How To Build Muscle on a Raw Food Diet

By Peter Ragnar

Chapter 1

Why You Need Muscle

The only difference between a beautiful, young, fit, athletic body and an aged, frail, and withered-up body is the amount of human growth hormone available. During exercise we release HGH. That's why exercise is so important to your health, youth, and wellbeing. HGH is also released during sleep and available by supplementation. But, the bottom line is that you need muscle to remain youthful. That's what this book is about.

First of all, the most important muscle in your body, your heart, wouldn't beat if the muscle was weak. In fact, you'd be dead without muscle tissue at work. You'd be a vegetable, unable to move even your littlest finger. Look what happens to people as they age; many have muscles so weak they're unable to even get out of their walkers. Soon, they become so weak they become bedridden, and then they die. Is this what you envision as your inevitable destiny?

I think it's outrageous when I hear people talk about the big 40. That's when somehow, like Cinderella's coach turning into a pumpkin once the clock struck twelve, you suddenly lose all your athletic ability. Nonsense! That's simply the time when age-related loss of muscle mass, strength, and function begins for most people.

It's also the time when the ratio of fat mass overcomes muscle mass, although you've got to admit that in developed nations, children appear to be born fat. It's no wonder researchers have drawn a correlation between waist size and the likelihood of developing diabetes. If your waist size is under 34 inches, you're probably safe; however, if your waist size is over 40 inches, you've probably already been diagnosed with diabetes. Now, the question resurfaces: do you want to be fat or fit? Don't answer. The fact that you're reading this book in the first place shows that you want to be fabulously fit and lean with lots of beautifully sculpted muscle.

While the medical fraternity generally focuses on the loss of bone mass (osteoporosis) in aging adults, the real problem is the creeping deterioration of muscle mass. Most people take it for granted that you're supposed to lose your athletic prowess as you age. I certainly hope you don't believe that. I don't, and as a pre-baby boomer senior, I still put on muscle easily and am as strong as I have been any time in my life.

Actually, after I first began eating 100% raw foods, I did lose muscle. I seemed to drop weight like a lead balloon—30+ pounds of it. My body fat index was at 6%, and I looked like an anatomy chart. However, I made a startling discovery: my body weight settled down at 172 pounds, and I soon began to gain muscle weight faster than in any time in my life. This discovery of how to gain muscle on a raw food diet is the reason I've written this book. You don't have to be thin as a rail and just as frail; you can pack on all the muscle you desire. Now, don't misunderstand me—you will have to work hard to do it. Have I scared you yet?

Well, this ought to concern you. The progressive loss of muscle mass is just like the unseen loss of bone density. The medical term for this loss of muscle tissue is sarcopenia. Sarcopenia is a multifaceted process including loss of growth hormone, loss of testosterone (needed by both men and women), oxidative stress, and loss of motor nerve cells.

One of the potential problems many experience on a raw food diet is a lack of adequate protein and calories. If this condition persists, there is a progression of sarcopenia that is difficult to reverse; however, it is not impossible if one begins today. Since sarcopenia is first evident in adults around the age of 40 and greatly accelerates after 75, now is the time to do something about it.

It is believed that this loss of muscle mass is associated with a decline in mitochondrial function. The mitochondria are where your body generates energy through the production of ATP. The lower the ATP levels, the more the body's muscle mass index declines. Without those energy molecules, it is more difficult for the body to detoxify and replace the cell damage that occurs with intense exercise.

More on how to increase the energy stores of your body later, but first understand that calories are needed for fuel. No matter what you hear about weight gain or weight loss, the bottom line is that it is measured in calories. Of course, the question arises, “Calories from what?” We will discuss that in detail when we discuss how you metabolize your food.

The point I really want to make is that you need muscle tissue and you should do everything you can to build and maintain it. Of course, there are things you should not do in an attempt to build muscle: taking steroids or eating chemically laden meat or cancerous chickens, for example. The bottom line is that muscles are good and it is unhealthy to be without them.

Listen, I've been lifting weights and exercising for more than 50 years. Once, I found an abandoned old tractor axle on my grandfather's farm. I could barely get my hands around it, but it made a great barbell. So, being the impetuous young man that I was, I began lifting it with regularity.

My aunt came to visit and saw me lean, tan, and fit. She scornfully rebuked me, “Why, you're going to get those ugly bumps all over your body from doing that!” (The bumps she referred to were muscles.)

I retorted, “I should be so lucky!”

She argued, “Look at my Paulie.” That was my cousin Paul. I just hated it when she called him Paulie. “Paulie doesn't exercise or try to hurt himself like you do, and he does just fine. Why, he's got a very good body!”

To which I countered, “He's FAT!”

She huffed off quite offended. By the way, he was not only fat—he's dead. Yep, died about 25 years ago. We were the same age.

So, does exercise kill you? Well, certainly not in my cousin’s case. But we hear the tales of strongmen who die young—is there any truth in that? What is the defining difference between strength athletes who break the century mark and those who die before 65?

Author Bob Brown conducted a study of the longevity of 70 old-time strongmen that was reported in the 2005 June-July issue of *Iron Man* magazine. When Brown checked the ages at death, here is what he found. He divided the group of 70 men into the early death group and the long life group. Then he compared the life spans of the strongmen to that of the average, untrained man.

Here's what he found: 55% of the average men suffered an early death before reaching 65 years of age. However, only 25% of the strongmen fell into the early death group. They had more than double the survival rate of the average untrained man—and consider, this was in spite of poor diet and bad habits! Of the average untrained men, only 10% lived past the age of 75. Again, the statistics are incredibly impressive—50% of the trained men made it to the long life group.

Now contemplate this: at the time when these strongmen lived, there were only 200 million people in the United States, and only 200 broke the century mark. That's 1%. Of the 70 randomly selected strongmen, with a vast difference in diets and habits, 2 men lived beyond the century mark. That means almost 6% of the strongmen lived beyond 100. That's 600 times more than the untrained group, in which only 1% of the population made it beyond 100 years of age.

Do you think it might be a good idea to maximize your chance of a long life by putting more muscle on your bones?

Well, I don't know about you, but for me it is definitely a priority. Of course, this also requires knowledge of the foods that can supply your muscles with what

they need to grow. As an example, intense exercise can deplete levels of choline, a B vitamin. In a marathon, runners experienced a 40% drop in plasma choline levels. This could have been avoided by an increased consumption of phosphatidylcholine, a phospholipid rich in polyunsaturated fatty acids. These are very, very important in supporting your brain, nervous system, liver, and heart.

Now, the reason I bring this up is that I sincerely doubt any of those long-lived strong men knew anything about it. If they had, could they have lived even longer? If you're already on a raw food diet and you exercise on a regular basis, you may be lacking in choline, which is richly found in oats, cabbage, and cauliflower. This is one of my reasons for consuming lots of raw, organic oat groats for breakfast. You could say I'm usually feeling my oats—that means my testosterone is flowing strongly. Remember, muscles love testosterone; it’s one of the major muscle stimulators. It is both an androgenic and an anabolic. As an androgenic, it produces maleness; thus, in addition to other functions, you develop a larger sex organ. As an anabolic, which means it builds tissue, testosterone produces larger muscles and greater strength.

While we're on the topic of this growth promoting hormone, a warning: don't ever take injections of testosterone. When your body no longer produces its own, your pituitary gland will shut down your libido permanently, your testes will shrink, and you'll probably develop prostate cancer. None of that will happen if you obtain hormone stimulation from raw organic foods.

Your production of testosterone can naturally be increased by choosing the proper foods to make up your raw diet. To grow muscle, your body must have enough cholesterol; without cholesterol, your body would be incapable of producing steroid hormones. Steroids are a large group of lipids or fat substances that play many vital roles in maintaining the health of your biological systems. Testosterone is a steroid. Muscles love testosterone!

I'll try to keep this simple. Cholesterol affects the production of pregnenolone, which generates progesterone, which generates DHEA and androstenedion, which cause the production of testosterone, which stimulates muscle growth. All major steroids descend from cholesterol.

One of the difficulties of building muscle on a raw food diet is the lack of enough healthy cholesterol to promote an anabolic reaction. From my personal observations, men become feminized without these dietary essentials. I've also seen women looking like the skeletons used to teach students in an osteopathic college. Women also need testosterone; they produce it in both the ovaries and the adrenal glands. In a male, most testosterone is produced by the leydig cells in the testes, and some comes from the adrenals. In one study I read, older men had half the leydig cells of younger men—thus, half the sex drive and muscle, due to half the testosterone.

While drugs and poor dietary choices may contribute to muscle loss for the average person, what about health-conscious individuals who really want to look fit and vibrant? Well, let me say this: if you are losing muscle and developing the death-warmed-over look, this book will reverse that trend. If you are already cut, ripped, and muscular, but are destroying your internal organs by consuming toxic chemicals in your food and further destroying its nutritional value by cooking it, this book is for you!

