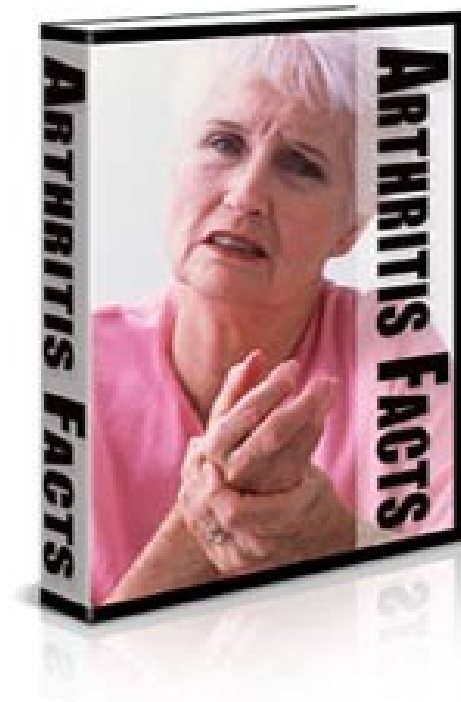




Arthritis



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1 Introduction

This eBook contains a wealth of information about **Arthritis**.

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This book should not be used as a basis for any form of diagnosis or treatment for any medical condition. Always seek professional medical advice.

1.1 *Target Audience*

This eBook is intended to provide assistance and information to people who are interested in learning more about **Arthritis**.

1.2 *Benefits of Using this Book*

This eBook provides clear and concise details on **Arthritis** that would otherwise need to be obtained from a variety of sources, such as internet, reference books, qualified doctors, and so on.

1.3 *Copyright Notice*

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This book should not be used as a basis for any form of diagnosis or treatment for any medical condition. Always seek professional medical advice.

2 What is Arthritis

Arthritis is a disease that causes pain, stiffness, inflammation, and damage to joint cartilage. *Joint Cartilage* is flexible tissue that covers the ends of bones, enabling them to move against each another. When Arthritis causes damage to joint cartilage, then joint weakness, instability, and deformities can result which interfere with even the most basic daily tasks, such as walking, driving a car, and preparing food.

Arthritis is often referred to as a single disease, but it is a term that is used to describe more than 100 medical conditions that affect joints where two or more bones meet.

A widely held belief is that Arthritis is a natural or normal occurrence as a person ages. That is, Arthritis is a normal consequence of growing old. However, Arthritis is not a natural part of ageing at all. In addition, approximately 60 percent of all people suffering from Arthritis are younger than retirement age.

In western countries, where many populations are ageing, the percentage of people with arthritis is increasing, and current estimates indicate that 20 percent of people could suffer from some form of arthritis by 2020.

Although Arthritis is not yet curable, the condition is usually manageable, and various research indicates that early intervention can delay the onset of the disease. However, Arthritis often impacts on the sufferer's quality of life and causes varying degrees of discomfort and pain.

While there are more than 100 distinct forms of Arthritis, the most common forms include:

- Ankylosing Spondylitis (AS)
- Gout
- Juvenile Arthritis
- Osteoarthritis
- Rheumatoid Arthritis
- Scleroderma
- Systemic Lupus Erythematosus (often simply called *Lupus*)

In fact, more than 95 per cent of all Arthritis cases are Osteoarthritis, Rheumatoid Arthritis, and Gout.

Out of the most common forms of Arthritis (listed above), the following are auto-immune disease related:

- Rheumatoid Arthritis
- Scleroderma
- Systemic Lupus Erythematosus (often simply called *Lupus*)

Which means that a sufferer's own immune system attacks their own body tissues, causing the symptoms. That is, the person's own immune system turns against parts of the body that it is designed to protect, causing inflammation and damage to various body tissues.

Each of the most common forms of Arthritis (listed above) is discussed below, along with the following details for each disease:

- Symptoms
- Risk Factors
- Causes
- Diagnosis
- Complications / Issues
- Treatment
- Prevention

3 A Brief History of Arthritis

Arthritis has been around for millennia, and it is not solely a human condition. For instance, in dinosaur's ankle fossils, evidence of Osteoarthritis has been discovered, and the first known occurrences of arthritis in humans date back at least as far as 4,500 BC.

