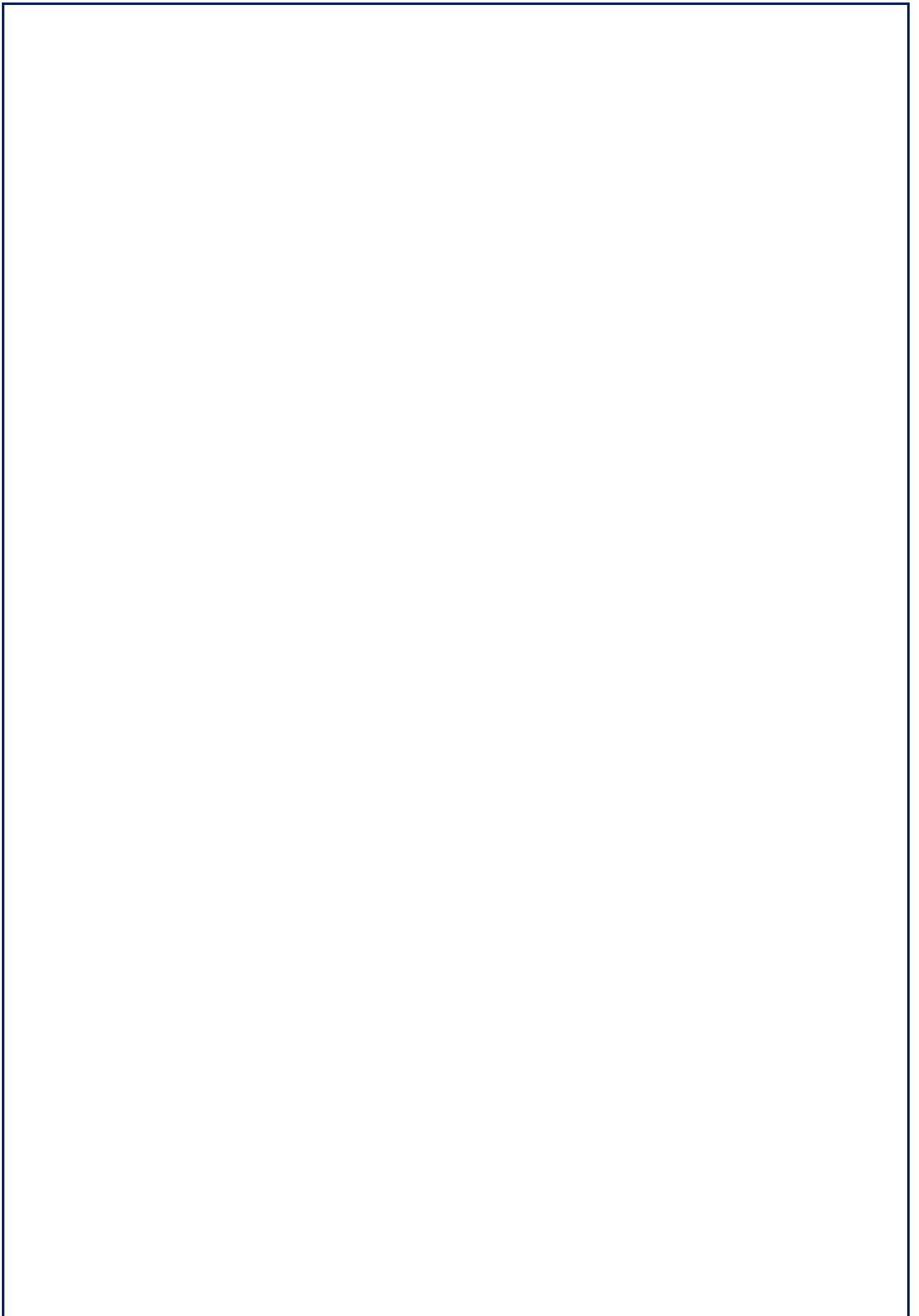




COPING WITH ARTHRITIS
& IMPROVING YOUR
QUALITY
OF LIFE



ARMSTRONG AMERIKA



What Happened To Me?

Think back, I'm sure you can remember a time when a flight of stairs, getting into or out of your car wasn't something you gave second thought about. You happily bounded upstairs two at a time and getting out of your car didn't involve you making a "groan" sound.

What happened to me and my body?

How has something as simple as opening a jam jar or the bed room door become an all too common battle?

Chances are Arthritis is your enemy. An enemy millions of people are battling each and every day.

Arthritis is the leading cause of disability in America. There are 52.5 million adults in the US, equating to 22.7% of the population, estimated to have a form of arthritis.

This number is expected to increase. It has been estimated that by the year 2030, 67 million, 25% of the projected total adult population in America will suffer from arthritis in some form or another.

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What Is Arthritis?

So you know Arthritis is a big problem and one that appears to be on the increase, but what is it? And what causes it?

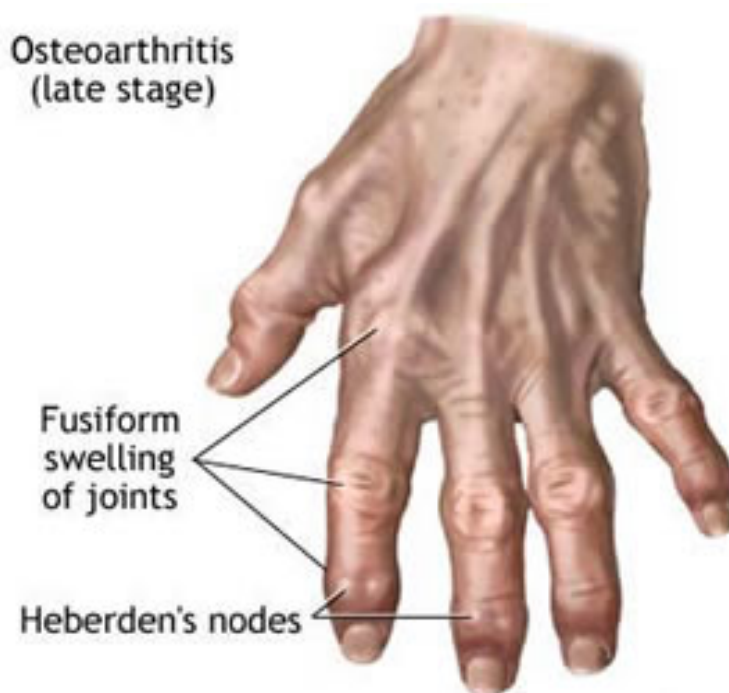
Arthritis is actually a term often used for more than 100 different medical conditions. But more specifically Arthritis is a condition affecting your joints and the tissues that surround them.

It is a widely held belief that arthritis is simply a consequence of the aging process. But it has been shown that this is not the case, arthritis is not simply a natural part of ageing. In fact two out of every three people with arthritis are between 15 and 60 years old. Arthritis can affect people from all backgrounds, ages and lifestyles. Not just a condition brought on in the later stages of life.

According to the US Centers for Disease Control and Prevention (CPC), 60% of people with arthritis are women. With exception of gout all other forms of arthritis are found to be more common in women than men.

Different types of Arthritis are found to have different causes but most commonly Arthritis is caused by inflammation or degeneration of the joints.

Arthritis can cause permanent joint changes. These changes may be visible, such as knobby finger joints, but often the damage can only be seen on X-ray. Some types of arthritis also affect the heart, eyes, lungs, kidneys and skin as well as the joints.



