IN THIS CHAPTER

- Discovering how arthritis affects your body
- Becoming aware of the various types of arthritis
- Recognizing the signs and symptoms of arthritis
- Identifying the major causes of arthritis
- Finding out who is most likely to get the various forms of the disease
- Considering the treatment options

Chapter 1
What Is Arthritis?

Ouch! There it goes again! That grinding pain in your hip, those aching knees that make walking from the kitchen to the bedroom a chore, the stiff and swollen fingers that won't allow you to twist the lid off a sticky jar or even sew on a button. Arthritis seems to get to everybody sooner or later — slowing us down, forcing us to give up some of our favorite activities, and just generally being a pain in the neck (sometimes literally!). In more advanced cases, arthritis can seriously compromise quality of life as sufferers surrender their independence, mobility, and sense of usefulness while being relentlessly worn down by pain.

The good news is that you can manage your arthritis with a combination of medical care, simple lifestyle changes, and good old common sense. You don't have to spend your life gritting your teeth from pain, or hobbling around the backyard with a cane. Although you may not be able to run a marathon or do back-flips like you did when you were 13, if you follow the program outlined here, you should be able to do the things you really want to do — such as take a brisk walk in the park, carry a sleeping child upstairs to bed, or swing a golf club with the best of them.

Arthritis may affect a lot of people, but thanks to intensive research over the past several years, we now know a lot more about how to handle it.

Remember that arthritis affects the rich and famous just as much as the rest of us. For a look at how certain celebrities have handled their arthritis, see the sidebar "Stargazing: Famous Arthritis Sufferers" at the end of the chapter.

Understanding How Arthritis Affects Your Joints

So what exactly is arthritis, this disease that brings us so much misery and pain? Unfortunately, we can't provide one easy answer to that question, because arthritis involves a group of diseases — each with its own cause, set of symptoms, and treatments. However, these diseases do have the following in common:

- They affect some part of the joint.
- They cause pain and (possibly) loss of movement.
- They often bring about some kind of inflammation.

As for the causes of these different kinds of arthritis, they run the gamut from inheriting an unlucky gene to physical trauma to getting bitten by the wrong mosquito.


TECHNICAL STUFF

The word *arthritis,* which literally means joint inflammation, comes from the Greek words *arthros* (joint) and *itis* (inflammation), and its major symptom is joint pain. Although the same group of ailments can be called *rheumatism,* it's usually referred to as arthritis, so that's what we call it in this book. The word *arthralgia*, a term used much less frequently, refers to joint pain alone. According to the CDC, arthritis affects some 58.5 million American adults (one out of every four people) and 300,000 children. That's a big chunk of the population. For a look at how many people are affected by some of the most common forms of arthritis, see "Arthritis by the Numbers" later in the chapter.

Saying hello to your joints

Before you can understand what's wrong with your joints, you need to understand what a joint is and how it works. Any place in the body where two bones meet is called a *joint* such as the ball and socket hip joint, or the hinge joint at the elbow or knee. Sometimes the bones actually fuse together; your skull is an example of

an area with fused bones. But in the joints that can develop arthritis, the bones don't actually touch. As you can see in Figure 1-1, a small amount of space exists between the two bone ends. The space between the ends of the bones keeps them from grinding against each other and wearing each other down.

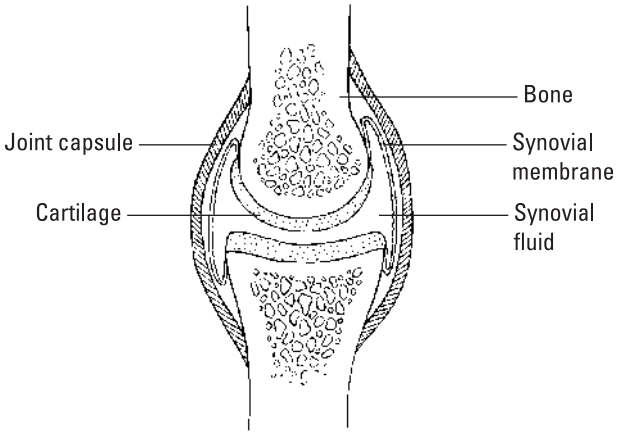

FIGURE 1-1: Anatomy of a healthy synovial joint.

Bones are living tissue — hard, porous structures with a blood supply and nerves — that constantly rebuild themselves. Bones protect our vital organs and provide the supporting framework for the body. Without bones, we would be nothing more than blobs of tissue — like tents without supporting poles!

But bones are more than broomsticks that prop us up; fortunately, they don't leave us rigid and awkward. The 200-plus bones that reside in our bodies are connected together in some 150 joints, giving us remarkable flexibility and range of motion. If you don't believe it, just watch a gymnast, ballet dancer, or figure skater execute a handspring, arabesque, or triple axel. But you don't have to be an athlete or contortionist to enjoy the benefits of joint flexibility. Just think about some of the things you do regularly — such as bending a knee or an elbow. Now imagine how limiting it would be if you had fewer joints, or if they didn't move the way they do! (For a few fascinating facts about your joints, see the sidebar "Strange-but-true joint points" on the next page.)