You need muscle to walk, talk, play, and enjoy sex. You need muscle to feel good about yourself, to exude a healthy confidence, to carry yourself with assurance. You need muscle to attract all the things that make life enjoyable. Muscles build self-esteem; muscles tell the outer world that your inner world is solid, that you have self-control and personal discipline. This is why you should build muscle. Now, let's build muscle so we can walk tall.

Chapter 2

How to Develop Your Muscle-Building Base

If you were going to build a house, you would first need to decide on what the best materials would be. Naturally, the choice of materials would be governed by the anticipated strength of the structure. The size of your structure would require enough materials to be available for the construction.

Assuming you've chosen the best and highest-quality materials to build with (which I'll list for you as we go along), you'll have to be aware of a few facts from the start. I hope this doesn't stop you in your tracks, but here it is. If you want to add one pound of muscle, you are going to have to eat more food. Your calorie intake should be at least 2500 calories more than required to maintain your current weight. (however raw foodist require less calories to maintain weight than a cooked food eater). If you do this, you can gain a pound of muscle in a couple of weeks, providing you work your butt off in the gym. Are you willing to make that commitment, or are you content to be a scarecrow?

If you're a 140-pound man, it will take you 9 weeks to gain 5 pounds of muscle if you follow the program in this book. If you are a woman weighing 100 pounds, the same gain in muscle will require 10 weeks. For a 10-pound gain, simply double those figures. For every additional 20 pounds of original weight, deduct half a week. So a man weighing 160 will take 8.5 weeks to gain 5 pounds of muscle, while a 180-pound man requires only 8 weeks.

Since muscle is built with protein, you will have to increase the number of grams of protein you eat per meal. However, you will only assimilate a small amount per meal; the rest of the excess unassimilated protein will be stored as

body fat. This is why it is important to begin eating more small meals per day, perhaps as many as five.

I personally enjoy high-calorie/high-protein snacks like the nuts I carry on my website, Raw Organic Live Nuts. enzyme-rich organic foods. If I sit down and enjoy a 4-oz. package of their pesto walnuts, that's an extra 600 calories and 16 grams of protein.

Before workouts, you can eat some dehydrated fruit. As fruits dehydrate, their natural sugars become concentrated. Just a small handful of dried fruits, about ¼ cup, will yield another 120 calories. Now, finish it off with a glass of fresh apple cider and add another 120 calories. Raw organic juices add a very important component in building muscle—potassium.

Potassium removes waste products that accumulate in your muscle tissue during hard workouts. These include monopotassium phosphate, paralactic acid, and carbon dioxide. The sugar that releases workout energy is glycogen. It must be oxidized and converted to usable power within the muscle. Potassium salts are essential elements in this process. When oxidation is impaired, glycogen is not consumed, other sugars and starches cannot be used by the body, and your muscular activity comes to a halt.

In order for you to keep your muscles and nerves healthy, you must have a high percentage of potassium in your body. What I especially like about high-potassium foods and drinks is their ability to neutralize acids and toxins; they dramatically increase the alkalinity of your blood and lymph. Potassium literally washes your organs and muscles in a process called saponification, which is the conversion of fat into soap. You wash the built-up workout acids out of your muscles, giving you better muscular gains in less time.

One of the highest-potassium foods on earth are black olives, especially organic Greek olives. Just two olives will give you around 40 calories and a whopping 250 grams of potassium. In addition to my regular lunch of raw salad, I'll always consume at least 20 raw, organic black Greek olives—that's 400 calories. Since I usually get up in the middle of the night to drink extra water, vital for muscle tissue, I will also eat a couple of bananas. This ups my snack calorie count by another 210 calories.

Every afternoon, my wife and I have quiet time and enjoy a glass of red wine; we do the same before bedtime. Those two glasses of red wine add another 240 calories. However, I may omit the evening glass and opt for one of my favorite drinks, a "Merrie Wabbit." This is a combo of raw carrot, beet, and tomato juiced in the juicer with horseradish, garlic, cayenne pepper, half a lemon, and half a lime. I add a dash of vodka for my enjoyment (which you may want to leave out). Then I sprinkle dried onion and parsley on top. This drink contains 350 calories, making a total of 1750 extra calories from snacks and drinks. Oh, I

almost forgot six small sticks of celery with a tablespoon of raw organic almond butter on each piece—there's another 780 calories (plus 42 grams of protein), making the snack total 2530 extra calories. This will allow you to gain a pound of muscle every two weeks.

So, you can see, it's really not that difficult if you count. And at present, I only eat two meals a day. By adding one extra raw meal, I could gain five pounds of muscle in a little under two months. But, again, I've got to count calories and work out constantly. More on that as we go along.

Remember, muscle is 70% water, 22% protein, and 7% lipids or fat. Here's where we get back to those phospholipids we talked about earlier. You must train with sufficient intensity to stimulate new muscle growth by drawing amino acids from your bloodstream. Trained muscles do that more easily than untrained muscles.

The reason I find it easier to gain muscle on a raw food diet is that I get plenty of sleep. Your body's natural growth hormone is released mainly during periods of deep sleep. The delta and theta brain wave rhythms of deep sleep release the vital chemicals the body requires for growth and repair in around two-hour to four-hour cycles.

Chapter 3

Growth Hormone and the Importance of Sleep

Medical science has discovered that growth hormone can help increase muscle mass. This finding included people who didn't exercise and whose muscles were atrophied. So, human growth hormone was administered to the frail and elderly who were rapidly losing muscle mass. This muscle wasting condition accelerates if one is bedridden; you can age decades in only weeks if confined to a bed with an injury. However, if you take human growth hormone, it can prevent nitrogen loss, allowing you to maintain your muscles even if you're unable to work out.

In order to maintain and gain muscle mass, you must first replace muscle cells faster than you lose them. The word "anabolic" means your body is in a muscle-building mode, as oppsed to "catabolic," where you are losing muscle. The anabolic condition requires that you properly assimilate the amino acids you obtain from your food. If you do not, you will lose nitrogen, which is essential for the production of protein. Please keep in mind that stress hormones speed up the loss of nitrogen.

Stress hormones or corticosteroids increase your blood sugar, thus revving up your engine for a fight-or-flight reaction. Once you're in that wired state, forget about gaining muscle. For anabolic growth, you need peace of mind, rest, and sleep. Can you remember how hard it was for you to get out of bed in the morning as a teenager? That was because of human growth hormone. Human growth hormone increases the size of your muscles, strengthens bones, and heightens your sexual potency.

When your brain is in a delta wave state, you'll have strong spikes of growth hormone release. Thus the need for sleep. You know how good you feel after a deep dreamless sleep? That's because of the delta brain wave frequencies. Did you ever find it curious that older people get less sleep? Unlike teenagers, whom you have to drag out of bed in the morning, the oldster is already up at the crack of dawn.

That's because by age 60, most people produce very little human growth hormone. Growth hormone is said to drop by 14% for each decade of adult life. Not only is growth hormone destroyed by stress, but stress causes the brain to oversecrete brain-destroying cortisol. Cortisol reduces the neurotransmitter norepinephrine, which is essential for you to feel happy. When your pleasure pathways are blocked for a long period, a common condition called anhedonia, or the inability to feel pleasure, is established within the body. The happiness chemicals of youth have been burned up by life's stressors, leaving in their wake a grouchy old impotent senior or old bitchy witch. Yet look at the marvelous transformations that take place once you start exercising. What causes it? It has been discovered that vigorous exercise stimulates the production of growth hormone.

Exercise also increases the amount of oxygen and glucose the brain receives. It clears away mental cobwebs and necrotic debris (dead brain cells). Exercise increases the pleasure chemicals called endorphins and decreases high-density lipoproteins which clog brain circulation. Exercise also decreases the stress hormone, cortisol. By doing so, it erases depression and lowers blood sugar levels that predispose older people to diabetes.

The brain requires blood sugar in the hippocampus to lay down memory, but stress inhibits that function. This is why exercise is so important as a stress reliever. Bear in mind that stress releases cortisol, which interferes with your neurotransmitters. That causes the loss of concentration and memory so common among the elderly. The bottom line is that cortisol kills your brain cells, allowing harmful fats to accumulate and literally causing your brain to rot! Do you think a good exercise program might be a good idea?

Exercise relieves stress. When you don't exercise on a regular basis, stress chemicals like cortisol release a brain chemical called neuropeptide Y,

which gives you an insatiable appetite for carbohydrates that makes you FAT! Stress is why people eat too many sweets and starchy foods. Stress makes it almost impossible to adopt a raw food diet.