Most common forms of Arthritis which you may be familiar with:

- **Osteoarthritis**
- **Rheumatoid arthritis**
- **Gout**
- **Ankylosing spondylitis**
- **Systemic lupus erythematosus (Lupus)**
- **Scleroderma**

Symptoms of Arthritis

Arthritis can develop gradually or appear suddenly. Certain rheumatic conditions can even impact your immune system or various organs within your body. Such as rheumatoid arthritis and lupus, which can cause widespread symptoms.

Arthritis sufferers will commonly be effected by one or multiple of the following symptoms:

- **Pain**
- **Aching**
- **Stiffness**
- **Decreased range of motion**
- **Inflammation and swelling in or around joints**
- **Redness and warmth in a joint**
- **Visible changes to joints**
- **Increased sensitivity to pain**
- **Extreme fatigue (tiredness)**
- **Problems with sleep**

Some of these symptoms are called '**Rheumatism**' which you may have heard used before. Rheumatism isn't a disorder in itself, but the word is often used to describe any sort of joint or muscle pain.



Arthritis is not yet curable. While the condition is usually manageable, it invariably impacts your quality of life and includes varying degrees of discomfort and pain.

Research suggests that early intervention can delay the onset of the disease and may reduce the number of cases of osteoarthritis

Possible Causes of Arthritis

There is no single cause of all types of arthritis, the cause or causes in any given case vary according to the type or form of arthritis. Potential causes for arthritis may include but not be limited to:

- **Injury - leading to degenerative arthritis**
- **Abnormal metabolism - leading to gout and pseudogout**
- **Inheritance - such as in osteoarthritis**
- **Infections - such as Lyme disease**
- **Immune system dysfunction**

Most types of arthritis are caused by a combination of many factors working together, although some arthritis conditions have no obvious cause and appear to be unpredictable in their emergence.

Some people may be more susceptible to certain arthritic conditions due to their genetic makeup. Additional factors, such as previous injury, infection, smoking and physically demanding occupations, can interact with a person's genes to further increase the risk of arthritis.

Arthritis can be categorized further into 4 types of Arthritis.

- **Degenerative**
- **Inflammatory**
- **Autoimmune**
- **Metabolic**

Below is an overview of each of these four types of Arthritis and we will also provide further details on the most common forms of Arthritis mentioned above and to which category they belong to.

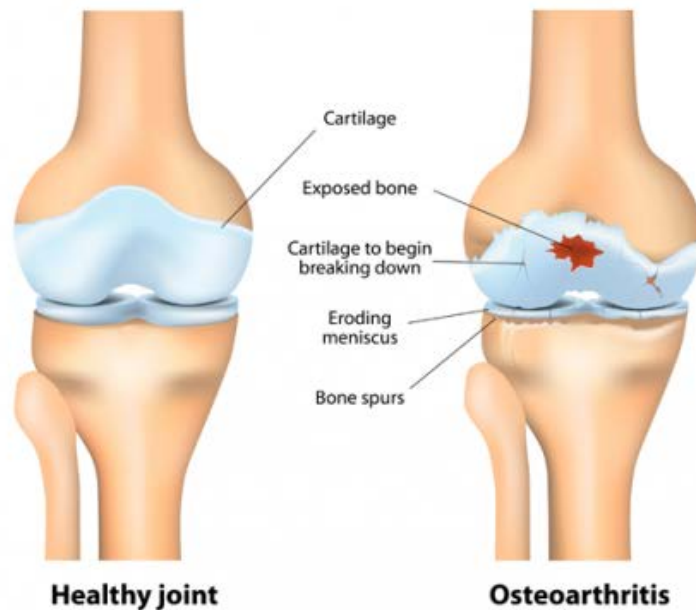
Degenerative Arthritis

Osteoarthritis (a degenerative joint disease) one of the most common founds is caused by trauma to the joint whether through injury, repetitive wear or infection in the joint. That results from breakdown of joint cartilage and underlying bone. Causing joint pain and stiffness for the sufferer, mainly following exercise or activity. But over time the **Osteoarthritis** pain may become more constant. Swelling of the effected joint and a decreased range of motion can also be problematic. **Osteoarthritis** most commonly found near the ends of the fingers, at the base of the thumb, neck, lower back, knee, and hips. Joints on one side of the body are often more affected than the other.

If your back is affected by **Osteoarthritis** you may feel a weakness & numbness in your arms and legs. Usually the symptoms come on over time. Affecting work and normal daily activities. Unlike other types of arthritis, only the joints are typically affected.

Tip: Osteoarthritis can be prevented by staying active, maintaining a healthy weight, and avoiding injury and repetitive movements.

OSTEOARTHRITIS



Osteoarthritis is caused by a reduction in the normal amount of cartilage tissue through wear and tear throughout life.

When the joint symptoms of Osteoarthritis are mild or moderate, they can be managed by:

- **Balancing activity with rest**
- **Using hot and cold therapies**
- **Regular physical activity**
- **Maintaining a healthy weight**
- **Strengthening the muscles around the joint for added support**
- **Using assistive devices**
- **Taking over-the-counter (OTC) pain relievers or anti-inflammatory medicines**
- **Avoiding excessive repetitive movements**

If joint symptoms are severe, causing limited mobility and affecting quality of life, some of the above management strategies may be helpful, but joint replacement may be necessary.

Inflammatory Arthritis

A healthy immune system is protective. It generates internal inflammation to get rid of infection and prevent disease. But the immune system can go awry, mistakenly attacking the joints with uncontrolled inflammation, potentially causing joint erosion and may damage internal organs, eyes and other parts of the body. Rheumatoid arthritis and psoriatic arthritis are examples of inflammatory arthritis. Researchers believe that a combination of genetics and environmental factors can trigger autoimmunity.

Tip: Smoking is an example of an environmental risk factor that can trigger **Rheumatoid Arthritis** in people with certain genes.

