorie counting, with no major bias toward or against any type of food)—work when people stick to them. About 25 percent of the people in each group stuck to their assigned diet to the letter for the entire year.

Average weight loss for each diet, followed by the percentage of participants who were still following the diet for a year (although not necessarily following it to the letter):

- **Atkins**: 4.6 pounds, 53 percent adherence
- **Ornish**: 7.25 pounds, 50 percent adherence
- **Weight Watchers**: 6.6 pounds, 65 percent adherence
- **Zone**: 7 pounds, 65 percent adherence

The two most extreme diets—Atkins and Ornish—had the lowest adherence. The two most balanced or flexible—Zone and Weight Watchers—had the highest. And the people on Zone had slightly better weight loss than the people on Weight Watchers, so if there’s a winner here, it’s the Zone diet.

And, of course, it’s the plan that most closely resembles what I advocate anyway: a diet that’s more or less balanced in the percentage of calories from protein, fat, and carbohydrates.
Carbohydrates

For most purposes, I also like to recommend roughly equal amounts of protein and carbohydrates in your diet, simply because it’s easy to remember and prevents you from overloading on one or the other. But if you have specific goals to gain or lose weight, I suggest these modifications:

Adding weight: Go for a higher percentage of calories from carbohydrates, especially starchy carbs like whole-grain breads, potatoes, brown rice, and pasta.

Shedding weight: Cut carbs, starting with the starchy ones. (I’ve also heard them called “dry carbs.”) You only need a few hundred calories a day from carbohydrates to keep your body fueled and smoothly functioning; any more than you need and you risk undermining your goal of fat loss.

PUTTING IT ALL TOGETHER

Here’s a very simple way to estimate the best diet plan for you. If you did the math earlier in this chapter, you have a rough idea of how many calories it takes to maintain your current weight.

So let’s return to Joe Workingstiff as our example. He weighs 200 pounds, and we’ve calculated his daily maintenance diet at 3,000 calories.

He’s decided to eat a gram of protein for every pound of his current body weight. Since each gram of protein has 4 calories, that’s 800 calories from protein, leaving him with 2,200 to round out his diet.

If he simply chooses to split the difference, and eat equal amounts of fat and carbs, he needs 1,100 calories of each macronutrient. A gram of fat has 9 calories, so he’ll need 122 grams of fat per day. A gram of carbohydrate has 4 calories, so he’ll need 275 grams to reach 1,200 calories.

Some people like to think of their diet in percentages. If Joe is among them, it breaks down like this (with numbers rounded off to keep it simple):

Protein: 26 percent (800 calories/200 grams)

Fat: 37 percent (1,100 calories/122 grams)

Carbohydrates: 37 percent (1,100 calories/275 grams)

But let’s say Joe isn’t comfortable with all that fat in his diet and wants to cut back to a bare-minimum 30 percent of calories. That’s an even 900 calories from fat, which
gives him an easy-to-remember target of 100 fat grams a day. Now his percentages look like this:

- **Protein:** 26 percent (800 calories/200 grams)
- **Fat:** 30 percent (900 calories/100 grams)
- **Carbohydrates:** 44 percent (1,300 calories/325 grams)

A relatively painless way to put together a diet based on numbers like this is through an online database. I like fitday.com, and there are probably others like it. You’ll find that simply tracking your daily calories for a few weeks, and forcing yourself to tweak your meal plans to bring them in line with your calorie goals, can set you up for months of low-maintenance weight control.
The beautiful thing about writing for an audience is that, at some point, you realize you’re learning more from them than they are from you. I hit that tipping point several years ago when I began reading posts on my own message boards about the concept of clean eating.

Clean eating is perhaps the simplest, most elegant way to describe a dietary concept with which virtually every nutrition expert in the world would struggle to find fault: Eat the best stuff available most of the time, and you probably won’t have to worry about counting calories. In fact, you probably won’t have to worry about a lot of things. Your risk of heart disease should decline, along with your chances of getting diabetes and some types of cancer and the possibility that you’ll become impotent. Your waistline should shrink, and your quality of sleep should improve.

