WEIGHT LOSS

Science-Based Tips to Lose Weight & Keep it Off, No Matter What Diet You're On!

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Preface

I originally got the idea to write this book because I had struggled with my weight—about 20 pounds of it—even after having been a raw fooder. The struggles happened mainly not when I was 100% raw, but during the periods when I allowed myself to eat "90-95% raw." This is because I didn't fully understand the impact of eating "just a little" of my favorite cheats, potatoes and popcorn, which are high glycemic cooked starches that caused inflammation.

But even on a 100% raw diet, I often found myself overeating nuts, which are very high in calories.

Things got only worse after menopause, which is typically when a woman's metabolism goes into slow gear.

When I was able to lose quite a bit of weight, and most importantly keep it off, I got excited enough to share the secrets in a book. I knew that the best way to learn is to teach. I would be more motivated to research this topic if I knew I was going to write and teach about it.

It was actually *a recipe* that gave me an idea to make a raw food weight loss book. Throughout my raw food journey, one food I almost never cheated with was pasta. I came up with a recipe for kelp noodles that tasted as good as any pasta I had ever eaten, and it was very low calorie: kelp noodles contain only about 10% the calories of noodles made with grains.

I thought, "Why not make a low calorie raw food recipe book? It will have a few weight loss tips and science as well." But for those of you who have read *The Live Food Factor*, you know I am really not much of a recipe person. I thrive on learning new things and finding creative ways to weave the info together in order to teach others.

As I began my research for the raw food low calorie diet book I had envisioned, I began to realize that *low calorie* usually means *low fat*. This is because fat is so dense in calories (9 calories a gram compared to only 4 for carbohydrates and protein). Research since the 1980s has shown how low fat diets are not conducive to long-term weight loss maintenance. As we will see, while calories do count, there are certain fats that help keep the metabolism in tip-top shape.

Of course, one question I asked myself in writing this book was, "Do I really want to be under the pressure of being scrutinized for having an ideal figure for the rest of my life?" I thought of Tanya Zavasta (the guru of how raw food affects beauty) and the pressure she must feel to always look beautiful. Come on, what a relief to be rid of that pressure we feel when young, especially before getting married. Now why would I want to jump into a position where I could also face such scrutiny?

The reason, and the only reason, is *because I want to be healthy*. As I uncovered in my research, attaining your ideal weight, and even a little less, is a huge factor in health. And eating less food (as long as it is densely packed with nutrition), even up to 30% fewer calories than the norm, is the *only* thing that science has found that actually extends one's lifespan.

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The Obesity Epidemicand Those of Us Who Just Want to Lose 20 Pounds

Obesity is soon overtaking smoking as the leading cause of death. Will food companies be sued like tobacco companies were? No, having the foresight of what could come down, the food companies lobbied to make the "cheeseburger bill" pass—a bill that would forbid lawsuits against food companies for making us fat and sick!

Obesity is defined as weighing 15 to 20% more than your ideal weight. The increase of the obese population in the US has risen from 15% in 1976-1980 to 30% in 2000. So (depending on where you get your statistics) between 20 and 33% of our population is obese! And 60% of our population is overweight. Obesity will soon be the greatest cause of death in our country.

Due to being overweight, so many children are getting diabetes that we can no longer call it "adult onset diabetes." It is now referred to as "type II diabetes."

When I grew up, if you were about 10 pounds overweight, you were concerned. But the people considered fat back in the 1960s and 70s would now be considered "pleasantly plump."

One of the culprits in the obesity epidemic is the high fructose corn syrup (HFCS) which permeates the American diet. In the 1980s, it began to be used as a sweetener in sodas instead of sugar because it was cheaper. The only way to avoid it is to read labels, and once you do, you will find yourself avoiding nearly all processed foods, as well as fast food restaurants. HFCS create problems with your liver that can lead to high "bad" cholesterol and even fatty liver disease. It also leads to overeating since none of the normal appetite controls (such as the hormone leptin) are triggered when you consume sodas or foods high in HFCS.

Michael Pollan (author of *The Omnivore's Dilemma*) points out that corn is so cheap that it has permeated the American diet. Even the animals we eat live on corn. If we are what we eat, he insists that we are corn!

Another major factor in the rise in weight gain is the continuing increase of monosodium glutamate (MSG) in our diet. It is very common in processed and convenience foods. In the 1970s consumers started finding out about it. So the FDA allowed food companies to hide it. If MSG was in a mixture of other seasonings, it could be labeled by another name! Anything with these contents contains MSG: hydrolyzed protein, sodium caseinate, calcium caseinate, autolyzed yeast, yeast extract. It may be in a number of other ingredients as well: modified food starch, hydrolyzed vegetable protein, carrageenan, glutamic acid, seasonings, spices, flavoring, whey protein, malt flavoring, broth, stock, barley malt, malt extract, malt flavoring, soy protein isolate or concentrate, vegetable gum, and more. In other words, you should avoid eating most processed foods and foods from most chain restaurants.

MSG makes you gain weight in several ways. Scientists even use MSG to fatten mice up for their studies.

For one, animal studies have shown that it triples the output of the fat-storing hormone insulin.

Secondly, the sodium in it causes water retention.

Third, it tricks the brain into thinking the food is tasty so that you will keep on eating. It enhances the sensitivity of the taste buds, functioning just like a drug to excite them. This is why it is called an *excitotoxin*.

As for diet products, aspartame (another toxic excitotoxin) can also be fattening although it has almost no calories. Because it is sweet, it can activate your pancreas to secrete insulin (the fattening hormone). Furthermore, aspartame is toxic and decreases the function of the thyroid, which regulates metabolism.

In the 1980s, food manufacturers started putting trans fats in the foods to enhance shelf life. This toxic man-made fat has been compared to plastic in its molecular form, and the body finds it very hard to get rid of. These fats can block the metabolism, slow fat burning, and increase insulin resistance (leading to fat storage).

Another huge factor in creating huge bodies is the increase in endocrine disruptors (chemicals that mimic, block or otherwise disrupt the normal function of hormones). These include pesticides, insecticides, herbicides, fungicides, soy products, and growth hormone in the animals and plants we eat. Farmers put hormones in the animals to fatten them up and consequently, the people eating the animals get fattened by the hormones as well. (This is also why girls develop sexually at an earlier age, and why boys develop breast tissue.) Eating organic food will help minimize exposure to these.

Other endocrine disruptors include plastics, solvents, heavy metals.

And as we all know, there are the fast food restaurants. When I grew up there was only two or three restaurants in the town I lived. Then a McDonald's came. Within a few decades, there probably 20 fast food joints in this town of 8,000 people! Fast food is not only convenient, but it is also cheap. Where else can you get a meal for under five dollars? But fast foods are full of the aforementioned problem "foods." Perhaps such restaurants should be renamed "fat foods."

Then, in the 1980s and 90s, the food companies (starting with McDonald's) began to supersize food. (You probably saw the documentary *SuperSize Me.*) It was all a marketing idea to get people to pay a bit more for a larger amount. The raw materials of fries and sodas (potatoes, corn syrup) was cheap. The same people would not order seconds due to feeling gluttonous would order a larger size without guilt. Researchers found that people will eat up to 30% more if the serving is only one, even though a much larger one. Psychologically, they feel it is one portion. This is how a soda went from being 6 ounces (when I was a kid) to 20.

Finally, David Servan-Schreiber, MD (*Anti Cancer, A New Way of Life*), stresses that one of the main reasons for the obesity epidemic is that infants are being fed milk from cows that are corn-fed instead of grass-fed, and hence have too high a ratio of omega 6 to omega 3 (more on the significance

of that later). This would also apply to infants fed breast milk from a mother on the typical American diet, which is way too high in omega 6s compared to 3s. He points out that "the mass of fatty tissue *in children under one* doubled between 1970 and 1990" (p. 66), and of course we cannot place the blame of an overly fat infant on too much TV, too little exercise, or too much fast food.

Interestingly, the clothing manufacturers don't want us feel bad about gaining all this weight. They apparently have adjusted the sizes. For example, a shirt I bought 20 years ago that was labeled "medium" would now be considered a "small."

That makes it easy to stay in denial when you gain a bunch of weight. When I hit my 40s and 50s I didn't feel I could have been that fat since, after all, I was still a size 12, just as I had been since my 20s.

Then when I lost 25 pounds this past year, a funny thing happened: When I went shopping for clothes, I was suddenly a size 6 (which I had never been in my entire life, including when I was an anorexic teen weighing 98 pounds!). But then I dug out of my closet a pair of jeans I'd purchased a little under 10 years ago when I weighed about the same. It was a size 12. Yesterday I tried on some jeans by the same company, and even though I am only about five pounds thinner than when I bought the size 12 jeans, I now wear a size 6!

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My Weight Loss Journey

I recently attended a lecture in which Leonard Orr (famous for inventing the rebirthing method of breathing) said something to this effect, "In most parts of the world, people earn only \$2.00 a day. They have to work hard and put all their energy and focus on getting enough to eat. Here in America, we pay big bucks and have to work hard and put all our focus on refraining from eating so we can lose weight."

Wow, is that ever true! If someone is juggling the demands of a job, kids, a commute, paying the bills, and having a life, it can be overwhelming to think of losing weight. Here in America it takes serious planning and effort to lose weight. First you have to research what works best, then you have to psych yourself up for it, and then you have to organize your menu. You have to exercise so you build or maintain muscle (which burns five times as many calories as fat). And most important, you have to keep yourself motivated. Perhaps worst of all—you have to make everything from scratch, from whole foods.

This can be a full time job. Ask any professional model!

As those of you who have read *The Live Food Factor* know, much of my life has involved a mild obsession with food. (My husband says the m in mild should be replaced with a w!) At times it has been a love-hate relationship.

I grew up with parents who were mildly obsessed with food and constantly trying out fad diets, such as the grapefruit diet. While I was being born, my father (an MD who was delivering me) took a lunch break with the assisting doctor. I had to wait for them to get back from the cafeteria before I could be born! On a subconscious level, I was given the message that food was more important than life itself. And this is something I have struggled with throughout my life.

At the age of 15 I began my first diet. I memorized the calorie book and put myself on a 500 to 800 calorie-a-day diet. I went from 125 to 115 pounds in two and a half weeks. After that, I ate about 1600 to 1800 calories a day. At the age of 16 I decided to stop my exercise program as it got too time-consuming. I wanted to spend that time reading instead. So I penalized myself by taking my daily calorie allotment down to 1300 a day. Furthermore, if I overate and had, say 300 calories extra, I would begin the day as if I had already had those 300 calories!

Though I intended this to be weight maintenance, within a year I got down to 98 pounds and was starting to emulate the super model of the day, Twiggy. I was hooked on thin and became an anorexic (though in those days no one knew what that was). Yet I was obsessed with food, and never, ever satisfied. In my dreams I would gorge myself on doughnuts and cakes and rich desserts that I would deprive myself of on *this* level of reality.

Almost overnight, I got so obsessed with food that I became an out-of-control bulimic (age 17). Within a matter of months, I weighed 160 pounds--having gained about 60 pounds!

This nightmare lasted seven years and ended only when I lived in Mexico (age 24), safe from my "trigger foods" of calorie rich sugary pastries and sweets. I didn't really care for the Mexican desserts. They do guacamole, tamales and chile rellenos well, but not sweets. Sugar seemed to be my "serotonin rush." I also learned later that American processed foods were full of chemicals that fostered addiction. Mexico gave me that break I needed to develop new eating habits.

It was in Mexico that I also began to be interested in nutrition as a way to heal myself from eating disorders. I added brewer's yeast and bee pollen to my daily diet, which (full of B vitamins that sugar depletes) were great for my nervous system and stress reduction.

I slimmed down to a place where my weight fluctuated between 125 and 130 pounds for about 14 years. I continued counting calories until a nutrition teacher in acupuncture college had me write my health history. I was astonished to realize that all those years, though I had been relatively free of the food obsession, I was still counting calories! So in one day I just decided to stop my 19-year habit of counting calories and rely on my inner hunger.

This worked from 1989 until 1993. Then I took Prozac for a year and within months, my weight went from 130 to 150 pounds! Prozac greatly increased my appetite while lowering my thyroid function (due to the toxic fluoride in it). At 38 years, I just decided not to care any more. I was also a bit deluded by thinking that since I was working out, a lot of the weight gain was muscle!

Then, when I was 44, I discovered raw foods! My weight went back to around 130-135 for years. The raw diet made it easier to keep the weight off, as long as I didn't overindulge in dehydrated gourmet foods that tend to be heavy on nuts and seeds. Back then, there weren't too many of those treats around unless you made them yourself. I found if I was 100% raw, it was easy to keep the weight off. If I was 90% it took some effort because the 10% I was drawn to was cooked starches.

The same month I hit 50, I began menopause. Being raw, I skipped through the horrendous ordeals that most women speak of, such as night sweats, hot flashes, irritability, etc. I had a touch of insomnia, but nothing that a daily dose of bio-identical progesterone couldn't take care of.

But the weight---the weight just kept piling on! Before the year was up, I was up to about 150 pounds! I was too afraid to get on the scale, but my clothes told me that this was the weight!

Even the year before menopause, the weight had been creeping up. Months before my official entry into cronehood, I posed for a photo which is now in *The Live Food Factor*. My waistline was so thick, I had to hide behind a bowl of fruit!

I read somewhere that the entire process of having a normal period burns up around 3,500 calories a month. That means you would gain 12 pounds a year after menopause if you didn't cut back on calories or compensate by burning about another 100 calories a day! You could either cut back on 100 calories, or walk a mile extra each day. 100 calories isn't much food (a large apple, a tablespoon of nut butter, a cup of orange juice) but it adds up over a year.

After menopause, I made friends with my fat. I thought, "You know, if I lose the weight, I am not going to look 25 anymore anyway. And my husband loves me and accepts me as I am."

After "men"-o-"pause," I put the "pause" button on "men." And I didn't know if I would ever hit "play" again. My friends and I would lament, "Our bodies can't handle drinking wine. We don't have hormones for sex any more. So what pleasure is left? *Breakfast*, *lunch*, and *dinner*!"

Yes, a moderate amount of fat became my constant companion. And after all, fat is needed. It protects us, and even keeps toxins from invading our organs. I read in a scientific journal, "Adipose tissue is an important endocrine organ, secreting a range of inflammatory mediators, including tumor necrosis factor alpha and interleukin 6." So, fat is an organ! An important organ!

No need to lose weight! After all, I am not Tonya Zavasta, promoting raw food for beauty. Let *her* do that.

Then one day my fun female friendly competitor showed up weighing 40 pounds less. (In our crazier younger years, we sometimes had friendly competitions for the same men.) Suddenly, I decided I wanted to be thin again.

Now, it has often been said that women try to look good not to impress men, but due to their competitive spirit among each other. It's kinda like men with sports. There's gotta be some truth to that.

This friend of mine who had struggled with her weight for decades suddenly lost about 40 pounds through a starvation diet of 500 calories a day.

I tried the diet for some time and lost some weight, but did I keep it off? No, I couldn't. In fact, I became obsessed with food and eating! I even found myself cheating on this diet a few times by eating bits of cooked food, even though I had been 100% raw for the year prior to that! This is because when your body goes into starvation mode, the hormone *leptin* that suppresses appetite goes way down. You can even start binging! In fact, this is why anorexics so often flip over into bulimia.

So I upped the calories to 1000 a day, which is much more sane. The low calorie raw food diet was anything but boring. I could have tastes and bites of the intense calorie stuff, while not feeling deprived since I was eating enough fruits and vegetables to keep reasonably full. Best of all, I was developing eating habits that could last a lifetime. And since the food was raw and I was adequately nourished (at least for the short term), I did not get the obsession with food that I had as a constantly hungry and unsatisfied anorexic when I was a teenager.

However, after a few weeks of this, a funny thing happened. I began to get fatigue, and at times felt what I imagined it might be like to be an average 70-year old woman! I was dragging. I had an epiphany when I realized, "I am not getting enough ATP!" When I got home, I coincidentally read on the internet an article about how crucial it is to eat essential fatty acids to keep the energy up. I quickly ate some flax seeds and hemp seeds, and in about three days I was myself again.

Dr. Barry Sears explains that "ATP is made on an as-needed basis from either glucose or fat. Your production of ATP is far greater from a calorie of fat than from a calorie of glucose" (*The Anti-Inflammation Zone*, p. 104).

This made me realize something. While a diet too high in fats (even good fats) can make you feel very exhausted and sluggish, so can a diet that is *too low* in good fats! If you eat too much of any kind of fat, you will have <u>a full stomach and feel exhausted</u>. If you eat too little fat with essential fatty acids, you will feel light in the digestive tract and feel exhausted.

You need fat for energy, but not too much and not too little. Each of us must experiment to find the right amount of fat we need in our diet for maximum energy and well-being. For me, I need around 20-25% of my calories to be from fat.

Later, as I pored over the diet books and recent studies, I began to realize how critical getting enough essential fatty acids are in order to maintain a healthy metabolism. More on that later.

The next few chapters are concerned with calories—do they really count?

Do Calories Really Count?

I remember as a young teen visiting my Aunt Dorothy and Uncle Earl in Canada. Uncle Earl was talking about weight loss and said, "I understand that the body works like a bank. Whenever you put in extra calories, they pile up as 'savings.' When you don't eat as many calories as you use, the body uses up these savings." I felt I had learned the secret to life! Now I could be slender *forever*!

Nonetheless, throughout my dieting life, I learned some astonishing facts about food that didn't exactly fit the above paradigm. As you read these facts, if you don't understand them, bear in mind that we will cover them in much more detail later.

- ➤ If one eats a diet of low glycemic (low sugar) food, she will lose more weight than on the same number of calories as high glycemic food. This is because high glycemic food causes the body to release insulin which stores fat. A low fat diet is often full of high glycemic foods.
- ➢ If one eats a diet of raw food, she will lose more weight than on a diet of the same number of calories of cooked food. This is because cooked food doesn't have enzymes to help digest it. Cooked fats don't contain the enzyme lipase to help move it out of the body. It also contains toxins and the body often creates fat to store toxins in a safer spot than if the toxins were stored in the joints, organs, and other body parts.
- ➤ If one divides her daily food into many mini-meals or snacks throughout the day she will lose more weight than if she eats the same number of calories in just one or two or three meals throughout the day. This is because a snack of at least around 100-200 calories gives the metabolism a boost.
- ➤ If one eats her meals before 6:00 PM she will lose more weight than if she eats her meals after 6:00 PM, though the calories are the same. This is because the body's metabolism shuts down while sleeping and the body will be more likely to store the food as fat.
- ➤ If one eats fat-burning fats such as coconut oil, which is a medium chain fatty acid, then she will burn more calories than if she eats the same number of calories in another kind of fat.
- ➤ If one eats a diet of nearly zero carbohydrates, she will go into a state known as ketosis and will burn a few hundred calories more than if she eats the same number of calories while including carbohydrates. (She may destroy her kidneys in the process of overeating protein, however!)