Much evidence of Arthritis has been found right through history. For example, Arthritis has been found in the skeletal remains of Native Americans, and also in ancient Egyptian mummies, such as Ötzi (a mummy from around 3,000 BC).

At around 500 BC, the bark of the willow tree was found to help relieve some of the symptoms of Arthritis, and it soon gained widespread popularity as a result.

In the early 1820s, European scientists began to study willow bark to try and find what it contained that helped alleviate the symptoms of Arthritis. The result of this research was the isolation of the a compound called *salicin*.

However, when the compound was isolated and ingested, they found that salicin was very irritating to the stomach.

In 1897, Felix Hoffman, employed by the Bayer Company (which was then in the dye production business), was attempting to make the drug in order to help his father, who was suffering from Arthritis. He successfully discovered how to isolate the compound and make it less irritating to the stomach. In 1899, the Bayer Company trademarked Hoffman's discovery under the now famous name of "**Aspirin**".

Today it is thought that probably well over a trillion tablets of Aspirin have been sold worldwide since it was first introduced.

4 Ankylosing Spondylitis (AS)

Ankylosing Spondylitis (AS) is a relatively uncommon form of Arthritis that usually affects the spine, often causing severe backache and stiffness, but

can also affect hips, shoulders, and the sacroiliac joint that attaches the spine to the pelvis.

The name of this condition is derived from *Ankylosing* (which means stiff or rigid) and *Spondylitis* (which means inflammation in the spine).

4.1 Symptoms

The main symptoms Ankylosing Spondylitis (AS) include one or more of the following:

- chronic back pain,
- stiffness in the back (especially in the morning),
- pain in other joints including the neck, knees, ankles and hips,
- pain around tendons
- pain in the heel,
- inflammation of the eyes, and,
- various rashes.

In rare cases, the heart or the lungs may be affected by AS.

4.2 Risk Factors

The main risk factors for Ankylosing Spondylitis (AS) include:

- Sex
- Age
- Race

AS occurs in twice as many men as women, and in women, the symptoms of the disease are usually much milder. AS usually has its onset between the ages of 16 to 35. Race is significant with AS affecting mainly white-skinned people.

4.3 Causes

The precise cause for Ankylosing Spondylitis (AS) is unknown at the current time, but there does appear to be a strong genetic link. Most (but not all) people with AS carry a gene known as HLA-B27. Only a small percentage of people carrying this gene will, go on to develop AS however, so a range of genes, or alternate genes, may be involved.

4.4 Diagnosis

To obtain a diagnosis for Ankylosing Spondylitis (AS), a doctor may perform one or more of the following tests:

- Physical examination,
- Medical history check,
- Blood test to measure the level of uric acid in the blood which, is usually raised during an attack but can sometimes be at normal levels in people experiencing an attack of Gout.
- Urine collection and testing to measure the amount of uric acid being expelled by the body.
- X-Rays of the affected joints, and/or,
- A fluid sample from the affected joint.

These tests will help to confirm a diagnosis, or help rule out other types of Arthritis.

4.5 Complications / Issues

Like all forms of Arthritis, if left untreated, the sufferer may experience severe pain and discomfort, which will impact on all facets of their life.

4.6 Treatment

Ankylosing Spondylitis (AS) is a long-lasting (or chronic) disease, meaning that it. However, much can be done to control and reduce its effects.

An individual AS management and treatment program is usually discussed and planned by the doctor and person involved. Such treatment plans

usually include a combination of medication, exercise, and education to help the patient understand the condition and know as much about it as possible.

As with all forms of Arthritis, treatment will provide the best results if:

- Sufferers make efforts to learn about and understand their condition.
- Sufferers learn techniques to help manage their arthritis.
- Sufferers should begin treatment as soon as possible to begin managing the condition, reduce pain and discomfort, minimise joint / bone deterioration, and help them maintain mobility.
- Sufferers should consult their doctor / rheumatologist regularly so that they can keep up to date with new treatments and management techniques.