Without having a simple or elegant term for it, I described the idea in *The Men’s Health Belly-Off Program* when I wrote this:

[Y]ou should only eat food that you can picture in its natural, pre-processed state. When you see a hunk of beef, you can visualize a cow. When you see a
salad, you can visualize lettuce growing out of the ground. . . . So what do you contemplate when you look at a Twinkie or a bottle of Snapple? Can you conceive of herds of wild Snapple stampeding through an Arizona canyon? A Twinkie vine growing up the canyon wall?

That’s my take on clean eating. If you can’t visualize it roaming, growing, or being extracted from something that’s roaming or growing, you probably shouldn’t eat it. A few good foods take some mental gymnastics to picture: Whole grains, for example, require a visual leap from the hunk of bread or pasta in front of you to the grains that were milled to produce it, to the plants growing in a farmer’s field.

You can make a game out of it: Three Degrees of Clean Eating. If you need more than three visual images to get to the food in its natural state, then it’s probably not worth eating.

So with the Twinkie, you have to figure out what the spongy stuff on the outside is made of, and then compose two or three mental images to get back to something growing in a field. Then you have to do the same thing for the white stuff in the middle. All told, I have no clue how many steps it takes to get to that wild Twinkie vine on the canyon wall. Whatever the number, it’s more than three.

I have just one exception, and that’s for protein powders. I need more than three images to get from the powder I mix into a protein shake to the factory that blends it from a variety of powdered things, and then back to whatever those powdered things were before they were powdered. Most protein powders are made primarily from whey protein. I know that whey is a by-product of cheese production, and that Miss Muffett suffered a traumatic whey-related incident. But beyond that, I can’t conjure a chain of images that takes me from a cow being milked to the packets or tubs of powder in my local GNC. But I do think this one exception is well worth making; I’ll explain why later in this chapter.

I’ll start with the foods I put on the Clean-Eating A-List, the ones you can eat every day with no ill effects. The B-List includes foods that are perfectly fine to include from time to time. C-List foods are dodgy, but they’re minty-fresh compared to the ones on the Garbage list.
THE CLEAN-EATING A-LIST

Water

WHY IT MAKES THE LIST  Assuming the water isn’t laced with sewage or polluted with agricultural runoff, it doesn’t get cleaner than this. About half your body weight is water (including about two-thirds of your muscle weight), and you can’t function without it. Dehydration affects your muscles’ ability to contract, your ability to think clearly, and your immune system. A little extra water can help your digestive system function better (especially if you have extra protein and fiber in your diet, as virtually everyone recommends these days). Some research shows a lower risk of bladder cancer and kidney stones with increased fluid intake.

MYTHING LINKS  I should add here that I’m as cynical as anyone about the idea that all of us are chronically dehydrated and that the solution is to carry bazooka-size water bottles with you everywhere. Your body has very capable thirst-detecting mechanisms that kick in when your water tank gets a little low. (And I do mean a little; they react when your body loses 1 to 2 percent of its water.) And even if you don’t react to that thirst the usual way—by drinking something—your brain has special mechanisms called osmoreceptors that sense dehydration and release anti-diuretic hormone (ADH), which tells your kidneys to hang on to your remaining water for dear life.

Another mysteriously prevalent belief is that any hunger you may feel could actually be thirst disguised as hunger. That makes as much sense as a soldier in combat believing that the bullet that just hit his leg is really an arrow in disguise. How long would we humans have survived if we couldn’t tell the difference between hunger and thirst?

Finally, the next time someone says you need “eight glasses of water a day,” ask where, exactly, that figure originated. You take in plenty of water; a day’s worth of food has several cups of it, and you supplement it constantly. The milk you put in your cereal counts. Coffee and diet soda count (yes, they trigger a diuretic response, as does alcohol, but your body still retains most of the liquid). The “eight glasses of water a day” thing is just something somebody made up at some point.

YOU PROBABLY DIDN’T KNOW . . . One of the “myths” that’s regularly debunked is the one about how water helps you lose weight. But it’s not really a myth. German researchers showed in a 2003 study that drinking a pint of water increases your metabolic rate by about 30 percent for an hour or so and that drinking colder water is
better than room-temperature fluid, since your body has to expend calories to heat the water up in your stomach. The researchers estimated that drinking an extra two quarts of water a day would increase your metabolic rate by about 100 calories. Even better, most of those calories came from increased fat-burning. So, assuming your body wouldn’t eventually adjust to that increased water intake (as it adjusts to most changes in routine), you could lose an extra pound of fat every five weeks, or thereabouts, just by flooding your system with fluids.