- Coffee, although containing zero calories, can cause weight gain since it often stimulates the pancreas to secrete more insulin, a hormone that tells the body to store fat.
- Aspartame, a common ingredient in weight loss products since it is a sweetener, which contains a minimal amount of calories, can cause weight gain since it often lowers thyroid function.
- > Some foods, mainly low calorie vegetables such as celery, are considered "negative calories" since the body expends more energy in digesting them than the foods themselves provide.
- ➤ Eating a certain number of calories from healthful foods will not cause fat storage, while eating the same number of calories from junk food filled with trans fat, high fructose corn syrup and/or MSG would be more likely to cause weight gain. This is because the "bad" food will cause inflammation and oxidative stress due to the toxins formed in digestion.
- ➤ The quality of fats counts. Including certain fats in your diet (such as omega 3s and monounsaturated fats) will induce weight loss, compared to a diet of the same calories without these fats. Similarly having too many omega 6 fats in relation to omega 3s will induce weight gain.

With all of the above information, is it any wonder that people have gotten away from counting calories? Everything in the past few decades has been about counting carbohydrate grams, counting fat grams, and using different kinds of food for that magic weight loss secret. In fact, while researching this book and trying to get some ideas for low calorie recipes, I found many bookstores don't even carry low calorie cookbooks!

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Although Some Calories Count More than Others, Calories *Do* Count.

My journey as a raw foodist has convinced me that for some people (especially postmenopausal women), it appears that eating a 95-100% raw plant food diet is not always enough to stay slim. Sometimes, even on raw, calories do count. That is, if you overdo them! So now, after a 19-year break from a 19-year old habit, I went back to counting calories, at least

temporarily, in order to get to my ideal weight. I guess it's a 19-year cycle with me of counting calories vs. noncounting!

My dad used to say, "You can get fat even from *grass*, if you eat too much of it!" No question about it, calories do count even though they represent only part of the picture. Too many calories can cause inflammation (which is related to obesity as we will see later). Too many calories of any food, no matter how good it is for you, can cause release of the fat-storing hormone insulin. Too many calories can lead to oxidative stress, which means there are an excess of toxic free radical waste products from digesting food.

Worst of all, too many calories leads to weight gain (or at least not losing weight). I have tried a number of different diets over the decades. I can vouch for what Carolyn Sayre says, "No diet has ever been able to defy the laws of thermodynamics. Whether you go low carb, low fat, low this or low that, the only way to lose weight is to burn more calories than you consume" (Newsweek, June 11, 2007). Here is a summary of my dieting adventures:

- ➤ In the 60s, I counted calories and overworked my liver by eating gelatin, soda and other products sweetened with saccharin and other chemicals in processed diet foods. I got asthma from eating a lot of low fat cheese.
- ➤ In the '70s I tortured my poor kidneys by eating a nearly zero carbohydrate diet while barely losing a few pounds since I satisfied my appetite with meat, eggs, and cheese. Fortunately, I stayed on this diet only for brief periods.
- ➤ I was in carbohydrate heaven in the '80s. I was told I could eat baked potatoes, pasta, whole grain bread till the cows came home. The cows never did come home, but when I did, I always collapsed on my bed from too much insulin and not enough essential fatty acids. I rarely lost any weight at all while my poor pancreas suffered.
- ➤ In the '90s I did manage to lose weight while staying strictly on the Zone Diet. But that was partly because it was a low-calorie diet! (The other part involved maintaining a balance of good hormones—a very important point that Dr. Sears emphasizes in all his books.) And as soon as I got off it, the weight came back. The low carb aspect, as well as counting all those "blocks" of protein, carbs and fats, made the diet hard to maintain.
- ➤ In the '00s, I found that even the raw diet worked to lose weight only when I wasn't overindulging in nuts and seeds (high calorie foods). The gourmet food found in the recipe books is often high in fat, so those foods must be eaten in moderation.

I noticed that the calories-don't matter points were true, and helped, to an extent. I still believe in eating early. I still believe in spreading the food

out in five to seven mini-meals or snacks in order to lose weight. But throughout the years I have noticed that the only diets that have worked for me to lose weight and keep it off are ones that contain fewer calories than I burn.

I have now come full circle and am back to counting calories, while also applying some of the principles discussed later in this book. The bottom line is: You may lose a little here and there with fad diets, but you won't lose much of any weight unless you also decrease the number of calories in the diet!

So at least while focusing on weight loss, count on counting calories. You simply won't lose much weight---especially those stubborn last ten to fifteen pounds-- unless you reduce the number of calories you consume. And you might even *gain weight* when on a specialty or fad weight loss diet if you eat more calories than you need! (I know; it's happened to me!)

Even though you can't overeat in calories to lose weight and keep it off, not all calories are created equal. You need to eat good food. Eating flax seed crackers will keep you slimmer than eating the same number of calories in potato chips.

5

Low Calorie Diet Tips

- Think "seeds" instead of "nuts," since seeds tend to be lower in fat and therefore calories. Seeds are also remarkably cheaper than nuts—often only a quarter the price! But don't give up nutrient rich nuts altogether, especially almonds (rich in calcium), walnuts (rich in omega 3 fatty acids) and Brazil nuts (rich in selenium).
- Instead of pasta: make zucchini noodles with a saladacco or buy kelp noodles at www.kelpnoodles.com.
- Think "vegetables" instead of "fruit" since vegetables are lower in calories and have lower glycemic indices (which results in less insulin secretion and therefore less fat storage). Also eat nonsweet fruits (often thought of as vegetables) such as tomatoes, bell peppers, and cucumbers, which are low in calories and have low glycemic indices. Vegetables are also much higher in minerals (which are more important than even vitamins) than fruit. Potassium is a mineral that will help decrease water weight disguised as fat. Most vegetables are so low in calories and rich in fiber that you can eat as much as you want without worrying about the calories. They actually have a "negative calorie effect" which means it takes more calories to digest them than the foods contain.
- ➤ Be sure to get enough protein and essential fatty acids by eating at least a handful (about ¼ cup) of seeds and/or nuts a day, as well as greens. You can do this by eating one raw cracker a day, and having some green smoothies. Bear in mind that the charts and tables that the food industries create insist that we need a lot of protein, when we actually

need far less. And if it is raw, you only need half as much as cooked, since the absorption is better and the proteins are not malformed. Another good source of protein is tempeh, which is fermented with enzymes. There are some people who need more protein than others, and on a purely raw diet they should take raw hemp seed protein powder or raw sprout powder. Non vegans can enjoy eggs, as well as dairy in moderation. Non vegetarians can enjoy fish. Seafood that is lower in mercury include shrimp, canned light tuna, salmon (eat it wild!), pollock and catfish. Avoid larger which as they are higher in mercury. These include tuna (except for light canned), swordfish, shark, tilefish, sea bass, and river fish.

- Frozen fruits put through a blank screen of a juicer make very satisfying desserts and taste like ice cream! If you don't have a juicer with a blank screen, simple put the frozen fruit in a food processor and blend with the "S" blade.
- Think sprouts, sprouts, sprouts! These are a nutrient-dense, economical and low calorie way to get your nutritional needs while spiking up a salad. You can also munch on these at a movie instead of popcorn.
- Nature has made the most perfect, delicious, low calorie, healthful and nutrient-dense fast foods on the planet! Chefs from around the world have never been able to top the tastes of fresh whole organic fruits and vegetables. Use these fast foods for snacks and most of your meals and snacks will entail no preparation or clean up time. Save the gourmet stuff for dinner and you will find that your time in the kitchen could average about ten minutes a day!

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So How Many Calories Should Be Eaten?

A general rule of thumb is "the rule of 10" which says you should eat at least 10 calories for every pound of your ideal weight. So if your ideal weight is 120, no matter how much over that you currently weigh, do not go below 10 times 120 which would be 1,200 calories a day. Since you will burn many more calories than this, your resting metabolism (unless you are lying in bed all day!), you will lose weight slowly but be much more likely to keep it off.

Very low calorie diets—in which the calories are under the rule of 10—are good for quick weight loss but should not carry on more than a few days. After that your body thinks it is starving. It now becomes more difficult to burn calories. Over the course of a few weeks, you could end up burning 20% fewer calories! Then when you start eating what you think is a maintenance diet, your metabolism is so slow that you end up gaining weight, and may even become heavier than when you started the diet!

On a long-term calorie-restricted diet, you experience low levels of leptin until you become obsessed with eating. You are much more likely to binge. I know; I've been there.

Another problem with very low calorie diets is that they can be stressful. As we will see later, a chronic stressful condition can cause cortisol to be released, and this adrenal hormone ultimately makes you store fat around the abdomen.

Another buzzword is "calorie shifting." The idea is not to allow your body to adjust to dieting. When you reduce your caloric intake, after awhile the body thinks it is in starvation mode and the metabolism adjusts. So you end up not burning as many calories as you used to. But if you don't diet every day, the body doesn't adapt. You could, for example, eat a maintenance number of calories one day, then lower the calories for two days, and then repeat the pattern. Or vary it so the body never knows exactly what is going on.

If you don't do alternate day dieting, your body's metabolism can simply adapt to the new low calorie diet. If it does, this is good, and indicates you are genetically capable of surviving a famine better than many of your peer. But the bad part is that when you decide to eat a normal load again, you gain the weight back. This rebound weight gain is observed over and over in most dieters and is called yo-yo dieting.

Be prepared to eat fewer calories once you reach your ideal weight. Neal Barnard, MD, points out that when you are heavier you burn extra calories. Your resting metabolic rate increases, not enough to melt away the extra pounds, but enough that your weight doesn't climb endlessly. I know from experience that when I weighed 148 I could eat to my tastebuds' content and not put on weight.

According to Barnard, when you lose weight, you generally lose one pound of muscle for every three pounds of fat. (The muscle you lose was used to support the weight of the fat.) So a loss of 20 pounds would include 15 from fat and 5 from muscle. Your body now burns about 9 calories less each day for every pound of weight loss. So when you design your maintenance diet, you need to subtract 9 x 20 calories, which means eating 180 fewer calories a day. If you eat right, and keep your insulin levels under control, your appetite should also decrease by 180 calories.

But on the bright side, as you lose weight, you become more insulin sensitive. This helps you become better at what Barnard calls the "after-meal burn," in which your body wastes calories by producing heating. This occurs especially after a meal that is high in complex carbohydrates. He sites a study published in the *American Journal of Clinical Nutrition* (1990) that showed that men who were overweight had a thermic effect (after-meal burn) of only 4%. (In other words, they wasted 4% of the calories as body heat.) But those at their ideal weight had a thermic effect of 10%.

There's another big advantage to losing fat, especially weight around the middle. A study published in *The European Journal of Endocrinology* (2008) showed that when menopausal women lost weight around the abdomen, the appetitive hormones were optimized. It became easier to keep the weight off because they were less hungry.

Now let's take a look at the issues of raw foodism and vegetarianism.

7

The Raw Advantage

Eating more and more raw food (100% raw is best!) can be a huge factor in weight loss. I have never seen an obese raw fooder.

Dr. Edward Howell spent a lifetime researching enzyme biochemistry. He pored over hundreds of published scientific studies on enzymes and reached some startling conclusions that impact health, longevity, and weight loss. He found that eating foods heated above 118 F causes all the enzymes to die, and that as we eat cooked food, our pancreas has to crank out enzymes. When this function is exhausted, we die. But if we eat raw foods, the enzymes to digest the food are already in the food and our pancreas has a much lighter load. We live longer, we are healthier, we have more energy. And it is easier to attain and retain our ideal weight.

One of the studies he reviewed showed that cooking food raises the glycemic index; that is, it makes the body respond by secreting more insulin (Rosenthal and Ziegler at George Washington University Hospital, 1929). It is well known that eating cooked starches (like potatoes or popcorn) causes the blood sugar to skyrocket. Some diabetics in this study ate *raw* starch and had very little blood sugar increase, the opposite of what would have happened had the starches been cooked They did not need insulin. The nondiabetics had a very slight increase in blood sugar. This proved that cooking raises the glycemic index of foods. As we will see later, this means foods become more fattening when cooked.

Howell found that raw calories didn't act like cooked calories. "Cooked calories excite glands and tend to be fattening. . . As a general rule we may say a raw potato is not as fattening as the same potato cooked. A raw banana is not as fattening as a baked banana. A raw apple is not as fattening as a baked apple" (Enzyme Nutrition, The Food Enzyme Concept, p. 107). He pored over various veterinary journals and learned that the way farmers fattened up animals for maximum profit was by serving them cooked food. Hogs, for example, would not get fat enough on raw potatoes, while cooked potatoes did the trick to make the farmer extra profit.

Lipase, the enzyme that breaks down fat for digestion, is absent in cooked foods. The traditional Eskimos ate enormous amounts of fats, but they were all eaten raw with the lipase intact. Dr. V.E. Levine of Omaha, Nebraska, examined 3,000 traditional Eskimos during three trips to the Arctic and found only one overweight person.

Lipase has been found to be deficient in obese humans. Howell cites a study at Tufts University School of Medicine (1966) in which tests were done on the abdominal fat of obese people and an enzyme deficiency was found in their fat deposits.

A raw diet which is low in calories does not have to leave one hungry or undernourished. But put someone on a low calorie diet of cooked and especially processed foods, and she will feel hungry, even obsessed with food. Put the same person on a low calorie *raw* diet, and she will feel great, full of energy, and satisfied. If she needs to lose weight, she will likely lose more weight on the raw diet than on the cooked one with the same number of calories.

Furthermore, a raw diet is not primarily about weight loss. Even when you reach your ideal weight, this is a way to "eat for life," in both meanings of the phrase. Your body on a raw diet has a much better chance at disease prevention and even disease reversal. Your body on raw receives the enzymes, vitamins, minerals, biophotons, and other nutrients lost in the fire of cooking.

How Do I Know if I Am Meant to Eat a Raw Diet?

Are you a living creature on Earth? If you answered "yes" to that question, you are genetically designed to eat a raw diet. Can you name any other creature that cooks its food? If cooking were necessary for health, how did people and our hominoid ancestors thrive without cooking?

As I explain in my book *The Live Food Factor*, a diet of uncooked food (primarily fruit, vegetables, nut and seeds) is without question the way we were designed to eat, and the way our primate cousins in the wild still eat. *The Live Food Factor* includes over 60 scientific studies proving the superiority of a raw diet.

One study bears repeating here: The Prisoner of War Diet. In that diet, a Japanese couple noted that prisoners of war were put on an approximately 800-calorie a day diet and were not faring very well. They decided to duplicate the diet, but have the 800 calories come from a raw diet in which the nutrients were not destroyed by cooking. They felt very well, were able to work, and were glowing in health. In fact the woman was able to nurse her baby and the baby felt fine and adequately nourished. This is amazing when you figure that producing milk in itself can use up hundreds of calories a day!

8

The Vegetarian Advantage

The most comprehensive nutritional study to date is the China study. It was observed that the average caloric intake (per kilogram of body weight) in the least active Chinese was 30% higher than among average Americans. Yet their weight was on average 20% lower!

In other words, the Chinese could add on about a third of our caloric intake in the USA, yet remain 20% skinnier!

What is their secret? They eat a mainly vegetarian diet, using meat sparingly. (This is changing among the growing middle class.)

T. Colin Campbell, PhD, bases his explanation of this phenomenon on considerable studies and research of how metabolism works. "Provided that we aren't restricting our calorie intake, those of us who consume a high-fat, high-protein diet simply retain more calories than we need. We store these calories as body fat, perhaps weave it into our muscle fibers (we call it 'marbling' in beef animals) and perhaps store it in the more obvious places, like our butt, our midsection or around our face and upper thighs" (*The China Study*, p. 100).

He adds, "Consuming diets high in protein and fat transfers calories away from their conversion into body heat to their storage form—as body fat (unless severe calorie restriction is causing weight loss). In contrast, diets low in protein and fat cause calories to be 'lost' as body heat" (p. 101).

Neal Barnard, MD, talks about how eating complex carbohydrates promotes and "after meal burn." This is a thermic effect of food, and a nice way to burn calories because all you do is eat, and the body wastes the calories by releasing heat. (This effect, however, lessens as we age.)

Barnard explains, "This after-meal metabolism boost depends on two things. First, some foods spark a terrific burn, while others provide none at all...The foods that cause the best burn are those that contain complex carbs (e.g., pasta, rice), or foods containing both carbs and protein...Second, the after-meal burn depends on insulin getting nutrients into your cells" (*Turn Off the Fat Genes*, p. 77, 79). In other words, you need to be insulin-sensitive for it to work. People who are overweight tend to be insulin-resistant. Yet, as they lose that abdominal fat, they become more insulin-sensitive.

In the following chapters we'll examine the macronutrients of fats, protein, carbohydrates and how they fit in with weight loss.

9

Know Your Fats

Every cell in your body needs fat for cell membranes. Fats are needed for hormones. Your brain is 60% fat. So if you try eating a diet with insufficient fats, you will not be healthy. And...you will not lose weight, at least not weight loss that you will easily maintain.

Fats can be divided into saturated, monounsaturated and polyunsaturated. You need to eat all three to be healthy, about a third of your fats coming from each category. But your body can make saturated and

monounsaturated fats from carbohydrates you eat. It cannot, however, make polyunsaturated fats, which is why these are called essential fatty acids.

When it comes to weight loss, not all fats are created equal. The polyunsaturated omega 3s are most helpful in weight loss. They are the ones you need to be sure and consume, since your body cannot make them.

Saturated Fats

The saturated fats are semi-solid at room temperature. They are short-chain fatty acids (butter, parts of coconut oil, palm kernel oil). These fats are easily digested and considered good, and contain fewer calories than the longer chain fatty acids. Cacao butter is 50-65% short-chain fatty acids, although 30-35% is oleic acid, which is monosaturated fat.

The medium-chain fatty saturated fats (coconut oil, palm kernel) are now known to be very good. Athletes and dieters use them for energy and for converting fat into energy rather than storing it as fat. Later we'll discuss incorporating these into the diet to burn fat.

The long-chain fatty saturates (meat) are the ones that have given fat a bad reputation. They lower the good cholesterol (HDL) and increase the risk of heart disease.

Trans Fats

Long-chain saturates also include hydrogenated or partially hydrogenated fats. Hydrogenation is a process that turns liquid fats into solids and is used in many restaurant and processed foods. These man-made fats have even been compared to plastics on a molecular level, and like plastics, stay in landfills indefinitely. They are used primarily because they lengthen the shelf life of foods.