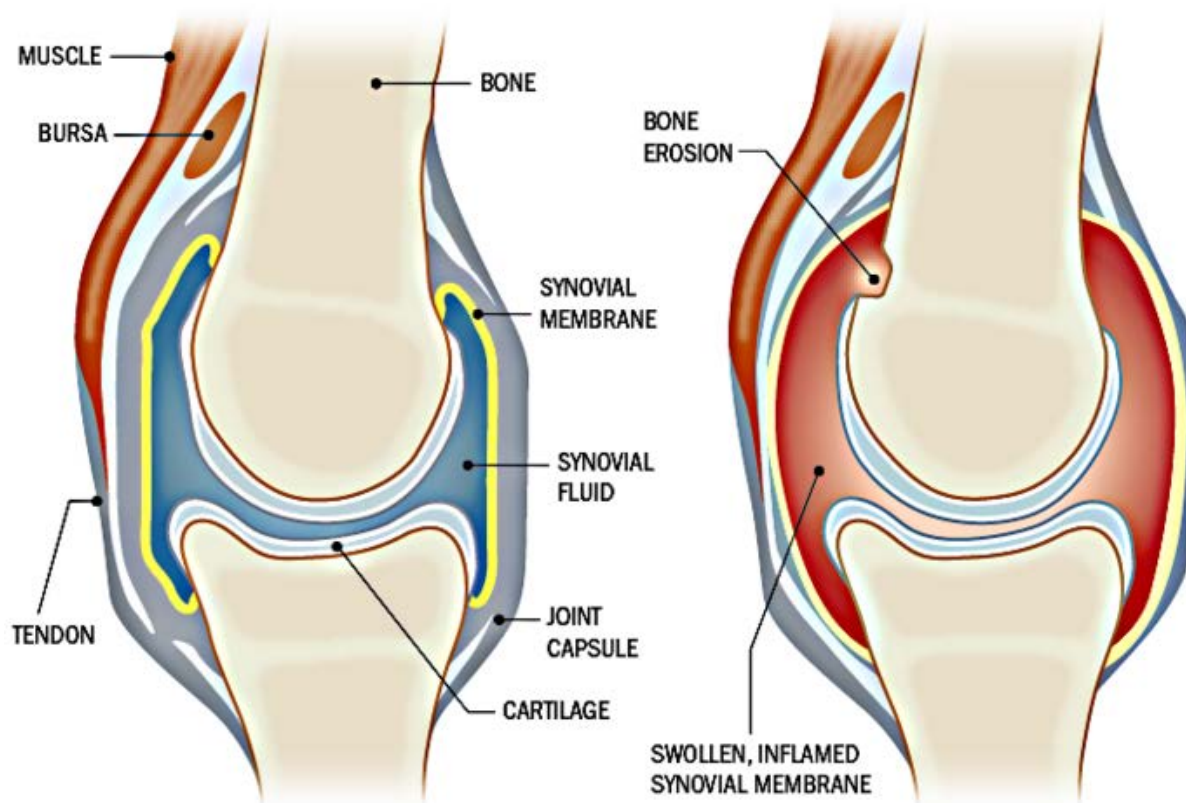
With autoimmune and inflammatory types of arthritis, early diagnosis and aggressive treatment is critical. Slowing disease activity can help minimize or even prevent permanent joint damage. Remission is the goal and may be achieved through the use of one or more medications known as disease-modifying antirheumatic drugs (DMARDs). The goal of treatment is to reduce pain, improve function, and prevent further joint damage.

Overview:

Rheumatoid Arthritis (RA) is an autoimmune disorder of the joints. The cause of rheumatoid arthritis is not clear, but it is believed to involve a combination of genetic and environmental factors. The underlying mechanism involves the body's immune system attacking the joints. Possibly as a result of a low red blood cell count. This results in inflammation and thickening of the joint capsule. It also affects the underlying bone and cartilage of the joint.

Rheumatoid arthritis

Rheumatoid arthritis is characterized by inflammation in the synovium around a joint, causing painful swelling that can lead to bone erosion and deformity. Its cause is unknown, but early diagnosis and treatment can prevent severe disability.

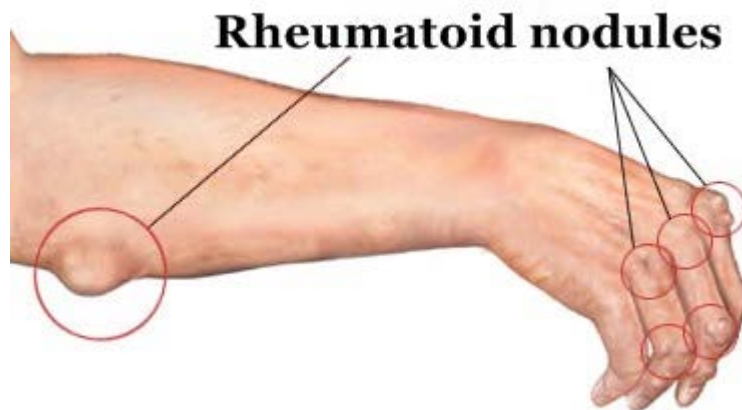


Rheumatoid Arthritis (RA) typical symptoms include: warm, red, swollen, tender and painful joints. Pain and stiffness often worsen following rest for example in the mornings or after being seated for a long period of time. Most commonly found in the wrist and hands. With the same joints typically involved on both sides of the body. But the disease may also affect other parts of the body including hips and knees.

RA can also affect your organs, and this is found to be the case in more than 15–25% of individuals with RA.

The **Skin** is the most common organ effected, resulting in a **Rheumatoid Nodule** which is a local swelling or tissue lump, usually rather firm to touch. Commonly found on bone areas like elbows, heels and finger joints or other areas that sustain repeated mechanical stress.

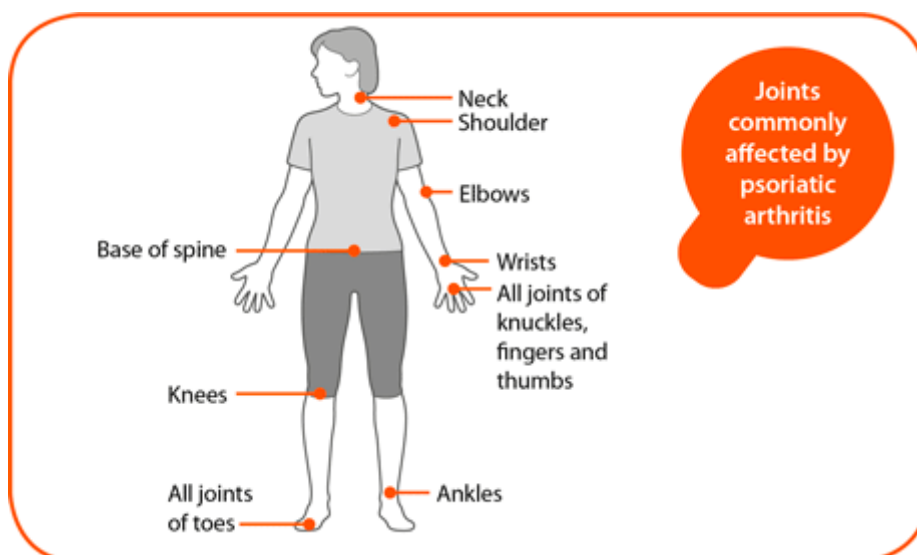
Most of the time these nodules are not painful or disabling in any way, being more of an unsightly nuisance. But can become painful if the skin breaks down or becomes a sore.



