### PART ONE

# The Wonders of Vitamin D

If you're *sick and tired* of feeling sick and tired, you've picked up the right book. Vitamin D deficiency is rampant in the United States today. It's mind-boggling how many health problems have a D deficiency element.

The very important message this book conveys is that by correcting your vitamin D deficiency and fixing the acid-base imbalance in your diet, you can get a new lease on good health once and for all!

In part one we look at who needs vitamin D (hint: *everyone*), what vitamin D is, where it comes from, the connection between D and your diet, and how the Vitamin D Cure works.

1

# Most of Us Need Way More Vitamin D

Sharon came to see me because she was tired of feeling bad. She had diabetes and suffered from chronic pain and fatigue. Wintertime was especially hard because her depression was impossible to shake.

No surprises for me, of course, because I see patients like Sharon every day in my clinic. That commonality was exactly what led me to the discovery that certain symptoms and diseases have clear-cut links to vitamin D deficiency, dietary imbalance, and inactivity.

Like many of my patients, Sharon was delighted at the prospect of a better life. After she got on the program she saw results in six weeks. "I used to feel awful, but now I feel better than I've felt in years!" she says. "My energy level is up and I'm doing more of the things I love to do. My husband used to ask, 'Don't you have something better to do other than just sit around?' Now he asks me if I would stay home with him for an evening. The Vitamin D Cure has made a world of difference for me."

# Looking at Your Health Issues

Review the following list to see if you have any of these symptoms and/or diseases:

#### **Symptoms**

- Fatigue
- · Joint pain and/or swelling
- · Muscle pain, cramping, and/or weakness
- · Chronic pain
- Uncontrolled weight gain
- · High blood pressure
- · Restless sleep
- · Poor concentration and memory
- Headaches
- Bowel problems (constipation, diarrhea, or both)
- Bladder problems (urgency, frequency, or both)

#### **Diseases**

- Depression, including seasonal affective disorder (SAD)
- · Fibromyalgia
- · Parkinson's disease
- · Alzheimer's disease
- Arthritis (osteoarthritis, gout, pseudogout, tendinitis, bursitis)
- · Osteoporosis
- Gum disease and tooth loss
- Obesity
- Diabetes
- · Heart disease
- · Metabolic syndrome
- Autoimmune diseases (multiple sclerosis, systemic lupus erythematosis)
- Cancer

If you saw things on the preceding list that you deal with daily or weekly, get ready for some great news: all of these health problems (and many others) are related to vitamin D deficiency, and they can be helped by raising your vitamin D levels.

Your brain is first in line to detect the early symptoms of vitamin D deficiency, in the form of severe fatigue. Initially, you feel exhausted a lot of the time in late winter. The medical term for this is seasonal affective disorder (SAD) or seasonal depression.

But sometimes SAD persists. If suppressed D levels of wintertime were what led to your fatigue, the symptoms start piling up when the tiredness doesn't go away. Your mood sags, your sleep quality suffers, and the progression steadily worsens. Your behavior doesn't go unscathed, either. When you lose sleep and feel grouchy, you're not going to deliver stellar performances on a personal or a professional level.

At the same time, you're probably asking an obvious question: How do you know if you're just a little bit blue or grumpy or if you're really experiencing full-blown SAD? You can tell by two significant changes: reluctance to do any kind of physical activity, and a lack of enjoyment when you do things that used to please you.

A deflated attitude toward doing things is the first red flag. Doctors call it *psychomotor retardation*, a term for an overall lack of motivation to pursue activities that require you to be physical. The general thought process reflects a low mood.

A second red flag is a downward spiral in your general happiness level. Things you used to enjoy doing now simply sound like too much work. This is called *anhedonia*, and in some people this state can go on and on for years. You feel too bad to do anything, which makes you tired; you're tired, so you don't want to do anything. This vicious cycle can be endless if you fail to realize that a lack of vitamin D may be behind all your troubles.

You may have read that serotonin deficiency causes depression. Serotonin is a neurotransmitter (brain messenger) that affects your sense of well-being, and too little of it can make you feel depressed. You need sufficient serotonin to handle stress well and to feel content.

Chronic vitamin D deficiency affects your mood in a big way as well. You get more sun and consume more fruits and vegetables in the summer, which raises your vitamin D and calcium absorption levels and increases your magnesium and serotonin production. You're going along great, feeling good, mood elevated; but then winter comes and your vitamin D level falls. Your serotonin production and calcium and magnesium levels decline, too, and these changes depress your mood.

The longer your winter, the more pronounced the seasonal variations in serotonin production. If you live in Detroit, you suffer longer, more drawn-out mood plunges compared to someone in California, who gets more D simply because he or she lives in a place that has one season (a sunny one)—*if* this person takes the time to get outside in the sunlight.

Research tells us that a lack of vitamin D makes us ache. Symptoms that point to vitamin D deficiency are muscle spasms, bone pain, and joint pain.

When Mayo Clinic researchers looked at the vitamin D level of patients who had unexplained widespread musculoskeletal pain for a long time, they found that 93 percent had vitamin D deficiency. Some of these people then took vitamin D and calcium supplements regularly, and the result was a dramatic resolution of their pain, fatigue, and muscle cramps.

Similarly, Dr. Al Faraj at Riyadh Armed Forces Hospital in Saudi Arabia discovered vitamin D deficiency in 83 percent of several hundred patients who had chronic back pain for more than six months without a diagnosis. When Dr. Faraj normalized the vitamin D of those with low vitamin D levels, the back pain resolved in all of them. Two-thirds of those with apparently normal vitamin D levels also eliminated back pain by taking D supplements.