**MAYBE IT’S JUST ME** Setting aside the myth of massive dehydration in the most over-hydrated society the world has ever known, and ignoring for a moment the interesting and potentially useful metabolic effects of deliberately drinking too much fluid, I think there’s a rarely discussed reason why water helps someone lose weight:

If you start each day thinking, “I’m going to drink X glasses of water today,” you’ve started the day by making conscious choices about what you’re going to put in your body. I don’t know if this is written in any textbooks, or quantified by any published research, but the longer I write about exercise and weight control, and the more experts in the field I meet and pump for information, the more I’m convinced that the real trick lies in planning and awareness. Plan your meals, and be aware of everything you eat and drink throughout the day.

That’s the way to ensure that water helps you lose weight.

**BEST OF THE BEST** Tap water will do, as long as you can trust the source. A green glow is usually a bad sign.

**Lean beef, poultry, and pork**

**WHY THEY MAKE THE LIST** The protein is high quality, made of animal muscle and perfectly engineered to build human muscle. Almost half the fat is mono- and polyunsaturated, which are considered very healthy (I have much more on that below). And meat, with its combination of protein and healthy fat, is more satisfying than most other foods. It makes you feel fuller longer, ultimately allowing you to eat less. Meanwhile, the thermogenic properties of the protein help maintain a high energy flux.

**YOU PROBABLY DIDN’T KNOW . . .** Some anthropologists believe that eating meat helped us rise to the top of the food chain. When our ancestors hopped on the meat wagon about two and a half million years ago, humans became more genetically dis-
tinct from our simian cousins. We started living longer, with reproductive abilities that remained intact through most of that life span.

**BEST OF THE BEST** Go for meat that has the words “extra lean” or “loin” on the package. Those are the leanest, meaning they have the lowest concentrations of saturated fat . . . although it’s worth noting that one of the saturated fats in meat, called stearic acid, is actually considered healthy; it helps repair cell walls.

**Fish and fish oil**

**WHY THEY MAKE THE LIST** Again, it’s because of protein (in the fish) and healthy fat (some of which you find in the fish, although supplementing with fish oil is an easy way to make sure you get enough of it).

**FAT TRICK** Omega-3 fatty acids, found in fish and fish oil (as well as in flaxseeds and flaxseed oil), are “essential” fats. Your body can’t make them from other fats. Again, there’s a strong anthropological argument that fish eating was integral to human evolutionary development. And it says something about our modern food chain when you realize there’s hardly any omega-3 left in it. Wild animals used to ingest it through the plants they ate, and then wild humans got those omega-3s when they killed and ate the animals. No more; most of our meat is now grain-fed. And even fish are trickier bastards to eat safely, with high mercury levels being reported in tuna and other predator species.

That’s why I recommend several fish-oil pills a day (at least six). Each contains a gram of fat, about 20 to 40 percent of which is in the form of EPA and DHA, a pair of omega-3 fats associated with everything from a smaller waist to a healthier brain.

**BEST OF THE BEST** Wild salmon is considered the best type of fish for flavor, fatty acids, and safety (it’s not a predator, so there’s little risk of mercury contamination). In fact, a study in *Science* in early 2004 showed that farmed salmon contains many more toxins than wild salmon, including PCBs. But, unfortunately, there’s no way to know for sure if the “wild” salmon offered in your local grocery store is really wild. A *New York Times* investigation in April 2005 found that the “wild” salmon the reporters bought in six of eight stores was actually mild—farm-raised. Since the stores were charging premium prices for the allegedly untamed fish, this is a financial issue as well as a health concern.
For supplements, go for salmon oil (look for the word “concentrated” on the label; it’ll have more EPA and DHA in it). If the store doesn’t have it, plain fish oil is also okay.

**Eggs**

**WHY THEY MAKE THE LIST** The protein quality is as good as it gets, and they have very little saturated fat—1.5 grams per egg, which is negligible. (Unfortunately, you can still find nutritionists telling people that eggs are dangerous and to be avoided.)