4.7 Prevention

There is no way to prevent the onset of this form of Arthritis, however, the symptoms of the condition can be managed and treated to reduce pain, discomfort, and damage to joints and bones.

5 Gout

Gout is a common and painful type of Arthritis which occurs when uric acid crystals are deposited in the joints causing inflammation, pain, and swelling. Gout usually affects one joint at a time, especially the joint of the big toe. It can also affect the knee, ankle, foot, hand, wrist, and elbow.

5.1 Symptoms

Gout causes pain, tenderness, redness, warmth, and swelling in the affected joint.

Gout attacks can occur very quickly and, if left untreated, may last for a week. An initial attack of Gout may not be followed by subsequent attacks until months or years later, if at all. Without correct management and treatment, however, attacks can become more frequent and last longer.

5.2 Risk Factors

The main risk factors for Ankylosing Spondylitis (AS) include:

- Sex
- Age
- Family history
- Dietary factors

Gout mostly affects men, rather than women, and the first attack generally occurs between the ages of 40 and 50, although it can occur at any age. Women with gout usually develop it after menopause.

Gout can also be inherited, and susceptibility to the disease runs in families.

Gout can be aggravated or triggered by alcohol, over-eating, fluid tablets, overweight, surgery, and severe sudden illness, crash dieting, and not drinking enough fluid.

5.3 Causes

People with Gout have increased uric acid in the blood. Uric acid is produced when various foods, such as protein, are broken down and digested. Even though the amount of uric acid usually derived from food is relatively small, this can still cause problems if the body cannot get rid of the excess, as this excess will be deposited as crystals in the joints, causing inflammation and the other symptoms of gout.

5.4 Diagnosis

To obtain a diagnosis for Gout, a doctor may perform one or more of the following tests:

- Physical examination,

- Medical history check,
- Blood test to measure the level of uric acid in the blood which, is usually raised during an attack but can sometimes be at normal levels in people experiencing an attack of Gout.
- Urine collection and testing to measure the amount of uric acid being expelled by the body.
- X-Rays of the affected joints, and/or,
- A fluid sample from the affected joint.

These tests will help to confirm a diagnosis, or help rule out other types of Arthritis.

5.5 Complications / Issues

Without correct management and treatment, however, attacks can become more frequent and last longer.

Like all forms of Arthritis, if left untreated, the sufferer may experience severe pain and discomfort, which will impact on all facets of their life.

5.6 Treatment

The general outlook for people with Gout is usually very positive, with a range of treatments and management options. Proper diagnosis and management usually result in Gout being well controlled.

As with all forms of Arthritis, treatment will provide the best results if:

- Sufferers make efforts to learn about and understand their condition.
- Sufferers learn techniques to help manage their arthritis.
- Sufferers should begin treatment as soon as possible to begin managing the condition, reduce pain and discomfort, minimise joint / bone deterioration, and help them maintain mobility.
- Sufferers should consult their doctor / rheumatologist regularly so that they can keep up to date with new treatments and management techniques.

5.7 Prevention

There is no way to prevent the onset of this form of Arthritis, however, the symptoms of the condition can be managed and treated to reduce pain, discomfort, and damage to joints and bones.

6 Juvenile Arthritis

Juvenile Arthritis (JA), also known as *Juvenile Idiopathic Arthritis (JIA)*
aa

6.1 Symptoms

Juvenile Idiopathic Arthritis (JIA) is often a persistent condition, and the exact symptoms and the severity of the symptoms differ from child to child. Juvenile arthritis can affect every child and adolescent differently.

In addition, the pain and discomfort experienced, as well as the joints affected, can change on a daily and even hourly basis.

Few children with JIA have many outward signs of the condition but this does not mean that all are free from pain or fatigue.