I also want to mention again that intense exercise can deplete choline levels, which are vital for proper brain function. If your brain doesn't get enough phosphatidylcholine, it will literally cannibalize its own brain cells to get it. As I mentioned in Chapter 1, oats are rich in choline. Choline is derived from lecithin, which keeps cholesterol soluble and flowing. Lecithin helps your body to digest and transport fats by increasing the gallbladder's ability to make bile.

The choline that is derived from lecithin is presently used to help people with Alzheimer's disease. It prevents brain deterioration. This is another reason to have a chlorophyll-rich "green drink" every day. You'll probably get a minimum of 2000 mg of lecithin in this drink. You'll find lecithin not only in the brain and nerve fibers, but also in semen, bile, and breast milk. However, if phosphorus is in short supply, lecithin cannot be produced in the body. Thus, feeblemindedness, memory loss, lack of nerve vitality, neural degeneration, and impotence ensue. Lecithin is primarily made up of carbon, hydrogen, and nitrogen. However, calcium, sulfur, and phosphorus play important roles as well; without phosphorus, lecithin is handicapped and powerless.

You're probably wondering, "Where can I obtain this extremely valuable mineral?" Again, try raw organic oat groats! They're our main source of choline, and it comes with its own supply of phosphorus. Almonds are also excellent sources of phosphorus. Once again, I'll mention my favorite nut snacks, available from Raw Organic Live Nuts—I urge you to try some of the great almond combos.

Another potent source of phosphorus are sea veggies like kelp and dulse. One of my most delicious meals is a combination of sea veggies, soaked nuts and seeds, warm water, and organic extra virgin olive oil. Olives are also on the list of the highest-phosphorus foods, as are seeds and nuts. Phosphorus-rich foods trigger muscle growth.

Do you remember the celery stuffed with almond butter? Next time you try it, realize that you're nourishing your brain, allowing it to overcome the crippling effects of muscle-eating cortisol, and preparing your body to keep producing human growth hormone.

Growth hormone is released in bursts, targeted directly to your muscles and bones. This infusion of hormone triggers growth. Here's how it works: growth hormone causes the liver to produce somatomedin, or insulin-like growth factor 1 (IGF). It travels to the muscles, where muscular growth is stimulated. What is left over after the first hour is then neutralized by the liver and flushed through the gall bladder. The gall bladder's bile (think choline, lecithin, and phosphorus)

flushes the residue so it can be eliminated from your body. Remember, your body has no lymphatic pump to move the waste that enters the lymph, so you must exercise to get this waste into the bloodstream for elimination.

While you can eat certain foods for more effective growth hormone production, you can't demand results. The greatest releases of this muscle-building hormone come during intense exercise and a half-hour to an hour after falling asleep. If you're really committed to packing on the muscle, you'll want to take a half-hour to one-hour nap after your workout. This will match the natural growth hormone release cycle with your muscles being more receptive and hungry for growth hormone.

I've found it quite effective to use a brain entrainment unit set on a delta brain wave track and a fifteen minute to half-hour subliminal program especially designed for muscle growth and maintaining youthfulness. I do this before my workouts for fifteen munutes, thus soaking my muscle fibers with growth hormone, making it instantly available for my body during my workout. Since my workouts are usually quite intense, that triggers an additional burst of growth hormone.

It is also good to take the amino acids arginine, ornithine, and alpha-ketoglutarate one hour before you work out and before you go to sleep. Arginine is so effective in releasing growth hormone that it has been used successfully to improve pituitary function in the brains of undersized children. At the University of Turin, arginine was administered to adults 66 to 82 years old to stimulate the production of human growth hormone and combat muscle loss.

Ornithine has also been given to patients after surgery to prevent muscle loss. When you hear alpha-ketoglutarate, think of the amino acid glutamine. Combined with ornithine, it has been proven to increase the production of human growth hormone much more than any of the other amino acids separately.

If you choose to supplement your training program with these amino acids, do it in a cycle not more than 12 weeks on and 6 weeks off. Of course, if you are not working out on a particular day, no aminos should be taken. Bear in mind that you must also have lots of vitamin C for these to be effective.

Once again, this brings us back to potassium. When the serum potassium levels in your body go down, this deficiency triggers your brain to reduce levels of growth hormone and insulin growth factor 1 or IGF. The reason I'm nuts about nuts is that the lecithin, choline, and acetylcholine they contain stall the production of somatostatin, which halts the release of growth hormone.

Some of my favorite veggies are some of the highest-potassium foods, like beets, broccoli, kale, olives, parsley, raisins, spinach, and sunflower seed sprouts (which I pile on my salad by the handful), not to mention almonds and

walnuts. I also pour on the sesame seeds and oil in many of my recipes. Additionally, I include plenty of Raw Fermented Organic Veggies, It's the secret of youthfulness of many of the worlds longest living people.
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For a potassium-rich salad dressing, you can't get better than raw apple cider vinegar and extra virgin olive oil. I might sound like a broken record mentioning my almost daily portion of dulse, kelp, sea lettuce, karango, etc.—all on the list of the highest-potassium foods. Bear in mind that the strongest men in the world have the highest concentration of potassium in their muscles. (As a side note, you'll never go bald with potassium in your system.)

By now you're beginning to see the valuable connection these foods have to preserving and promoting growth hormone levels and maintaining a healthy, fit, and muscular body far beyond what some consider old age.

You're probably wondering where you can get the amino acids I mentioned. You'll find arginine in all berries. This is why I include blackberries, cranberries, blueberries, and the renowned Himalayan goji berry in my raw oat breakfast, which is loaded with nuts and seeds (also on the list of foods with high arginine levels). Don't forget raw apple cider; drinking a large glass before and after your workouts will boost arginine and trigger the release of human growth hormone.

Remember, glutamine increases glutathione levels. This is important in preventing memory loss and the deterioration of brainpower. Of course, as you've just seen, it triggers the release of human growth hormone. It's richly supplied in my favorites: oats, parsley, and spinach (which I grow right through the winter in cold frames).

By juicing spinach and parsley, you will create a powerful cocktail to replenish lost glutamine from exercise. This is important because glutamine prevents muscle deterioration by catabolism and glutamine levels are directly related to how your muscles synthesize protein. After intense exercise, large amounts of glutamine are released from your muscles; up to 50% of the amino acids excreted from the body are glutamine.

Leucine is another amino acid that triggers the release of human growth hormone. It is burned in large amounts during long workout sessions. The good news is that, if supplied abundantly, it will spare other muscle-dependent amino acids from being used up. One of the problems an unhealthy athlete experiences is that both these amino acids generate increased levels of ammonia to be discarded by catabolism. Again, to supply leucine, eat nuts and seeds, apples, and tomatoes.

To gain and keep muscle, you need human growth hormone, but also insulin growth factor. Without it, not even your hair will grow. Take starving African children; their human growth hormone levels are surprisingly high, but their IGF levels are so low that no muscle growth takes place. This is what I've seen in the raw food community and lots of vegetarians, especially vegans. As a raw food advocate, I'm certainly not bashing the countless health benefits of these diets, but let's face it—the concentration camp look, even if it is in vogue, is not at all healthy! That's why I've written this book. Muscle is a healthy alternative to skin and bones.

If you fast for five days, your IGF will drop by 66%. That's when you get into a negative nitrogen balance. A negative nitrogen balance means your body is in a catabolic state and you're eating up your own muscles to supply protein. If you work out intensely, you may not want to hear this, but you'll require a lot more protein in your diet in order to remain in a positive nitrogen balance. Your insulin growth factor level is in direct proportion to your protein intake. On an average diet, forget about your anabolic drive—you're doomed to be weak and skinny (or worse, weak, fat, and diabetic!).

I am aware of the high fat content of nuts and seeds, but remember that all harmful cholesterol comes from animal products. Still, the abundance of oils found in nuts requires that you burn that fat for energy. This means not missing workouts. If you want a high-protein food without the oils, then add sprouted peas and beans combined with raw organic wheat germ. These are the best protein sources that contain more that 20% protein and are also under 20% fat.

Beans combined with grains form complete proteins. So, combine raw soaked oats with sprouted beans or corn and peas and you'll get the very best carbohydrates with under 5% fat and a super high energy content of over 70% complex carbs.

Now, I hear many people object to all that sugar from grains. That's what fiber is all about, and that's also why you go to the gym. There is no more wonderful fiber than what you get from raw oats and fruit and vegetable pectins like the ones in apples and carrots. A high daily intake of dietary fiber is said to stabilize glucose levels so that pre-diabetics never resort to insulin injections and other diabetics are able to get off insulin altogether.

If you want fiber, see my spicy broccoli recipe or my grated beet/carrot/raisin salad addition, or how about snacking on raw pumpkin seeds? Oops! There's those oils again—ah, I love to burn oil for my energy needs. No! No! Don't slam down the book, I'm not talking crude! Let's get ready to talk nitro next.