**BEST OF THE BEST** Omega-3 eggs, while more expensive, also give you a healthier fat profile. Still, there’s nothing inherently unhealthy about the fat in eggs. More than 40 percent of it is monounsaturated, and I’ll explain why that matters in the next paragraph.

**Nuts and olive oil**

**WHY THEY MAKE THE LIST** Nuts are high in monounsaturated fat, as is olive oil. So are peanut butter and avocados, for that matter. Monounsaturated fat has been linked to lower heart-disease risk, a faster metabolic rate, higher testosterone levels, and lower rates of dementia (possibly because of the vitamin E in the nuts).

**BEST OF THE BEST** I have a quarter-cup of unsalted cashews almost every day of the year between meals. Macadamia nuts, almonds, pecans, and pistachios all have high amounts of monounsaturated fat. So do peanuts and peanut butter, which are good choices, assuming you aren’t allergic to them.

Go for extra-virgin olive oil for salads, less expensive types for cooking (cook at low heat; at high heat, the chemical structure changes). In salad dressings, look for canola oil as a main ingredient.

**Multicolored fruits and vegetables**

**WHY THEY MAKE THE LIST** No protein, but their fiber and heavy vitamin and mineral concentrations make them ideal for a fella trying to keep his youthful physique. With different colors come different benefits.

Red fruits and vegetables (red peppers, tomatoes, watermelon) tend to be high in lycopene, which may help prevent prostate cancer and eye problems (macular degeneration).

Orange and yellow produce (carrots, pumpkin, squash) tend to be high in alpha-
and beta-carotene—I know, it’s a surprise that “carrots” have “carotene”—which is a powerful antioxidant. Antioxidants—a class of vitamins that also includes vitamins C and E—help prevent damage caused by free radicals, harmful chemicals created inside your body by everything from pollution to strenuous exercise.

Dark green vegetables (spinach, Romaine lettuce, broccoli) have so many disease-preventing properties it’s hard to list them all. High spinach consumption, for example, is linked to lower risk of almost every type of cancer. Leafy greens have been shown to lower blood pressure.

**BEST OF THE BEST** Other than the ones I mentioned, consider pink grapefruit and any tomato products (red); oranges and sweet potatoes (orange); and kale, Swiss chard, and mustard greens (green).

**Whole grains**

**WHY THEY MAKE THE LIST** A 2004 study at the Harvard School of Public Health found that men eating the most whole grains had the least weight gain over an eight-year period. That’s not to say that whole grains have some magical weight-shedding or metabolism-increasing properties, but there’s something about them that helps men control weight. It was a huge study, including more than 27,000 middle-aged men.

**ORAL FIBER** This is as good a place as any to talk about fiber. It has some obvious properties—helping food move along through your digestive tract, for instance, acting as sort of a hall monitor for your bowels—and some that are less obvious. For example, fiber acts a bit like protein, in that it helps you feel fuller longer after meals. And it also has surprising health-promoting properties. Studies have associated dietary fiber with lower blood pressure and heart-disease risk, although it probably helps that fiber-rich foods usually have the healthiest combinations of vitamins, minerals, and micronutrients, even without their fiber.

I think it’s doubly important for weight lifters to focus on high-fiber foods in one or two meals a day, since we tend to concentrate on animal protein and healthy fats. Meat, fish, eggs, and dairy products don’t have any fiber, so we have to go out of our way to get it.

**BEST OF THE BEST** I start each morning with two cups of Kashi GoLean cereal (yes, I’m geeky enough to measure it), which provides twenty grams of fiber. Then, after workouts, I sometimes have an egg burrito made with a Mission Low Carb Whole
Wheat tortilla, which has another twenty-one grams of fiber. The recommended minimum for men under fifty is thirty-eight grams, so these two meals cover it.

Oatmeal is another great source of whole grains; steel-cut oats (the slowest-cooking) are considered best, followed by rolled oats. Instant oatmeal with sugar added is considered a poor choice.

Others: wild or brown rice, buckwheat, barley, rye, quinoa. The last one, by the way, is pronounced “KEEN-wah.” I actually have no idea what it tastes like, but it’s always included in lists like this, so I figured I have some kind of authorial obligation to throw it on mine.