These "trans fats" are poisonous and have played a huge part in the obesity epidemic as well as heart disease. New York City was the first city to make them illegal in restaurants and has since been followed by Seattle and Boston. California was the first state to ban them in restaurants. Trans fat gets stuck in your body, is hard to get out, and contributes to pimples, fat deposits, heart disease, cancer, diabetes, infertility, liver dysfunction, and obesity.

The FDA required labeling of trans fats starting in 2006. But there is a legal loophole: if the food has less than half a gram per serving, it doesn't have to be listed. The way to outsmart food companies (if you insist on eating processed food, which is ill-advised) is to count the number of grams from each type of fat. Subtract this total from the total grams of fat, and that would give you the amount of trans fat the food company tried to sneak past consumers.

According to Mark Hyman, MD, trans fats block your metabolism, create weight gain, and increase your risk of diabetes, heart disease, and cancer. "Those fats speak directly to your DNA, turning on a gene that slows down your metabolism, causing you to gain weight" (*Ultrametabolism*, p. 38). My favorite cheat from the raw food diet used to be eating popcorn at a movie theater. Yet, every time I did that, it seemed like my weight gain was palpable! The trans fat also gave me a hoarse throat.

If you are serious about weight loss or just plain health, never consume trans fats. They increase inflammation and are one of the most toxic things in the American diet. They were banned from Europe decades ago.

Monounsaturated Fats

Monounsaturated fats are liquid at room temperature and are considered healthful. These are found in olives, avocados, sunflower seeds most nuts, acai berry and chocolate. Canola oil is also monounsaturated, but it should not be used as it is genetically modified.

Polyunsaturated Fats

Polyunsaturated fats are also liquid at room temperature and also at colder temperatures. These are found in corn, flaxseeds, sesame seeds, sunflower seeds, fish, black currants and soy beans (though those are usually genetically modified, unless labeled organic). Evening primrose and borage oils also contain them.

The polyunsaturated fats include the essential fatty acids, omega-3s and omega-6s, which are so called because your body cannot produce them. It is therefore essential to include them in your diet.

Essential Fatty Acids

No question about it, if you want health, you've got to eat essential fats (EFAs). They prevent the skin from drying out, improve brain function, create hormone-like prostaglandins, help relieve asthma, PMS, arthritis, and obesity. And much, much more.

Omega 3s include alpha-linolenic acid (ALA), eicosapentaenoic acid (EPA) and docosahexaenoic acid (DHA). Omega 3s are critical for great health. They lower the risk of heart attack, lower the LDL (bad cholesterol), inhibit cancer tumor growth, fight inflammation, help prevent diabetes, and help maintain muscle mass. They boost the brain in the areas of mood, increasing serotonin levels and attention span. They cause that "raw glow" radiance to the skin. They are very important in energy production within the mitochondria. They decrease symptoms and severity of rheumatoid arthritis and skin conditions such as eczema. They improve the immune system. They are used in cell formation and maintenance.

Omega 3s play a huge role in keeping us slim. They are powerfully anti-inflammatory, and as we will see later, inflammation is linked to obesity, aging and disease. Omega 3s increase thermogenesis, which means they can get the body to waste calories in the form of increased body heat instead of storing them as fat. They switch on key genes involved in fat burning. They decrease the appetite and stabilize the blood sugar and increase insulin sensitivity, lessening the roller-coaster carbohydrate highs and lows. They are used in the creation of hormone-like messenger chemicals (prostaglandins and eicosanoids) which regulate key metabolism functions.

They also stimulate the secretion of leptin, a hormone important in suppressing appetite.

The main food sources are flax seeds, hemp seeds, chia seeds, walnuts, fatty fish and their oils. Smaller amounts are found in nuts, wheat germ, greens, and sprouts, navy beans, kidney beans and soy beans. Seaweed, grasses and greens also have omega-3s, but since they are very low in fat content they should not be considered a primary source.

DHA and EPA: super important for the brain, weight loss, and well-being!

EPA is needed for creating hormones that defend against trauma and infection. It is also influential in behavior and mood.

DHA is essential for the nervous system and brain function. The body requires DHA for cell membranes of the synapse (to transfer information), for the retina of the eyes, and for the mitochondria to make ATP for energy. People with Alzheimer's disease have 30% less DHA than those of healthy people. Dr. Barry Sears has worked with Alzheimer's patients, giving them fish oil. Results included regaining memory of self and loved ones, regaining the ability to walk, being able to play cards and tell jokes again, and even getting out of the nursing home!

DHA and EPA is linked to increased intelligence, enhanced immune system, improved emotional well-being, better attention. Supplements of fish oil rich in DHA and EPA have been used to treat attention deficit disorder and mental disorders such as manic-depressive disorder.

Most healthy people can eat AHA from plant sources and it will break down into EPA and DHA. However, only 7 to 15% of the dietary ALA may be converted to EPA, and much less is converted to DHA. And this is in a healthy young person!

The conversion rate is far less in the unhealthy or elder. Some people have impaired enzyme (D6D) and are unable to convert ALA into DHA and EPA.

People with cancer, diabetes, advancing age, viral infections, allergy-related eczema, or a high stress level may have impaired their enzyme. Furthermore, a toxic lifestyle, such as overeating saturated or transfatty acids, over-consuming alcohol, smoking, taking prescription drugs, eating processed foods with additives may impair the enzyme. A premature baby will not make the enzyme till six months old.

The case can be made for these people to take purified fish oil instead to obtain the EPA and DHA, since fish oil EFAs do not require the D6D enzyme to produce EPA and DHA. Just make sure the fish oil is purified, or else you will be consuming mercury. Mercury is very toxic and the levels are concentrated in the oil, since fat is where the body store toxins. Though most of the studies have been done on fish oil, recently krill oil has been found to be more bioavailable than fish oil.

Vegetarians can opt for eggs rich in DHA (the labels usually boast this fact) and vegans can get DHA from certain types of algae.

Deliberate Dumbing Down?

As a teacher in the school system for many years, I noticed there was a subtle "deliberate dumbing down" going on. For example, I was actually called on the carpet for teaching grammar at an inner city high school! I thought, well, these kids do not know grammar, the foundation for writing. So I will transfer to elementary school to make sure they learn grammar." When teaching second grade, my jaw dropped when I was told, "Grammar? We don't need to teach grammar! You know grammar without having been taught directly. Everybody knows grammar!"

But the most extreme dumbing down is not happening in the schools. It is happening in the diet. According to Dr. Barry Sears, the intake of long-chain omega 3s in America has decreased by 80%. This decrease in DHA has been proven by testing the amount in breast milk. The breast milk of American mothers has one of the lowest in the world. (Milk from vegan mothers is also alarmingly low in DHA since DHA is rare in the plant world.) Low DHA levels in breast milk mean the brains of these babies are not getting the nutrients they need to develop properly. Sears calls this "the greatest public health disaster of the past century" and claims we "run the risk of regressing as a species."

And the not so deliberate...

Once I was with a couple that had babies and the father joked that "motherhood destroys brain cells" because his intelligent wife was now talking baby talk. There may be some truth to that: DHA is actually extracted from the mother's brain when she is pregnant, in order to form the baby's brain. If she eats a diet rich in DHA, it could take four years to replace! If she is not consuming adequate amounts of fats rich in DHA, her offspring become progressively less intelligent, according to Dr. Sears, who bases this on animal studies (*The Omega Rx Zone*, p. 194). This forms the basis of the idea that the first born is often the most intelligent.

Lessons from the Eskimos

In one of history's most extensive nutritional studies, a dentist named Dr. Weston Price studied traditional societies that were eating traditional diets before becoming "modernized." He found the healthiest group to be the Eskimos. Raw fooders note that the Eskimos were eating 100% raw. Meat enthusiasts will note that their diet was nearly 100% animal products (not too many plants in the arctic!). But recent research proves that one of their health secrets was the high amount of omega 3s with DHA and EPA from all the fish fat they were consuming.

Remember, if the omega 3s come from animals, the body doesn't have to convert them to DHA and EPA. This is very hard to do with people over 35 or people who are toxic or sick. If you are struggling with health and weight issues, you might consider taking marine fat in the form of oil capsules.

Very recent research indicates that krill oil is even better. For one thing, it is five times more absorbable than fish oil. Of course, these little tablets are not raw, but the omega 3s with their DHA and EPA are nonetheless intact and bioavailable. If you are not vegan, this would certainly be the fastest way to health and weight loss, when combined with a healthy diet.

Dr. Sears recommends you experiment until you find the right amount for you. He suggests starting out with a gram a day. For example, you could take a gram of mercury-free fish oil for a month, giving it a month to kick in (though you should feel more energy, a sharper brain, and other benefits faster). Then increase it by a gram a day until you see no more benefits. But krill oil is five times more bioavailable than fish oil, so one gram a day should be plenty for healthy people.

Be sure that if you are taking krill or fish oil, you are getting purified, mercury-free kinds, or else the benefits will be far outweighed by the toxins!

You don't want to take a dose that would be too much, because, according to Sears, too many of the "good" hormones can cause flatulence and diarrhea. It can also depress your immune system, increase the incidence of stroke, increase the "bad" LDL cholesterol, and/or increase blood sugar in diabetics. He suggests getting a blood test after a month on his program to see if you are at the right level (*The Omega Rx Zone*, p.95).

Dr. Perricone starts his patients who want fast weight loss on a megadose of 9 grams of purified fish oil per day! But this is only temporary and is much too high for the maintenance diet of a healthy person.

A big concern with taking oil is that overfishing threatens the ocean ecosystem. Although krill has been called a "renewable resource," it remains to be seen how renewable it will be when its popularity catches on! Marine life such as whales and seals depend on krill for food. Global warming is also reducing the krill population.

If you are vegan, or have ecological concerns, you could take an algae-based DHA supplement.

Omega 6s include linoleic acid (LA), gamma-linolenic acid (GLA), and conjugated linoleic acid (CLA) which is a form of LA. LA breaks down into GLA, using the D6D enzyme. The omega 6 fats help lower blood pressure, cholesterol levels, and the risk of heart attack and stroke. They are great for hair, nails and skin. They stimulate the thyroid. They activate the brown adipose tissue to burn fat rather than store it in white adipose tissue. They increase the metabolism to burn fat. They help stop cancer cells, help prevent arthritis, relieve PMS, and create hormones that reduce inflammation, dilate blood vessels and inhibit blood clotting.

Food sources for LA include Brazil nuts, sunflower seeds, corn, hemp, olives, peanuts, pumpkin seeds and their oils, as well as pumpkin seeds, sesame seeds, evening primrose seeds, borage, and canola oils. (Again, avoid canola oil which is genetically modified.)

GLA is believed to be important in many areas of metabolism. Ann Louise Gittleman emphasizes that "GLA-induced prostaglandins regulate brown adipose tissue (BAT) by acting as a catalyst to either turn it on to trigger calorie burning or turn it off to trigger calorie conservation" (*The Fat Flush Plan*, p. 7).

Food sources for GLA include hemp seeds, hemp oil, spirulina (bluegreen algae), borage oil, black current seed oil, and evening primrose oil. According to Barry Sears (*Enter the Zone*, p. 131) if we eat 3 to 5 bowls of oatmeal (not the instant kind!) per week we can get enough GLA. Later, in *The Omega Rx Zone* (p. 88), he recommends not taking more than 1 to 5 mg per day of GLA (the equivalent of one capsule per week of borage or evening primrose oil). This is because any extra GLA will be metabolized into excess arachidonic acid, which destroys hormonal benefits that the Zone Diet produces.

Food sources of CLA include beef (only if *grassfed*, *not grainfed*!), kangaroo meat, whole milk, cheese, and eggs. The plant source is safflower oil.

Note: you can get by with a small amount of omega 3s (such as 1% of your caloric intake), but only if you don't eat many omega 6s. The omega 6 fats compete with omega 3s to get into the cells and can crowd out the omega 3s.

The ratio of omega 6 to omega 3 often goes as high as 20:1 in the standard American diet. The recommended ratio for optimum health varies from 4:1 to 1:1.

People who switch to a primarily raw food diet suddenly get that "raw glow" as well as a huge energy boost. I believe this is not so much because of all the omega 3s they eat, but rather because they stop eating all the omega-6s in the standard American diet. Suddenly their body can make use of the omega-3s they get from flax seeds, hemp seeds and walnuts...

Omega 9s are not classified as essential fatty acids, as they can be created by the body from saturated fats.

10

Fight Fat with Fat!

In the 1980s there was a theory that we could eat all the carbs we wanted and that these would not be stored as fat. Fat on the body came mostly from fat in the diet, the theory went. And there were studies to prove this theory, of course. So the idea was to eat as little fat as possible. While there is some truth to that, in that fat in the diet can more easily be stored as body fat, those who adhered to this theory went overboard in undereating essential fatty acids. They suffered from depression, fatigue, PMS, and all sorts of maladies. Put simply, your body needs fat. Next to water and oxygen, fat is the most important component of the body.

We now know that we need fat to burn fat. We need the good fats to boost our metabolism. Fats are needed to make hormones that burn fat. Our brains need fat, especially the kind with DHA.

I have struggled all my life with abdominal fat. It has been a lifelong issue because even though the rest of my body was slim I have had a bit of abdominal fat since kindergarten, when I was chosen to read a "round robin" poem and in first grade when a boy called me "Chubby Checkers" (a popular singer in the 1960s who was slightly overweight).

Recently I discovered the secret of getting rid of abdominal fat by reading *The Flat Belly Diet*, written by the editor of *Prevention* magazine. You break up your food into three meals and one snack, each one 400 calories. (This is not a diet of lower calories, which makes it so easy to follow!) Each meal/snack should include about 100 calories of monosaturated fatty acids, called MUFAS. This could be two tablespoons of nuts (macademia nuts are especially high in MUFAS), 10-15 olives, 1/3 of an avocado, a tablespoon of acai berry, a tablespoon of olive oil, or an ounce of chocolate. I disregarded the meal suggestions in the book (which included a few atrocities such as boxed cereal) and just ate my regular raw food favorites.

Although the book doesn't discuss this, you burn even more fat if you add in omega 3 fatty acids (chia seeds, flax seeds, purified fish or krill oil). The MUFAS help your body to absorb the omega 3s, which are fat burners, as Dr. Sears and Dr. Perricone like to point out. I found the abdominal fat melting without the least bit of deprivation, and lost five pounds of belly fat over the holidays!

In the following chapters I am going to introduce you to fats that you need to make serious friends with. You may be already eating them if you are a raw fooder. Just be sure to make them a staple in your diet, especially when trying to lose weight and keep it off.

11

Seed Power!

I got so excited while researching all the seeds, and finding out how nutritious they are, that I entertained the thought of doing a book just on seeds. A wider variety of seeds are now a huge part of my diet.

Hemp

The more I researched, the more convinced I became that hemp is a superfood that contains super fat and superlative protein. Hemp contains GLA, found to be effective in weight loss. Hemp contains all the essential fatty acids (fats) and all the essential amino acids (protein).

Lynn Osburn calls hemp seed "the most nutritionally complete food source in the world" (*Hemp Line Journal*, Vol. I No.2). She explains that hemp seed oil is 55% linoleic acid (LA) and 25% LNA (linolenic acid), or 2.2 times more LA than LNA, which makes it "the best seed oil for optimal health

and prevention of fatty degeneration." Osburn concludes that "plants have created the perfect container to safely store the EFAs and protect them from light and oxygen damage. It is the seed. And as long as we get our essential fatty acids by eating whole seeds, the life force within us is charged with vitality. Hemp seeds contain the perfect balance of the essential fatty acids required by the human body. Hemp seed oil is indeed the oil of life."

It is illegal to grow hemp in the USA although it is legal to sell it here. Perhaps that is why it is so expensive. These laws need to be changed!

Warning: before you take a drug test, be sure to mention that you eat hemp. You might fail the test due to some THC content. (The trace content is not enough to alter your consciousness, though.)

Flax

Entire books have been written about the wonders of flax seeds. Flax has been used in Canada in treatment of breast cancer. It has been proven in scientific studies to reduce weight, reduce the risk of cancer, help diabetics, improve brain and mood disorders, reduce asthma, reduce arthritis and other inflammatory diseases, keep the heart healthy, and more.

If you are a raw fooder, I don't need to tell you how wonderful flax seeds are. They are very common in raw food crackers, breads, and gourmet dishes. They are one of the richest foods in omega 3s. Sometimes raw fooders jump in directly from the standard American diet in which the omega 6 to omega 3 ratio is often 6 to 1 (instead of 1:1 or 2:1 that is the standard recommendation). These people suddenly experience a brain awakening like no other, and rapid weight loss, just because of these delicious, inexpensive seeds!

With all of the glamour attributed to flax, imagine my surprise, when researching for this book, to discover that flax can be toxic! Flax contains antagonistic factors of the vitamin B group. Studies done by Toug, Chen and Thompson (1998) as well as Rickard and Thompson (1998) demonstrate that flax contains toxins that have made medical doctors advise against its consumption for pregnant and lactating women! Human consumption of flax has *even been banned* in France and limited in Germany, Switzerland, and Belgium!

The toxin in flax is *cyanogenic glycosides* (also found in lima beans, sweet potatoes, yams, and bamboo shoots), which metabolize into yet another substance called *thiocyanate* (SCN), which over time, can suppress the thyroid's ability to take up sufficient iodine. This means overconsumption of flax, in addition to being toxic, can actually indirectly cause us to gain weight by suppressing the thyroid, which regulates the metabolism!

Ann Louise Gittleman advises taking no more than three or four tablespoons of flax per day. She claims that baking or toasting the seeds deactivates the toxic cyanogenic glycosides but (if under 300 F) preserves the beneficial omega 3s (*The Fat Flush Plan*, p. 167). However, some researchers (Muir and Westcott, 2000) found that the free form of SDG remained stable even in baked goods.

Gittleman points out, however, that *flaxseed oil is free of cyanogenic glycosides*. But most flax oils, even when labeled *cold pressed*, are not raw. They are usually heated at 160 F.

Chia

Americans need to create a demand for Chia seeds. They were used in North America for thousands of years during the Aztec reign. The Aztecs even demanded that the nations they defeated pay them chia seeds as one of their tributes. Chia was one of the four main components of the Aztec diet (the other three being corn, beans, and amaranth).

Chia was used for flour, drinks, oil, medicine, and religious ceremonies. Unfortunately, the Spanish government decreed the elimination of everything related to pre-Columbian religions (*Chia* P. 77). This no doubt led to chia's not being used for the centuries. Maybe this is why chia seeds cost about *five times as much as flax seeds*. Recently chia has made a comeback because of the growing awareness of the need for omega-3 fatty acids. Perhaps the cost would come down if more people demanded them.