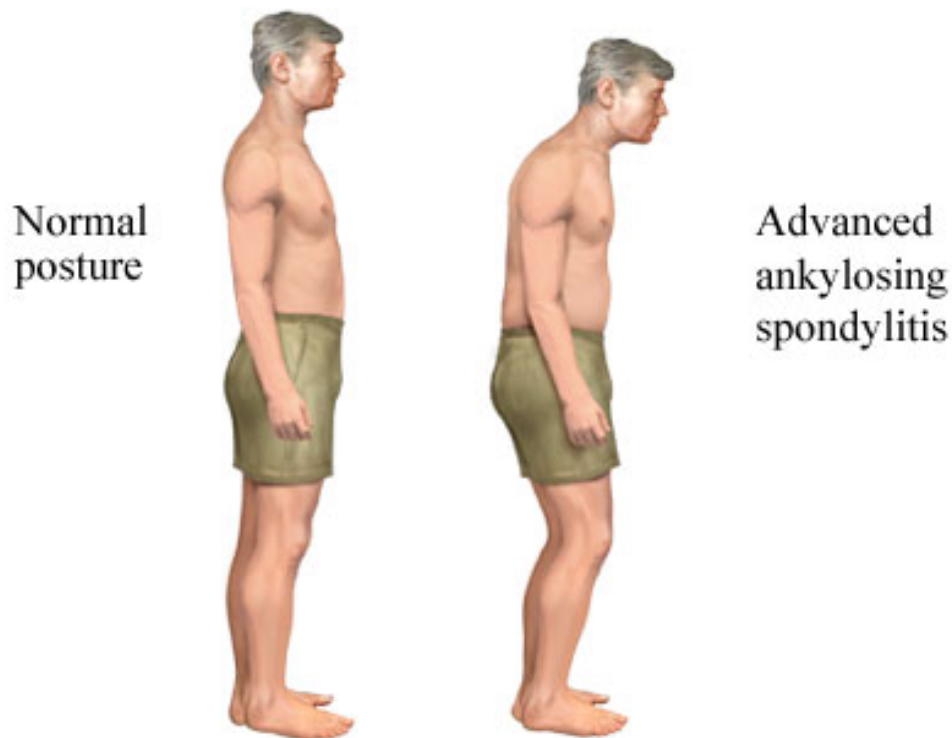
Fibrosis affecting the **Lungs**, Renal Amyloidosis affecting the **Kidneys** and Atherosclerosis which affects both the **Heart and Blood Vessels** are also a rheumatoid disease affecting the organs.

Psoriatic arthritis is an inflammation causing condition and develops in 30% of people who have the chronic skin condition **Psoriasis**. Symptoms include: Pain, swelling, or stiffness in one or more joints. Again joints are generally red, warm and tender to touch.

Commonly found in hands and wrists, psoriatic arthritis may affect the fingers, nails, and skin. Sausage like swelling in the fingers or toes, known as **Dactylitis**, may occur. This type of Arthritis often flares and will alternate with periods of remission.



Ankylosing Spondylitis is a disease which causes inflammation and pain in the spine and other joints but particularly the sacroiliac (SI) joint where the spine attaches to the pelvis. Other areas of the spine can also be affected. Along with hips, shoulders even the eyes, skin, bowel and lungs.



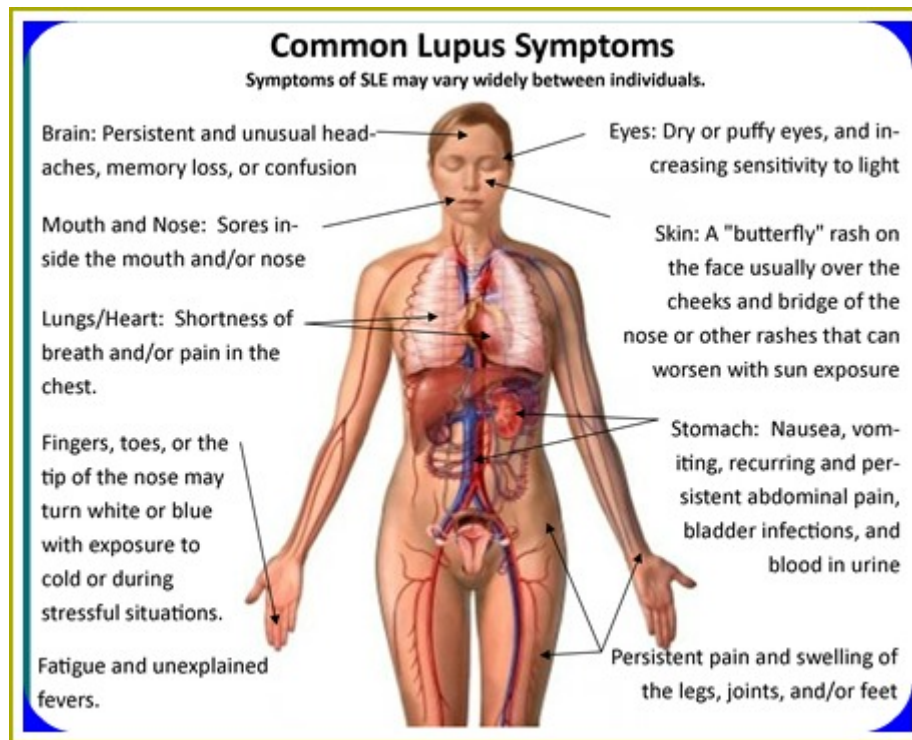
Treatment for **Ankylosing Spondylitis** is aimed at pain management and improving the patients quality of life. Regular exercise is also a major management tool as it will help to keep your spine mobile and flexible.

Autoimmune Arthritis

Lupus is an Autoimmune disease (a condition where a person's immune system produces an inappropriate response against its own cells, tissues and/or organs, resulting in inflammation and damage) that can affect many different parts of the body. The exact cause is not known, but it is believed to be a combination of both genetic and environmental factors. Lupus is fairly rare, again like most forms of Arthritis is more common in women than men.

Lupus has several types. **Systemic Lupus** can affect almost any organ or system. **Discoid Lupus** is generally milder, with most people having only skin symptoms.

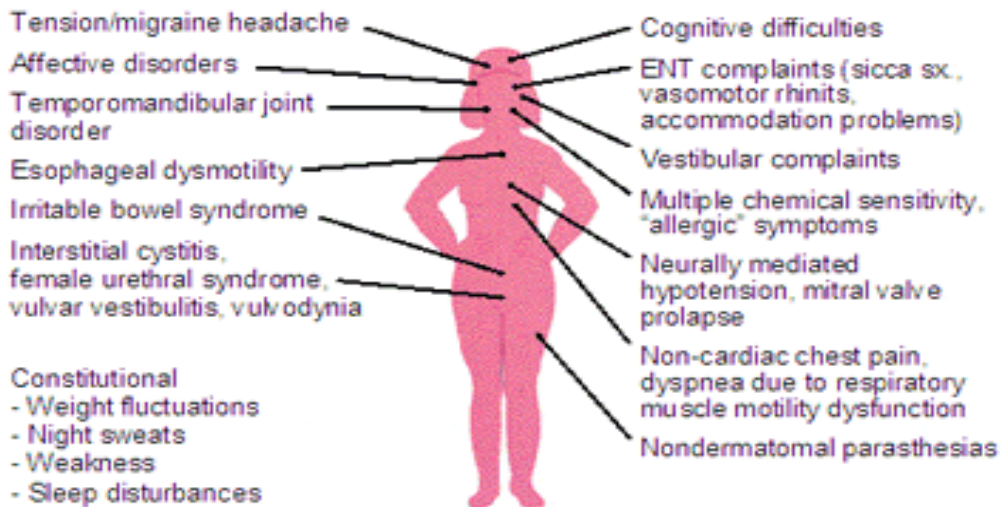
Subacute Cutaneous Lupus is similar, but milder still. Symptoms can be vague and vary greatly from person to person, the most common symptoms include: pain, stiffness or swelling in joints, skin rashes, fever and feeling tired. A diagnosis is difficult and may take some time.



Lupus is treatable. Most people with Lupus, with effective treatment and a decision to follow a healthy lifestyle, are able to manage the disease and enjoy a good quality of life.

Fibromyalgia is a condition in which people describe symptoms that include widespread pain and tenderness in the body, often accompanied by fatigue, cognitive disturbance and emotional distress. **Fibromyalgia** affects two to five per cent of the population, mainly women, although men and adolescents can also develop the condition. It tends to develop during middle adulthood.