**High-calcium, low-fat dairy foods**

**WHY THEY MAKE THE LIST** In the past few years, research into the metabolic powers of dairy calcium caught all of us who follow these things by surprise. It started with studies by nutrition researcher Michael Zemel, **, at the University of Tennessee. Zemel’s team showed that 1,200 milligrams a day of dairy calcium doubled the predicted weight loss of a group of overweight study subjects.

In their most recent study, which came out as I was finishing this book, they showed that a high-calcium diet (in the form of yogurt) produced fat loss of almost ten pounds in twelve weeks. Subjects eating the same number of calories but half the calcium lost six pounds. So, calcium somehow increased fat loss by 81 percent, with total calories, protein, and other dietary variables being equal.

**BEST OF THE BEST** A cup of low-fat milk has 264 milligrams of calcium. A six-ounce carton of Dannon yogurt has 200. Both of those pale compared with a packet of a meal-replacement supplement called Meso-Tech. It contains a whopping 750 milligrams, along with forty-five grams of protein.

**Protein supplements**

**WHY THEY MAKE THE LIST** I don’t know if it’s too early to say “case closed” about the efficacy of pre- and/or post-workout protein drinks. But I lifted for about thirty years without them and then the past five or six years with them, and for me, there’s no comparison. I get bigger and leaner when I use them, and I lose size and gain fat when I don’t.

Skepticism abounds among nutrition researchers as to whether protein supplements increase muscle mass over periods of weeks or months, although it seems ac-
cepted that they increase protein synthesis and decrease protein breakdown immediately after workouts. One study, cited in the book *Nutrient Timing*, by John Ivy and Robert Portman, showed an 8 percent increase in muscle mass and a 15 percent strength boost in twelve weeks in subjects who had a carb-protein shake immediately after lifting. Those who had the same shake two hours later flatlined—no gains in twelve weeks. (In case you’re wondering, the carbohydrates in the shake help stimulate the hormone insulin, which shuttles nutrients into muscles.)

I don’t know if that ends the argument or not. As I said in the previous chapter, one lecturer I heard at a conference said that milk should work just as well as any supplement. Since these protein drinks are made from milk proteins, that makes sense. But you’d have to drink a lot of milk (five cups) to get the forty grams of protein you’ll find in a standard supplement, which you typically mix with about fifteen ounces of cold water.

**BEST OF THE BEST** I mentioned Meso-Tech above; Nitro-Tech, by the same company, is another good choice. Both use whey protein, the faster-acting and more potent milk protein. Some supplements use a mix of whey and casein, which is a slower-to-digest milk protein. These include Biotest’s Grow!, Met-Rx, and EAS’s Myoplex.

I don’t know if there’s a magic ratio of carbs to protein. I’ve read that three or four grams of carbohydrate to every gram of protein is best for pre- and post-workout shakes. My guess is that it matters less than the fact that the concoction contains some of each.

**Beans**

**WHY THEY MAKE THE LIST** Yes, they’re “the musical fruit,” but that’s only because of their high fiber content. They’re associated with lower risk of heart disease, lower cholesterol, and even lower rates of colon and prostate cancers—there’s a lot to be said for keeping the traffic moving down there.

**YOU PROBABLY DIDN’T KNOW . . .** The gas you get from bean consumption comes from complex carbs called oligosaccharides. According to my friend John Williams,** “We don’t have the particular enzymes in our digestive tracts needed to break down these sugars, so they just sit there fermenting in our gut, thus producing the unwanted side effects. Fortunately, soaking them with sodium bicarbonate—baking
soda—causes a remarkable reduction in these sugars, and thus less methane.” John adds that split peas and lentils don’t produce as much gas, so you can spare the baking soda with them.

**BEST OF THE BEST** The category of beans, also called “legumes,” includes peas, string beans, lentils, chickpeas (which sound more festive when you call them “garbanzos”), black beans, fava beans, pinto beans, navy beans, and probably a couple dozen more. They’re all high in fiber and vegetable protein. That’s not the best protein for building muscle, but it’s good for you otherwise.