If you're gaining weight and noting a general decline in your overall health, these changes probably indicate a lack of vitamin D, too. As you gain weight, your vitamin D level drops. These lower vitamin D levels in obesity are also associated with high blood pressure, poor glucose control, arthritis, and cancer.

Adequate vitamin D and the calcium it helps absorb may decrease the production of fat. Increased intake of vitamin D, calcium, and magnesium in the form of low-fat dairy products enhances weight loss along with calorie restriction. It appears that low calcium due to inadequate vitamin D or calcium in the diet triggers the release of the parathyroid hormone, which increases the concentration of activated vitamin D in fat cells and causes them to store energy as more fat.

Vitamin D affects your appetite as well. If you eat a high-calcium, high vitamin—D breakfast, you'll feel less hungry and probably eat less in the next twenty-four hours. A study that supports this theory looked at a group who consumed a breakfast low in calcium and vitamin D compared to a group who ate a breakfast high in calcium and vitamin D. The latter ate an average of three hundred fewer calories in the twenty-four hours following their breakfast.

## Vitamin D Helps Alot

Research keeps unearthing one find after another that cites vitamin D deficiency as a major culprit in disease development. New studies show that vitamin D is important to proper brain development, and that a lack of this vitamin may be a contributing factor in causing schizophrenia, Parkinson's disease, and depression. Calcium and magnesium deficiencies often accompany vitamin D deficiency and are associated with seizures in infants and degenerative neurological disorders such as Parkinson's disease and Alzheimer's disease in adults.

The good news is that vitamin D

- relieves the symptoms of seasonal depression;
- plays a critical role in slowing or preventing many types of arthritis;
- reduces the likelihood that you'll have a heart attack or a stroke;
- improves the release of insulin and the response of muscle and liver to insulin, which means that normal levels of vitamin D may help prevent diabetes;

- helps you develop a healthy immune system during childhood; and
- plays a key role in regulating cell growth and differentiation, which may prevent cancer.

# Shooting Down Myths

The following list shows the many discrepancies between researchbased truths and the popular misconceptions that the media and some health-care providers continue to perpetuate.

By this point, you're probably excited about starting the Vitamin D Cure so you can get out of the D-deficiency danger zone. All you need do is follow the steps of the Vitamin D Cure program, and within about sixty days you'll feel loads better, look younger and trimmer, and be sprinting down the fast track to a lifetime of good health.

#### MYTHS AND TRUTHS

#### Vitamin D and Diet Myths

You can make an adequate amount of vitamin D with fifteen minutes of sun exposure three times a week or if you take 400 to 1,000 IU a day. Vitamin D daily requirements are the same for everyone regardless of size, age, and skin color.

Normal vitamin D levels are between 20 and 50.

Adults need 1,200 milligrams of calcium a day, and postmenopausal women and adults sixty-five or older need 1,500 milligrams a day.

#### Vitamin D and Diet Truths

You should supplement your vitamin D in a weight-based dose that you adjust according to your vitamin D blood level.

Ideal vitamin D levels are between 50 and 70.

You may not need any additional calcium in the form of supplements if your diet is acid-base—balanced and your vitamin D levels are between 50 and 70.

#### Vitamin D and Diet Myths

Osteoporosis is a disease of aging that begins after menopause.

Vitamin D and excess calcium cause kidney stones.

The USDA Food Pyramid recommends three to five servings of grain per day and three servings of dairy per day for everyone. It equates beans to meat, and says that you should have two servings of meat or beans a day. This is way too much acid!

Obesity is simply taking in too many calories and not burning enough calories.

Following a very-low-calorie diet is the fastest and healthiest way to lose weight.

Osteoarthritis is a disease of age and wear-and-tear.

#### Vitamin D and Diet Truths

Osteoporosis is a disease that begins before birth and in childhood with vitamin D deficiency, dietary imbalance, and lack of exercise. The failure to attain peak bone mass in early adult life leads to osteoporosis as an older adult.

Kidney stones are due to acid excess in our diet that translates into acidic urine, which is high in calcium and primed for stone formation. The cause is eating too few foods that contain potassium and magnesium.

Animal protein provides more satisfaction than grains, cheese, or beans because it is 60 to 90 percent protein per serving versus grain, cheese, and beans, which are 15 to 25 percent protein per serving.

Obesity is a disease of inadequate nutrition. We eat until we satisfy our nutritional needs (hunger). With lean meat and fresh produce, we can do this in smaller caloric packages than with grains and dairy.

When you starve yourself to a lower weight, you lose fat, bone, and muscle in the process. Increasing lean fat-burning muscle mass is essential to fitness. When you exercise to lose fat and lose weight, you also gain muscle and bone.

Osteoarthritis is a disease of bone remodeling caused by vitamin D deficiency and dietary acid excess.

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#### MYTHS AND TRUTHS (continued)

#### Vitamin D and Diet Myths Vitamin D and Diet Truths Autoimmune diseases are due to Autoimmune diseases are primarily genetic disorders. genetic risk in the presence of vitamin D deficiency and dietary imbalance beginning shortly after conception and continuing through early childhood. Cancer is due to genetics and some-Cancer is usually a preventable distimes environmental carcinogens. ease if you have a lifetime of normal vitamin D levels and a healthy diet. Melanoma results from too much Melanoma results from overexposun exposure. sure to UVA and inadequate vitamin D levels. Vitamin D should be measured at It isn't cost-effective to screen everybody for vitamin D deficiency. routine physical examinations for people of all ages.