Regional Symptoms and Syndromes Related to Fibromyalgia



The symptoms of **Fibromyalgia** can vary from mild to severe. The most common symptoms are:

- **Increased sensitivity to pain due to a decreased pain threshold**
- **Increased responsiveness to sensory stimuli such as heat, cold, light and numbness or tingling**
- **Extreme fatigue (tiredness)**
- **Problems with cognition (impacting on memory and concentration)**
- **Problems sleeping**

It is important to remember that each person with fibromyalgia will have their own unique set of symptoms.

The symptoms of fibromyalgia are variable. They can be mild, moderate or severe. Symptoms may disappear for extended periods of time, perhaps even years. Other people have pain every day, or experience variations between these two extremes.

Some people with fibromyalgia have other symptoms, such as irritable bowel syndrome, irritable or overactive bladder, headaches, and swelling and numbness or tingling in the arms and legs. Living with ongoing pain and fatigue often leads to secondary problems such as anxiety and depression.

Causes of Fibromyalgia

The cause or causes of fibromyalgia are not known. It is more common in people with:

- **Lupus or rheumatoid arthritis**
- **Illness such as a virus (or a recent illness or infection)**
- **Pain from an injury or trauma**
- **Emotional stress and depression**
- **Family history**
- **Previous pain syndromes**
- **Mood disorders**

Triggers for Fibromyalgia Symptoms

Fibromyalgia symptoms can be triggered or made worse by several factors, including:

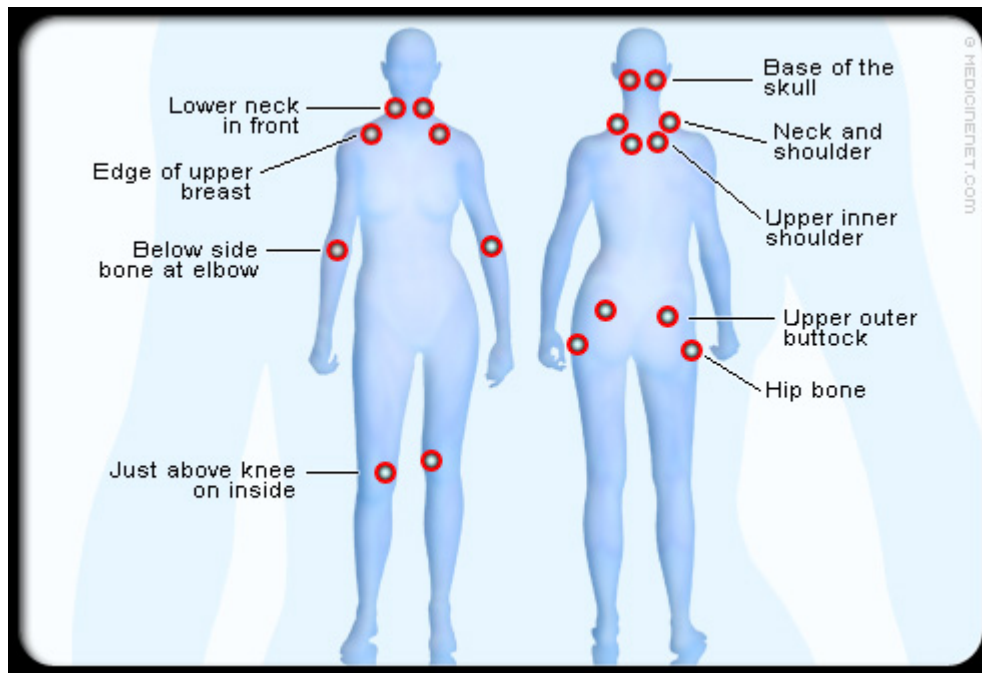
- **Changes in weather**
- **Hard physical labour**
- **Mental stress**
- **Infections**
- **Allergies**
- **Overexertion**

Diagnosis of Fibromyalgia

Fibromyalgia can be very difficult to diagnose as it does not cause any inflammation or damage. There are no blood tests, x-rays or scans that can test for fibromyalgia, but these tests may be used to exclude other conditions.

Signs that suggest you need to consult your doctor for a possible diagnosis of fibromyalgia are:

- **Widespread pain for three months or longer**
- **Abnormal tenderness around the neck, shoulder, chest, hip, knee and elbow (see diagram below)**
- **Trouble sleeping and disturbed sleep patterns**



There is no cure for fibromyalgia, but treatment can help some symptoms

Management of Fibromyalgia

- **Education**, people with fibromyalgia need to understand the condition in order to decide which management approach will help them.
- **Medication**, combined with other strategies, medication may be used to manage pain, reduce stress or promote sleep.
- **Exercise**, a gentle aerobic exercise program, such as walking, tai chi or water-based exercise, can help to manage symptoms such as pain, fatigue and sleep disturbance.
- **Stress management and relaxation**, stress may aggravate symptoms. Skills that can help manage stress include planning, relaxation, assertiveness and emotional management.
- **Balancing rest and activity**, plan your activities to make the most of your energy by alternating periods of activity with rest. Break large jobs down into small achievable tasks so that you do not overdo things.
- **Massage**, this can aid muscle relaxation and stress management.
- **Nutrition**, eating a balanced diet can help provide you with better energy levels, help to maintain your weight, and give you a greater sense of wellbeing.

- **Support from others**, contact Arthritis and Osteoporosis organizations for information about support group locations and contact details.

Scleroderma is a disease of the body's connective tissue. Scleroderma means 'hard skin'. The most common symptom is a thickening and hardening of the skin, particularly of the hands and face.

The millions of cells that make up the human body are held together by meshes of connective tissue that support and hold together our joints, muscles, internal organs and skin. The connective tissues of people with scleroderma have too much collagen, causing hardening and tightening of this connective tissue.

Many different areas of the body can be affected by scleroderma, and symptoms vary greatly from person to person.

CREST syndrome



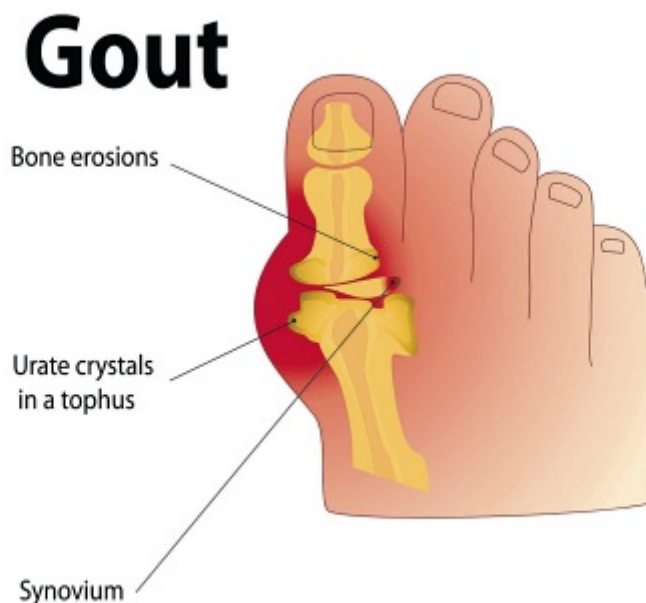
Anyone can develop scleroderma, but it is more common between the ages of 30 and 60, and three times more likely in females. Scleroderma is not contagious. The condition can be mild, moderate or severe. There is no cure, but it is possible to successfully manage the symptoms.