**Berries**

**WHY THEY MAKE THE LIST** If I started nattering on about phenolics, ellagic acid, anthocyanins, and quercetin, you’d think I’d finally gone completely daft. And my spellchecker is already making subtle inquiries about my mental health. But those are just a sampling of the nutrients in berries that make them almost mind-bogglingly healthful. In layman’s language, berries fight cancer, infections, and just about everything else that ails you. And some, such as raspberries, are also high in fiber.

**BEST OF THE BEST** Strawberries, blueberries, blackberries, raspberries—all good, all sweet and tasty, all great in post-workout protein shakes. Fresh is probably best, but fresh berries aren’t known for their extraordinary shelf life. (Ours start going white with mold before we even get them out of the grocery bag.) Don’t hesitate to buy frozen berries so you always have them close to your blender.

**THE CLEAN-EATING B-LIST**

**Red wine**

**WHY IT MAKES THE LIST** Red wine has a lot of resveratrol, an antioxidant that’s also found in peanuts and grapes. Moderate alcohol consumption—two or fewer drinks per day—has been linked to lower risk of coronary calcification, the deposit of artery-clogging plaque on blood vessels. Red wine in particular has been linked to lower cancer rates; one proposed reason is that the resveratrol causes cancer cells to self-destruct.

**THIS OPINION SUBJECT TO CHANGE** My thoughts on alcohol in general, and red wine in particular, have done a 180 over the years. I used to stay away from all types
of alcohol because of the fat-storing, muscle-wasting effects of heavy drinking. Plus beer has boatloads of useless carbs. Plus drinking lowers your dietary inhibitions almost as well as marijuana, leading to the most waistline-wrecking phrase in the entire English language: “pizza and a six-pack.”

However, some recent research shows that moderate drinking is an entirely different animal. A little wine can increase your metabolic rate (with the possible negating effect of causing your body to burn less fat for energy), and red wine, with its health-promoting properties described above, looks like the best bet of all.

**BEST OF THE BEST** I’ve read in various places that pinot noir made from grapes grown in upstate New York has the most resveratrol, according to research at Cornell University. Pinots from the Willamette Valley of Oregon are comparable, as are French burgundies and Australian pinots.

Average a glass of it a day—and limit yourself to two glasses on any given day—and you should get all the health benefits of red wine without any of the potential health problems associated with too much of a good thing.

**Dark chocolate**

**WHY IT MAKES THE LIST** If you have to have something sweet once a day—and I certainly do—this is your best bet. Various studies have shown that it has potent antioxidants and may help lower blood pressure. Even the cocoa butter, the main source of fat in chocolate bars, isn’t terrible. It has equal amounts of three types of fat: oleic acid, which is the same monounsaturated fat found in olive oil; stearic acid, which is a saturated fat with cell-building properties and no effect on cholesterol; and palmitic acid, which is a saturated fat with few redeeming qualities. Still, two out of three ain’t bad.

**BEST OF THE BEST** It’s dark or nothing—milk chocolate and white chocolate are just globs of fat and sugar. Look on the label for “semisweet chocolate” or plain “chocolate” as the first ingredient.

**White potatoes and other starches**

**WHY THEY MAKE THE LIST** Potatoes actually rank high on the “satiety index,” a compilation of foods that leave you feeling fullest. They have a bad rap because they act so much like sugar once they get into your bloodstream, but that’s not always a bad development. Certainly, if you’re trying to gain weight, starches help—they provide lots of calories and help stimulate the hormone insulin, which gets nutrients into
muscle cells. The guy trying to lose weight is best advised to stay away from them whenever possible.

**BEST OF THE BEST** The most nutrients are found in potato skins, which few of us eat. As for the meat of the potato—or white rice, or white bread, or regular pasta, or any starch that isn’t whole-grain—there’s little nutritional value. But, because these starchy carbs enter your bloodstream quickly, they’re good for post-workout meals. Otherwise, I suggest avoiding them.

I should add here that sweet potatoes and yams are starches but offer a better nutritional profile. They have beta-carotene, which is why I mentioned them in the A-List under “multicolored fruits and vegetables,” and they have more fiber than white potatoes.