Chia seeds are rich in omega 3s like flax, but without the toxins. Chia seeds are 50% protein, which is the highest of any seed. Most seeds contain only 20-30% protein. Besides their nutritional content, another huge advantage of chia seeds is that they stay fresh longer than flax, even when ground into flour. The Aztecs stored chia flour for months and even years before using it as food because it didn't go rancid. So you could ground up chia seeds to use in crackers and not have to store them in the refrigerator the way you do with ground flax.

Sesame

Sesame seeds are rich in calcium, containing 90 mg. per tablespoon for the unhulled seeds (about the same as 1/3 cup of milk). Calcium has been a proven weight-loss booster.

Pumpkin

Pumpkin seeds contain Vitamin A and betacarotene. They also contain the amino acid tryptophan, which is a precursor to serotonin, a neurotransmitter than helps us relax and sleep.

Sunflower

Sunflower seeds are rich in omega-6 essential fatty acids. They are also a good source of Vitamin E, B Vitamins, and minerals such as potassium, magnesium, iron, phosphorus, selenium, calcium and zinc. Additionally, they are rich in cholesterol-lowering phytosterols.

Become a seed activist! Petition that the government legalize the growing of hemp here so that the cost will go down. Start hounding seed vendors to get chia seeds so that their cost will also go down as they can get it in bulk. Sprout seeds on a daily basis. Make crackers from various seeds.

12

The Pros and Cons of Oils

There are several reasons to avoid or minimize use of most oils. For one thing, the fiber and protein are gone. Think of the commercial popular in the 1980s in which the little old lady is eating a hamburger, lifts up the top bun, and complains, "Where's the beef?" What is the point of removing the valuable protein from seeds and nuts? What is the point of removing the valuable fiber? It is always best, when possible, to get nutrition from whole foods rather than one macronutrient separated from the others.

Another consideration is that the vast majority of the oils are not raw. The term *cold pressed* has fooled a lot of people, but in fact it has no meaning in the United States. The term "raw" in the raw food movement means "not heated over 118 F" since that is when the enzymes die, and other nutrients begin to be destroyed or damaged.

Fat expert Udo Erasmus explains that the lowest temperature at which it is possible to extract oils using the expeller press method is around 122 F, though on the inside of the press the temperature can go up to 160 F. Yet these are labeled "cold pressed" because, compared to other temperatures, they are "cold." He explains that in Switzerland the term *cold-pressed* means the oils have not been treated at temperatures higher than 122 F. But North America has no such agreed-upon definition (*Fats that Heal, Fats that Kill*, p. 142).

A few are indeed raw, and usually indicate that on the label. For example, Napa Valley Naturals has an extra virgin organic olive oil that says on the label, "cold pressed at temperatures below 98.5 F."

With others, you should call the company and ask what the highest temperature the oil has been subjected to in the extraction and processing. Although studies have shown the power of certain oils in weight loss and health, think how much more potent these fats are when they are raw, with the enzymes and nutrients all intact. Also, raw oils would not contain the toxins of heated oils.

Finally, oils are expensive, whereas the seeds from which these are extracted are generally inexpensive.

Sometimes, however, getting the oil is called for. The food in question may not be available where a person lives. One may not be able to find good coconuts, for example, and prefer to use coconut oil or butter.

Secondly, one may not wish to consume the food in question. For example, if one does not like fish, she might prefer to take fish oil capsules which have been purified of mercury.

Sometimes eating enough of the food to get the good fat you need just isn't possible because it would require eating too much bulk. To bring balance back to a body or brain starving for good fats, it might be necessary to get extra fats (via oils) for a temporary healing period. An example would be fish oil: Dr. Barry Sears reversed Alzheimer's using megadoses of purified

fish oil, and Dr. Perricone got his patients to lose weight with these oils. Had they eaten the fish instead, it would have been too much bulk and too much toxic mercury!

Sometimes the food, but not the oil, is toxic in more than minimal doses. We have learned that because of a toxin found in flax seeds, but not in the oil, use of flax seed oil can be warranted when you want to greatly increase the use of omega 3s to burn fat. Although the oil is almost never raw (call the company to find out!) and thus does not contain enzymes, if labeled "cold pressed" it could be heated at a low enough temperature to maintain the effectiveness of the fat-burning omega 3s.

Sometimes an oil contains a high concentration of a valuable nutrient. An example is extra virgin olive oil from Italy, which contains hydroxytyrosol, a phytochemical that reduces inflammation by inhibiting enzymes that produce pro-inflammatory eicosanoids. Dr. Barry Sears claims this is "the most powerful antioxidant known" and thus explains the "Crete paradox" of how the Mediterranean population enjoys a diet of 40% fat yet has a very low rate of heart disease. Yet he warns that "most of the good stuff never leaves Italy" (*The Anti-Inflammation Zone*, p. 91-96) so most of the olive oil we import from Italy is low in hydroxytyrosol.

Finally, as we will see in the next chapter: sometimes the fat by itself simply *tastes good*.

13

Too Good to Be True: Coconut Oil or Butter

I once counseled someone switching to a raw diet to eat coconut butter. She loved it. Then when I told her this would have the side effect of causing her to lose weight, she replied, "No way! Something that tastes this decadent can't possibly help me lose weight!" But it is true.

Coconut oil or butter contains medium chain fatty acids or triglycerides (MCTs). Most vegetable oils are composed of long chain triglycerides (LCTs). LCTs are usually stored as fat, while MCTs are burned for energy and increase metabolic rates, leading to weight loss.

One study showing that MCTs help keep weight down is "Overfeeding with medium-chain triglycerides in the rat" (*Metabolism*, 1987). The study points out that the body is less inclined to store fat with MCTs and that eating them is even better than a low fat diet at decreasing stored fat.

Another study involved comparing the effects of 400-calorie meals of MCTs with LCTs by measuring metabolic rates prior to and six hours after the meals. The MCT meals were found to increase the metabolism by an average of 12%, while the LCTs only increased the metabolism by an average of 4%. The authors concluded that consuming MCTs "over long periods of time produce weight loss even in the absence of reduced [caloric] intake"

("Thermic effects of medium-chain and long-chain triglycerides in man," *American Journal of Clinical Nutrition*, 1986).

Farmers have known for years to feed animals LCTs, such as soybean and corn oil, to fatten them up, and to feed them MCTs to trim them down. Now that people are demanding leaner meats, some farmers feed their animals coconut oil to get them trimmer.

Robert and Shelly Young recommend coconut oil for reducing acidity. They also cite as study in Yucaton, where coconut is a staple in the diet. The people there had a metabolic rate of 25% higher than those in the USA! (*The pH Miracle for Weight Loss*, p. 88).

Another bonus with coconut oil is that it doesn't become trans fat when heated. It can safely be used for cooking.

Eat at least 2 teaspoons a day of coconut fat.

14

Protein

As I explained at length in *The Live Food Factor*, we need far less protein than the government would have us believe. The Four Food Groups and the Food Pyramid were designed by food and agriculture companies and cattle raisers that lobbied to have us believe we needed certain foods (especially meat, dairy and grains) in higher amounts than we really do.

And if you eat the protein raw, you need even less protein since the amount absorbed doubles. This was demonstrated in a study at the Max Planck Institute in Germany.

On a raw food diet, I lost all consciousness of protein. I really wasn't concerned. But while researching this book, I came across many studies that show that consuming protein with each meal is helpful in weight loss. This is because eating adequate amounts of protein stimulates the fat-burning hormones *qlucagon* and *growth hormone*.

Many weight loss experts, such as Mark Hyman, MD, recommend including protein at breakfast every day.

Normally, I would not suggest eating refined foods such as hemp seed powder. But it is a very convenient way to add extra protein to a meal when you already have enough fat and don't need more from the hemp seeds. It is also good for when you just feel you need some extra protein. Maybe you are not hungry enough to eat the one cup of hemp seeds, but would like the protein. Remember too, even on a raw diet with all the good ingredients, you still won't lose weight if you are consuming more calories than what you use. So it will be hard to lose weight if you are eating too many fats, even the good ones.

When I began my raw food journey, I found sprouted legumes very hard to digest. I got bloated. Now I find them easier to digest and am including them more in my diet. (However, I still can't eat nearly as many sprouted beans as I could the cooked ones.) Legumes are one of the only

plant sources of glutamine. Glutamine is important in reducing muscle deterioration. As we age, we lose muscle mass. Glutamine in anti-catabolic: it prevents muscle breakdown caused by extreme stress (which includes the stress from dieting!)

One problem some raw fooders have after eating 100% raw for several years is loss of muscle mass. Protein needs vary in the individuals, and some need more protein. These people should consume raw hemp and/or sprouted bean protein powder—or perhaps eat only 80% raw, with 20% of their calories from cooked beans.

If one is trying to heal from a disease, it is best not to eat fermented foods. But for those of us that just want to lose weight, some extra protein on a raw diet could include tempeh. It is cooked soybeans, but since enzymes are added in the fermentation process, it is often enjoyed by raw fooders. Soy is not a good food when processed (as Americans do with soy milk, soy cheese, soy ice cream, etc.), but tempeh and tofu are the traditional ways of the Orient. Used in moderation, it is a great way to add protein while still eating raw. Just be sure it is organic, otherwise it is most likely genetically modified!

15

Carbohydrates, Blood Sugar, & Insulin

Much has been written and researched about blood sugar and how it relates to weight gain and loss. The bottom line is, if you eat too much high glycemic food, food that puts a lot of sugar into the blood quickly, the pancreas releases too much insulin, a hormone that tells the body to store fat.

Let's say you eat something sweet but with fiber, such as an apple. Your pancreas secretes the hormone insulin. Insulin gets the apple's sugar into the cells' mitochondria, the factories that burn it into energy. If you are slim, healthy, and eating a healthful diet, the rise in insulin after eating is good. Insulin will work to suppress your appetite, get the sugar into the mitochondria, and take excess glucose (sugar) into the muscle for storage as glycogen.

But if you eat more sugar than you need, and there is not enough fiber to slow down the sugar absorption, then the sugar gets into your bloodstream fast. This happens with refined sugar or other high glycemic foods. You feel a crash because your blood insulin levels get too high. You want to eat again.

If you keep eating high glycemic food over the years, there is so much insulin that the cells become resistant. Think of a room of noisy children. You raise your voice and tell them to quiet down. They stop and obey. But if you keep raising your voice at every little noise they make, they learn to tune you out. They ignore you. They become resistant to your pleas. That is what

your body does with insulin. It loses insulin sensitivity and becomes insulin resistant.

This becomes a problem. You've got all this excess insulin and so your body tells you to eat more sugar to balance things out. You get hungry, especially for carbs! So you eat more, get more insulin, which makes you hungry for more carbs, and on and on. And all that extra sugar gets stored as fat! Two of the messages that insulin gives the body are **eat more** and **store energy as fat**. This is a prediabetic condition known as metabolic syndrome or syndrome X.

Arthur Agatston, MD explains it like this: "When your pancreas detects a rapid rise in blood sugar, it pumps out a correspondingly high level of insulin to do the job. That results in a rapid plunge in the blood sugar level. The insulin end up doing its job a little too well—the blood sugar level drops so low that new cravings are created, requiring more quick carbohydrate fixes. In order to satisfy so many cravings, of course, we take in well beyond the nutrition we require. We overeat, and this leads to more fat, more insulin resistance, more hunger, and more weight gain—a vicious cycle" (*The South Beach Diet*, p. 66).

Fred Stutman, MD, explains the perils of insulin levels like this: "The increased insulin levels that are needed to fill the muscle and fat cells with sugar also inhibit the production of a muscle protein called *glucagon*, which is a protein that normally signals the body's fat cells to burn stored fuel when the blood glucose levels fall below a critical level. Since this production of glucagon is inhibited, the fat cells store more fat instead of burning fat for the production of energy. Result: Less energy produced, more fat stored" (100 Best Weight Loss Tips, p. 9).

The reason the low fat diets of the 1980s did not work for most people is that they were eating so many high glycemic foods (potatoes, popcorn, rice cakes, grains, cereals, pasta, fat-free snacks) that they were flooded with insulin. As I mentioned earlier, I would often fall asleep after one of those

Women also developed drier skin, more premenstrual syndrome, and irritability. Not enough fat was eaten to do its work of creating hormones, feeding the brain (which is 60% fat), and softening the skin.

High levels of insulin are also pro-inflammatory, which increases the vicious cycle of weight gain, as well as promotes the aging and disease processes.

Eating high glycemic sugary and starchy foods ages and inflames the skin and body. These foods rapidly convert to sugars that attach to the collagen in the skin and other parts of the body in a process called "glycation." At the point of attachment they create inflammation which produces enzymes that break down collagen, which creates wrinkles. This glycation process causes cross-linking in our collagen. It makes the skin stiff and inflexible.

Eric Berg, DC, goes so far as to say, "If there is even a little bit of sugar in the diet, or if insulin is kept just slightly too high, fat fuel cannot be made available for energy. You could have the best diet throughout the day and then eat a small piece of something sweet at night and nullify all the

good eating" (*The 7 Principles of Fat Burning*, p. 118). Berg claims that sugar has more an impact on your metabolism than anything. This is because it stimulates the fat-storing, hunger-causing insulin.

On the other hand, eating a very low carb diet doesn't work either. In the 1970s, the Stillman Diet and other such diets that are high in meat and low in carbs included such high levels of saturated fats that people developed risk of heart disease.

A modified version of this (the Atkins Diet) came out in the 1990s, perhaps as a backlash against all the high carb, low fat diets. But I gained weight on the Atkins diet, because of all the fat in meat, and because eating too much of even protein (or overeating anything) can stimulate insulin. Another problem with the Atkins diet is that it is based on the idea that it is based on the idea that insulin is bad. Insulin is not the problem. Insulin resistance is the problem. And like most people, the diet was not feasible for long term because it was way too low in carbs.

A high protein diet has been proven dangerous to the kidneys, at least for people with kidney disease (which some may have unknowingly). High protein diets increase the risk of osteoporosis, since the acidity of the protein causes the bones to leach out calcium. A diet which is too high in animal products and saturated fats is also linked to cancer.

These diets also lack a lot of essential antioxidants found in fruits and vegetables. They are also low in fiber, since animal products contain no fiber. People on such diets also deprive themselves of the good carbs, the fruits and vegetables that are high in phytochemicals rich in antioxidants. These phtonutrients found in colorful fruits and vegetables prevent cancer and other diseases, reduce inflammation and mitochondrial damage, and turn on genes that make you burn fat and age slower.

After the extremes of low fat and low carb diets, authors of diet books such as *The Fat Flush Plan* by Ann Louis Gittleman and the Zone books by Dr. Barry Sears have stressed the importance of eating fats, especially the omega-3s, while also eating "good carbs" that are low glycemic. These newer diets were designed to keep the blood insulin low by excluding high glycemic carbs. These diets also include less saturated fats and more of the good ones.

We now know that carbs, as well as fats, are not all created equal. Foods that run high glycemic and should be generally avoided include sugary processed snacks and desserts, cooked potatoes, corn, popcorn, refined grains, bread, pasta and rice cakes. High glycemic foods that are healthful in moderation include dehydrated fruits, dates, honey, watermelon, grapes and fruit juices. These foods can also be eaten with fiber, such as oat or wheat bran, to slow down the glycemic effect.

A study done at Harvard University (Journal of American Medical Association, 2004) demonstrated the importance of a low gylcemic diet. Two groups were given 1,500 calories a day. One was given a low-fat diet, while the other was given a low glycemic diet. It is important to note that the low glycemic diet was not low in carbohydrates, just low in refined carbohydrates. It had the "good carbs" but not the bad ones.

Both groups lost weight, but the people on the low fat group had a lower metabolism, higher blood sugar, higher triglycerides, higher blood pressure, and higher hunger! They also had a higher level of C-reactive protein, a marker of inflammation. They were also less likely to keep the weight off. This is a powerful reminder of the importance of the glycemic effect that food has.

Another problem with high glycemic carbs is that they increase inflammation. A study published in *The American Journal of Clinical Nutrition* (2002) showed that a diet high in high glycemic foods like white potatoes, white bread, and white rice correlated with a high level of CRP, the inflammation indicator.

The good news is we can eat carbs, as long as they are the good ones, the ones filled with phytonutrients and fiber. We just need to have a low glycemic load. So if we eat a "bad" carb as a treat, balance it by eating half a cup or so of oat or wheat bran.

Another trick is to eat half a teaspoon of cinnamon every morning. Cinnamon has been found in studies to simulate the production of glucose-burning enzymes and increase the effectiveness of insulin. Taking just a half teaspoon or a teaspoon every morning will help stabilize your blood sugar all day. Sprinkle it on melons, or mix it into yogurt, bran or smoothies.

Eating carbs with fat or with protein also slows down the release of the sugars into the bloodstream. So does eating them with acidic foods like lemons or vinegar.

Foods that are low glycemic are critical for turning on our fat-burning genes. Vegetables and some fruits are high in potassium, and potassium helps lower insulin. It also helps rid us of "false fat" water weight.

We can also lower the glycemic load in a meal by eating fiber-rich foods such as legumes. Nicholas Perricone, MD, claims that "legumes exert as strong an effect on blood sugar regulation as any drug yet developed." He also recommends buckwheat since it is the richest food source of rare carbohydrate compounds called fagopyritols, which reduce sugar levels. Legumes and grains such as buckwheat are full of enzymes when sprouted. Sprouted buckwheat makes a great grain for granola.

More good news: as we lose body fat, insulin gets more and more efficient. We become less resistant and more sensitive to insulin.

To learn more about the glycemic index, go to www.glycemicindex.com. You can also go to the glycemic database there and plug in any food to find its level on the GI. Some foods that are especially bad are baked potatoes, beer, and corn. Cooked foods are higher in the GI index than the same food in raw form.

But it is not just the GI of the food that can induce excess insulin release: Overeating of any foods will do the same!

Just remember: high glycemic carbohydrates should be eaten with fiber (add some bran if the fiber is not in the food), fat, cinnamon, acids (lemons, vinegar) and/or protein. These factors slow down the release of sugars into the blood stream.

The next few chapters will deal with recent weight loss research....

16

When Fat is Not Fat

While working with clients over the years, Ann Louise Gittleman (creator of the "fat flush diet") noted that many were resistant to weight loss. These people, she noted, had a history of drug use (birth control pills, medications, hormone replacement, etc.) as well as hidden food allergies or sensitivities. Much of this weight is actually waterlogged tissues. This is why when one goes on a detox diet, they often lose fat quickly.