TECHNICAL STUFF

Other structures surrounding the joint, such as the muscles, tendons, and *bursae* — small sacs of fluid that cushion the tendons like pillows — support the joint and provide the power that makes the bones move. The joint capsule wraps itself around the joint, and its special lining, the *synovial membrane* or *synovium*, makes a slick, slippery liquid called the *synovial fluid.* You can think of the joint capsule as a sealed bag full of WD-40 encasing the joint and filling the little space

between the bone ends. Finally, the bone ends are capped by *cartilage* — a slick, tough, rubbery material that is eight times more slippery than ice and a better shock absorber than the tires and springs on your car! Together, these parts make up the joint, one of the most fascinating bits of machinery found in the body.

Cartilage: The human shock absorber

Cartilage is extremely important for the healthy functioning of a joint, especially if that joint bears weight, like your knee. Imagine for a moment that you're looking into the inner workings of your left knee as you walk down the street. When you shift your weight from your left leg to your right, the pressure on your left knee is released. The cartilage in your left knee then "drinks in" synovial fluid, in much the same way that a sponge soaks up liquid when immersed in water. When you take another step and transfer the weight back onto your left leg, much of the fluid squeezes out of the cartilage. This squeezing of joint fluid into and out of the cartilage helps it respond to the off-and-on pressure of walking without shattering under the strain.

Can you imagine the results if we didn't have this watery cushion within our joints? With the rough, porous surfaces of the bone ends pitted against each other, bones would grind each other down in no time. One thing is certain: Nobody would be getting around too easily without joint fluid and cartilage.

Types of joints

To accommodate the bends, twists, and turns that we all perform without even thinking, the skeletal system is made up of different shapes and sizes of bones, which connect to form different kinds of joints. The joints are categorized according to how much motion they allow:

- **Synarthrodial joints** allow no movement at all. You can find these in the skull, where the bones meet to form tough, fibrous joints called *sutures.* Because they don't move, arthritis doesn't affect them.
- **Amphiarthrodial joints,** such as those in the spine or the pelvis, allow limited movement. Generally, these joints aren't attacked by arthritic conditions as often as others. (A slipped disc is not arthritis.)
- **Synovial joints** allow a wide range of movement; most of our joints fall into this class. Synovial joints come in all kinds of interesting variations including those that glide, hinge, pivot, look like saddles, or have a ball-and-socket type structure. (For more on these joints, take a look at the section "Looking at the types of synovial joints" later in this chapter.) Because of the synovial joints, you can bend over and pick a flower, kick up your heels while swing dancing, reach for a glass on a high shelf, and turn around to see what's going on behind you. Unfortunately, these joints are also the ones most likely to be hit with arthritis, precisely because they do move!

STRANGE-BUT-TRUE JOINT POINTS

Here are a couple of things you may not know about your joints:

- By the time a fetus is four months old, its joints and limbs are in working order and ready to move.
- A newborn baby has 350 bones, many of which fuse to form the 206 bones of the adult body.
- Cartilage is 65 percent to 85 percent water. (The amount of water in your cartilage generally decreases as you get older.)
- When you run, the pressure on your knees can increase to ten times that of your body weight.
- Not a single man-made substance is more resilient, a better shock absorber, or lower in friction than cartilage.

Looking at the types of synovial joints

REMEMBER

Because of their tendency to become arthritic, synovial joints are the ones that we discuss the most throughout this book. Synovial joints come in a wide variety of shapes and sizes to accommodate a wide variety of movements.

Gliding joints

A gliding joint contains two bones with somewhat flat surfaces that can slide over each other. The vertebrae in your spine are connected by gliding joints, allowing you to bend forward to touch your toes and backward to do a backbend (well, maybe!). See Figure 1-2 for an example of a gliding joint.

Hinge joints

You can find hinge joints in your elbows, knees, and fingers. These joints open and close like a door. But just like a door, hinge joints only go one way — you can't bend your knee up toward your face, only back toward your rear. See Figure 1-3 for an example of a hinge joint.

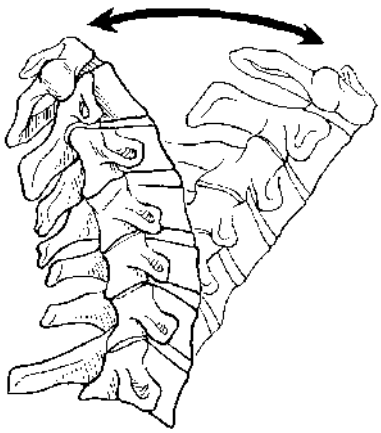

FIGURE 1-2: A gliding joint. The gliding joint helps keep your vertebrae aligned when you bend and stretch.

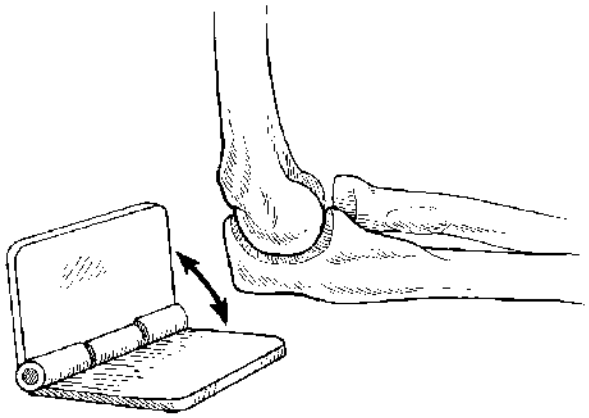

FIGURE 1-3: A hinge joint. Hinge joints bend only one way.