Chapter 4

Nitro to Go

I was in fifth grade when I first discovered it. My teacher, the sweet silver-haired Mrs. McClure, was teaching us about the Pilgrims' plight in America and how the native peoples taught them to grow corn. They told the Pilgrims that if they put a dead fish on top of a hill of corn kernels and covered it with seaweed, they would get an abundant crop. The Native Americans understood, at least on an intuitive level, that without nitrogen, there is no life.

As the fish and seaweed composted, they released their vital nutrients into the soil. Nitrogen is the major electrolyte in both soil and living human tissue. It is a primary component of protein and amino acids. Did you realize that the air you breathe is 78% nitrogen?

If you want to increase the growth rate of both plants and human cells, there must be a constant supply of nitrogen. With a good supply of it, a plant grows sturdily with rich dark green foliage. An unhealthy plant will have paler leaves. If nitrogen is missing, the leaves will yellow as the plant begins to die. Why? Because when there is a lack of nitrogen, there is a lack of electrolytes. An electrolyte is a substance that is ionized in solution, rendering the solution capable of conducting an electrical current. When there isn't a spark of life, you're dead. You need nitro to go!

In a healthy body, the amount of nitrogen consumed should equal the amount excreted through urine, feces, and perspiration. This is called nitrogen balance. If you excrete more nitrogen than you ingest, you are in a negative nitrogen balance, which means your body is in a catabolic state and is decomposing. It's not too different from a plant in a negative nitrogen balance having its leaves turn yellow before shriveling up and dying. Protein-poor diets, excessive fasting, and wasting diseases all produce negative nitrogen balance. Plant and muscle growth both demand a positive nitrogen balance. This is why some people make great progress and pack on the muscle while others don't.

How much protein do you need to maintain a positive nitrogen balance? The answer depends in part on how many other fuel foods are eaten. Let's consider an experiment. If a dog loses 25 grams of protein on a day when none is eaten, you could conclude that the dog's daily protein requirement is 25 grams. If he is fed this much, we would hope for a positive nitrogen balance. But if he is fed the 25 grams and more is metabolized, that means he is still in a negative nitrogen balance. So, we need to increase the dog's protein intake until there is a balance between the ingested amount and the excreted amount.

However, if you include carbohydrates and fats in the diet, you can arrive at a nitrogen balance with a much lower protein intake. This is why science refers to carbs and fats as "protein sparers." Their presence in the diet reduces the quantity of protein required to maintain nitrogen balance.

In order to gain muscle, you must maintain a positive nitrogen balance. This may appear very high or very low depending on your present diet, but it has been estimated that a well-balanced diet providing the basic energy requirements for most people would look like this:

	Grams	Calories	Percent
Proteins	100	400	15%
Carbohydrates	400	1600	60%
Fats	75	675	25%

This is for a person requiring 2700 calories a day. But if you are committed to adding a pound of muscle every two weeks, you'll have to double that amount. Personally, I don't worry as much about grams of protein as I do about whether I have enough nitro to go.

Both humans and animals can synthesize various quantities of amino acids from simpler molecules. We can readily transform some amino acids into others. This is how a grass-eating 2000-lb. bull can put on massive amounts of muscle. Amino acids can ultimately be traced to plant synthesis. In order for plants to synthesize them, nitrogen and other elements must be present in the soil. In order to grow muscle, they must be present in the body.

While it is possible to maintain health on 25 grams of protein a day, you'll need much more if you don't want to look like a scarecrow. Oddly, due to low protein intake, many fashion models, although quite skinny, are actually obese, with extremely high percentages of body fat. The same is true of many vegans and raw foodists. Don't get worried about eating too much protein. All excess protein is decomposed into simple wastes of carbohydrates or carbonic acid and urea and flushed from the body.

This may shock you: it isn't protein that controls the growth of your muscles. It is heavy and intense workouts that demand muscular growth. You can eat all the protein you can hold and never gain an ounce of muscle. However, when you train hard, you need more protein to keep up. Taking in more protein will put you into a positive nitrogen balance, and it is the nitro that gives you the go!

Once again, protein doesn't stimulate growth; intense workouts do, in a positive nitrogen balance. That's in no way saying that you don't need more protein in your diet if you want to gain muscle. But no matter how much you ingest, you probably won't gain more than 12 pounds of muscle in a year, unless you're on steroids. I've read that the maximum amount of new muscle you can gain in a day is an ounce. The amount of extra protein that requires is ¼ of an

ounce, since muscle is only 22% protein. That quarter of an ounce of extra protein can fit in a tablespoon.

So how do you know if you're getting enough protein? That's easy—look in the mirror. Or simply take a tape measure and record your measurements. I've done this from year to year; at the beginning of each New Year, I write down my measurement goals for that year. Gaining even an inch of muscle takes a lot of work—but by the inch it's a cinch, by the yard it's hard. The time passes whether you're exercising hard or just sitting around. The hourglass effect is always at work; those little grains of sand accumulate, just like the little gains of muscle accumulate as long as you stay in a positive nitrogen balance.

If you eat too much protein, which is probably not going to be a problem for the readers of this book, the extra protein is converted into nontoxic carbon dioxide and water. However, it is coupled with toxic ammonia. Our bodies are wonderful in the way they handle toxic elements; ammonia is turned into urea and excreted via the kidneys.

If you overdo the protein, the effort to eliminate the excess waste will trigger dehydration and backaches. This is because unused protein creates amyloid deposits in your muscles and connective tissues. Some experts believe this is one of the triggers that bring on the aging process. It is something I've noticed in many professional athletes, especially in their faces; in my opinion, most look far older than they actually are.

Remember, since you and I can store protein in our bodies, we need not be as concerned as advertisers hope we will be. Just look at how you grew and developed on mother's milk, which has only a small percentage of protein. We are just like the soil, needing the vital elements for growth to occur. If it wasn't for the fact that our bodies turn toxic ammonia from protein metabolism into harmless urea, a cross-linking of molecules causing wrinkled skin would take place.

Also, excess protein clogs the cell membranes responsible for filtering oxygen and nutrients into the cells from the capillaries. When oxygen and other vital nutrients are no longer able to pass freely, neither are waste products. Unless you are on a high-flesh diet, this will probably not be a problem—nor will the irony of having a protein deficiency from eating too much animal protein and clogging the "basement membranes."

Another danger of too much protein is that the increased acidity of protein foods causes the body to buffer that condition—that is, to bring the body's pH back into balance. To do this, it will draw calcium out of the bones if sufficient calcium is not provided by one's diet. Additionally, high levels of animal fat further block the uptake of calcium through saponification and literally wash the calcium out of the body.

If you are deficient in calcium, your blood will not coagulate. That means your wounds will take forever to heal, and when they do, you'll have plenty of scar tissue as evidence. Additionally, all your muscular movement will be stiff. When stress, poor diet, and an overabundance of animal products combine, your calcium reserves become tapped, and the only remaining sources are your bones and teeth. When the calcium reserve in your teeth is tapped out, the protective coating of enamel is penetrated and tooth decay takes place. When the calcium reserves in your bones are tapped out, you don't fall down and break a bone, you break a bone and then fall down. This is the sad plight of the elderly. The lack of calcium first creates reduced muscular movement; then the calcium reserves in the bones are depleted, resulting in osteoporosis. The bones become brittle and porous and break easily.

I once heard about a powerlifter who was going for his personal best in the bench press when a bone in his arm snapped in half! I thought it a tragically interesting case.

Could excess protein have had anything to do with it?

All nuts, seeds, and grains are excellent sources of calcium, as are dulse, kelp, and all types of wild greens, particularly dandelion greens and lamb's quarter. Add broccoli and avocados, and you won't have to worry about seeing a dentist or breaking a bone.

When you see a clay-colored complexion, you can bet the bones are eroding, the joints are crackling, the knuckles are swelling, and the body is giving off too much carbonic acid, creating a musty smell like vinegar or ammonia. Cramping in the calves is another sign of a calcium deficiency.

While oats are a great calcium source, they lose most of their amino acids if they are refined. Organic, unrefined grains, nuts, and seeds contain *all* the essential amino acids to build muscle in addition to their rich calcium content.

It just occurred to me, do you know where they raise some of the strongest-boned and well-muscled racing horses in the world? In the state of Kentucky. Why are there so many horse farms and stables full of racing champions? Because the Kentucky bluegrass is one of the most nutritious, protein-rich, minerally loaded grasses in the world. Why? Because the region is loaded with limestone. Limestone is calcium. The calcium-rich bluegrass grows muscles and champions.