Losing real, solid fat would take a long time since you have to burn 3,500 calories more than you take in just to lose a pound of fat. This is why when dieting, and eating 500 calories a day less than what they use, you lose only one pound of fat a week. Yet most dieters find that they lose weight much faster in the beginning. This is due to water weight.

Robert and Shelly Young likewise found that fat is used by the body to bind up acids and sometimes remove them from the body, but usually fat is used as a way to *store* those acids. It thus protects the inner organs from these toxins (*The pH Miracle for Weight Loss*, p. 14).

Food sensitivities, also known as hidden allergies, also cause a person to hold onto water weight.

Dr. Eric Berg found in his practice that often someone very obese would be found to have *normal* fat levels! As an example, a male weighing 264 pounds had 24.6 percent body fat. So most of that excess weight was actually water. This fluid retention happens when people eat fast foods or processed foods, which are full of sodium (salt) and salt retains water. This improper balance between sodium and potassium can be corrected by getting off processed foods and eating vegetables, which are rich in potassium.

It's the Toxins, Not the Fat!

Since around 1900, people have introduced 80,000 new chemicals into the environment. As I explain in detail in *The Live Food Factor*, we have had plenty of time to adapt and coexist with bacteria, viruses, parasites and yeast. A healthy immune system and alkaline body can handle any of these "critters." But man-made chemicals are toxic to even the most pure and healthy of us.

Increasingly, weight loss experts are doing the world a huge favor by teaching people that to lose weight, you have to detoxify. Natural Hygienists have been teaching people for over a century that to heal yourself from *any* disease or condition, you have to detox. So, as these nutrition experts are

waking people up to the power of detox for weight loss, people won't help but notice the broader health implications.

Ann Louise Gittleman was one of the pioneers in widely publicizing the concept that getting free from fat necessitates removing toxins from the body (especially the liver, the main detoxer). Just as chapter 4 of *The Live Food Factor* explains, it's all about removing and avoiding toxins if you want great health. Those of us in the raw food movement are well aware of this being the primary issue.

The intriguing conspiracy-revealer Kevin Trudeau, who consults with top medical experts, lists the toxins that damage the hypothalamus gland, creating a low metabolism (*The Weight Loss Cure "They" Don't Want You to Know About*). These include artificial sweeteners, trans fats, food additives, growth hormones and antibiotics in meat or dairy, monosodium glutamate, heavy metal toxicity, irradiated food, pasteurized food, genetically modified food, non-prescription and prescription drugs, chlorine and fluoride from the water you drink or bathe in, high fructose corn syrup, propylene glycol, mineral oil, sodium laureth sulfate and other chemicals used in skin lotions and creams, carbonated drinks, electromagnetic frequency exposure from cell phones and other wireless devices, nitrates, microwaved food, and farmed fish.

Another source of toxins includes plastics, which cause xenoestrogens (endocrine disruptors that mimic estrogen) to leach into our water and food. These are found in food wraps, water bottles, and plastic bags that we put food in. These endocrine disruptors fill up our estrogen receptors and may lead to cancer or at the very least can make us fat.

We are surrounded by toxins. Our personal care and cleaning products are often hidden sources. Our new carpet emits toxins, as do dry-cleaned clothes.

We are bombarded with heavy metal toxicity. Mercury is in tooth fillings, farmed fish, large wild fish, and vaccinations. Fluoride is in toothpaste, black and green tea, and often in city water. Aluminum is in tin and soda cans, older pots and pans, and underarm deodorant. The way to get these metals out is with the "metal magnet" foods which are cilantro and the sea vegetable chlorella. Or, if you can afford it, get chelation therapy.

Fasting also helps with all forms of detox. *The Live Food Factor* has a complete do-it-yourself guide to fasting in chapter 15.

Gittleman explains, "...one of the best kept secrets to weight loss and lasting weight control is keeping the liver, the key organ for fat metabolism, in tip-top shape. For example, bile, which is synthesized and secreted by the liver and stored in the gallbladder, helps the liver break down fats. Bile cannot do its job, however, if it is lacking certain nutrients that made up the bile salts or if it is congested or thickened with chemicals, toxins, excess sex hormones, drugs, and/or heavy metals" (*The Fat Flush Plan*, p. 4).

A lack of bile often means a surplus of fat. Bile can be blocked by clogged bile ducts, congestion, or a lack of nutrients to create it. Since one of the main ingredients of bile is lecithin, which is an emulsifier to break down fats, Gittleman added eggs to her diet. She also added fresh lemon juice with water. The weight came off and she knew she was on to something. She

went on to create an entire fat-flushing, detoxifying program and has written numerous books on this plan.

The liver is also most crucial for detox. One sign of a toxic liver is indicated by fat around the waist. I recall that before I was diagnosed with hepatitis C, I wondered why I was fatter on the right side of my abdomen than on the left. The right side of the body is where the liver is.

Other possible signs of a toxic liver include elevated enzymes (found on a blood test), bloating, fatigue, depression, high blood pressure.

Fatty liver is often caused by alcoholism. But the nonalcohlic fatty liver is linked to obesity, insulin resistance and the use of certain medications. According to Mark Hyman, MD, about 20% of Americans have fatty liver, though most do not know it.

Herbs and supplements are great for helping to detox the liver. Always try to get the plant in fresh, raw form. When not possible, get it in the form of high quality supplements.

One of the most powerful liver detoxifiers is milk thistle, which has the active ingredient *silymarin*. In *The Live Food Factor*, I tell how I was diagnosed with hepatitis C. For about a month, I took a high quality form of silymarin, several capsules two times a day. I went back for more blood tests, and my liver enzymes were so great that the doctor thought he had misdiagnosed me! I told him about the herbs. He said it couldn't be, because, "Where are the studies to prove it?" I explained that herb companies usually don't have the money to fund studies like drug companies do. If this had happened now, I could show him a recent study done in Marmara University in Istanbul which proved that silymarin protects the liver against toxic drugs (*Nutrition and Metabolism*, 2008). Several other studies have also shown that silimarin is good for liver problems.

There are many other great liver aids. One is dandelion. You can add fresh dandelion greens to your smoothies. Another is bupleurum, an herb used in Chinese medicine. Another great one is tumeric, an Indian spice that has been proven to be an effective anti-ager. Supplements include N-acetylcysteine (NAC), an amino acid that helps the liver produce glutathione, and alpha-lipoic acid, a super antioxidant.

The word "liver" is likely connected to the word "live" at its origin. Someone who has a good liver is more likely to be "lively." In Chinese medicine, someone who has a stagnant liver, in which the chi (energy) is not flowing, is likely to be depressed.

Mark Hyman, MD, apologizes for depressing his readers when he lists all the ways toxins interfere with weight loss (*UltraMetabolism*, p. 198). Toxins damage the mitochondria (which are responsible for burning fat and calories); toxins lower your thyroid hormones; toxins lock up all the keys to revving up your metabolism; toxins increase inflammation which is tied to fat in the tissues; and toxins interfere with your hormones which regulate appetite and weight control.

What's really a nightmare is that when you lose weight, the toxins that were stored in the fat you lost are now released, and if they are not sweated out, they can poison our metabolism and prevent us from losing weight. This is why it is crucial to take liver supplements or foods good for the liver (the

main organ for processing toxins), and to sweat through exercise and/or saunas (since the skin releases toxins).

There are numerous things you can do to minimize your exposure to toxins. Perhaps the most important is to eat organic—after all, food can easily be the main toxin you are putting directly into your body! If you are eating food that is not organic, and it has been imported from another country, the standards for pesticide may be much lower. Even toxins such as DDT (banned in the USA in 1972) may be used.

Mark Hyman lists many ways we can reduce toxins in our environment (*Ultrametabolism*, p. 199). These include eating organic food; drinking filtered water (reverse-osmosis or carbon filter); using air filters; keeping houseplants (which filter the air); airing out dry cleaned clothes and blankets; using natural personal care and household cleaning products; and reducing exposure to heavy metals and radiation.

So Long, Cellulite

Women pay millions of dollars trying to get rid of cellulite, the fat on the thighs and buttocks that is dimpled. This is known to be connected to a sluggish lymphatic system. Even young women with good muscle tone are subject to cellulite, and the horrors of cellulite from the most glamorous movie stars have even been captured on film and posted on the Net. The lymphatic system detoxes the body of toxins, trapped protein, dead cells, bacteria, heavy metals, and fat globules.

To lose cellulite, one must cleanse the lymph system. A trampoline is the exercise for the lymph system. In fact, a rebounder is the only way that the lymph system gets exercise. This mini-trampoline exercises every cell in the body.

A 100% raw food diet also gets the toxins out and rids the body of cellulite. Many a raw food woman gets excited over this. I never really cared, since I don't like to swim much. My cellulite didn't bother me. But after being raw for some time, I noticed in the mirror that in my 50s I don't have cellulite!

Sodium and Weight Gain

Most people are aware that sodium, or salt, causes water retention. It is in nearly all processed foods. Use sea vegetables instead, such as kelp, nori, wakame, dulse.

Monosodium glutamate (MSG) is a big culprit in causing water retention because it has sodium (salt). Not only that, this stuff makes food addictive! It enhances the flavor and makes you want more, more, more. Before you know it, you've eaten the whole bag of chips, the whole can of soup, the whole bag of cookies...

To Lose Weight, Go Green!

Robert and Shelley Young (authors of *The pH Miracle for Weight Loss*) brought in the concept of going alkaline for weight loss. Toxins are acidic, so we need to remove the toxins to lose weight, and stay alkaline to keep it off.

According to the Youngs, "The body retains fat as a protection against the overproduction of acids produced by the typical American diet. Some of these acids are eliminated through the bowels, urinary tract, and skin, but whatever is left must be buffered, or neutralized" (p. 13-14, *The pH Miracle for Weight Loss*).

Guess what the body's main buffer for acids is? You guessed, it—fat! The Youngs say plastic surgeons who do liposuction note that the fat is brown and black due to the acid content. They know one surgeon who had fat samples taken to a lab which confirmed that the fats were full of acid.

So you should thank your fat for saving your life by protecting your organs from these dangerous acids. But now, hopefully, you are ready to let go of the acids, and will therefore no longer need an excessive amount of protective fat.

If you want to go alkaline, go raw. Cooking makes food more acidic. Also go green. Greens are the most alkaline foods, especially wild greens and wheat grass juice. Additional alkaline foods include vegetables, lemons, limes, grapefruit, and sprouts.

Acidic foods include animal protein, eggs, dairy, nuts, and seeds. As you can see from that list, protein is acidic. A high protein diet is therefore not healthy. Yeast is acidic, as are foods high in yeast and molds (like peanuts, corn, alcohol). Coffee is very acidic, even when decaffeinated (though less acidic if organic). Sugary foods, processed foods, pesticides and any food additives are acidic. Drugs, whether prescription or recreational, are very acidic.

A study published in *The American Journal of Clinical Nutrition* (2008) showed that alkaline diets help older adults retain lean tissue mass. An acidic diet promotes muscle wasting, which causes us to weaken as we age. But eating alkaline can prevent that. Having less muscle mass also means burning fewer calories since muscles burn five times as many calories as fat.

Also avoid eating foods that deplete you of calcium, which includes anything acidic: coffee, alcohol, sugar, drugs and a diet too rich in protein.

Food Sensitivities and Weight Gain

When we think of classic food allergies, we think of immediate, dramatic reactions. For example, I knew a man who, if he were to accidentally eat peas, would react with instant swelling and congestion and have to go to the emergency room of a hospital. Such allergic responses are rare, while the more subtle, hidden food allergies or sensitivities are quite common.

When someone eats foods he is sensitive or unknowingly allergic to, he may experience reactions such as bloating, swelling, headaches, a puffy face, nasal congestion, heartburn, swollen hands or feet, coughing, blurred vision, mood swings, rapid heartbeat, indigestion, joint swellings, skin rashes and more.

Food sensitivities may also disturb the metabolism, including the balance of hormones in the thyroid and adrenals, as well as insulin levels.

According to Elson Haas, MD (*The False Fat Diet*, p. 47-49), food reactions cause fluid to surround invading food particles. There can also be a

release of hormones that cause fluid retention. Food reactions make intestinal membranes swell, and can disrupt cell chemistry, causing fluid storage. They can cause gas production, and cause capillaries to leak fluids. All of this bloating and swelling and gas makes the body puff up.

I did my first year of acupuncture training in Santa Fe New Mexico. A classmate suggested I might have some food sensitivities. So I did a research paper on the topic and experimented on myself. I did a week-long juice fast, then gradually introduced one food at a meal and took careful notes of how I reacted to each food.

Another way to test yourself would be to do an elimination diet, eliminating foods you suspect you may be sensitive to, and then reintroducing them one by one after at least seven to ten days.

A third way would be to get a blood test from a physician that is knowledgeable of the topic.

Some experimental tests include sublingual testing, pulse testing and kinesiology testing.

Often people become addicted to the foods they are allergic to, and experience withdrawal symptoms such as headache, cravings, irritability during the cleansing phase.

When you stop eating foods you are allergic to, you lose not only false fat, but also true fat, because your food cravings lessen. Food reactions cause cravings by lowering adrenaline and causing fatigue; by lowering blood sugar and causing hunger; by lowering serotonin and causing anxiety; and by lowering endorphins and causing discomfort. Eating foods one is sensitive to can also slow the metabolic rate, decrease one's energy and creating hypoglycemia.

The good news is that many foods you are sensitive to you can eat again after eliminating them for the seven to ten days. The only thing is, you shouldn't eat them very often, more than once every three or four days. (Opinions vary on this, and it depends on the food and the person.) People who are prone to food sensitivities should be on a diet in which they consciously rotate nearly all their foods. New sensitivities can be developed, especially if it is a food eaten frequently, such as every day or two.

The most common foods to which people develop sensitivities are wheat, milk and sugar. As I explained in Appendix A of *The Live Food Factor*, the vast majority of people are sensitive to these foods and should *never* (or rarely) eat them! Other common sensitivities are soy, peanuts, corn, yeast and eggs. Furthermore, many people are sensitive to all gluten grains: wheat (including kamut and spelt), barely, rye, oats and triticale.

Cleanse from Candida

Candida albicans is a yeast that can infest people and create imbalance which adds to weight gain. It creates bloating. The yeast have a large appetite, especially for sweets, and they can cause you to crave them. You may have to take priobiotics ("good" bacteria) while going on a temporary diet low in fruit and sweets.

I have also found that the raw drink *kombucha*, even though it contains the healthful bacteria, can be overdone. If I have more than a cup

or so in a day I feel bloated and slightly fatigued. I also get much hungrier than I would normally be, especially for carbohydrates.

17

Use Proper Food Combining

The *Live Food Factor* has an entire section on food combining. Some basics are that melons must be eaten on an empty stomach, and you have to wait 20 minutes before eating something else. Fruit should be eaten alone, and you should wait 30 minutes before eating anything else. The exceptions are acidic fruits such as pineapple, oranges, lemons and limes, which can be combined with nuts.

Proper food combining causes the food to exit the body quickly. When food takes a long time to go through the digestive system, more of the calories can be absorbed and stored as fat.

As nutritionist Natalia Rose points out, when you eat foods that are improperly combined, "a major backlog develops, turning a healthy, clean digestive tract and healthy cells into a veritable cesspool where bacteria can thrive and the whole of the eliminative channels (liver, skin, kidneys, colon, spleen) slows down" (*The Raw Food Detox Diet*, p. 35).

Any colonic therapist can show you photos of toxic plaque buildup in the colon. While these toxins may not be fat, they can widen your waistline while shortening your lifespan.

18

Fat is an Endocrine Organ

Traditionally, fat has been viewed as a way to store excess energy (calories), just like a deposit in the bank. There is a cartoon by Randy Glasbergen in *The Live Food Factor* in which a man tells his doctor, "My belly fat is a vital part of my 401(k) plan. I may have to live off this fat when I retire!"

Fat has been considered a cosmetic hindrance and a nuisance to carry around as well as a risk factor for heart disease, cancer and other illnesses. (Recently, obesity has gained status as *its own* illness.)

The new view in science is that fat is actually more than that. It is an active endocrine organ, just like the thyroid, pituitary, pancreas, adrenals and other glands. It is the largest endocrine organ in the body! It produces hormones as our other endocrine organs do. It sends messages to the other organs on how to regulate metabolism, weight, stress hormones, and inflammation.

Each organ seems to have a mind of its own. Entire books have been written about how people's interests and even personalities change after gaining someone else's heart, kidney or other organ. Likewise, your fat "wants" to continue its existence! It is set up, physiologically, to protect itself and even grow in a kind of vicious cycle involving inflammation.

According to Mark Hyman, MD, the fat cells around the waist are often the biggest sources of inflammation They produce inflammatory molecules such as IL-6 and TNF-alpha. In addition, fat cells produce the hormone leptin to reduce appetite; resistin to make you insulin-resistant (not a good thing for weight loss!); adiponectin to make you more insulin-sensitive (a good thing for weight loss!); estrogen (a fat-storing hormone!); testosterone; and cortisol (a stress hormone that increases fat around the middle). Hyman explains, "The molecules produced by your fat cells wreak havoc on your metabolism by increasing inflammation, increasing your appetite, slowing fat burning, and increasing stress hormones" (*Ultrametabolism*, p. 133).

Nicholas Perricone, MD, (*The Perricone Weight Loss Diet*, p. 9) makes the alarming statement: "Fat is a living, breathing, multiplying endocrine organ—and that fact alone ensures that the fatter you are, the fatter you will get."

He further compares excess body fat to a tumor (p. 20-21) for valid reasons. First, fat cells secrete hormone-like substances to increase blood vessel growth necessary to feed the accumulation of fat. As in a tumor, the blood-vessel growth can't keep up with the quickly growing fat cell mass, which consequently begins to become oxygen-starved. This causes the oxygen-starved cells to release inflammatory chemicals to stimulate more blood vessel growth. This same vicious cycle of growth appears in tumors as well as fat.

While having some fat is healthy and necessary, it appears that at some point, fat becomes a self-perpetuating entity. Maybe we should use the research done by scientists in Sweden to determine what that critical point of too much fat is. "A waist circumference of less than 39 inches reduces the risk of individuals of both sexes from being at risk of insulin resistance," concluded Hans Wahrenberg of the Karolinska University Hospital. (Insulin is one of the main hormones that tells the body to store fat.)

19

The Inflammation Factor

In *The Live Food Factor* the seven stages of disease were explained. This descent into illness was first presented in 1926 by Dr. J. H. Tilden in *Toxemia Explained*. I will give only the bare-bones summary here.

The first stage is enervation. Usually a person feels either stimulated or depressed from the toxins.

The second stage is toxemia. Toxins accumulate as the person has more toxins coming in than coming out. The person feels fatigue.