Saddle joints

This joint looks like a horse's back with a saddle resting on it. One bone is rounded (*convex*) and fits neatly into the other bone, which is *concave*. The saddle joint moves up and down and side to side, but it doesn't rotate. Your wrist and your thumb have this kind of joint. See Figure 1-4 for an example of a saddle joint.

FIGURE 1-4: A saddle joint. The saddle joint moves up and down and side to side.

Ball-and-socket joints

This is truly a freewheeling joint — it's ready for anything! Up, down, back, forth, or around in circles. The bone attached to a ball-and-socket joint can move in just about any direction. The end of one bone is round, like a ball, whereas the other bone has a neat little cave that the ball fits into. Your shoulders and hips have ball-and-socket joints. Swimming the backstroke is a perfect example of the kind of range of motion made possible by these joints. See Figure 1-5 for an example of a ball-and-socket joint.

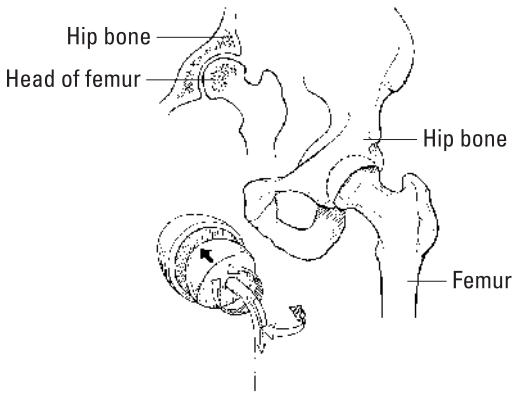

FIGURE 1-5: A ball-and-socket joint. These joints can move just about any direction — up, down, back, forth, or around in circles.

Distinguishing Between Arthritis and Arthritis-Related Conditions

REMEMBER

Some organizations define arthritis as a group of more than 100 related diseases, ranging from bursitis to osteoarthritis. But in this book, we use the following classifications, which conform to those widely accepted by the medical community:

- "True" arthritis
- Arthritis as a "major player"
- Arthritis as a "minor player"
- Arthritis as a "companion condition"

In the following subsections, we go over the various types of arthritis and arthritis-related diseases and their classifications. We also discuss each disease in greater detail in Chapters 2, 3, 4 and 5. (Check out the sidebar titled "Hypersensitive fingers and toes" later in the chapter to find out about Raynaud's phenomenon, a particularly chilling form of arthritis.)

Defining "true" arthritis

True arthritis isn't a medical term; it's just a convenient way of referring to the group of ailments in which arthritis is the primary disease process and is a major part of the syndrome. Osteoarthritis and rheumatoid arthritis are the best-known members of this group, which can cause problems ranging from mild joint pain to a permanently bowed spine.

The following include conditions in which arthritis is the major part of the syndrome and the primary disease process:

- **Ankylosing spondylitis (AS):** A chronic inflammation of the spine, this disease can cause the vertebrae to grow together, making the spine rigid. Although the cause is unknown, heredity seems to be a factor.
- **Gout:** This "regal" form of arthritis is caused by the build-up of a substance called uric acid, which forms sharp crystals that are deposited in the joint. These needlelike crystals cause inflammation leading to severe pain and are most commonly found in the knees, the wrists, and the "bunion" joint of the

big toe. Genetic factors, conditions such as high blood pressure, kidney disease, and obesity, a diet high in animal purines, alcohol consumption, and certain drugs may cause gout.

- **Infectious arthritis:** Bacteria, viruses, or fungi that enter the body can affect the joints, causing fever, inflammation, and loss of joint function.
- **Juvenile idiopathic arthritis (JIA):** Formerly known as juvenile rheumatoid arthritis, this is a catchall term for the different kinds of arthritis that strike children under the age of 16. Pain or swelling in the shoulders, elbows, knees, ankles, or toes; chills; a reappearing fever; and sometimes a body rash are typical symptoms of various kinds of JIA. The cause is unknown.
- **Osteoarthritis (OA):** In this, the most common type of arthritis, the cartilage breaks down, exposing bone ends and allowing them to rub together. The result can be pain, stiffness, loss of movement, and sometimes swelling. Osteoarthritis is most often found in the weight-bearing joints, such as the hips, knees, ankles, and spine, but it can also affect the fingers. It may be the result of trauma, metabolic conditions, obesity, heredity, or other factors.
- **Pseudogout:** Like gout, pseudogout is caused by the deposition of crystals into the joint, but instead of uric acid crystals, they're made from calcium pyrophosphate. Pain, swelling, and sometimes the destruction of cartilage can result.

  Note: This deposition of calcium pyrophosphate crystals is not related to the dietary intake of calcium.
- **Psoriatic arthritis:** This form of arthritis occurs in people who have the autoimmune skin condition called *psoriasis,* which causes scaly, red, rough patches on the neck, elbows, and knees, as well as nail changes. Psoriatic arthritis can affect joints anywhere in the body, including the spine, the fingers, and the toes, which can swell up like little sausages.
- **Rheumatoid arthritis (RA):** An autoimmune disease, RA causes the body to mistakenly attack its own joints, causing inflammation and swelling of the tissues surrounding the joint, resulting in joint pain and swelling. Over time, there can be a loss of cartilage, causing shrinkage of the space between the bone ends, which increases pain and decreases mobility; irreversible joint deformity can even occur. RA often affects the same joint on both sides of the body (for example, both wrists) and is two to three times more likely to strike women compared to men. (For more on this, see the sidebar "Why are Women More Likely to Get Arthritis," near the end of the chapter.)