Bear in mind, what makes good soil makes good plants. Good plants make good muscles. It's as simple as that! Let's look for a moment at good fertilizer. In the fall of each year I lime my garden soil. Lime means limestone,

which is calcium. Calcium alkalizes the soil and as old farmers will tell you, as one told me as he took a handful of soil to his nose, “Lime sweetens the soil.” It will also prevent blossom end rot in tomatoes and tip burn on lettuce.

I’ve just ordered more seaweed concentrate for the garden. Seaweed is a wonderful source of nitrogen. Nitro gives the go to the garden. Now for a moment imagine a large family of bats flying out from their cave, zigzagging and diving, catching insects out of the sky. What are these insects nutritionally made of? Protein. Protein cannot form without amino acids, and amino acids are dependent on nitrogen. For the bat to be able to fly and the insect able to escape, they must both maintain enough vital force to do so. A positive nitrogen balance must be maintained for the bat to have muscle enough to fly. When the bat finally excretes his dinner of high-protein bugs, the bat guano, rich in nitro, goes back to the soil to fertilize new plants that will impart their muscle-building benefits to the animals that will later eat them.

This is why I scatter high-nitrogen organic bat guano on my garden soil. If you want to taste some of the highest-quality protein-rich peas, try the ones I grow with the nitro! They pack on the muscle. This year they lived up to their name “snow peas” and are scrumptious raw on a salad—that’s raw power!

The highest nitrogen foods include almonds, pine nuts, walnuts, peas, and beans like garbanzo and black beans. One of my favorite high-nitro meals is sea lettuce and dulse cut up in a bowl with some pine nuts, oat groats (presoaked), dehydrated onion flakes, organic tomato sauce, hot pepper, and organic extra virgin olive oil mixed with hot water.

High Nitro Raw Power

(total calories: 1000+, total protein: 15 grams)

1 handful sea lettuce
1 handful dulse
¼ cup pine nuts
¼ cup oat groats
4 Tbsp extra virgin olive oil
¼ cup organic tomato sauce
Dehydrated onion flakes
Hot pepper to taste
1 cup warm water

The really important part of this recipe is the amount of nitrogen you receive. Without the nitro, the protein is useless. If you recall our discussion about potassium, well, tomatoes are 10% potassium and muscles love them. You can make your own organic tomato sauce with the following recipe; I found this in a book called *Rawsome* by Brigitte Mars.

Tomato Sauce

½ cup sun-dried tomatoes, soaked for 2 hours
3 dates, soaked 20 minutes
4 large tomatoes
3 Tbsp extra virgin olive oil
¼ cup chopped fresh basil
2 cloves garlic
1 tsp fennel seeds
1 tsp Celtic salt
Combine in a food processor and pulse until still chunky.

If you want to alkalize the acids built up by your workouts, add some black olives to the recipe. Sun-dried black olives are one of the richest sources of potassium, as are the seaweeds—sea lettuce and dulse. Remember our discussion on human growth hormone and lecithin, so important for brain and nerve function? The key mineral is phosphorus, which allows the assimilation of nitrogen. You can't build muscle without cell division, and a cell cannot divide without phosphorus. It's also what regulates the pH balance of your blood, and it is one of the most important chemicals in your sex life. Where do you find it? Again we're back to our sea veggies: kelp, dulse, sea lettuce, etc. Also, oats again. Feeling your oats, are you? How about bringing back those organic Greek black olives? Also walnuts, almonds, and sunflower seed sprouts.

Now, in order for the soil to produce those muscle-building foods that give you the vital elements of calcium, potassium, phosphorus, and nitrogen, guess what? The soil must be rich in minerals first. A plant cannot give you what the soil can't furnish. Most of the food scarfed up by the supermarket rats is about as nutritious as cardboard. Personally, I'd be cautious about even putting it into my compost pile. You can't put these minerals back in the soil if they aren't in the food to begin with. To grow quality muscle, the foods you eat must first come from quality soil.

Do you realize the body you have today is a result of what you ate six months ago? I've read of scientists using radioisotopes that determine that you and I replace 98% of the molecules of our physical bodies within a year's time.

Remember, your body doesn't produce the minerals required for you to grow. And if the food you eat doesn't supply those minerals, you cannot and will not be able to become strong and healthy. If the soil can't supply your food with the needed essential elements, you will eventually become sick and die.

While we briefly discussed the importance of calcium, potassium, phosphorus, and of course, nitrogen, there are many more essential elements required to build a strong, healthy body. The four minerals that we just investigated are the primary elements of good soil, good plants, and good

bodies. I hope you can see the connections and the importance of your choice of muscle-building minerals. If you do, then you'll have the nitro to go!

Chapter 5

How to Grow Muscle

If you believed the ads for protein supplements, there would be no way to build muscle and increase healthy body weight on a raw food diet. Bodybuilding magazines usually recommend one to two grams of protein per pound of body weight. It is my own opinion that they've advocated such a high protein intake, first, to sell protein supplements, and second, due to the clogging of the cellular basement membrane, which actually creates a protein deficiency. Now, this may be the actual reason some people need that much protein in order to build muscle. But that is not the case with a raw foodist.

Why? Well, according to my own experience and the researchers at the Max Planck Institute, raw protein has double the strength of cooked protein. That means that as a raw food eater, you require half the protein that a cooked food eater needs to build muscle.

So, how much protein do you really need? I addressed this question back in 1999 while finishing up my book *How Long Do You Choose to Live?* In chapter 12, "Exercise," I wrote, "Remember proteins are built from amino acids and your ability to assimilate them is increased with exercise. You only need to increase the exercise, not the amount of protein."

In *Pumped: Straight Facts for Athletes About Drugs, Supplements, and Training* by C. Kuhn, Ph.D., S. Swartzwelder, Ph.D., and W. Wilson, Ph.D., they conclude, "Even heavily training athletes can easily consume enough protein in the average American diet. Men need between 50 and 60 grams of protein daily, depending on their age, and women need between 40 and 50 grams…If an athlete is eating a normal diet, there is no strong evidence right now that taking these bizarre products provides a benefit in terms of muscle deposition or athletic performance."

These authors also bring up the use of supplemental creatine, which many athletes use to increase muscular size. They state, "Training normally increases the enzymes that make creatine phosphate: training alone can increase creatine stores by as much as 30%, a change comparable to that claimed by dietary supplements."

The old-time strongman and wrestler George Hackenschmidt, the Russian Lion, stated in his book *The Way to Live*, "Man is born without frying pan or stewpot. The purest natural food for humans would therefore be fresh, uncooked food and nuts." I certainly agree. That's why I include so many raw,

organic nuts and seeds in my diet. I load my salads with high-protein sunflower seed sprouts and alfalfa sprouts, both high-nitro.

If you drive through farm country, the deepest, richest green fields are alfalfa. Farmers know that because alfalfa is incredibly rich in nutrition, they have to feed it sparingly to cattle and horses. But once again, consider how strong and muscular these animals get on grass alone.

Quinoa is another good protein source, but I get mine from the wild. If you've ever seen pigweed or lamb's quarter, then you've seen North American quinoa. In the fall, you can harvest handfuls of these protein-rich seeds into a can or bucket. Then just sprinkle them on your special raw dish. In my newest book, *Alive and Well with Wild Foods: A Raw Food Survival Guide*, I'll teach you how to easily find all sorts of muscle-building foods in the wild.

Remember, building muscle is as much a matter of nitrogen and minerals found in green leafy plants as of protein stores. You will need more calories and more grams of protein than someone who doesn't work out, but half the protein intake of the cooked food eater.

In order to build muscle, you must bring oxygen to the cells. In order for muscular contraction to take place, the electrical potential of the nerve and muscle fibers must be high and in place. Well, you might ask, "How do you do that?" With organic calcium. Almost every person living in an industrialized nation is deficient in this mineral. Why? Because drugs, soft drinks, caffeine, and other Western luxuries rob and block calcium absorption. Here's something to consider: even if a food is known to be high in minerals such as calcium, if it is a poor-quality food, you'll only absorb around 10%. If the food source is a high-quality organic food, the absorption rate will be around 80%.

Here's the reason: calcium supports your liver function so that gastric juices can be produced as well as enzymes. Your entire digestive system will not absorb the vital elements if the food you eat is of poor quality, as is the case with most food produced worldwide.

Now, you're probably wondering, "What's the difference between two carrots, one from your garden, one from the supermarket?" Yes, they look identical—maybe the store-bought carrot even looks more uniform. But all that changes once you take a bite. One tastes sweet and the other bitter. Organically grown produce will always taste sweeter. To what do we attribute the sweetness? As odd as it might sound, it's the calcium the plant picks up from the soil. This is measured by the plant's Brix reading—the natural plant sugars the plant contains. The higher the plant sugar, the higher the energy release. Indigestion is simply the failure of a food to release its energy; this is why many cannot digest raw foods. These foods simply lack enough calcium to release the plant sugars as energy.