The third stage is irritation and there is a low-grade inflammation of the cells and tissues. The toxic sufferer may go to a doctor and the doctor may declare it is all "in his head" because nothing at this point shows up on most laboratory tests.

The fourth stage is inflammation. The inflammation now becomes chronic, leading to the death of cells. An area or organ of the body may become fully inflamed. The person may experience pain. When he goes to the doctor, the signs and symptoms have amassed enough for the doctor to give a diagnosis and prescription.

The fifth stage is ulceration, and here the tissues are destroyed.

The sixth is induration, which is the result of long-term chronic inflammation with occasional episodes of acute inflammation.

The seventh or final stage is chronic, irreversible degeneration. This is often where cancer appears and the body with all its tissues and organs and whole systems fail to function normally.

Notice that it is only at the fourth stage, inflammation, that diseases are named. Dr. Herbert Shelton used to joke sarcastically about all of the – itises and how arbitrary disease classifications are. If you have inflammation in your rectum it is labeled proctitis, but when it is a quarter inch farther up the colon, it is labeled sigmoiditis, a completely different ailment altogether according to the medical establishment. Yet inflammation is simply one of the seven stages of the disease process. Inflammation is inflammation regardless of its location. It is just that genetically, some of our organs are weaker and more prone to progress faster in the disease stages than other locations of our body.

Nicholas Perricone, MD, who is best know for his books *The Wrinkle Cure* and *The Perricone Prescription*, rediscovered the wheel when he began to hypothesize in medical school that disease was connected to inflammation. While examining disease processes under a microscope, he found there was inflammation in the arteries in cardiovascular disease, as well as inflammation in the pancreas in those with diabetes.

As he began to study dermatology, he noted inflammation in most skin cancers and aging skin. All of this led him to uncover the secrets of an anti-inflammation diet and supplements.

In his dermatology practice, Perricone came up with a diet that remarkably reduces wrinkles. But over the years he noticed that people not only looked younger on his diet, but also rapidly lost weight, even though this was not the focus. This led him to discover the inflammation connection to not only aging and disease, but also obesity.

"Research indicates that the effects of this chronic, low-grade, invisible inflammation is at the basis of aging and age-related diseases such as cardiovascular disease, diabetes, certain forms of cancer, Parkinson's, Alzheimer's, and auto-immune diseases—and even wrinkled, sagging skin," Perricone explains (*The Perricone Weight-Loss Diet*, p. 10).

"However, it doesn't stop there," he continues, "I am now categorically stating that this same chronic, low-grade, invisible inflammation is at the very basis of excess body fat, out-of-control appetites, food

cravings, food addictions, diabetes, and the inability to lose excess body weight."

Barry Sears, MD, author of all the Zone Diet books, concurs with Perricone that inflammation is the common denominator of all disease. "Instead of micromanaging disease, we should focus on macro-managing wellness and let the body take care of itself. I came to this line of reasoning twenty years ago and found that the best way to keep the body moving toward wellness is to accomplish one primary goal: Decrease inflammation" (*The Omega Rx Zone*, p. 33).

If you removed the fish and stopped cooking the vegetables, Perricone's diet would be very similar to that of a typical raw fooder. He defends the use of cold water fish (and specifies which ones are lowest in mercury) because he feels a body needs ample protein and also because fish are high in omega 3 essential fatty acids, which raw vegetarians and vegans can get in a plant source from flax seeds, chia seeds and walnuts.

Perricone touts wild Alaskan salmon as being a superfood on his program because it is very high in astaxanthin, which is a powerful antioxidant, anti-inflammatory nutrient. Astaxanthin is 100 times stronger than vitamins C and E combined. But this is available in supplement plant form from the microalgae *Haematococcus pluvialis*. This is where the fish get it, so we can bypass the fish and eat lower on the food chain. Astaxanthin is in the carotenoid family and is ten times stronger than beta-carotene. It is responsible for the deep red/pink color of salmon, lobster, shrimp, red caviar, crab, rainbow trout, crawfish. It is great for the brain, nervous system, eyes, wrinkle reduction, and physical endurance. It reduces age spots, inhibits inflammation, and improves gastric health while reducing the bacteria that causes ulcers.

Inflammation creates a vicious cycle that makes it hard to lose weight because it disrupts your body's natural weight regulation. Excess weight is thought to be the primary cause of this chronic low-grade inflammation. (Other causes include a poor diet, lack of exercise, stress and toxins.) But the inflammation itself makes it harder to lose weight. In other words, excess fat is both the cause and effect of inflammation.

Excess body fat creates inflammation in two ways. First, the fat cells produce hormones (TNF-alpha, or *tumor necrosis factor alpha*, as well as IL-6, or *interleukin-6*) that trigger the body's inflammatory response. Second, fat cells attract macrophages, white blood cells that also create those same inflammatory chemicals, TNF-alpha and IL-6.

When you are younger, you don't notice the smaller amounts of inflammation factor as much. When you hit 50 it begins to show up in the eyes. I have a photo taken of me as a teacher on a raw food diet. A year later, I took another school snapshot. I was wearing the same clothes. I had my hair styled the same. But I looked about five or ten years older because I had eaten a baked potato the night before. My eyelids were sagging and puffy. In the previous year's photo, my eyelids had been perky. My eyes looked youthful.

The way to break out of this cycle is to avoid inflammation-causing foods and eat foods that lower inflammation. **Foods that especially trigger**

<u>inflammation include cooked red meat, white flour, sugar, and trans</u> <u>fats.</u>

Eat foods that combat inflammation: foods rich in omega-3 fatty acids, nonstarchy, colorful vegetables high in phytonutrients, fish (anchovy, herring, salmon, sardines, tuna—but not albacore, sablefish, conch, sturgeon), fruits high in flavonoids (citrus fruits, berries, cherries), foods high in carotenoids (carrots, egg yolks, spinach, tomatoes), crucifer vegetables (broccoli, cauliflower, cabbage, Brussels sprouts, kale), and tea (green or black). Foods high in fiber also fight inflammation.

Leo Galland, MD (*The Fat Resistance Diet*), also adds antiinflammatory herbs and spices to the menu: basil, cardamom, cilantro, cinnamon, cloves, ginger, parsley, turmeric, garlic, onions, scallions and chives. This keeps the diet from every getting boring. Asians have been doing this for centuries.

Hot herbs, spices and foods such as cayenne, jalapenos and chiles are not recommended as they cause inflammation.

Anti-inflammation is now the most popular buzzword among diet authors. Most of these anti-inflammation diets include fish that are lower in mercury, because the fish consume the plant astaxanthin. But you can bypass the fish and take astaxanthin supplements directly. Just make sure that it is not a synthetic form of astaxanthin, as that is not nearly as bioavailable as the algae.

Inflammation can be tested in a blood test for CRP, or *C-reactive protein*.

20

Leptin Resistance

The new buzzword in weight loss is *leptin resistance*. So now we have to worry about getting resistant to not only insulin, but also leptin! Leptin is a hormone produced by the fat that makes your appetite go down and your metabolism go up.

So in a healthy, non-inflammed body, you could overeat and not gain weight. Because after you overate, your appetite would decrease (to prevent more overeating) and your metabolism would kick into high gear and burn up the calories instead of storing them as fat. This is why many young people find it easy to eat a lot and not gain weight. Why are so many young people overweight then? Because they are eating all these trans fats and high fructose corn syrups that cause inflammation and disrupt the normal metabolism.

When leptin was first discovered in 1994, drug companies thought they could simply give leptin to overweight people. But researchers found that obese people actually have high levels of leptin. They are just resistant to it. The cells do not respond properly to this hormone. If you have chronic inflammation, your body will produce many antiinflammatory chemicals. But these chemicals that come to fight the inflammation in your body also disrupt your body's response to leptin. So if you lower your inflammation level, your leptin resistance goes away. Work on reducing the inflammation, and your appetite will decrease and your metabolism will increase.

21

Adiponectin: a Hormone for Weight Loss

Another hormone you want on your side is adiponectin. It is also produced by fat cells.

Adiponectin helps your muscles turn fat into energy, fights inflammation, helps increase insulin sensitivity, and like leptin, suppresses your appetite. But when you gain body fat, your adiponectin levels go down, just when you need it the most! It's another vicious cycle. But you can turn it around: Simply by losing weight, you increase the adiponectin levels, which in turn, help you lose more weight and keep it off.

Besides losing weight, another way to increase adiponectin levels is to eat more foods that are deep red, blue and purple (ex: berries, cherries, blue corn). They contain the phytonutrients called *anthocyanins*.

22

Love Your Endocrine System!

Eric Berg, DC, author of *The 7 Principles of Fat Burning*, has found in his practice that weight loss is all about fine-tuning the endocrine glands so that they produce fat burning hormones.

The fat-burning hormones need to be activated by proper diet and exercise. These are growth hormone, insulin-like growth factor, glucagon, adrenalin, thyroid hormones T3 and T4, and testosterone. No matter how low in calories your diet is, if you don't trigger the fat-burning hormones, you won't lose weight. (This is why some people complain that they are eating almost nothing, but still don't lose weight!)

The fat-storing hormones need to be under control for weight loss: estrogen, cortisol, and insulin. You can sabotage your weight loss regime by just a few bites of sugar if your body releases insulin as a result. Or if you are eating foods loaded with endocrine disruptors which mimic estrogen, you can store more fat than you otherwise would. In America, farmers give animals estrogen to make them fatter, and this estrogen makes people fat when they eat those animals. (This is one reason why Europeans are slimmer than Americans: such meat is banned in Europe.)

We have already seen how critical it is to detox if you want to reach your ideal weight, and the crucial role the liver plays in that. The liver is critical not only for detoxing, but also because every fat-burning hormone works through it. 80% of the thyroid function occurs through the liver. (A person with thyroid symptoms could have normal thyroid hormones but a damaged liver.)

A good way to support the adrenals is with the Chinese herbal remedy schizandra. This is always included in adrenal dietary supplements. During particularly stressful times you could also take the hormone DHEA, although this is controversial and you may wish to do some research before experimenting with it. Avoid all stimulants including caffeine.

Boost your thyroid's effects on metabolism by taking in plenty of sea vegetables such as kelp, dulse, nori, and wakame. These are rich in iodine, which your thyroid needs. Most people depend on table salt which has iodine added. But on a weight loss diet (or any diet for health) you should avoid the toxic, water-retaining table salt. Use sea vegetables instead, with their salty flavor.

The thyroid also needs omega 3s, selenium zinc, vitamin A and vitamin D (best source is 30 minutes daily of sunshine).

Why Drugs are Fattening!

Have you ever known someone who was of normal, healthy weight until they went on meds? I know plenty of such people. Decades ago, I gained 40 pounds within *two months* of taking Prozac!

Of course, recreational drugs and medications are not thought of as food and most contain no calories for fuel. Yet the effect they have on the body is fattening!

Dr. Berg explains, "Psychiatric drugs deplete hormones and also make it hard to lose weight. Hormone-replacement hormones and birth control pills both contain estrogen, which is a fattening hormone. Prednisone is an anti-inflammatory steroid (adrenal hormone), which is also fattening. Insulin is a fat-making hormone. Anticholesterol and blood pressure medications have side effects on the liver as well. Diuretics deplete minerals, which can affect the adrenal glands. Antibiotics kill your friendly bacteria, putting stress on your liver because of stress on digestion . . . However, I am not suggesting you come off your medication without the advice of a competent medical doctor" (*The 7 Principles of Fat-Burning*, p. 134-5).

In the next few chapters we'll look at some special weight loss foods...

23

Apples: The Fabulous Fruit for Fighting Fat

I recall once a 50-year-old woman who was about 40 pounds overweight told me that she used to be thin. "I would eat lighter, and often had only an apple for lunch." This was back in my cooked omnivorous days, and to me the idea of eating only one apple for lunch seemed anorexic! I envisioned feelings of deprivation coming from such as sparse menu. My poor friend must have had a very low metabolism, I figured. I was just glad I didn't have to resort to such extremes to keep reasonably thin.

Years after embarking on my raw journey, I had a particularly stressful job. Teaching in an inner city public school is stressful, perhaps second only to air traffic controlling. I worked 10 hours a day without a break, and I was one of the "slackers," as many of my colleagues put in 12-hour shifts with minimal breaks. I always worked through my meager half-hour lunch break so I could get home before the rush hour traffic.

And what always carried me through the day was that one-apple lunch. It took no time to prepare, it was delicious, it was satisfying, and I didn't have to sit down while eating it. I could munch on it while multitasking. It filled me up and carried me through till I got home and could eat a snack at 4:30.

I soon learned why apples are the top choice of fruits for diet gurus like Nicholas Perricone, MD, Dr. Simeon and Eric Berg, DC. Apples have five grams of fiber, both soluble and insoluble kinds. The soluble fiber, known as *pectin*, can decrease the appetite for up to four hours. Even though apples are sweet, they stabilize the blood sugar. This is due not only to their fiber content, but also *phloreitin*, a flavonoid-type, blood-sugar-stabilizing phytonutrient found exclusively in apples. Apples also contain anti-inflammatory and anticancer phytonutrients. Finally, apples are high in potassium, which helps rid the body of water-retaining sodium.

Dr. Simeon's weight loss protocol also requires eating a minimum of two organic apples every day! "This will help regulate blood sugar, reduce appetite, and increase cleansing of the liver, gallbladder, and colon" (*The Weight Loss Cure*, p. 77).

Dr. Berg encourages people to eat as many apples as he or she can throughout the day! He points out that when juiced, however, they increase the fat-storing insulin. But a whole apple is rich in fiber. Apples are also high in potassium, which helps lower insulin and helps reduce water weight from excess sodium in the diet.

Dr. Stutman calls apples a "natural hunger suppressant," explaining how the pectin in apples "suppresses your appetite by tricking your brain's hunger center into believing that you are full, when all you've really eaten is one delicious apple" (100 Best Weight-Loss Tips, p. 71).

24

Raw Chocolate for Weight Loss

Chocolate in its raw natural form, cacao, can be helpful for weight loss. Just don't use it when healing from a disease, as the theobromine can be a stimulant causing enervation. (See chapter 19.) If consumed in excess or in the evening, you may even lose sleep because of it.

Cacao has polyphenols which have powerful antioxidant and antiinflammatory activity to protect you from obesity. Cacao is also rich in oleic acid, the monosaturated fatty acid also found in olive oil that helps burn fat.

Finally, chocolate is an appetite suppressant. This is another reason that it is often found in weight loss snacks.

25

Foods High in Fiber

The American Heart Association recommends eating 30 grams of fiber a day. Yet the average American eats only 10 to 15 grams a day. The average chimpanzee, our closest relative, eats 300 grams a day! Victoria Boutenko, who researched fiber, believes we should get at least 50 to 70 grams a day, gradually increasing our intake until it is 70 or higher. She found that even the average raw fooder gets less than the optimal amount of fiber.

While researching fiber for this weight loss book, I became so impressed with what I discovered that I have *doubled* my intake of fiber! To quote an article in entitled "Dietary fiber and body weight" (*Nutrition*, 2005), "Epidemiologic support that dietary fiber intake prevents obesity is strong. Fiber intake is inversely associated with body weight and body fat" (emphasis mine). The more fiber you eat, the less overweight you are!

Fiber foods include most vegetables and fruits when not juiced, beans (sprouted if eaten raw) and whole grains (sprouted if eaten raw). In addition to other benefits, such as lowering cholesterol, fiber helps us lose weight and maintain that loss. There are at least seven ways that fiber helps with weight loss and maintenance:

- > Fiber foods have fewer calories for the volume because of their bulk.
- Fiber satisfies hunger faster, so you eat less.
- Fiber foods take longer to chew, so you relish the food more and eat less.

- Fiber soaks up fats in your gut and slows down their absorption. It even *prevents* some of their absorption.
- ➤ Fiber also causes the body to burn up calories because the intestines have to work harder to digest them. Sometimes foods high in fiber but fairly low in calories are considered "negative calorie" because the digestive tract burns more calories in digesting these foods than the foods contain.
- Fiber also slows down sugar absorption, lowering the glycemic load of a meal, thereby reducing the amount that insulin (a fat-storing hormone) is released.
- Fiber has been proven to fight inflammation, which as we have seen, creates a vicious cycle with weight gain.

Fiber is fabulous for fat! Like a sponge, it soaks up fat and makes it move through your digestive system before it can be completely absorbed. I knew this trick when I was in my 20s. I especially took it when eating out, which is when we often overeat. I could order a huge dinner full of fat, such as Mexican food, and then eat several heaping tablespoons of wheat bran (downed with water). The fat in the meal seemed to go right through me!

Fred Stutman, MD explains, "Each gram of fiber traps fat globules by entwining them in a fiber-like web, made up of thousands of fiber strands. Once these fat globules are trapped in the fiber's web, they pass through the intestinal tract before they are absorbed into the bloodstream. Therefore, these fat globules are excreted in the waste material from your colon without getting absorbed and stored as fat in your body" (100 Best Weight-Loss Tips, p. 35).

Neal Barnard, MD, lists 20 foods that he claims are "negative calorie" in effect due to the fiber: corn, whole rice, potatoes, all varieties of lettuce, broccoli, carrots, black beans, kidney beans, spinach, lentils, celery, peas, cauliflower, pineapple, cabbage, oranges, apples, grapefruit, bananas, and oatmeal (*Foods that Cause You to Lose Weight*, p. 25). Note: cooked corn and potatoes have a high glycemic index, which would cause insulin release in most people and would counter the negative calorie effect.

A study at Harvard with 75,000 women who ate two servings daily of fiber from low glycemic produce (which includes all vegetables except potatoes and corn, and most fruits when not juiced) were 50% less likely to gain weight than women who ate refined (without fiber) carbohydrates. High fiber good carbs burn calories during digestion. (Stutman, p. 11)

Fiber also lowers the glycemic load of a meal or food, reducing the blood sugar and thereby lowering the blood level of insulin (a hormone that stores fat and can make you hungry when out of balance). This is why it is usually better to eat the whole food instead of juicing it. (Although juicing does have its advantages in that you can consume more nutrients than you could if you ate all the foods whole.)

According to Mark Hyman, MD, if you put three tablespoons of psyllium into a cola, you would change it from a high glycemic food to a low glycemic food! (*Ultrametabolism*, p. 46) Of course, this is not recommended, but it does illustrate the power of fiber.

A study done by the Center for Disease Control and Prevention was published in *The Journal of Nutrition* (2004). It proved that a diet high in fiber correlates with lower levels of CRP, the factor which shows up in blood tests that indicates inflammation.

If you want to get extra fiber than what comes from your food, sources of nearly pure fiber you can add to a glass of water include psyllium husk, wheat bran, oat bran, and guar gum.