ARTHRITIS BY THE NUMBERS

Arthritis affects a surprisingly large number of us, as you can see by the following numbers:

- Over 58 million adult Americans currently suffer from arthritis, or 1 in 4 of us. It is the leading cause of disability among adults in the U.S.
- Women are more likely than men to get arthritis, which currently affects one in four women compared to one in five men. They are also far more likely to develop rheumatoid arthritis than men and to experience worse pain.
- By 2040, it's projected that that the number of U.S. adults with doctor-diagnosed arthritis will have increased by 49 percent to an estimated 78.4 million (nearly 26 percent of the population).
- In 2013, the total national cost of treating arthritis was $140 billion. It is the reason behind more than 100 million outpatient visits and 6.6 million hospitalizations annually.
- Osteoarthritis is by far the most common type of arthritis, affecting more than 30 million Americans, most of whom develop the disease after the age of 45.
- Gout is the second most prevalent form of arthritis in the U.S., affecting 8.3 million sufferers, followed by rheumatoid arthritis at 1.3 million. Sjögren's afflicts 1-4 million and fibromyalgia afflicts 4 million, but not all of them will have arthritis.
- About 1.5 million American adults have rheumatoid arthritis (RA), which mostly strikes women, while gout tends to favor men.
- Some 1 in 1,000 U.S. children under the age of 17 have some form of joint disease, which translates to an astonishing 300,000! Of those, 50,000 have juvenile idiopathic arthritis (JIA).
- Arthritis most often strikes in the knees and the hips, most likely because both are weight-bearing joints and can easily be injured. To fight the pain and disability that can result, there are about 500,000 hip replacements and 750,000 knee replacements performed in the U.S. every year.

Classifying arthritis as a "major player"

In the following conditions, arthritis is present and is usually a major part of the syndrome, but is not the primary disease process:

- **Lyme disease:** Caused by a certain type of bacteria transmitted to humans via tick bites, Lyme disease brings about fever, a distinctive red skin lesion in

the shape of a bull's-eye, problems with the nerves and/or heart, and arthritis. Antibiotics are the treatment of choice for this disease.

- **Reactive arthritis:** An inflammation of the joints, reactive arthritis strikes along with or shortly after the onset of an infection, often one that is intestinal or sexually-transmitted. The three problems generally associated with reactive arthritis are arthritis, conjunctivitis (inflammation of the eyelid's lining), and urethritis (inflammation of the urethra).
- **Scleroderma:** The word *scleroderma* means hard skin. This is a rare autoimmune condition that involves an attack on tiny blood vessels in many places in the body, and overproduction of collagen in places it doesn't belong. The skin and other organs can stiffen. Joints can become inflamed, and tightness of the skin overlying the joints can make them even harder to move. An autoimmune disease, scleroderma usually attacks adults rather than children.
- **Systemic lupus erythematosus:** This is yet another disease caused by an immune system gone wrong. In lupus, the body attacks its own tissue, causing inflammation, joint pain, stiffness, permanent damage to the joints, and exhaustion. Although lupus most often affects women of child-bearing age, it *does* strike some men and can occur at nearly any age, including childhood and post-menopause.

Describing arthritis as a "minor player"

In these conditions, arthritis may appear, but is a minor part of the syndrome.

- **Bursitis and tendonitis:** Caused by overusing or injuring a joint, *bursitis* is the inflammation of the fibrous sac that cushions the tendons. *Tendonitis* is the irritation of the tendons, which attach the muscles to the bones.
- **Paget's disease:** With Paget's disease, the breakdown and rebuilding of bone speeds up. The resulting bone is larger but also softer and weaker, making it more likely to fracture. These weakened and deformed bones cause arthritis to develop in their respective joints, which typically include those of the hip, skull, spine, knee, and ankle. The cause is unknown.
- **Polymyalgia rheumatica (PMR):** With this condition, severe stiffness can suddenly strike in the lower back, hips, shoulders, and neck, making it difficult even to get out of bed. The pain is similar to that of RA, often without evidence of any active arthritis. PMR can occur by itself or together with a life-threatening inflammation of the blood vessels called giant cell arteritis (GCA). Symptoms of GCA can occur before, after, or at the same time as PMR, and include headaches, scalp tenderness, hearing problems, vision loss or changes, and tongue or jaw pain after prolonged chewing.

HYPERSENSITIVE FINGERS AND TOES

Prompted by arterial blood vessel spasm, Raynaud's phenomenon is a condition that can make the fingers, toes, nose, or nipples extremely sensitive to cold and to emotional upsets, turning them blue/violet or white in color. It sometimes occurs in conjunction with (or as a result of) other arthritis-related conditions including lupus, scleroderma, RA, and myositis, but can also be caused by repetitive trauma or injuries to the nerves of the hands or feet, smoking, certain medications, or chemical exposure. Typical attacks of Raynaud's phenomenon include tingling, numbness and whitening of the fingers (without affecting the thumb), and pain or redness when blood circulation returns.