Did you know that pigweed or lamb's quarter is one of the richest sources of calcium you can find? And it's free for the picking. It's so strong that Monsanto's poison "Roundup" weed killer can't kill it. Here's another interesting fact: the early settlers were told by the native people to let pigweed grow in their corn patch. Not only did it hold the corn up during windstorms, but it actually made the corn taste sweeter.

So, the veggies you consume raw with a high Brix reading will grow muscle faster than anyone eating the S.A.D. diet—the standard American diet. Yes, you can build muscle on a raw food diet if you go about it in an intelligent fashion.

Chapter 6

The Hard Gainer's Solution

Even among bodybuilders, a certain percentage of people are considered hard gainers. No matter how many calories or grams of protein they ingest, or how hard they work out, they gain muscle very slowly. If they cut calories, they find it even more difficult to gain muscle mass. So you see how this presents a big problem for the raw foodist.

If you, as a raw foodist, are also in the 5-10% of people classified as hard gainers, you will have to be especially conscientious in counting calories and in how you train. While I advocate bodyweight exercises—that is, using only your body's weight for resistance—I don't believe a raw foodist can build muscle that way, and a hard gainer, absolutely not. You can get tremendously fit and develop great endurance through bodyweight exercises, but this book is about how to build muscle. That means not having the concentration camp look. If that's important to you, you should consider this book a treasure.

At this point, you already understand that you possess a nutritional advantage over the average person. You realize that you can consume protein from raw foods and grow as fast as someone eating double the amount of cooked foods. If you've taken my advice on sleep to heart, you should be literally spurting human growth hormone all over your body. But your muscles will not and cannot grow without hard, hard, hard work!

Most people beginning to exercise read muscle magazine articles about people doing monster workouts consisting of dozens of different exercises: concentration curls, calf raises, one-arm tricep extensions, leg extensions, sissy squats, and the pec deck machine. While these have a place for some athletes, they are not for you! With these specialized toning movements, you'll just wear yourself out without reaching the deeper muscle fibers that provide for massive muscle growth.

You'll never grow big muscles through pumping movements. Getting larger muscles requires overload. I believe you must use heavy weights to make the muscle do something it isn't used to doing. You must force the cells components to grow!

Mild exercise can force a muscle to grow up to 10%, but strenuous overload can increase muscle size by 50% and in some cases as much as 70%. Think about it this way: the myofibrils are the contraction fibers of the muscle. The myofibrils are wrapped in protein filaments. One type is short and thick; the other is thin and long. Each type of fiber reacts to a different type of stress that causes the fiber to eventually adapt. That adaptation process is how muscles are built.

Your "fast-twitch" muscle fibers have a very thick nerve supply. Your "slow-twitch" muscle fibers have the ability to endure long and taxing endurance workouts. People who have a larger proportion of slow-twitch red fibers make good long-distance runners or swimmers. The white fast-twitch fibers, on the other hand, once properly stimulated, are the ones that give you those baseball-like biceps. Putting this all together, the myofibrils amount to around 30% of a muscle cell's size. To activate cellular growth, that muscle must be taxed enough to fail in the range of 6 to 12 repetitions. This weight must be between 60 and 80% of your best single.

So, you can see, I'm not talking about doing push-ups. Push-ups build endurance, but not muscle mass—unless you add resistance by adding enough weight to fail in the 6- to 10-rep range. Yes, you can buy a weight vest (I have one myself) weighing anywhere between 50 and 100 pounds. Try doing pull-ups wearing one.

By increasing resistance, you've increased overload. Increase overload and you'll increase muscle size. It's all quite simple. However, you must be overloading the largest number of muscles possible at the same time. Here are some of my favorite mass-building exercises.

First, the squat. Nothing stimulates total body strength like deep squats. Squat until your thighs are parallel to the floor or slightly below; you don't have to go all the way to the bottom to elicit explosive growth. Squats force the body to release muscle-building hormones. With free weights, you use all the different stabilizer muscles that you didn't know you had.

How important are these stabilizer muscles? Well, just imagine trying to jack up a car that is stuck in sand. Have you got the picture? These are the secondary muscles that those pumping, toning, and shaping exercises fail to hit. If you don't have a training partner or a safely built squat rack, do this: Get yourself an army surplus duffel bag and fill it with sand. Now go up and down a

flight of stairs carrying it in your arms like a bear hug. Okay, you've just discovered you don't need to do any other exercises. Once my friend John Saylor, the former Olympic judo coach, and I threw a 150-lb. sand-filled bag back and forth; the next day, when I took John to catch his plane back to Colorado Springs, I could feel every muscle in my body. (Check out his book on strength and conditioning secrets here: *Strength and Conditioning Secrets of the World's Greatest Fighters*.

Here is my all-time favorite upper body exercise. No, it's not the bench press. It's been dubbed "the upper-body squat." It works all the upper body muscle groups in concert. It is the parallel bar dip. If I could do only one upper body exercise, it would be this. I use a dipping belt that allows me to attach any size dumbbell for added weight. I usually do 5 sets of 5 reps with a weight I can handle in perfect deep form. That's going all the way down. Now, if you've got shoulder problems, don't go as deep as I do. To warm up my shoulders, I'll begin with a set of 100 dips done quite fast and shallow. Now, I'm set for overload and massive growth.

My next favorite mass builders are low rows, corner rows, and bent-over rows. Rows will turn your lats into wings. Next to thick-bar dead lifts, they're one of the best back builders available.

If all you do are the exercises I've just described, you'll build a powerful, rock-solid physique. I like to keep my approach simple with the fewest exercises for the greatest amount of growth.

You may be wondering what else I do. Yes, I do some specialized exercises for my arms, abs, and grip, as well as some flexibility exercises, but the most powerful ones in the development of inner power and strength are detailed in my course *The Art and Science of Physical Invincibility*.

Now, let's prepare some muscle-building delights in our recipe section, next.

Chapter 7

Raw Recipes to Feed Muscles

Do you remember grabbing a box of dry, sugary cereal as a kid? You poured it into a bowl, poured some cooked, drug-laden cow juice on it, and believed you were getting a good start on the day. Well, if you still need a fast (but healthy) start in the morning. Try this recipe I use as well:

Granola
(4-oz. serving: 500 calories, 14 grams protein)
Sprouted organic buckwheat groats
Sprouted organic flax seeds
Organic raisins
Organic dates
1/3 cup coconut milk

Here is another favorite breakfast dish I eat to build muscle:
Breakfast
(1120 calories, 32 grams protein)
½ cup soaked organic oat groats (soak them in hot water in a wide-mouth thermos the night before)
¼ cup organic raisins
¼ cup organic pine nuts (these can also be soaked or just added to the liquid)
1 banana
This next recipe can be eaten anytime. I often alternate it with the above breakfast dish.

Breakfast or Anytime
Sea Soup (1390 calories, 26 grams protein)
¼ cup organic pine nuts
1 handful sea lettuce and/or dulse
6 Tbsp extra virgin olive oil
¼ cup soaked organic oat groats (note: you can substitute wild rice soaked using the thermos method)
¼ cup chopped green onions
1 Tbsp raw, fermented organic miso

Lunch or Dinner
High-Nitro (1000 calories, 15 grams protein)
1 handful sea lettuce
1 handful dulse
¼ cup pine nuts
¼ cup oat groats
4 Tbsp extra virgin olive oil
¼ cup organic tomato sauce (see raw recipe for sauce earlier in this book)
3 Tbsp dehydrated onion flakes
1 hot pepper, finely chopped
1 cup warm water

Dinner
Spicy Broccoli (4040 calories, 60 grams protein)
½ cup almond butter
1 cup sesame oil
½ cup soaked raisins

1 Tbsp finely chopped ginger
2 heads broccoli
Half a red onion, chopped
1 lime with peel, finely chopped
1 cayenne pepper, finely chopped
Mix together the almond butter and sesame oil. Break up the broccoli heads into fine pieces, then grate the stalks. Add the other fruits and vegetables to the broccoli and pour the almond-sesame mixture over them, mixing to make sure everything is saturated. Transfer to a casserole dish and place in dehydrator for 2 hours. Serve warm on a bed of fresh greens.

Potato Broccoli
(915 calories, 19 grams protein)
½ cup organic dehydrated potato (to make this, cut potatoes into thin slices and place in dehydrator for 12 hours, then powder in a food processor)
Half a small head of broccoli
¼ cup pine nuts
6 Tbsp extra virgin olive oil
1 large slice of onion, chopped
2 Tbsp basil
dash hot pepper
½ cup hot water

Break up the broccoli into a bowl, add the other ingredients, and mix.