Metabolic Arthritis

Uric acid is formed as the body breaks down purines, a substance found in human cells and in many foods. Some people have high levels of uric acid because they naturally produce more than is needed or the body can't get rid of the uric acid quickly enough. In some people the uric acid builds up and forms needle-like crystals in the joint. **Gout** can come and go in episodes or, if uric acid levels aren't reduced, it can become chronic, causing ongoing pain and disability.

Gout is characterised by recurrent attacks of extreme pain, swelling, warmth and redness of the joint. The most commonly affected joint is the big toe, but gout may be experienced in the feet, ankles and knees. And is less common in hands or elbow joints. For some people, even the weight of a bed sheet can cause intolerable pain.

Gout is more common in men, and often several men of the one family can be affected by the condition.



Gout is one type of arthritis that is closely linked to diet as it is caused by elevated levels of uric acid which can be a result of a diet high in purines. As such, diets that contain high-purine foods, such as seafood, red wine and meats can trigger a gout flare-up. Vegetables and other plant foods that contain high levels of purines do not appear to exacerbate gout symptoms.

Diagnosing Arthritis

Before being able to correctly treat or manage your Arthritis you will need a proper diagnoses. As the treatment or any medication will differ greatly depending on the form of Arthritis, so the correct diagnosis is very important.



Arthritis diagnosis often begins with a primary care physician, who performs a physical exam and may do blood tests and imaging scans to help determine the type of arthritis. An arthritis specialist, or rheumatologist, should be involved if the diagnosis is uncertain or if the arthritis may be inflammatory.

Rheumatologists typically manage ongoing treatment for inflammatory arthritis, gout and other complicated cases.

Orthopaedic surgeons do joint surgery, including joint replacements. When the arthritis affects other body systems or parts, other specialists, such as ophthalmologists, dermatologists or dentists, may also be included in the health care team.

What Can Be Done About Arthritis?

As stated previously there is no cure for Arthritis but there are many things that can be done to preserve joint function, mobility and quality of life.

Learning about the disease and treatment options, making time for physical activity and maintaining a healthy weight are essential. Arthritis is a commonly misunderstood disease.

Living with arthritis can be different from person to person, and symptoms can vary from day to day. Treatment and management options vary with the type of arthritis, its severity and the parts of the body affected.

Medication for Arthritis

Different types of arthritis are treated by different medications. Some arthritis medications aim to reduce pain and inflammation. Others can slow down damage to joints in some types of arthritis.



The medication your doctor prescribes will depend on your type of arthritis and the severity of your symptoms. It is important to discuss any other medication or other treatment with your doctor or rheumatologist so they can monitor your treatment.

The most common medications include:

- **Pain-relieving medications (analgesics)** - have no effect on the joint or your arthritis. They simply stop you feeling the pain.
- **Creams and ointments** - can be rubbed into the skin over a painful joint to relieve pain.

- **Non-steroidal anti-inflammatory drugs (NSAIDs)** - treat inflammation, pain and swelling.
- **Corticosteroids and injections into the joint** - if you have severe pain and inflammation in your joints, then your doctor may prescribe a stronger anti-inflammatory medicine called a corticosteroid. These can be taken as tablets or given by injection directly into a joint, muscle or other soft tissue.
- **Disease-modifying medications** - are used for inflammatory forms of arthritis such as rheumatoid arthritis.
- **Biological medications** - are treatments for people with inflammatory forms of arthritis. Biological medications work by targeting certain proteins that are overproduced, causing inflammation and damage to bones, cartilage and tissue.

Tips for Managing Your Arthritis

There are many things you can do to manage your arthritis, including:

Stay active

Physical activity is the key to maintaining muscle strength, joint flexibility and managing your pain. A physiotherapist or exercise physiologist can help design an individual program for you. This can be arranged by your doctor on a GP Management Plan as part of managing chronic illness.



Learn ways to manage pain

There are many strategies you can use to deal with pain. Knowing about these and what works best for you is an important part of living with a chronic condition such as arthritis.



Watch your diet

While there is no diet that can cure arthritis, a healthy and well-balanced diet is the best for general good health. Keeping to a healthy weight is also important as any extra weight puts added strain on your joints. In particular load bearing joints such as your hips, knee and ankles.



Use tools to help

Find out about aids, equipment and gadgets that can make tasks easier. An occupational therapist can give you advice on aids, equipment and home modifications. The Independent Living centre can also be a very useful contact for information and advice.



Get help from a professional

The best way to live well with arthritis is by working closely with all the practitioners who make up your healthcare team.



Stay at work or at school

Work and School are both good for your health and wellbeing. Talk to your doctor or allied healthcare professional about ways to help you to get back to or to stay at work or school.

It is useful to focus on what you can do rather than what you can't do at your workplace or school.



Join a peer support group

Dealing with a chronic condition can be isolating. Being able to speak with others who understand your condition can be a great relief.



Use Hot and Cold Therapy

Simple hot and cold treatments can make a world of difference when it comes to arthritis pain. Long, warm showers or baths (especially in the morning) help ease stiffness in your joints. Use an electric blanket or heating pad at night to keep your joints loose and use moist heating pads.



Cold treatments are best for relieving joint pain and inflammation. Wrap a gel ice pack or a bag of frozen vegetables in a towel and apply it to painful joints for quick relief.

Try Acupuncture

Acupuncture is an ancient Chinese medical treatment that involves inserting thin needles into specific points on your body. This is supposed to re-route energies and restore balance in your body.



It is thought that acupuncture has the ability to reduce arthritis pain. If you want to try this treatment method, be sure to find an experienced acupuncturist with good references.

Use Meditation to Cope With Pain

Meditation and relaxation techniques may be able to help you reduce pain from arthritis by reducing stress and enabling you to cope with it better. According to the National Institutes of Health (NIH), studies have found that the practice of mindfulness meditation is helpful for some people with painful joints. Researchers also found that those with depression and arthritis benefitted the most from meditation.



Include the Right Fatty Acids in Your Diet

Everyone needs omega-3 fatty acids in their diets for optimum health. However, these fats may also help your arthritis. Fish oil supplements, which are high in omega-3s, may help reduce joint stiffness and pain.



Another fatty acid that can help is gamma-linolenic acid, or GLA. It's found in the seeds of certain plants like evening primrose, borage, hemp, and black currants. You can also buy the oils of the seeds as a supplement. However, be sure to check with your doctor before taking them.

Add Turmeric to Dishes

Turmeric, the yellow spice common in Indian dishes, contains a chemical called curcumin that may be able to reduce arthritis pain. The secret is its anti-inflammatory properties.



Studies show that turmeric given to lab rats reduced inflammation in their joints. Research on humans is scarce, but it can't hurt to add this tasty spice to your dinners.

Get a Massage

A regular massaging of arthritic joints can help reduce pain and stiffness, and improve your range of motion. Work with a physical therapist to learn self-massage, or schedule appointments with a massage therapist regularly.



Your massage therapist should be experienced with working on people who have arthritis. Check with your doctor for a recommendation.

Herbal Supplements

There are many kinds of herbal supplements on the market that claim to be able to reduce joint pain. Some of the herbs touted for arthritis pain include boswellia, bromelain, devil's claw, ginkgo, stinging nettle, and thunder god vine.