There's no single blood test for Raynaud's: most doctors diagnose the disease based on signs and symptoms. Treatment generally involves wearing gloves, socks, and hats to maintain total body warmth, and avoiding workplace triggers, such as vibrating tools, freezers, and exposure to air conditioning vents. In severe cases of Raynaud's, doctors prescribe medication to dilate the blood vessels. See Chapter 5 for more on Raynaud's phenomenon.

- **Sjögren'ssyndrome:** Another autoimmune disease, Sjögren's syndrome (usually referred to simply as Sjögren's) causes inflammation of the tear glands and saliva glands, leading to dryness of the eyes and mouth, hazy vision, cracks at the corners of the mouth, and cavities. Inflammation of the brain, nerves, thyroid, lungs, skin, liver, kidneys, and, of course, the joints may also be present.

Experiencing arthritis as a "companion condition"

These following conditions are linked to arthritis; that is, arthritis may be present, but it constitutes another separate disease process:

- **Carpal tunnel syndrome:** This syndrome results when pressure on a nerve in the wrist makes the fingers tingle and feel numb. This syndrome is usually caused by overuse of the wrist. Permanent muscle and nerve damage can occur if carpal tunnel isn't treated.
- **Fibromyalgia:** Also known as fibromyalgia syndrome (FMS), this condition involves pain in the muscles and tendons that occurs without a specific injury or cause. Fibromyalgia can make you "hurt all over," particularly in certain tender points in the neck, upper back, elbows, and knees. Those with

fibromyalgia can suffer from disturbed sleep, fatigue, stiffness, and depression. The cause is unknown. Physical or mental stress, fatigue, or infections may trigger this disease.

- **Myositis:** This disease causes inflammation of the muscles, which can take one of two forms: *polymyositis* — an inflammation of the muscle that causes muscle weakening and breakdown, as well as pain, and *dermatomyositis* — polymyositis plus rashes that can lead to skin scarring and changes in pigmentation.

Deciding Whether It's Really Arthritis: Signs and Symptoms

With all the different kinds of arthritis, how do you know whether you have one of them? Remember two things: Arthritis can strike anyone at any time, and many times you may find it difficult to tell whether the pain you're experiencing is serious enough to warrant medical attention. Almost everyone has had an ache or pain at some time or has overextended herself physically, but you need to know what is minor and temporary, and what may be serious and long term. Knowing what to watch for can make a difference in your treatment and physical comfort. Typical warning signs of arthritis include:

- **Joint pain:** This not only includes steady, ever-present pain, but also off-again-on-again pain, pain that occurs only when you're moving or only when you're sitting still. In fact, if your joints hurt in any way for more than two weeks, you should see your doctor.
- **Stiffness or difficulty in moving a joint:** If you have trouble getting out of bed, unscrewing a jar lid, climbing the stairs, or doing anything else that involves moving your joints, consider it a red flag. Although difficulty moving a joint is most often the result of a muscular condition (like tendonitis due to overuse, or muscle ache), it could be a sign of arthritis.
- **Swelling:** If the skin around a joint is red, puffed up, hot, throbbing, or painful to the touch, you're experiencing joint inflammation. Don't wait. See your doctor.

REMEMBER

The warning signs may come in triplicate (pain plus stiffness plus swelling), two together, or one all alone. Or, as you find out in Chapters 3 and 4, you may experience other early signs, such as malaise or muscle pain. But if you experience any of these or other symptoms in or around a joint for longer than two weeks, you should see your doctor.

WARNING

You may be tempted to read this book's descriptions of various diseases, pick out the one with symptoms most closely matching yours, and make your own diagnosis. Some people may make the right diagnosis. But a lot of people make the wrong one, because the symptoms of many forms of arthritis overlap with those of other forms of the disease — they can even be confused with entirely different ailments. Making the wrong diagnosis can lead to the wrong treatment, which can be dangerous. Do not self-diagnose. No matter how obvious the situation seems, go to a medical doctor, have a complete examination, and get an "official" diagnosis.

Considering the Causes of Arthritis

Just as many different kinds of arthritis exist, many different causes also exist — and some of them are still unknown. But in general, scientists have found that certain factors can contribute to the development of joint problems:

- **Heredity:** Your parents gave you your beautiful eyes, strong jawline, exceptional math ability, and, possibly, a tendency to develop rheumatoid arthritis. Scientists have discovered that the genetic marker HLA-DR4 is linked to rheumatoid arthritis, so if you happen to have this gene, you're more likely to develop the disease. Ankylosing spondylitis is linked to the genetic marker HLA-B27, and although having this gene doesn't mean that you absolutely *will* get this form of arthritis, you *can* — if conditions are right.
- **Age:** It's just a fact of life that the older you get, the more likely you are to develop arthritis, especially osteoarthritis. Like the tires on your car, cartilage can wear down over time, becoming thin, cracked, or even wearing through. Bones may also break down with age, bringing on joint pain and dysfunction.
- **Overuse of a joint:** What do ballerinas, baseball pitchers, and tennis players all have in common? A great chance that they'll develop arthritis due to the tremendous repetitive strain they put on their joints. The dancers, who go from flat foot to *pointe* hundreds of times during a practice session, often end up with painful arthritic ankles. Baseball pitchers, throwing fastballs at speeds of more than 100 mph, regularly develop arthritis of the shoulder and/or elbow. And you don't need to be a tennis pro to develop *tennis elbow,* a form of tendonitis that has sidelined many a player.
- **Injury:** Sustaining injury to a joint (from a household mishap, a car accident, playing sports, or doing anything else) increases the odds that you may develop arthritis in that joint in the future. Football players are well-known victims of arthritis of the knee, which is certainly not surprising: They often fall smack on their knees or other joints when they're tackled — then have a ton of "football flesh" crash down on top of them. What's most amazing is that they ever walk away uninjured.