**THE CLEAN-EATING C-LIST**

**Coffee, diet soda, and other caffeinated drinks**

**WHY THEY MAKE THE LIST** Given my noted Diet Coke addiction, I’d be a hypocrite if I didn’t include them somewhere. Caffeine does help you power up your workouts, with no apparent cost to your health or sanity. And, as I said in the section on water earlier in this chapter, it doesn’t really leave you dehydrated.

**BEST OF THE BEST** Extensive research shows the health-promoting and metabolism-boosting power of green and black teas. If I drank them, instead of Diet Coke, they’d have made the A-List easily. But it’s my party, so I’ll lump them in with coffee and diet soda, even though any objective analysis would say they deserve better.

Avoid sodas with sugar—it’s “diet” or nothing. If you dump a bunch of cream in your coffee . . . well, it’s no different from drinking a bunch of cream in any other context. It’s almost all saturated fat.

**Ice cream**

**WHY IT MAKES THE LIST** It shouldn’t, but I like it. So I’ll try to justify it by saying that it has a bit of calcium, and at least the sugar is the real stuff, not high-fructose corn syrup (discussed in the “Garbage” list below).

**THE INSULIN ADVANTAGE** Most foods that provoke a powerful surge of the hormone insulin also create a fast rise in blood sugar. As I said above, when I discussed potatoes
and other starchy foods, this is rarely what you want from a meal. A quick rise in blood sugar is good after a workout, so protein and carbohydrates can go to work immediately to repair and refuel your muscles. But at other times, it’s the opposite of what you want. A slower blood-sugar rise means a longer, steadier flow of energy.

But some foods cause a big rise in insulin without a corresponding rise in blood sugar. Beef is one, and ice cream is another. (Indeed, all dairy products have this odd quality, although the carbohydrates in ice cream make the insulin response much higher than that of carb-free foods like meat.) That brings me to one of the lesser-known and most underrated roles of insulin: It shuts down your appetite. If you have a fast insulin response, you feel satisfied by whatever you just ate. And if you combine that with a slow blood-sugar response, instead of a quick spike, you retain that feeling of satisfaction longer.

All this may be kind of a stretch to justify including a food I have trouble resisting. But if you must have an occasional indulgence, and I know I sure as hell do, this may be the least-worst in the dessert category.

Butter

**WHY IT MAKES THE LIST** A tablespoon of butter has eleven grams of fat, seven of which are saturated. So it’s bad for you, right? Not in small amounts. Your body needs some saturated fat, and butter has eight different types, including the previously lauded stearic acid, with a surprising breadth of chemical structures. I won’t pretend I understand all the implications of that (you don’t need to pass any chemistry courses to get a degree in journalism). My point is that your body uses different fats in different ways, and some types—called “short-” or “medium-chain” fatty acids—are preferentially used for energy. That means they’re less likely to be stored as body fat. To be fair, I have to say that some of the fats found in butter, such as palmitic acid, are more likely to be turned into flab.

But the big reason to be unafraid of butter in small amounts is that it’s so widely used as a flavoring ingredient in so many great foods. It’s a nice indulgence, and a little certainly won’t hurt you.

And, heck, butter falls easily into the category of clean eating. Picture a cow, picture a bucket of milk with cream at the top, picture the cream being made into a stick of butter, and you’re right there—three degrees of clean eating.

**BEST OF THE BEST** Sophisticates who’ve traveled in Europe and sampled the best cuisines will tell you that the butter over there is different—creamier, more flavorful.
Now “cultured butter” (yes, that’s what it’s called) is available in the United States, in specialty food stores.

Otherwise, go for “lightly salted” butter, which is best for both spreading and cooking; unsalted butter is used mainly for baking.

**Frozen orange and grapefruit juice**

**WHY THEY MAKE THE LIST** They have some vitamins, particularly the vitamin C in orange juice. You’re better off eating the actual fruit and getting the fiber (not to mention that by the time you finish peeling and sectioning oranges and grapefruits, you’ve probably lost your interest in eating), but if it’s a choice between one of these and one of the ones on the Garbage list, these are better.

**BEST OF THE BEST** If there’s a difference in nutritional quality in brand-name versus store-brand juices, I’m not aware of it. There may be some benefit to getting OJ with added calcium, although the University of Tennessee studies have shown that dairy calcium has the most pronounced effect on body weight.