Everyday tasks such as tying shoelaces, sending SMS messages, learning a musical instrument, turning on a tap, and even carrying school books can prove extremely difficult for some children who suffer from severe JIA.

6.2 Risk Factors

The main risk factors for Juvenile Idiopathic Arthritis (JIA) include:

- Sex
- Age
- Family history

Girls are more likely to develop JIA than boys, and although it can occur at any time, it most commonly develops in children between the ages of 2 and 6.

In most cases, there appears to be no family history of the condition, and no genetic link has yet been identified.

6.3 Causes

There is no known cause of Juvenile Idiopathic Arthritis (JIA), and in most cases, there appears to be no genetic or family history link for the condition..

6.4 Diagnosis

To obtain a diagnosis for Juvenile Idiopathic Arthritis (JIA), a doctor may perform one or more of the following tests:

- Physical examination,
- Medical history check,
- Blood tests,
- X-Rays of the affected joints, and/or,
- A fluid sample from the affected joint.

These tests will help to confirm a diagnosis, or help rule out other types of Arthritis.

6.5 Complications / Issues

Like all forms of Arthritis, if left untreated, the sufferer may experience severe pain and discomfort, which will impact on all facets of their life.

6.6 Treatment

Currently, there is no cure for Juvenile Idiopathic Arthritis (JIA). In addition, it is not currently possible to estimate how long JIA may last, or which joints may be affected, or the severity of the symptoms

However, some innovative treatment strategies have been developed and for managing the condition, and these are meeting with significant success.

Joint inflammation and pain can be addressed by a range of new medications that are now available. In addition, treatment by a rheumatologist and occupational therapist or physiotherapist can often readily improve the condition. Specialist paediatric units can also assist.

Various physical aids, such as slope-boards, special scissors and pens, height-adjustable chairs, desks and footrests, small trolleys that make carrying easier, and so on, can all assist with the management of JIA.

Many children and adolescents gradually recover over time.

As with all forms of Arthritis, treatment will provide the best results if:

- Sufferers make efforts to learn about and understand their condition.
- Sufferers learn techniques to help manage their arthritis.
- Sufferers should begin treatment as soon as possible to begin managing the condition, reduce pain and discomfort, minimise joint / bone deterioration, and help them maintain mobility.
- Sufferers should consult their doctor / rheumatologist regularly so that they can keep up to date with new treatments and management techniques.

6.7 Prevention

There is no way to prevent the onset of this form of Arthritis, however, the symptoms of the condition can be managed and treated to reduce pain, discomfort, and damage to joints and bones.

7 Osteoarthritis

Osteoarthritis (OA) is one of the most common types of Arthritis.

Osteoarthritis causes a breakdown in the cartilage that cushions the ends of bones where they meet to form a joint, causing potentially debilitating pain.

OA usually occurs in the fingers and load-bearing joints, including the knees, ankles, feet, hips, and back.

7.1 Symptoms

The symptoms of Osteoarthritis (OA) vary from person to person, but they generally include pain, stiffness, and swelling in one or more joints. However, most individuals remain essentially free of OA symptoms.

7.2 Risk Factors

The main risk factors for Osteoarthritis (OA) include:

- Age
- Prior Injuries

OA most commonly develops between the ages of 45 to 90 years, and many people develop some symptoms of OA as they age beyond 45.

Osteoarthritis may also develop in joints that previously have been injured.

Men and women are afflicted equally by Osteoarthritis, so sex is not believed to be a risk factor for the condition.

7.3 Causes

Current research indicates Osteoarthritis (OA) is caused by changes within the cells of the cartilage, which result in a loss of cartilage elasticity. As a result of this, the cartilage gradually wears thin and may even break down, leaving the ends of the bones unprotected. As a result, the joint loses its smooth functioning.

Contrary to popular belief, vigorous use of a joint does not necessarily lead to Osteoarthritis. In fact, an increasing body of research evidence suggests the very opposite may be true - that vigorous use of a joint protects against Osteoarthritis.