- **Infection:** Some forms of arthritis are the result of bacteria, viruses, or fungi that can either cause the disease or trigger it in susceptible people. Lyme disease comes from bacteria transmitted by the bite of a tick. The most common cause of bacterial infectious arthritis is a *Staphylococcus aureus* (staph) infection. Staph commonly lives on the skin and can cause infectious arthritis when it enters the body during surgery or trauma, or when a needle is inserted into a joint. It can also result from bone infection or an infection that's traveled from another area of the body. Infection typically strikes in the knee, but can also affect the wrists, ankles and hips. It usually affects only one joint.

  Obesity: Carrying too much weight is a big risk factor for OA because it puts undue pressure on the joints, especially the knees, and can cause the cartilage that cushions the joints to wear away faster. Just 10 extra pounds of body weight increases the pressure exerted on your knee joints by 40 pounds every time you take a step on flat ground. Add an incline or a trip up or down some stairs and the pressure easily doubles if not triples. Fat is also a chemically active tissue that constantly releases proteins which cause inflammation. This can increase the likelihood that OA will develop, and can worsen inflammation-related forms of arthritis such as RA, gout, and ankylosing spondylitis.

- **Tumor necrosis factor-alpha (TNF-alpha):** TNF-alpha (usually just known as TNF, which we'll use in this book) is a substance the body produces that causes inflammation and may play a part in initiating or maintaining rheumatoid arthritis. Although scientists are unsure exactly what triggers RA, they have found that drugs that counteract the effects of TNF-alpha, called *TNF inhibitor,* are often helpful in managing the symptoms of this disease

Understanding Who Gets Arthritis

Statistically speaking, the typical arthritis victim (if there were such a thing) would be a middle-class Caucasian woman between the ages of 65 and 74 who has a high-school education, is overweight, is a city-dweller in the southern United States, and has osteoarthritis.

But arthritis isn't all that picky and doesn't worry too much about statistics. It strikes young and old, male and female, and rich and poor and doesn't seem to care where you live. Arthritis, in one form or another, can affect just about anybody.

However, arthritis does seem to hit women particularly hard. Nearly two-thirds of those who get the disease are women — an estimated 41 million Americans. Some facts about women and arthritis:

- About 26 percent of the female population have been diagnosed with some kind of arthritis compared to 19.1 percent of males.

  Some 16 million women are currently affected by osteoarthritis, a disease that strikes nearly twice as many females as males. Additionally, women are 40 percent more likely to develop knee osteoarthritis and 10 percent more likely to develop hip arthritis compared to men.

  Three times as many women as men develop rheumatorid arthritis, a disease in which the immune system attacks joint linings causing pain and disability.

  Females make up about 80 percent of those diagnosed with lupus.
- About 90 percent of those with Sjögren's are female.
- Of an estimated 5 million U.S. adults with fibromyalgia, only about 10 percent are men.
- Girls are generally more than twice as likely as boys to develop juvenile idiopathic arthritis.

WHY ARE WOMEN MORE LIKELY TO DEVELOP ARTHRITIS?

It seems unfair, but your chances of developing arthritis are increased — sometimes greatly increased — if you happen to be female. There may be plenty of reasons for this, but the top three appear to be hormones, differences in the female musculoskeletal system, and a greater tendency to gain too much weight:

- **Hormones:** During the menstrual cycle, rising hormone levels promote the loosening of the ligaments (joint laxity), which allows them to bend more than usual. While this might seem great for dancers and gymnasts who need to be super flexible, it increases instability in the joints that can contribute to injuries that could lead to osteoarthritis. This may be the reason that female athletes (but not male) can be two to eight times more likely to suffer from ACL injuries in the knee, which increases their likelihood of developing knee osteoarthritis up to six times.

  Joint pain can also appear or worsen during and after menopause, a time when estrogen levels drop significantly. Estrogen helps protect the cartilage that cushions the joints and also tamps down inflammation of the joints. But these protective effects diminish after menopause, which increases the risk of developing OA.

- **Differences in the Musculoskeletal System:** Because the female body is designed to give birth, there is increased elasticity in the tendons in the body's lower half, causing joint laxity which makes the joints in this area more likely to become unstable. In addition, because women's hip joints are set wider than their knee joints, the femur is aligned at an angle from hip to knee, making the knee less stable and injuries more likely. Both of these causes of joint instability can contribute to OA.

  Giving birth also increases joint laxity to accommodate the birth process, but the joints may not return to normal afterwards. One study found that for each birth a woman's risk of needing a knee replacement increased by 8 percent, while the need for a hip replacement increased by 2 percent.