A note about using a dehydrator: the actual food temperature is usually 20 to 30 degrees cooler than the air temperature. Many raw foodists have different opinions as to when plant enzymes are deactivated. In his pioneering works on enzymes, Dr. Edward Howell wrote that anything above 140° F would kill all the plant enzymes. However, new research done at the University of California-Davis by Dr. John Whitaker shows that plant enzymes endure temperatures up to 158° F. Now, you'll still want to keep your dehydrator just below 140° F. Even at these temperatures, remember the actual food temperature can be as much as 30° F below that. Most of the leading names in the raw food movement endorse food dehydration.

Future research may prove this is all a moot point, since it is now believed that the really important enzymes are the ones your own body produces via the liver and pancreas, not the ones the plant produces to process its own nutrition drawn from the soil. Interesting issue indeed.

I could easily fill this book up with nothing but recipes, but that's not my purpose. I encourage you to find your own favorites and rate the calorie and protein counts. Once again, bear in mind that you will not need as much as a cooked food eater, but you will need more than you've probably taken in to date.

You'll notice I eat lots of organic nuts and seeds. You'll also notice that in the recipes I've presented, I use many organic, cold-pressed oils. These organic fats are very high in calories, but more than that, the fatty acids are rich in oleic acid, which *lowers* serum cholesterol levels in the blood.

You need fatty acids for the health of your eyes, ears, brain, adrenal glands, and sex organs. These beneficial fats help create muscle-building hormones and boost physical energy levels. The fats and oils you've read about in this book are organic, *unsaturated* fats. Unsaturated means they have empty spaces that allow them to link up with other beneficial biologically active substances, while saturated fats are completely clogged with hydrogen atoms, making them inert and useless. The only fats you require are the essential fatty acids like linoleic and alpha-linolenic acids. Flaxseed oil is the very best and should be on the top of the list. The others in the recipes are also very high on the list of good oils. However, don't overdo it and eliminate all saturated fats from your diet.

While it's not in any of my recipes, I also take a tincture I make from ginseng and some other pretty powerful herbs. Ginseng has been proven to improve athletic performance. The chemicals called ginsenosides increase your body's hormonal activity and reduce the lactic acid buildup in your muscles during hard workouts. This will allow you to work out more intensely and recover more quickly. In one double-blind study I read about, in a 12-week period of taking ginseng, experienced athletes showed an average increase of 22% in chest strength and 18% in leg strength.

So if you're worried about the high fat levels of some of these dishes, add ginseng to your diet. I often just chew on a piece of root during the day or when I'm hiking.

Ginseng will increase the oxidation of fatty acids, using them for energy and thus saving your glycogen stores. It's nice to have an herb that increases strength and endurance while at the same time allowing you to burn fat for energy.

Now, I'd like to reemphasize the need for lots of raw greens like kale. All the leafy greens are rich in protein and muscle-building minerals. I also enjoy protein-rich red clover blossoms on top of my sunflower seed sprouts. I sincerely hope that by following these suggestions, you'll build all the muscle you desire on a raw food diet.

Bonus Interview with Peter

The Power Within

By Andrew DiCiaccio Jr. *Free lance writer on strength conditioning and the martial arts.*

Deep in the woods of Tennessee, secluded on a cloud covered mountain, lives who many call “the magic man”. This is a pretty extraordinary title to put on someone but then again, I’ve found that Peter Ragnar is anything but ordinary. From his humble beginnings as a construction worker to his present state of a self proclaimed “self owned sovereign”, Peter has explored and harvested his many interests and talents.

He has gone on to write several books, multiple instructional courses, music, poetry and built his own home. Peter also has some pretty radical and controversial ideas on health and training. Two of his many interests have been his practice and teaching of martial arts and training of his inner and physical strength. Having been involved in martial arts since the early 1950's, Peter has risen to the rank of 6th degree black belt in Shingitai Jiu-jitsu. With his strength training he has impressed many with his feats that include bending rebar, nails, horseshoes and pinch gripping 160 lbs..

Part of Peter’s training is his *Magnetic Qi Gong course*, in which he feels the use of very strong magnets super charge his internal Qi energy thus providing a base for his physical strength. Peter also teaches and holds seminars for a select few and has had many accomplished students. He has worked with athletes the caliber of Matt Furey, a NCAA National Wrestling Champion and fitness guru, John Saylor, a 3 time U.S. Judo champion, and from the strength community, Steve Jeck, to name a few.

I’ve had the opportunity to interview Peter, hoping to gain some insight to his background and thoughts on training. The interview is as follows:

Andrew: Where and when were you born?

Peter: I can appreciate that almost all interviews begin with this question. In order to maintain youthfulness, I have concluded, one must train oneself to purposefully forget age. Since almost everyone has a deep-seated subconscious attachment to, time the past becomes very important. After all, if you believe your athletic prowess is slipping away, never to return, time and past become very important.

Since I don’t view life from this perspective, I haven’t created any walls in my mind. Do you think it is better to believe you can do a thing, or that after so many calendar pages are ripped off the wall that things become impossible?

To satisfy the question, here's the short answer. I'm a pre-baby boomer out of a Viking family that immigrated to America from a sub-arctic island.

Andrew: Did you grow up an athlete or were you involved in weight training at an early age?

Peter: Do you remember the old Charles Atlas ads where a 98-pound weakling gets sand kicked in his face at the beach? Well, that was me! I signed up for his course but became disenchanted when I found that I couldn't pull a locomotive up a steep grade. Next I recall locating two iron bars, and by reading about the old time strongmen, I figured out what to do with them. I also used springs and chest expanders, but never seemed to get the promised results.

One day, however, it dawned on me. A broad smile spread across my face as I spied the old hay wagon axle. At first my skinny little body didn't seem able to budge it. Days soon sped into months, and before I knew it, I was pressing the old axle. At the time, I really wished it wasn't so thick and difficult to grasp. Oh, for that blessed serendipity.

Andrew: You have said you were an impoverished, unemployed construction worker with no formal education. Can you tell me more about your background?

Peter: I was always awed to see ironworkers erecting skyscrapers. It was a little like watching a high wire act at the Ringling Brothers Circus. I figured it took a lot of guts and physical strength to climb those steel columns. Maybe if I could do that, I reasoned, I wouldn't be a wimp. So one day when I was drifting around the country, on a lark I walked into a union office and "lucked out." Of course, luck is when preparation meets opportunity.

At that point in my life, the highest I'd ever been off the ground was a Ferris wheel at the county fair. But I had prepared my mind. Soon I was a hundred feet in the air on a 6" steel beam swaying like a willow tree. I really hoped no one noticed the wet spot on my blue jeans.

Andrew: Where were you a construction worker and how long? Do you feel this helped as a base for your great strength?

Peter: On and off for several decades. You know how kids and lovers carve their initials into the bark of trees? Well, I've left my fingerprints on tall steel columns all across America! If you look carefully, it sort of looks as if the steel melted.

Andrew: What happened in your life to lead you to the incredible knowledge you have obtained?

Peter: I had what you might describe as an epiphany. I spent several years working alone on a mountaintop forest. In that remote setting, with just hand

tools, I built a 56' by 16' log home. One day, sitting before a roaring fire, I had a profound self-revealing experience. This edifying even wiped my mind clean of limitation and self-doubt. I knew for certain I was more than I ever dreamed possible. A shout burst forth from my heart of hearts—"I can, I will, and I am!"

Andrew: Who was your mentor if you had one?

Peter: Rosen Rokocsy. He is the hero in my novel *The Luminous Life – How to Shine like the Sun.*

Andrew: When did you get involved with martial arts, and what style?

Peter: Jujitsu and western boxing. That was in the early 1950s.

Andrew: Did the martial arts have any part in the knowledge you have now?

Peter: Yes. Wisdom is the application of knowledge, and knowledge is born of practice.

Andrew: How long have you been living the lifestyle you are now, with the attitude you now possess?

Peter: Several decades.

Andrew: Did you ever compete in any martial arts competitions before or after you changed your life, and what was the difference in the outcome?

Peter: Before? Of course. After—only once a few years ago. The difference in the outcome was probably best described by the referee. Seeing the look in my eyes, he said "This isn't fair!" I brought the light heavyweight championship trophy home with me. By the way, I smiled before, and politely smiled after.

Andrew: When and how did you develop the incredible strength you have?

Peter: There are two types of strength. The first is the result of increasing muscle and fiber size. For that, I use various pieces of workout equipment. I especially enjoy the Appollon's Axle and do all my dead-lifts overhand. I've just about worn out my Titan's Telegraph and I've got five-gallon buckets filled with horseshoes, spikes, and rebar, all bent.