Always talk to your doctor before trying a new supplement to avoid side effects and dangerous drug interactions. A list of supplements can be found in a later section of this book.

Exercises for Arthritis

Regular exercise can actually help ease the symptoms of RA, according to the Centers for Disease Control and Prevention. People who exercise have improved daily function, decreased depression and fatigue, reduced pain, and improved sleep. Don't use rheumatoid arthritis as an excuse not to exercise. Instead, make it your reason to get moving with these seven expert-recommended RA exercises.

Reduce Joint Pain by Walking, walking is simple, you can do it almost anywhere, and it's easy on joint pain. Not only is walking good for people with rheumatoid arthritis, but it's great for your heart health also. Keeping active is especially important for people with rheumatoid arthritis because arthritis has been shown to increase the risk for heart disease. Walking is a great bone-strengthening and aerobic activity. The American College of Sports Medicine recommends going at a moderate to hard intensity level—60% to 85% of your maximum heart rate—three to five days a week and working up to a 30-minute session. You'll build endurance if you walk longer, but every bit is a step in the right direction.



Swimming, or any activity in water is a great place to stretch your muscles and soothe your joints. Being in water also means there is a reduction in any joint impact so it's great for those unable to run due to impact issues.

Swim laps or try a water aerobics class. Swimming, along with other types of aerobic exercise, helps control weight, boost mood, and improve sleep, and it's good for overall health.



Weight Training, the stronger your muscles are, the less strain there is on your joints. So don't be afraid of weights, lifting weight or resistant training using large elastic bands is a great way to get stronger and boost your muscle mass. Experiment with what suits you most weight machines, free weights, and resistance bands. Start slowly and increase your intensity gradually. Aim for two to three days a week, doing eight to 10 different exercises that work different muscle groups across your body.



Bike Riding, like swimming bike riding is great for people with arthritis, the smoother motion of cycling minimizes the impact and jolting of traditional jogging or running. For some people with rheumatoid arthritis may have hand issues and find it hard to hold the handle bars. If this is the case your local gym will most likely have stationary cycling machines that won't require you to grip anything. But if you are lucky and your hands can handle it, try biking a few times a week outside. It's a great way to get some fresh air and give your mood a boost. Biking will also help you condition your body for other types of exercise.



Yoga or Tai Chi, are both great for building coordination, position awareness, balance, which help to reduce an increased risk of falling. Which is often an issue for people with knee problems. Yoga and tai chi are examples of exercises that improve body awareness, which can increase coordination and balance, sense of where joints are positioned (proprioception), and relaxation. Plus, they include flexibility and range-of-motion moves, which boost joint flexibility and joint function, which are all great things.



Pilates, focuses on strengthening and improving control of muscles, particularly muscles that influence posture. Pilates is helpful in managing pain and coping with the symptoms of rheumatoid arthritis. Research has found that children with juvenile idiopathic arthritis saw a reduction in joint pain after participating in Pilates for six months compared with a group that did conventional exercises.

Pilates also like Yoga and Tai chi is also great for reducing stress and boosting your mood.



Water Aerobics, the same as swimming, buoyancy of the water relieves pressure on your joints. Consider exercising using a water jogging belt. It suspends you above the pool floor so you can move without putting any pressure on your hips, knees or ankles. Even something as simple and easy as walking laps in a shallow pool is a great way to exercise and build muscle strength in your lower body.



Stretching, another simple form of exercise that you can do almost anywhere. You can stretch sitting in a chair or you can use a Stretch out on a mat or floor . There are 100's of stretches you can try for all body parts and muscles. But remember to go easy and don't over do it. You should not feel pain when stretching.



Try a hand stretch, spread your fingers as wide as they can go, then make a fist, and repeat that stretching and squeezing motion. If you're in the water, open and close your hands underwater, or try squeezing a foam or rubber ball to build hand strength and range of motion.

Elliptical Training, riding an elliptical machine is not for the exercise novice. But it's another great "non-impact" option. It's ideal for people in good cardiovascular condition who want a higher-intensity, no-impact challenge. Start at a constant ramp height and constant resistance and make adjustments as you get stronger. Or choose a pre-set cross-training program. Adding arm movements will amp up the cardiovascular benefit. Give it a go at your local gym.



Supplements & Herbs for Arthritis



King of Bitters, is native to Asia and is known to have been mentioned in Chinese medicine as early as 260 BC. The herbaceous plant is widely cultivated for its anti-inflammatory, anti-viral, antioxidant, and anti-bacterial properties, and it has been used in traditional medicine to treat upper respiratory infections, infectious diseases, and fevers.

King of Bitters has been used to treat cold & flu, cancer, HIV, and inflammation, but scientific research is inconclusive. One report notes that when taken orally three times a day over 14 weeks, patients reported significant improvement in swollen joints and mobility. It can be found most readily in tablet form. Please note some side effects may include headaches, fatigue, nausea, allergic reactions, diarrhea, and change in taste.

Borago Oli, which is also known as starflower. Is a herb that has been used as a medicinal for thousands of years. Greek and Celtic cultures used borago to lift spirits, while later the English used the oil to flavor wine. Gamma-linolenic acid (GLA) is an omega-6 fatty acid and the active ingredient in borage oil, which is produced from the plant's seeds.

Some studies suggest that GLA may be effective at relieving joint pain and stiffness, and at times has reduced the need for NSAID medication. Taken in capsule form, it may reduce joint tenderness and inflammation. Please note side effects may include headache and constipation. Talk to your doctor before taking any supplements.

Boswellia, a native to India and Pakistan. Boswellia possesses a long history of medicinal use as an anti-inflammatory. Also known as Indian frankincense, the bark produces a sticky resin found to contain anti-inflammatory properties. Boswellic acids are thought to interfere with leukotrienes, which cause inflammation in the body. The herbal remedy is primarily available in capsule form or as a topical cream. Study results of the plant's effectiveness are inconclusive.

Bromelain, found in a tropical pineapple plant that contains the active enzyme bromelain. The plant has been used for centuries in Central and South America to treat both inflammation and indigestion. While its primary use has been to reduce inflammation caused by infection, research has been conducted to test its effectiveness on arthritis pain. Studies show possibilities for easing inflammation associated with osteoarthritis. Anyone with pineapple allergies or sensitivity to wheat, celery, carrot, fennel, grass, or cypress pollen should avoid taking bromelain.

Calcium, is critical to maintaining bone density. Many arthritis medications can actually contribute to bone loss, and inactivity from inflammation and pain can further deteriorate bone health. A calcium-rich diet along with a supplement can be an important part of treatment. Dark green, leafy vegetables, low-fat dairy products, and calcium-fortified beverages should all be part of a daily diet.

Cayenne Pepper, has a long history of medicinal use as a digestive aid, but is used more widely today to treat pain. Peppers contain an active substance called capsaicin. Topical creams of capsaicin may be applied to temporarily relieve minor aches and pains associated with arthritis.

Capsaicin cream has been confirmed as a moderately helpful pain reliever for arthritis and soft tissue pain.

Cat's Claw, originates in the South American rainforest. Used by Peruvian tribes for over 2,000 years, it has only been studied by the modern medical community since the 1970s. The plant's anti-inflammatory properties have been investigated for its effectiveness in relieving joint pain, swelling, and morning stiffness, although results have been mixed.

Cat's claw produces very few side effects, with digestive upset as the primary complaint.