- **Gaining Too Much Weight:** According to the Center for Disease Control and Prevention (CDC), in 2017–2018, 41.9 percent of U.S. women were obese, as were 43 percent of U.S. men. However, *severe* obesity affected 11.5% of women compared to just 6.9% of men, making women even more likely than men to develop arthritis. While doctors have long known there's a clear connection between obesity and OA, it can also contribute to or worsen RA, psoriatic arthritis, ankylosing spondylitis, gout, and other inflammatory forms of arthritis. Fortunately, just losing a few pounds can not only ease arthritis pain but also improve joint function and increase the quality of life for most arthritis sufferers.

  Women aren't the only ones who are especially prone to developing arthritis and arthritis-related problems. Compared to Causasians, African Americans are twice as likely to have knee OA and 77 percent more likely to develop a condition called multiple large joint OA in their knees and spine. Multiple large joint OA, a disorder that affects more than 27 million American adults, may require joint replacement surgery to ease pain and restore joint function. African American women are also three times more likely than Caucasian women to develop lupus and fibromyalgia, conditions that already target women far more often than men.

Assessing Your Treatment Options

The good news is that, in many cases, arthritis can be managed. It may take some time and effort to find the right treatment(s) for your particular version of the disease, but help is out there. Medications and surgery are only a part of the answer. Following healthful diet, exercising, using joint protection techniques, controlling stress, anger, and depression, and organizing your life can offer relief from pain and a new lease on life. And the worlds of herbs, homeopathy, hands-on healing, and other alternative medicine treatments may offer you additional ammunition in the fight against arthritis pain and other symptoms.

Looking into medications


TIP

When you're in pain, your joints are hot or swollen, and you can hardly walk from one end of the house to the other, you want relief *now*. In many cases, the fastest way to relieve arthritis symptoms is to take medication. Arthritis medications fall into five main classes:

- **Analgesics:** Analgesics are designed specifically to relieve pain, and include acetaminophen (Tylenol) and opioids (narcotics). Sometimes acetaminophen is combined with an opioid, such as codeine. The analgesics differ from anti-inflammatory drugs (such as NSAIDs) in that they do not interfere with the inflammation process, which makes them easier on the stomach and less likely to cause gastrointestinal bleeding.
- **Biologics:** The biologics treat specific kinds of autoimmune arthritis (like RA) by turning off certain components of the immune system called cytokines. The cytokines play an especially important part in the inflammation seen in RA, and biologics inhibit their inflammatory action. Enbrel, Humira, Remicade, and Kineret are examples of drugs that fall into the category of biologics.
- **Disease modifying antirheumatic drugs (DMARDs):** The DMARDs are used to treat autoimmune forms of arthritis (like RA, psoriatic arthritis). DMARDs change the way the immune system works, slowing or stopping its attack on the body. Drugs like sulfasalazine, methotrexate, leflunomide, and hydroxychloroquine fall into this category.
- **Nonsteroidal anti-inflammatory drugs (NSAIDs):** The NSAIDs help relieve pain and reduce inflammation by interfering with an enzyme called COX (cyclooxygenase). The enzyme takes two forms: COX-1 and COX-2. Older, traditional forms of NSAIDs (including aspirin, ibuprofen, and naproxen) block both forms of the COX enzyme, but newer ones (such as Celebrex) block COX-2 only, as COX-1 has been shown to have a protective effect on the stomach lining. Milder versions (aspirin, ibuprofen) are available over the counter, but the more powerful ones (Indocin, Lodine, Celebrex) require a prescription, especially at higher doses.
- **Steroids:** Also known as corticosteroids, these are man-made versions of naturally-occurring hormones in the body that help quell inflammation. Although they function as powerful anti-inflammatories, they can also have powerful side effects, including elevated blood pressure, thinning of the bones and skin, weight gain, and an increased risk of infection, even when they are injected directly into the joint.

See Chapter 8 for the complete lowdown on arthritis medications.

Considering surgery

If pain is interfering with your ability to lead a happy and productive life, you have to take the maximum amount of pain relievers just to get through the day, and you've tried all other pain-relieving methods with no luck, you may want to consider surgery. Although joint surgery is complex and not to be taken lightly, some people have enjoyed excellent results, to the point of feeling that they've gotten a new lease on life. Surgical techniques can involve flushing a joint with water, resurfacing rough bone ends or cartilage, removing inflamed membranes, growing new bone, or inserting a whole new joint. Turn to Chapter 9 to find out more about surgical treatments.

Making lifestyle changes

Chances are excellent that you can do much to ease your arthritis-related pain, stiffness, swelling, and decreased range of motion just by changing certain things you do every day.

TIP

The following list goes over some options you may want to consider:

- **Eat a healthful diet.** By this, we mean a diet that includes plenty of fish, fresh fruits and vegetables, and whole grains, with a minimum of processed meats and salad oil (corn, safflower, or sunflower). This healthy, well-balanced diet also has anti-inflammatory effects, which is important as so many forms of arthritis are linked to inflammation. The Mediterranean diet fits the bill perfectly, and has the added bonus of warding off both heart disease and certain types of cancer.

  See Chapter 11 to get the skinny on the elements of a healthful diet and how to make it a permanent and delicious part of your life.

- **Consider taking certain supplements.** Many supplements can help ease the symptoms of different kinds of arthritis, including antioxidants (beta-carotene, vitamins C and E, and selenium), boron, vitamin B6, niacin, vitamin D, zinc, grapeseed extract, flaxseed oil, green tea, glucosamine sulfate, chondroitin sulfate, SAMe, bromelain, and others.