Actually, I didn't start pinch gripping until 1990, when John Saylor, the head of Shingitai Jujitsu and former Olympic coach for the U.S. Judo team, suggested it. He also gave me a copy of the book *The Mighty Atom-The Spiritual Journey of Joseph Greenstein*.

It was then that I really began to appreciate the second type of strength. It's the type of strength that allows little old ladies the ability to lift cars off of someone in an emergency. Some years back, I came across a news account of a 56-year-old heart patient who had never lifted weights in his life. He lifted an 1800-pound cast iron pipe off of a nine-year-old child. The boy had been playing on a construction site when the pipe dislodged, pinning his head in the sand. Do you know any power-lifter who can do that? What if you could consciously tap into that kind of strength?

Consider this; a gorilla is said to be ten times stronger than a man, and even a wiry chimp is four times stronger. A man would have to have 60-inch arms to match the chimp's strength. So another factor is at play here. For years now, I've been experimenting with what I call "internal isometrics." These are static positions that create extreme muscular tension coupled with extreme relaxation.

I add to this a specialized breathing exercise and the use of the strongest rare earth magnets you can buy. I've had the magnets imbedded into solid steel balls, which I use in my *Magnetic Qi Gong* program.

I first started playing around with the magnets after reading scientific papers and research demonstrating magnetism's efficacy in building muscular strength and increased nerve transmission. Then I discovered the Russian and Bulgarian weightlifting teams using them. When I found grip-master John Brookfield using block weights as a catching exercise, I followed suit. Except mine have magnets in them and are round. They are called *"Thunderballs."*

I've passed a pair of these magnets to a lot of strongmen and have yet to see anyone pull them apart. Of course, you only have enough room for your thumb and forefinger to grab these little fellers with. So I really believe I'm on to something. My personal strength has really increased. Not too bad for a senior citizen!

Andrew: What are some of the feats of strength you have accomplished?

Peter: Well, the photos probably show my best stuff. I remember recently reading an article about the living legend Jack Lalanne. In his prime it said he did one thousand parallel bar dips in 45 minutes. I thought I'd give it a try. Not as a contest, but as a meditation. I turned all the lights off in the gym, got on the bars, and began counting. At 40 minutes, I had done one thousand (five minutes faster than Jack). At 80 minutes, the count was two thousand.

Since at my age the experts say, "You'd better get in all the records you can," just a few months ago, I did one thousand parallel bar dips in 23 minutes. That's really moving on! And I'm not saying they were perfect form, but after all, I'm not interested in winning any prizes or world approval. I received all of that the day I sat before the fire in the cabin on the mountain.

Andrew: When did you choose to move away to your mountain home and why did you feel it was necessary?

Peter: This is my second mountain home and I've been here over twenty years. A person needs solitude; time to be alone with their own thoughts so they can get acquainted with themselves. So while others are working on the outside, I continue to work on the inside. Hey! I'm no dummy; I know where the real treasure resides. No matter how strong you are on the outside, it's the strength you have on the inside that really counts!

Andrew: Is it true that you constructed your home in the mountains yourself? Can you tell me about it?

Peter: Not much to tell. As a self-owned sovereign, I've got plenty of time, why not build it yourself? That way you're responsible for what you like and what you don't like about it. Learning how to do a thing right is a great pleasure. Always remember self-sufficiency and independence adds a sublime sweetness to your life.

Andrew: I know you have developed a *Magnetic Qi Gong* course, how did this come about?

Peter: Out of the need to increase the life force of the human body. I've discovered ways to super-charge the bone marrow plasma. It is here that the non-aging stem cells differentiate into every type of cell needed by the body. As we age, the marrow begins to dry up and turn gray. Once that happens you are pretty much dead meat. I believe magnetic Qi Gong can reverse that and keep you safe from the effects of aging.

Think of the marrow as a battery. Once you lose your charge, it's over. However, if you can keep it charged up by regular practice, I don't see any end in sight. I know, I know, there are a lot of folks out there that want to argue that point in favor of their own demise. Well, go ahead—that's why I live on the mountain, cloud hidden, and whereabouts unknown. It's not a pretty sight to see upset villagers with torches in their hands look your direction.

Andrew: What other courses have you developed and why did you feel they were needed?

Peter: *The Art and Science of Physical Invincibility* is the newest course. *The Unveiled Mystery of Self-Mastery* is for developing mind power and an iron will. *How Long Do You Choose to Live?* is for attaining perfect health and youthfulness. *The Secrets of Money Magic* tunes you to universal laws that attract prosperity. Why are they needed? By applying Success Seeker's Guide to the Opulent Reality! can afford to live any way I choose, and so can you. Why, look at all the time you'll have available to work out!

Andrew: Do you give seminars, and how do you choose who attends, or can anyone attend?

Peter: Yes, but they are reserved for advanced students of my unadvertised master course.

Andrew: I have heard that you are a recluse. If so, why and how do you reach out to people with your teachings?

Peter: If your neighbor or a complete stranger drives into a ditch, do you stop to help? Why am I a recluse? So I'll have plenty of time to weave towropes!

Andrew: What can we expect from you in the future, any projects under way?

Peter: *Alive and Well with Wild Food - Moonlight Doesn't Wet the Water and How Thinking Made Stupid Smart.*

Andrew: What do you feel are your most important achievements, and why?

Peter: Living well in a loving and luminous fashion.

Andrew: What message would you want to give my readers pertaining to strength, training, nutrition and overall health?

Peter: May you strive to awaken, awaken. Time passes quickly. Do not squander your life.

Andrew: Thank you Peter.

Here is Peter's typical workout format. He will usually vary this every once in a while if he feels he is getting stale with it.

Peter's mornings are reserved for meditation, Qi gong and writing. Late afternoons and early evenings are for martial art and / or regular resistance workouts.

MARTIAL ARTS WORKOUT

Heavy bag and focus mitt training, 3 rounds each.

Standing techniques

Throws and takedowns

Ground grappling

Knife work and knife sparring

Club attacks and counters

Leg, knee and elbow attacks against a super shield

Problem solving and special situations

CHEST AND BACK DAY

Parallel bar dips - 100 rep warm up with bodyweight

Followed by weighted dips with 35lb to 100lbs

Generally, depending on the weight used, he will do a total of at least 400 reps. He has done 2000 in 80 minutes with just bodyweight alone.

Bent over rows with Appollon's axle - 5 sets x 8 reps, or Rope pull ups or Lat pull downs.

Often, he will simply do Deadlifts for triples depending what he wants to do that day.

He will finish with Iron Bar Hold, (He lays his head on a padded bench and his feet on a chair with nothing under him to support his body)- hold to failure x5

Ab wheel or Ab bench x 100

GRIP AND LEG DAY

Pinch Grip - 100 reps with a pair of 45 lb plates (90 lbs). Next he will do 3 to 5 heavy singles.

Peter will insert an iron stem through the 45's and add plates. (See photo of 160lb pinch grip).

Titan's Telegraph - 3 sets of 50 reps.

Hardy Handshake - 3 sets of 50 reps.

Wrist Curls - As follows - 20 reps with 70 lb dumbbell, 20 reps with 80 lb dumbbell, 12 reps with 90 lb dumbbell, 5 reps with 100 lb dumbbell, (He has also done 20 reps with 100 lb dumbbell) 50 reps with 70 lb dumbbell.

Hip Sled - 5 sets x 20 reps

Or Farmer's Walk with dumbbells up hill

Or Farmer's Hold with a pair of 158 lb dumbbells.

Peter will finish with The Crane's Nest - (like a wall chair stance) 5 to 10 minute hold with magnetic steel balls out stretched laterally in each hand. He will couple this with a special breathing pattern to build internal strength.

ARM DAY

For Triceps, Peter will do a super-set of Nose Breakers with Close Grip Benching and without pause, do a set of standing Curls with the Appollon's Axle or Husky Handle dumbbell curls on an incline bench. He will do 5 sets of 8 reps of this routine.

Finish - Ab Wheel x 100 reps.

Dragon Scooping Qi - 5 to 10 minutes with magnetic steel balls in each hand. This sets the whole body on fire!!

Thumb or Wrist push ups and / or Neck Bridges.

Peter will continue to rotate these workouts so everyday is a workout day. All workouts are followed will a cool off of a long hike with his dog.

Peter seems to be an ageless wonder, who through hard work, practice and self enlightenment, has achieved some pretty spectacular feats. One who may have very strong and controversial thoughts on training and how to live, but if he is an example of his teachings, the results are clearly sound. I also see a man who seems to be at peace with not only himself but nature in general, seemingly drawing his strength from the universe itself. It is also clear that Peter is a very intelligent and articulate author, craftsman, and martial artist, proving that believing in one's self, anything can be accomplished.

For more information on Peter Ragnar visit: RoaringLionPublishing.com

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