**Manufactured protein bars**

**WHY THEY MAKE THE LIST** They do have protein. And they taste good. So if your end-of-the-workday choice is either a candy bar or a protein bar... well, at least the protein bar has some protein.

**BEST OF THE BEST** Since protein bars don’t fit within any conceivable definition of “clean eating,” I won’t recommend any particular brands. (Although, personally, I do like Meso-Tech and Biotest’s Grow! bars.)

**ROLL YOUR OWN** John Williams offers this recipe for homemade protein bars: “Throw together a bunch of unsalted mixed nuts, dried cranberries, unsweetened applesauce, and decent-tasting protein powder. Shape into bars and bake for about five minutes at 350 degrees, or just until they hold their own weight.”

**GARBAGE**

**Cookies, cakes, and other commercially baked foods**

Loaded with trans fats, which are now generally considered one of the two most evil foods in the American diet.
Margarine
Same deal: The fat, derived from vegetable oils, is a mutated lipid that is more dangerous to your health than any of the natural ones.

Non-diet soda
Filled with high-fructose corn syrup (HFCS), the other evil food. This very cheap, monstrously plentiful corn-derived sugar is a metabolic nightmare. Unlike other sugars, which your body recognizes as food, HFCS produces such a small rise in insulin that you can drink a six-pack of Mountain Dew before your body realizes you have any actual calories in your stomach. This gets back to my assertion that your body does know the difference between thirst and hunger and also knows the difference between calorie-free water and calorie-rich foods and beverages. HFCS muddies this difference, to the peril of anyone who consumes a lot of it.

Mayonnaise
Store-bought mayonnaise is usually made from soybean oil. Soybean oil is a polyunsaturated fat, and polyunsaturates are often lumped together into the omnibus category of “healthy” fats. However, there’s a world of difference between the omega-6 polyunsaturated fats in soybean and other vegetable oils and the omega-3 fats found in fish and flaxseed oil. Research going back decades shows that vegetable oils—corn, soybean, safflower, and sunflower—produce an inflammatory response that’s been linked to a bunch of nasty illnesses. Certainly, we have a myriad of diseases that involve inflammation, starting with arthritis and lupus and working up to heart disease and cancer. I’m not saying mayonnaise causes cancer, just that vegetable oils provide little or no benefit and potentially lead to inflammation that could then make you more susceptible to diseases you wouldn’t wish on your worst enemy.

However, there’s an easy way out: homemade mayonnaise. I got this recipe from a website called cookingforengineers.com: Whisk together two large egg yolks, three tablespoons of lemon juice, a quarter-tablespoon of salt, and a pinch of pepper. Slowly add a cup of very light olive oil by drizzling some, whisking until it solidifies, then drizzling some more. After a few minutes, you have a great-tasting mayo, and you can make it even better with Dijon mustard, garlic, or Parmesan, alone or in combination.
White bread
No fiber, no nutrients you can’t get elsewhere, and a near-instant surge of sugar into your bloodstream. What’s to like? Williams offers this stark analysis: “For every 5 grams of fiber in white bread, you’re getting 141 grams of carbs.” In contrast: “For every 5 grams of fiber in lentils, you’re getting just under 10 grams of carbs.”

Cereals with sugar added
Go ahead and play “Three Degrees of Clean Eating” with Lucky Charms. I can’t even guess how many degrees you’d have to churn through just to get the food coloring onto the marshmallow clovers.

Sweetened fruit juices
May as well just swallow packets of sugar. The manufacturers try to dress them up by touting the vitamin C content, but it’s really just pure sugar, with none of the fiber or micronutrients you get from real fruit.

Processed meats
Not long ago, we were told that red meat is linked to all kinds of bad things, including the one thing every guy who enjoys his morning “quiet time” on the throne should dread: colorectal cancer. But more recent research has refined that idea. Yes, high consumption of red meat is still linked to colon cancer. But you can get around that in two ways. First, avoid processed meat—such as bacon and sausage. According to a 2005 study published in the Journal of the American Medical Association, those who ate the most processed meat in 1982 and 1992–93 were 50 percent more likely to have colon cancer in 2001. Another risk factor: a high intake of red meat relative to poultry and fish. (In fact, poultry and fish were linked to a lower risk of colon cancer.)