  Supplements for arthritis are discussed at length in Chapter 11.

- **Exercise daily (whenever possible).** Countless studies have shown that exercise can help lubricate and nourish the joints by forcing joint fluid into and out of the cartilage. Underexercised joints don't get much of this in-and-out action, so cartilage can thin out and become dry. Brisk walking and swimming or walking in the shallow end of a pool may be some of the best exercises for those with arthritis, because they don't put undue stress on the joints and are easy and fun to do.

For a look at exercises that help ease arthritis symptoms, see Chapter 12.

- **Watch your joint alignment.** Making sure to stand, sit, walk, run, and lift correctly can help protect your joints from injury or excess wear and tear.

  We discuss the best joint-saving techniques in detail in Chapter 13.

- **Control stress, aggression, and depression.** The way you think and feel about your arthritis pain can actually make it worse. So can stress, anger, hostility, aggression, and depression. Luckily, you can reduce your pain just by reducing your stress levels and tapping into your natural potential for relaxation.

  In Chapter 14, you'll learn all about positive thinking, biofeedback, controlling your breathing, laughter, prayer, and spirituality — all of which are effective ways of improving your mood, easing your pain, and making you feel better all over.

- **Organize your life for maximum efficiency.** Studies have shown that people who actively manage their arthritis and find new ways to cope with physical problems feel less pain and fatigue.

  In Chapter 15, we give you helpful tips for managing arthritis on a day-to-day basis. Included are ideas for conserving your energy, getting a good night's sleep, using assistive devices, making household chores easy, and holding on to your sex life. An occupational therapist and a home health caregiver can you offer valuable assistance with this.

Looking at alternative approaches

Because there isn't any one magic bullet that cures arthritis, a great many people look for help from alternative approaches — either as a substitute for traditional medicine or as that "extra something" that may be exactly what they need.

In Chapters 16 through 19, we discuss the most popular alternative treatments for arthritis — from herbs to homeopathy, from acupuncture to reflexology, from aromatherapy to hydrotherapy. Included are sections describing the therapy, explaining what it can do for you, and tips on how to find a reputable practitioner.

STARGAZING: FAMOUS ARTHRITIS SUFFERERS

Does the idea of having arthritis make you feel like you may as well just give up? Well, many people have felt like this, but gone on to live productive and happy lives. Take a look at what these people have achieved while coping with arthritis:

- **Lucille Ball** was diagnosed with rheumatoid arthritis at the age of 17, but she went on to live a long and healthy life, enjoying a top-notch career in movies and TV and even running her own TV production studio, Desilu.
- **Pierre-Auguste Renoir**, the famous French artist associated with the Impressionist movement developed RA in his late fifties but continued to paint, creating nearly 6,000 pictures during his lifetime, many of them great masterpieces.
- **Paula Abdul**, singer, dancer, choreographer and former *American Idol* judge has both rheumatoid arthritis and osteoarthritis. Yet she recently perfomed for sold-out crowds in Las Vegas and continues to pursue her super fast-paced career. She credits her ability to live a happy, active life to regular workouts based on low-impact strength exercises and Zumba classes.
- **Carrie Ann Inaba**, long-time judge on the popular TV show *Dancing With the Stars* has rheumatoid arthritis, Sjögren's, lupus and fibromyalgia. A strong believer in sharing her journey with others, she has a website dedicated to products and other solutions that have helped her cope with this potpourri of joint diseases.
- **Kathleen Turner**, actress, Academy Award-nominee and winner of two Golden Globe awards was diagnosed with rheumatoid arthritis in 1992. Although the disease temporarily torpedoed her career, she is now back on screen and working harder than ever. She credits twice-weekly Pilates classes to helping her regain her health.
- **Terry Bradshaw**, quarterback for four-times Super Bowl-winning Pittsburgh Steelers teams, was diagnosed with rheumatoid arthritis after pursuing a 14-year pro football career. When his medication caused weight gain, he realized how much he needed and wanted to exercise. He now keeps himself healthy and active, thanks to exercise, a positive attiutde, and an enthusiastc approach to each new day.
- **Tatum O'Neal**, actress, Academy Award winner, and daughter of Ryan O'Neal was diagnosed with rheumatoid arthritis at age 50 and has since undergone back surgery to improve her condition. She continues to take film and TV roles and credits a healthy lifestyle and Pilates with helping her live an active life.

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- **Grandma Moses** had arthritis in her hands at age 76 when she began painting the folksy, whimsical scenes of American life that made her famous. Despite her condition, she created hundreds of paintings, many of which can be found in major museums all over the world.
- **Kim Kardashian**, American media personality, businesswoman, and star of *Keeping Up With the Kardashians* was diagnosed with psoriatic arthritis in 2019 after experiencing pain and stiffness in her hands that made it almost impossible for her to pick up a toothbrush. Taking medication helped her immensely and she has said that she hopes her story will help others with autoimmune diseases realize there is "light at the end of the tunnel."

Armed with a thorough knowledge of arthritis, how to control its symptoms, and all the many techniques you can use to manage this disease (all of which you'll find in this book), you too can be well on your way to taking charge of your condition and getting on with your life!