Celery Seed, has been used for thousands of years to treat everything from colds, digestion, and arthritis, to conditions related to the liver and spleen. The herbal remedy is mainly used

as a diuretic today. Celery seed has gained some support as an effective treatment for arthritis and gout, but there haven't been any scientific studies that support the claims. Some animal studies have shown that celery root extract may help lower cholesterol and blood pressure.

Chamomile, is an ancient herbal remedy that has been used to treat a wide range of ailments, including inflammation, insomnia, rheumatic pain, and gastrointestinal disorders. The plant contains spiroether, a known antispasmodic that may help to ease sore muscles and joint pain. It also relaxes tension and promotes sleep.

Many different preparations of chamomile have been used, from its essential oils to herbal tea made from dried flowers and leaves. When used as a tea, chamomile is praised for its anti-inflammatory properties as well as sedative effects. Taken internally, chamomile may be effective at healing sore or irritated skin. There is little clinical evidence, however, that supports chamomile as an effective anti-inflammatory for arthritis relief.

Devils Claw, is native to the Kalahari Desert, devil's claw's long tuberous roots have been used in traditional African medicine for centuries to treat multiple ailments, including digestive disorders and infections. Root extracts of the plant contain the iridoid glycoside, harpagoside, which has been found to be an effective treatment of arthritis and tendonitis. European Studies have shown Devils Claw has substantial pain-relieving properties with minimal side effects. However, NYU Langone Medical Center has reviewed studies conducted with devil's claw and determined inconclusive results of the herb's effectiveness.

Fish Oil, Omega-3 fatty acids, the primary ingredient found in fish oil, are healthy fats that your body needs to perform a number of important functions. Fish high in omega-3 includes herring, mackerel, and tuna.

There's been substantial evidence that suggests omega-3 fatty acids may prevent chronic inflammation and ease symptoms associated with arthritis pain. In one study, patients showed significant improvement from baseline joint tenderness and duration of morning stiffness over 26 to 30 weeks. In some instances, omega-3 fatty acids may eliminate the need for continuous NSAIDS use.

People who are taking anticoagulants should discuss using fish oil supplements with their doctor.

Ginger, has been used for thousands of years to treat everything from colds, nausea, migraines, digestive disorders, and hypertension. The fresh root is readily available in grocery stores and can be brewed into tea. It can also be easily found in supplement form. Although clinical studies report mixed results as an effective pain reliever, the *Journal of Medicinal Food* gives evidence to support the anti-inflammatory and antioxidant role of ginger. A University of Miami Medical School study found that after taking a ginger supplement twice daily for three months, arthritis patients reported pain relief and improved joint functionality. However, research is limited and the efficacy of ginger root extracts on arthritis symptoms is still inconclusive.

Green Lipped Mussels, are a native to New Zealand, green-lipped mussel can be used as a nutritional supplement. It naturally contains omega-3 fatty acids, which may help reduce inflammation associated with arthritis.

Studies are inconclusive, however, providing mixed results on its effectiveness. *Arthritis Research UK* claims the supplement has no effect on relieving pain, while a University of Michigan Health System study provides support for reducing inflammation. People with seafood allergies should avoid this supplement.

Green Tea, originally cultivated in China and India, the tea (made from unfermented leaves) is the most widely consumed drink in the world after water. Beyond being a tasty beverage, green tea is a centuries-old herbal remedy, which traditionally has been used as a diuretic to promote digestion and improve heart health.

Green tea contains a significant amount of antioxidants called polyphenols. These powerful antioxidants possess anti-inflammatory properties, which may protect against autoimmune arthritis. Green tea is known to negatively interact with some medications, so always check with a doctor before introducing green tea to your diet.

Quercetin, a plant-based flavonoid is responsible for giving many flowers, fruits, and vegetables their color. Quercetin has potent antioxidant and anti-inflammatory properties, and may benefit those with arthritis.

Studies have shown that when patients adopted a vegan-based diet, high in uncooked berries, fruits, vegetables, and nuts containing the antioxidant quercetin, they reported fewer

symptoms. However, there is no evidence that the reported effects were directly due to the antioxidants.

Besides being available in fresh produce, it can also be found in capsule form.

Rosemary, is a Mediterranean shrub has been widely used as a food spice and fragrance in cosmetics. The plant has been praised for its medicinal benefits for centuries, traditionally used to improve memory, relieve muscle pain, and treat indigestion.

In lab studies, rosemary demonstrates antioxidant properties and when applied topically, it is believed to reduce muscle pain. However, there is no scientific evidence that the topical cream reduces arthritic pain.

Rosemary oil may be used as a topical application, and capsule supplements may be ingested. Daily dose should not exceed four to six grams of the dried herb.

Thunder God Vine, is another native to Asia. Found in China, Japan, and Korea, this perennial vine has been used for hundreds of years to treat autoimmune and inflammatory diseases. Lab studies have demonstrated that extracts of the root may effectively fight inflammation and have anti-cancer effects.

Thunder god vine comes with the risk of serious side effects, including diarrhea, upper respiratory infections, and skin rash—and can be poisonous if not extracted from the root properly. The herb is not manufactured in the United States and availability is limited.

One study, concluded that there were significant anti-inflammatory benefits of the vine, but further study is needed to assess potential risks.

Turmeric, has been used as a medicinal in Ayurvedic and Chinese herbal medicine for over four thousand years to treat a wide range of ailments, including digestive and liver conditions.

Research has shown that turmeric may help reduce inflammation, but there has been conflicting evidence and results are inconclusive. Curcumin, the active chemical in turmeric, is a powerful antioxidant, and evidence has shown that the substance helps to lower inflammation.

Turmeric can be easily introduced through diet, or in a capsule or tincture.

Vitamin D, recent research has shown that low levels of vitamin D can contribute to the onset and progressive symptoms of arthritis. Vitamin D significantly contributes to joint and bone health. And is an active steroid hormone that binds to receptors in a host of vulnerable tissues including the joints affected by arthritis.

Making sure you get outside in the sunshine may help, but is not substantial enough to provide the body with its daily vitamin D requirement.

White Willow Bark, has been used to treat inflammation for thousands of years. In 500 BC, Hippocrates advised patients to chew on the tree's bark to ease pain. Evidence has shown that the active ingredient in willow, salicin, reduces the production of pain-inducing chemicals in nerves; *Salix* species are credited as the natural source of aspirin.

Studies show inconclusive evidence of the benefits of this bark for arthritis patients. A slight reduction in pain was noted in two UK trials, but conclusive results as to the bark's efficacy have not been substantiated.

As with aspirin, willow bark can interact with certain drugs, including anti-inflammatories and anticoagulants. Additionally, willow bark can lead to stomach upset and an allergic reaction. Always talk to your doctor before taking willow bark.

Final Thoughts

If you have arthritis, carrying out tasks around the home can be a challenge. However, making some practical changes to your home and changing the way you work could make things easier for you.

Some practical tips include:

- keeping things in easy reach
- using a hand rail to help you get up and down the stairs
- using long-handled tools to pick things up or to clean
- fitting levers to taps to make them easier to turn
- using electric kitchen equipment, such as tin openers, when preparing food



I thank you for taking the time to read this book, I truly hope that you have gained some knowledge that will help you live a more enjoyable less painful life with Arthritis. I wish you all the best on your journey.