Nutrition expert Jordan Rubin (*The Maker's Diet*) advises that we don't overdo bran, however, since it contains mineral-blocking phytates. Personally, I just use it with my once-or-twice a week indulgences with high glycemic treats.

Dr. Hyman lists two "superfibers" which are rye fiber and konjac root. He recommends getting rye in a whole grain form. Raw fooders could sprout the grain or alternatively turn rye grains into powder (flour) with a Vitamix or coffee grinder.

According to Hyman, konjac (an Asian root that is full of water-soluble fiber called glucomannan) is five times more powerful than psyllium, oat fiber, or guar gum in lowering cholesterol. It has been used for thousands of years in Japan, where it is used in noodles.

26

Foods Rich in Calcium

Recent studies have shown that weight loss can be enhanced by taking calcium. Apparently calcium inhibits the creation of fat, promoting the breakdown and burning of fat. Dietary calcium also prevents regaining the weight that was lost. Calcium taken as supplements did not show such a powerful weight loss effect. (In fact, raw food expert David Wolfe warns against taking calcium supplements, which tend to have nanoorganisms that harden or calcify our bodies in an unhealthy manner).

A few studies showed that the weight loss is greater when the calcium comes from dairy. But I don't recommend eating the amount of dairy that these studies suggest (three servings a day). The most extensive nutritional study in history, *The China Study*, showed that people who consume more than 5% of their calories from dairy products increase their risk for cancer. This is because the protein from dairy, *casein*, adversely affects the way cells (especially their DNA) interact with carcinogens. A diet high in casein allows more toxic carcinogens to enter the body's cells.

So, to lose weight, go easy on the dairy, eating no more than an ounce of cheese or a cup of yogurt or kiefer per day—and only if your body can digest it properly. And use unpasteurized dairy whenever possible. If you live in a raw dairy state such as California you can usually find raw dairy products at Whole Foods. If not, you may be able to order from Amish people online or in your state. In some states you can even own a share of the cow, which entitles you to the raw milk from it. Eating pasteurized dairy destroys

the enzymes and makes it harder to digest. Also, whenever possible, eat dairy form goats, since it is more similar to that of humans. Choose yogurt or keifer, which are easier to digest than milk or cheese.

Most people simply can't handle much dairy. They get symptoms of mucus buildup such as constipation, phlegm in the throat, or diarrhea. These people can still benefit from other sources of calcium which nonetheless assist significantly in weight loss. Sesame seeds contain a whopping 2,100 mg. per cup compared to milk's 300 mg. per cup! With sesame seeds, be sure to use unhulled, as the hulled has only a third the calcium. Also be sure to eat them in a pulverized form in order to make the calcium more absorbable. You could grind them in a coffee grinder and sprinkle them on a salad or put them in a smoothie.

Nuts are a significant calcium source with almonds containing 750 mg. per cup, hazelnuts at 450 mg. per cup, and walnuts at 280 mg. per cup.

Greens are another great source of calcium without all the calories of nuts and seeds. A cup of broccoli has 250 mg, a cup of collard greens has 300 mg, of turnip greens has 195 mg, a cup of dandelion greens has 147 mg. and a cup of kale has 200 mg. Spinach has 250 mg. a cup but the calcium in spinach is somewhat poorly absorbed, probably because of the high concentration of oxalate.

Another consideration is that calcium from dairy is poorly absorbed due to the phosphorus content. While green vegetables have absorption rates of 40 to 50%, dairy calcium absorption is only 32%.

Sea vegetables are one of the best sources of calcium. A cup of nori has 1,200 mg; a cup of kombu has 2,100; a cup of wakame has 3,500; and a tablespoon of agar-agar has 1,000 mg. Got sea veggies?

27

Raw Apple Cider Vinegar

In the 1950s, a country doctor named D.C. Jarvis published a book on his observations and studies of the use of raw apple cider vinegar. One thing he noticed was that it helped with weight loss if two teaspoons were taken with a glass of water before meals.

As we have seen, apples are a great source of pectin, and this pectin remains in the apple cider vinegar. It suppresses the appetite. Also the potassium helps balance the sodium to keep away water retention that looks like fat.

The vinegar helps with digestion of protein, which is needed to build our hormones, especially the fat-burning growth hormone. Taking apple cider vinegar before the evening meal insures there will be increased protein breakdown, making it more likely that more growth hormone will be produced to stimulate your metabolism while you sleep.

Apple cider vinegar also stimulates your appetite for whole foods. It stimulates the taste buds, and when they are working well, people appreciate the complex flavors of natural, whole foods.

Apple cider vinegar improves the body's utilization of iron, which carries oxygen to the cells. Oxygen is essential for burning fat.

Finally, apple cider vinegar contains several acids that act as digestive enzymes that help break down carbohydrates slowly, slowing their absorption into the bloodstream.

In the next few chapters we'll look at lifestyle changes that can help you lose weight...

28

Stress Makes You Fat!

You've all seen this before: a woman who has a decent figure suddenly gains a huge belly, seemingly overnight. I saw it with my mom after her divorce. I saw it with a friend who was harassed at work. Stress makes you fat. Stress can sometimes be a bigger obstacle to weight loss than food!

Part of our obesity epidemic can be blamed on stress. The world has never been in such a dire state economically. But even if you are rich, there's the environment and concern about the world your children and grandchildren will inherit.

My mother used to tell me about all the hard work my grandparents had to do by hand since most machines weren't invented. They made quilts, washed clothes by hand, made butter by beating cream, and so on. But did they have to contend with the breakdown of the family and community, the noise, water and air pollution, the pollution in our food, worrying about their kids doing drugs or joining gangs? Did they have a mortgage that ate up half their income? Did they worry about downsizing or outsourcing?

The stress cycle goes like this: When you are stressed, you activate the "fight or flight" system of the sympathetic nervous system. Although the fat-burning hormone adrenaline is released, when stress becomes chronic it can be overshadowed by the fat-storing hormone cortisol. Excess cortisol can cause your body to use the body's muscle tissue as fuel. It causes sugar to be released from the muscles. Then the release of insulin (due to excess sugar) causes the sugars to be stored as fat around the belly (unless you are running from a tiger—in that case, the sugar is used to help you run!)

The body will try to hang on to its emergency fat storage. And cortisol will even store fat. The fat cells in your abdomen contain four times more cortisol receptors than fat cells beneath the skin.

Avoid stress as much as you can in your life. Even a short stressful situation can be bad because cortisol stays in your body for up to eight hours. Excess cortisol will also prevent you from getting a deep sleep which

you need to release the fat-burning growth hormone. When you sleep less, you also get less of the appetite-suppressing hormone leptin.

Even excess intense exercise can be stressful.

And even though many people relax while drinking a cup of coffee, caffeine activates the adrenals and creates stress.

Never eat when stressed: you won't digest your food well, for one thing. For another, the adrenal hormone cortisol will encourage the food to be stored as fat around the belly. Also when stressed, you become less sensitive to leptin, the hormone that suppresses appetite and tells your brain you are full.

If you are in a temporary situation in which you are stressed, have your alternative doctor prescribe DHEA, a hormone which counteracts the stress.

Best of all, learn to not react to stressful situations. If you don't react, but remain calm, your body won't release stress hormones. Put everything in perspective and realize that even if the worst case scenario happened, this life will be over soon and nothing really matters in the scheme of eternity. Have faith that everything works out in the end. You are just here passing through and it will all be over soon. Your real home is not here.

29

Lose the "Wining and Dining" Mentality

A friend of mine is a college English teacher and she once had her students write about what they considered the ideal date. While the young men wrote about having fabulous sex, the young women all wrote about being wined and dined at the most elegant restaurants, eating the tastiest morsels in a place by the beach with dim lights, and facing their date while engaged in wonderful romantic conversation.

For years, before I married my husband, he took me out to eat every single night! Once we were married, I was expected to cook. The old saying goes that the way to a man's heart is through his stomach, but I think often it is reversed. Women have probably more issues than men about food and nurturing and love.

For years when I wanted to connect with my husband at the end of a long work day, it was all about food. One year when I had a particularly stressful job, I demanded that he take me out to eat nearly every night! And it was more like "dining and whining." I was so stressed out and felt that having someone serve me fine food would be the antidote for the stress. At this time we had about four places in town that served raw food dishes, but they were very expensive. I often wonder, what if we had tucked that money away instead of blowing it all on restaurants?

I even met a raw fooder male who said he got off the diet due to wining and dining his current wife.

I came to realize that eating out wasn't really just about the food. Dinner was a time that forced us to communicate without any distractions. If we ate at home, it would often be in front of the TV, watching the news, and usually not even together, as each of us would eat when we felt like it, and that rarely coincided. Eating out forced us to having communicating time, face to face, and in a beautiful stress-free environment.

I cannot say that I never use food for comfort, stress management or excitement, but this is no longer how my husband and I connect. We no longer feel compelled to eat together or eat out. Our evening time is now "sunning and running." (We don't actually run, but "walk" doesn't rhyme with "sun.") We sungaze, watching the sun go down during the safe times (www.solarhealing.com) and take a walk out in nature, either the beach or the desert. We give each other our undivided attention every night at this special time. This is our stress-free time of communication for just the two of us. Food is no longer needed for romance.

30

Timing is Everything

All weight loss experts and studies indicate that eating breakfast is critical to weight loss. It is also important to eat three meals and several snacks. Eat *frequently*, but *small amounts*. This keeps your metabolism burning throughout the day, because eating stimulates your metabolism. It also keeps your blood sugar steady so you don't get hungry. Eat before you get hungry and you will be much less likely to overeat.

Just keep a monitor on the calories. Write it down or you will likely forget!

The way sumo wrestlers get so huge is by skipping breakfast and eating lunch, and then eating dinner right before retiring for the night. No wonder we have so many people in this country that resemble sumo wrestlers! We need to eat breakfast and we shouldn't eat anything for at least two hours before sleeping.

At night, the body slows down its metabolism and stores any food in the system as fat. Even a bedtime snack can inhibit the release of GH (growth hormone). GH is important for burning fat, building muscle, and slowing down the aging process. Since it is mainly released at the beginning sleep stages, peaking at 1:00 AM, you don't want to suppress it by eating at night. Many raw fooders are now skipping dinner altogether. Tonya Zavasta has made it popular to not eat after 2:00 (or at least 6:00) PM.

31

While You Are Sleeping...

Sleep is a very important part of weight control. No wonder we are getting fatter. With the increased work load over the past decade, as well as the increased entertainment load of the internet, Americans are getting less sleep. When commuting, work, time with family and leisure activities mount up, sleep tends to be the thing that is sacrificed. Surveys suggest that the average American gets 6 $\frac{1}{2}$ hours of sleep a night, compared to $\frac{7}{2}$ in the 1950s. Some Americans get 2 hours less than they did forty or fifty years ago. Yet most adults require 7 to 8 hours a night, while teenagers need 9.

During deep sleep your body releases growth hormone which is important in burning fat and maintaining muscle.

Sleep deprivation also decreases the amount of the hormone *leptin*, which is necessary for appetite control. It furthermore increases the amount of *grehlin*, the hunger hormone. So less sleep results in more hunger!

Taking stimulants or undergoing stress can cause release of the hormone cortisol, which may deprive you of sleep.

Sleep is also the time your body regenerates. No wonder they call it "beauty sleep."

32

The Ecstatic Bite

Years ago I was at a raw food potluck with noted raw food author and minimal eater David Jubb. He announced that the food was all ready, reminded everyone to "just take small bites, just small tastes." When he saw that no one was paying attention to him, he added, "OK, whatever!"

If you pay close attention when you are eating, you will notice something amazing: it is only the first bite or two, maybe three (depending on how much true hunger you are experiencing) that tastes really, really, really good. The "feel good" neurotransmitters (dopamine, serotonin) and endorphins seem to be really high only for the first bite or two.

What this means is, after the first bite—unless you are truly hungry or your body really needs those nutrients—you are essentially just "sport eating" or engaging in "mindless eating." Like a drug addict, you are trying to recapture that initial high.

Mirelille Guiliano explains, "One thing French women know is that the pleasure of most foods is in the first few bites; we rarely have seconds" (French Women Don't Get Fat, p. 31).

She explains that a small amount of the finer things is much more enjoyable than a large quantity of food of inferior quality. "There can be an

almost ecstatic enjoyment in a single piece of fine dark chocolate that a dozen Snicker bars can never give you" (p. 32).

The French are known to be thinner than Americans. One of the reasons is that they eat their food slower; they relish each bite. They take time to prepare a nice meal from whole foods, and in the ritual of it all, enjoy every bite in a relaxed atmosphere.

My first introduction to this concept was as a freshman in college. A friend that (like me) had an eating disorder commented that she had read that you are supposed to focus exclusively on eating while eating. And after a few bites, you really won't feel much like eating (again, unless you are eating from hunger). If you eat something, you should eat a bite or two and really savor it. But if you continue eating after that you will probably get bored unless you are doing something else with your mind: conversing, watching TV, reading, daydreaming, thinking, walking or driving, for example.

Once my husband and I were eating lunch with our spiritual teacher, Robert Adams. My husband was anxious to pick his brain, asking him all sorts of questions. But when the food arrived, Robert gently said, "Enjoy your food!" This reminded us that it is in the silence, and not chatter, that we can truly practice the Zen of eating.

This "mindful eating" of focusing exclusively on each bite should be practiced at all times, even when eating a meal, but especially when indulging in calorie-rich or high glycemic foods that your body does not need much of. An example would be dates or dehydrated fruits. You could easily eat quite a few of these without focusing on them. Before you know it, you have indulged in hundreds of calories and a high dose of sugar! But if you know beforehand that you will allow yourself just two dates or just one dehydrated mango cheek, you will savor every bite and feel fully satisfied. Any more would be mindless eating.

The same goes while munching on nuts. If you are not mindful, you could easily consume a cup of nuts, which is about 800 calories of mostly fat! One mistake raw fooders make at the beginning is to eat the same volume of nuts that they used to eat in carbohydrates such popcorn or pretzels. No wonder they feel exhausted and don't lose weight! They should be savoring one nut at a time and eat no more than a handful, even when hungry.

While drinking a smoothie or fruit juice, use a straw (preferably of glass so you can reuse it) to savor each sip. Drinking through a straw forces you to slow down and relish every mouthful.

You should stop eating when you no longer feel sheer ecstasy. Each bite will be divine, sacred—and you will feel gratitude for that bit of ecstasy. Save the rest of your goodies for tomorrow's divine bite. You will not only keep the weight down, but save on food bills. But your eating pleasure will not be diminished in the least, since the pleasure is mostly packed in those first few bites!

If you are not eating 100% raw, be careful that you do not eat something that has monosodium glutamate (MSG), as that can trick the brain into wanting more and more. The eating "ecstasy" never seems to end. Before you know it, you have eaten the whole bag of 4-ounce potato chips! (Hence the old commercial, "I bet you can't eat one!") Intense spices, salty

or highly sugared products can also cause that addiction. It also doesn't work with the cooked foods you are most fond of: I have found, for example, that this one-bite method doesn't work with salted popcorn.

I noticed this one-bite strategy worked for me when I was on a low calorie raw food diet and preparing food for my family. That one bite was just enough to satisfy me. At times when I am eating 95% raw, I also enjoy a one-bite sample of food at Costco's or at potlucks. That one bite can be so satisfying that I don't feel deprived when I get to taste my favorite cooked dish. Note, however, that this one bite strategy should *never be applied to* "bad" foods when one is feeling emotionally down, or it could easily turn into an eating frenzy. Use this for the "bad" foods only when you are feeling upbeat and in complete control! Most of the time you won't even be tempted to use this with bad foods, just the calorie-rich good foods.

I have also heard that gourmet chefs are rarely overweight because they appreciate the fine quality of their food so much that the small portions are enough.

The one-bite concept has turned commercial with bite-sized portions of candies and even cookies (offered in 100-calorie packets) which is probably a result of the baby boomers aging and having to watch our waistlines.

I have found that when I allow myself to eat a lot, such as at a raw food potluck, I really don't enjoy the food as much as when I allow myself to eat tiny portions. David Jubb was right after all! Eat less, and *enjoy more*!

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Don't Mix Food and Pain

Don't eat to stuff your feelings. It doesn't work for long-term pain relief, and you should know that by now. It only creates *the new pain* of being overweight and out of control. Eat only when you feel good, or at least use the "ecstatic bite" method of mindful eating so that you at least feel food while eating.

When you are feeling down, watch and observe your feelings. This helps you detach from them and realize the feelings and emotions are *not* you and are just passing through you.

Once I took a seminar in which we were told to go into and face our deepest painful memories. It really wasn't that bad! After decades of trying to avoid my pain, I finally faced it and realized it simply wasn't that scary. I had spent so much, so very much energy suppressing pain when it was so much easier to face it and feel it intensely once and for all. I was surprised to find that the pain I feared was like the weak man hiding behind the mask in the Wizard of Oz.

In facing your pain, at some point you come to the awareness that who you really are, at the deepest core, has always remained untouched by

the pain, impermeable and in a safe place as the observer of all your dramas and sagas.

Your inner child does like an audience, so it is best if you can go to a counselor when first confronting your demons. If you can't afford it, look for a more affordable group session.

Don't mix food with negative emotions or pain. Not only will you be far less inclined to overeat, but your digestive system will thank you.

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Fasting

Fasting (not eating, and just drinking water) one day a week is a great way to lessen your desire to eat. If you can't or don't want to do that, try consuming only freshly squeezed juices one day a week. If you don't want to do that, try just having a bit of fruit and nothing else at each meal for one day a week. Or you could pick a 24-hour fast, fasting from 6:00 PM of one day until 6:00 PM of the next. Otherwise, the one-day fast is typically a 36-hour period, or going one full waking day without eating.

The reason this is good is that not only do you reduce your caloric intake one day a week (which makes weight loss much easier to maintain), but also because the rest of the week, eating less doesn't seem so bad compared to not eating at all! As my nutrition teacher at the Pacific College of Oriental Medicine said, "Fasting lowers the power of your desire body." In other words, fasting periodically reduces the demands of your appetite.

It helps to make this a ritual, keeping it on the same day of every week. Some people like to pick their busiest day. That way they won't think about food much until the evening when they unwind. Others prefer to make this a day they can rest and "fast" from everything that involves work and responsibility. They like to journal, listen to nice relaxing music, and rest in bed.

35

Supplements

There are many in the raw food movement who do not believe in supplementation. After all, you are getting more than your daily dose of five vegetables and fruits! Whenever possible, I do prefer to get all my nutrients in whole foods. In whole foods, the nutrients work together synergistically. Besides, there are many nutrients we have yet to discover, so if we rely on supplement too much, we may be missing out on these unknown factors. This is why it is good to eat a variety of foods. I discuss the pros and cons of supplements in great detail in *The Live Food Factor*.

When people argue that supplements don't work, I disagree. While working for years in Oriental medicine, I saw the power of herbs to heal. And most of those were cooked, so imagine how much more potent they would be if raw! What herbs and other supplements do is feed the body with missing nutrients.

In order to be sure the supplement works, you need to research the ingredients and the company that makes the supplement. It's worth paying a little more if you can be sure it is a source with high quality ingredients. Many supplements don't work because the companies use cheaper, low quality ingredients. You should also use powdered form when possible, since it is easier for your body to break down. Sublingual, timed release and vegan gel capsules are also good.

One argument in favor of supplements is that the soil is greatly lacking in minerals. Because of that, certain nutrients might be lacking even in a raw food diet.

Another issue is that a vegan (and even vegetarian) diet often excludes certain nutrients, or a person may not be efficient at extracting those nutrients from plants. For example, a vegan eating a cooked diet will often get Vitamin B12 from fortified foods, such as nutritional yeast, while a raw vegan needs to take B12 supplements.

I have come across some people over the years who do not do well on a vegan diet (or even the less restrictive vegetarian diet). They may have been missing B12, carnitine, zinc selenium, DHA, EPA, or the essential amino acids lysine and methionine. Some chose to go back to eating some meat or at least eggs and/or dairy. Others choose to supplement, so they can continue to eat as a vegan or vegetarian.

A third case in favor of supplements is that many foods are simply not available at the neighborhood market. Do you have easy access to coconuts? Can you go to the ocean and gather algae?

Let's now take a look at some of our weight loss supplements. A raw vegan may be getting her omega 3s from flax seeds, chia seeds and walnuts. But if she is tired, toxic, old, sick, or otherwise impaired, her body might not be able to convert the ALA into EPA and DHA. (Review chapter 9 to refresh your memory on these terms.) In this case, she might want to take algae-based DHA supplement. A raw vegetarian, on the other hand, could get these essential fatty acids from eating raw eggs from an organic, flax seed or chia seed-fed, free-range chicken.

Conjegated linoleic acid (CLA) has been shown in studies to help in weight loss. Food sources rich in CLA include grass-fed beef, whole milk, cheese and eggs. A raw vegan can get concentrated CLA in vegan supplements made from safflower oil.

Could You Use More Energy?

The mitochondria are powerhouses within all our cells except mature red blood cells. They are rodlike structures that handle much of the process of turning food into energy. They create 90% of the energy used by our cells.

When I think of mitochondria, I am reminded of the Gary Larson (Far Side) cartoon in which a medical student was put in a straight jacket and

sent to a mental ward due to his frustrations in trying to memorize the complicated Krebs cycle, which is the energy formation that occurs in the mitochondria. I sympathize with the student of the cartoon, since I had to memorize the Krebs Cycle in college.

Nearly all the energy you get comes from the mitochondria. So if they don't get the ingredients to do their thing, you will be tired. If they are healthy, you will be energetic. An active, energetic body has more mitochondria, healthier mitochondria, less fatigued mitochondria.

Nutrition expert Robert Crayhon compares the mitochondria to "nonstop parties." As we age, we party less, and so do our mitochondria. "Liven up your mitochondria with the right nutrients, however, and you will slow the aging process" (*The Carnitine Miracle, The Supernutrient Program that Promotes High Energy, Fat Burning, Heart Health, Brain Wellness, and Longevity*, p. 58). "A fish rots from the head down. The cells of your body rot from the mitochondria out. You are only as young and energetic as your mitochondria." He compares the mitochondria to our heart. Our heart feeds our body with oxygen and food, and speeds away waste products. Think of the mitochondria as the heart of each cell.

Crayhon calls carnitine "the most important nutrient for increasing mitochondrial energy and efficiency. Carnitine keeps energizing compounds coming into the mitochondrial party. It also acts like a bouncer and quickly gets rid of anything that could slow the party down." Carnitine clears the waste products from the mitochondria to avoid free-radical damage as a toxic by-product of food oxidation. It helps protect the liver (which is responsible for keeping us free of toxins and therefore fat) from toxins.

Raw vegans and vegetarians do not consume meat. Yet meat is the principal source of carnitine. Red meat has the most, while chicken and turkey have moderate amounts. Tempeh, tomatoes and avocados contain only small amounts of carnitine.

Carnitine is critical for producing energy and having an active metabolism. Carnitine transports the fatty acids from the blood into the cell for it to be burned in the mitochondria. Weight loss gurus such as Nicholas Perricone (*The Perricone Weight Loss Diet*) and Ann Louise Gittleman (*The Fat Flush Plan*) recommend taking carnitine supplements even if you do eat red meat! It helps prevent muscle loss during illness and aging, protects the liver, and helps the immune system. But it doesn't work without adequate omega 3 fats. And it should not be taken at night as it can cause insomnia. People who have a tendency towards mania or manic-depression should avoid taking carnitine.

Another one of the ingredients in the Krebs Cycle process is coenzyme Q (which is made in the body by the precursor CoQ10). Since raw vegans are unlikely to get much CoQ10 (unless they consume a lot of sesame seeds or sesame seed oil), this is a supplement they might consider taking. Vegetarians may get it from canola oil, but I don't recommend that since it is always genetically modified. Another source is soybean oil, which is genetically modified unless organic. Peanut oil is an additional source, but most peanuts have aflaxtoxin, which causes cancer.

36

Coffee—Not!

I recall when I was 30 reading Jane Fonda's newly released *Women Coming of Age*. She reveals in that book, written while she turned 50, that researching for the book compelled her to give up coffee. Her pivotal issue was what caffeine does to the circulation. "And a cappuccino and I were really good friends," she mused.

"Well," I thought, "Plenty of time for me then. I'm only 30. And right now I need coffee to get through acupuncture college. All the reading and endless memorization of herbs, acupuncture points, pathology, physiology...plenty of time before I have to think of giving up coffee.

And give it up, I did. I became an *expert* at giving up coffee, I did it so many times! I gave it up numerous times for six months to a year. One time I even went nine whole months with zero caffeine, not even drinking tea.

My husband would make little deals with me such as, "I won't drink beer if you stop drinking coffee." Since he hated me on coffee, and I hated him on beer, this was a powerful motivating factor for both of us.

And every time, sure enough, the aroma of coffee would eventually beckon me. The ecstasy of drinking it while reading nutrition books (including ones that criticized coffee) was wonderful. Discovering some incredible new information or insight was always the highlight of my day. Reading and coffee, they just go together. Ask any grad student.

Even as a raw fooder, I gave it up several times and came back to it. But being relatively pure, I had my limits: when drinking it. I would drink half decaf. I would drink it organic. I would limit myself to two or three cups a week. I would even make a coffee extract with a toddy maker to minimize the acidity. But I couldn't give it up. And yet I couldn't give up the idea of giving it up.

Coffee is bad stuff. Your bones responds to the acidity by leaching out calcium in order to neutralize it. (That goes for decaf too.) The caffeine in it depletes B vitamins from the body.

Green tea has been shown in studies to enhance weight loss. Though it contains caffeine, apparently it has an anticaffeine effect. But green and black tea are now known to contain toxic fluoride, which lowers the thyroid function. Even organic tea may contain some, unless it is grown in a pristine environment.

Through the years, I wondered: "Will I ever have my 'Jane Fonda moment of truth' in which I realize just how *awful* coffee is, that I really *have* to give it up, that it's *coffee* versus *me*?"

I think I had my Jane Fonda moment while researching for this book. I am not 50, but 52, so it took me a little while longer than it did Jane. And coming from a strong cardiovascular stock, it wasn't the circulation that bothered me. I can put up with a few varicose veins. Just wear longer shorts!

Then I read a study about the metabolic and hormonal effects of caffeine (*Metabolism*, 2007). Coffee was found to reduce one's insulin sensivity—"the effect persists for at least a week and is evident up to 12 hours after administration."

This study really convinced me that this "only 2-calorie" drink was sabotaging all my efforts at getting slim and staying slim, at getting peak energy and maintaining peak energy. I may as well think of a cup of coffee as a huge chunk of sugary cake! The roller coaster ride of hormones just didn't make it worth that half-hour or so of ecstasy. The insulin factor would leave me hungry all day, and storing fat instead of burning it. When I figured out how to minimize the insulin by taking a teaspoon of cinnamon beforehand, part of the "high" seemed to be missing. And even then, the cortisol secreted by the adrenals stressed me and increased my abdominal fat.

Now, I knew all of this before researching the book. But I was in denial. Now I am writing about it, which takes me out of denial and puts it in my face. Even though I confess, while at a café, I still occasionally sprinkle an ounce of coffee into my teccino. And on a rare occasion you might even find me ordering a small "split" at a Starbuck's.

37

Do Friends Make You Fat?

A study published in *The New England Journal of Medicine* (2007) focused on 12,067 people over a period of 32 years. They concluded that obesity is spread through social ties. A person's chance of becoming obese increased by 57% if he or she had a friend who became obese, 40% with a sibling, and 37% with a spouse. The same effects were not seen among neighbors, only people socialized with. People of the same sex had more influence on each other than did people of the opposite sex.

This could be due to all the food involved in social activities. In some parts of the world it is considered a bit rude to refuse food someone offers you. And when your friends are eating, it is natural to want to eat with them.

Another factor could be comparing ourselves with others we hang out with. When your social group is overweight, it is easy to think you are "normal" even though you, too, are overweight.

Learn ways to politely refuse when someone offers you food that is not healthful or helpful in losing weight. When you go to a party, BYOF (bring your own food). Politely tell people you are on a special diet. If you are too embarrassed to do that, eat before you go and then just exercise "the ecstatic bite" strategy to eat only a biteful of each dish.

Also, just as you should stop comparing yourself with ultra-thin models, you should not compare yourself with people who are overweight. It's too easy to think, "Oh I am not *obese* after all, like many of my friends" when you really do need to lose 20 or 30 pounds. It is best to compare yourself with only yourself—at an ideal weight.

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Don't Drink and Diet

Carbs and protein have 4 calories per gram. Fats contain 9. Alcohol has 7. That means alcohol has nearly as many calories as fat! And not only does it not contain nutritional value, but it also uses up many of your nutrients. It taxes the liver, which as we have seen is crucial in weight loss and keeping weight off.

Alcohol is a protoplasmic poison, which means it is toxic to every cell in your body.

If you are not an alcoholic, you may enjoy a couple of glasses of organic wine on the weekends. But if you are drinking more than that, you are sabotaging your efforts at weight loss.

Besides, alcohol lowers your inhibitions, good judgement and will power. If you drink, you are more likely to eat something that is not on your diet.

Unless taken with a meal, alcohol also causes a rise in blood sugar, inducing the vicious cycle of insulin.

When I first went raw, I thought, "Wine is raw. Cool! I will enjoy it with my evening dinners a few times a week." I got the organic stuff without the toxic sulfites. But after eating raw for some time and being so cleaned out, the poisons would filter through me faster than ever. I couldn't sleep. The next day I would feel depressed. It would take me three days to get back to normal, and by then I would think, "Time for a drink!" This cycle went on and it wasn't keeping me slim either.

Finally I read the chapter on the addictive brain in Gabriel Cousens' Conscious Eating. He explains that drinking alcohol may temporarily make us feel better (increasing endorphins) but it decreases the natural opioids. "Research has shown that the natural opioid activity in chronic alcoholics is as much as one-third less than normal" (p. 211). He goes on to cite a study by Genazzani in 1982 in which the beta-endorphin level in the cerebrospinal fluid of 29 alcoholics was about two-thirds less than the average person.

A light went off: I knew that I was setting myself up for this vicious cycle, which in German they call "the devil's cycle." I was drinking, and my brain produced fewer opioids because it thought it didn't need to make them because alcohol was providing them. As a result, I would be depressed the next few days. This in turn would tempt me to drink again to relieve the depression.

That was it. I read that three and a half years ago, and I haven't had a drink since. I have been tempted a few times, but I now have respect for alcohol. I know that it is a powerfully enticing drug.

Even when my husband would drink, I didn't. I knew that if I gave in, it would be harder to stop again. It's like Victoria BidWell tells me: every time you give something up, you need to fire up more of the brain's neurons to get excited enough to be determined to stick with it. The threshold needed to

stop the addiction gets higher each time. So when you give a vice up and yet later go back to it, you need to psyche yourself up with even more inspiration to kick it the second time than you did the first.

39

Muscle Burns More Calories than Fat

Some people think you need to exercise to lose weight just so that you will burn more calories. This is partly true, but when you look at the numbers, you realize you would have to work out a lot if you rely on that to lose weight. For example, the average person burns about 100 calories per mile of walking and takes about 20 minutes to walk a mile. So to burn up one average piece of cake (about 300 calories), you would have to walk one hour. That is not an efficient way to burn calories.

However, building muscle *is*. Muscles burn five times as many calories as fat does. This means that muscles burn more calories, even when sleeping! The muscles contain large amounts of mitochondria, the powerhouses that burn fat for energy.

You can build muscles by short bursts of extreme, all-out activity. This includes interval training, in which you sprint for a while, then slow down. There is also weight lifting, of course. Yoga can also increase muscle mass to some degree.

Increasing muscles gets more important as we age, because we typically lose muscle the older we get. This is called sarcopenia.

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Most Important, Love the Process!

If you want to become one among the small percentage of people that not only loses weight, but *keeps* it off, you must learn to love the process. You must become more conscious of how great you feel when eating food that is good for you. That reward will be there long before the reward of attaining your ideal figure.

You must not feel deprived. Otherwise you won't stick with it. It won't become a way of living. Hard-core dieting will make you obsessed with food, while you really need to relax around that area. Invest instead in new habits that will last a lifetime.

Your motives may vary, but health should be a primary factor if you want to keep slim. Your desire for health, hopefully, is greater than vanity. It stays with you far longer. The wrinkles eventually come, no matter how pure

we eat, no matter how slim we are. . Aging is inevitable, but loss of health is not.

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My Favorite Weight-Loss Recipes

Kelp Noodles

In the preface I explain that this single recipe was what inspired this book!

Kelp contains iodine, needed by the thyroid, an important organ in metabolism. The noodles can be found at Whole Foods or ordered at www.kelpnoodles.com. One package of these noodles contains *only 18 calories*!

- 1 package kelp noodles
- 4 level T of raw My Favorite Raw Salad Dressing (see recipe)
- ½ cup or more of cherry or grape tomatoes, cut in half
- 4 T parsley flakes or fresh parsley
- 2-3 cloves garlic, chopped finely
- 1/4 cup raw parmesan cheese or finely ground raw walnuts

Soak the noodles in purified water for about 20 to 30 minutes to soften, then drain. Mix everything in a bowl. Serves two. Enjoy! One serving is about 230-250 calories.

Pad Thai

Another way to use the noodles is to make Pad Thai. Soak the noodles 20 minutes or so to soften them. Then add a mixture of nama shoyu (unpasteruized soy sauce), unpasteurized olive oil, and raw apple cider vinegar. Chop up and mix in the following vegetables: bok choy, mushrooms, shredded kale and/or cabbage, green onions, garlic and sprouted mung beans. Add chopped uncooked tempeh for extra protein.

My Favorite Raw Salad Dressing

1 cup raw or extra virgin olive oil

3/4 cup apple cider vinegar

½ cup Nama Shoyu

½ cup raw tahini

4 T agave

1 T garlic

¼ T basil

¼ T oregano

Mix everything in blender till creamy. 1 level T is about 60 calories.

Raw Chocolate

This is a quick treat. The raw cacao suppresses the appetite. The coconut oil or butter burns fat. The agave or yacon syrup is medium glycemic and therefore does not increase the appetite the way most sweets do. You can get these ingredients online.

1 tsp. powdered raw cacao (This is too small an amount to make you hyper.)

2/3 to 1 T coconut butter or oil (Butter is thicker and creamier.)

1 T raw agave or yacon

Mix in a bowl. Serves one. It is a little bit, but will last you a long time! It is such a little bit, yet around 200 calories, so *don't have seconds*!

Banana Ice Cream

1 banana, frozen without peel (I have to say this, because a friend of mine actually froze her banana with the peel still on, and it wouldn't come off due to being frozen!)

1 T. coconut oil or butter

Put the banana through the blank screen of a juicer. If you don't have such a juicer, you can blend it in a food processor with the "S" blade. Only 80 calories, the banana will taste like ice cream. Mix in with coconut oil or butter, which helps burn fat.

Original Smoothie

This kind of smoothie was quite popular before raw eggs got a bad reputation, thanks to factory farming.

- 1 banana, frozen without peel
- 1 cup freshly squeezed orange juice
- 1 raw egg from organically vegan-fed, free-range chicken
- 1 T coconut oil or butter (optional)

The above makes one serving, which is 360 calories. Blend in a blender. Wow, this tastes so delicious! Make absolutely sure that if you eat a raw egg, it is from a free-range, vegan-fed (preferably organic flax seeds, for the DHA!) chicken. The yolk should be bright orange, not pale yellow. If you

prefer, you may omit the egg white. I leave it in because it makes the drink fluffier. But that is the only time I eat raw egg whites, which are a bit hard to digest. If you take this drink on a regular basis, leave the white out since raw egg whites deplete the body of the vitamin *biotin*.

Cinnamon Wheat Bran

I know I said in *The Live Food Factor* that we should all avoid wheat. However, the bran part is the fiber that is discarded in the processing of wheat, and many of us can consume this without a problem. (If you have celiac disease, I would not risk it.) I eat this whenever I need more fiber. This will lower the "glycemic load" of a meal, making the sugars get into the system slower. So it should be taken especially when you are eating something high on the glycemic index, such as dried fruit, dates, or honey. The cinnamon also helps stabilize the blood sugar. At first, the bran will have a "saw dust" appearance. But it actually tastes good! The fiber also absorbs fat in the digestive tract, so if you overeat fat this will help it to not be absorbed.

Don't over do this: bran is high in mineral-blocking phytates. Just use this with occasional high-glycemic treats such as dehydrated fruit, potatoes, or corn. Don't count it as any of your calories as it burns more calories than it contains.

¼ to ½ cup organic wheat bran¼ to ½ cup pure water½ to 1 tsp. cinnamon

Steamed Veggies with Seasoning

The person who is less than 100% raw can enjoy this recipe. Lightly steam a bunch of broccoli or cauliflower. Sprinkle with ground walnuts and flaxseeds ground in a Vitamix, Blend-tec or coffee grinder. Mix in dried parsley and garlic. There is a great product by Lydia's Organics which is 100% raw organic vegan called simply "Seasoning." It is very tasty and only 35 calories a tablespoon. The vegetables themselves are only 15 calories for half a cup.

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