7.4 *Diagnosis*

To obtain a diagnosis for Osteoarthritis (OA), a doctor may perform one or more of the following tests:

- Physical examination,
- Medical history check,
- Blood tests,
- X-Rays of the affected joints, and/or,
- A fluid sample from the affected joint.

These tests will help to confirm a diagnosis, or help rule out other types of Arthritis.

7.5 *Complications / Issues*

Like all forms of Arthritis, if left untreated, the sufferer may experience severe pain and discomfort, which will impact on all facets of their life.

7.6 *Treatment*

A variety of treatments and management techniques are available to help people control and reduce the effects of Osteoarthritis (OA). Each management program should be individually designed in consultation with a doctor.

Treatment usually involves a combination of suitable exercise, education, medication, joint protection, and healthy weight maintenance.

Joint replacement surgery can also be an extremely effective treatment option for people with severe OA, especially if the other treatment options have not proven to be suitable effective.

The outlook for people with OA is generally very positive. Even in the worst cases of OA, the condition progresses and worsens slowly. For many people, the symptoms of OA will be mild and cause little impact on their lives.

OA can cause severe disability and severe discomfort, but this is quite rare. In such cases, surgery is often used to replace joints.

As with all forms of Arthritis, treatment will provide the best results if:

- Sufferers make efforts to learn about and understand their condition.
- Sufferers learn techniques to help manage their arthritis.
- Sufferers should begin treatment as soon as possible to begin managing the condition, reduce pain and discomfort, minimise joint / bone deterioration, and help them maintain mobility.
- Sufferers should consult their doctor / rheumatologist regularly so that they can keep up to date with new treatments and management techniques.

7.7 Prevention

There is no way to prevent the onset of this form of Arthritis, however, the symptoms of the condition can be managed and treated to reduce pain, discomfort, and damage to joints and bones.

8 Rheumatoid Arthritis

Rheumatoid Arthritis (RA) is a disease in which inflammation affects the joints, and sometimes other organs of the body, causing pain, heat, and swelling. RA can affect people of all ages, and most people with RA can continue to lead full and active lives as long as the condition is managed. Early treatment is vital to minimise potential damage to the cartilage and bone within the joint.

RA is an auto-immune disease, which means that a sufferer's own immune system attacks their own body tissues, causing the symptoms of RA. That is, the person's own immune system turns against parts of the body that it is designed to protect, causing inflammation and damage to various body tissues. The reason why this occurs is unknown, although researchers have suggested that it may be related to a combination of genetic, environmental, and possibly various random factors.

8.1 Symptoms

The symptoms of Rheumatoid Arthritis (RA) vary greatly from person to person and from case to case. However, the symptoms generally include one or more of the following:

- Sensitive / tender, warm, and swollen joints, particularly the hands, feet, shoulders and knees.
- Persistent fatigue and a feeling of being "run down".
- Joint stiffness which tends to be more noticeable in the mornings.

Generally, both sides of the body are affected similarly, so both hands and/or both feet are affected, rather than on just one side.

8.2 Risk Factors

The main risk factors for Rheumatoid Arthritis (RA) include:

- Sex
- Age

In the majority of cases, RA develops between the ages of 25 and 50, but it can begin at any age. There is also a form of RA that affects children.

In addition, the disease affects more women than men.

In most cases, there appears to be no family history of the condition, and no genetic link has yet been identified. RA occurs in all races and ethnic groups.

8.3 Causes

8.4 Diagnosis

At the current time, there is no single test for Rheumatoid Arthritis (RA), but a range of tests may be used. To obtain a diagnosis for RA a doctor may perform one or more of the following tests:

- Physical examination,
- Medical history check,

- Blood tests,
- A fluid sample from the affected joint.

These tests will help to confirm a diagnosis, or help rule out other types of Arthritis.

The ***blood test*** can help determine if the ***rheumatoid factor*** is present in the blood. The ***rheumatoid factor*** is an antibody which is present in about 80% of people with RA. In addition, blood may also be used for a test called the ***erythrocyte sedimentation rate (ESR)***, which can assess the level of inflammation in the body.

An X-ray is not necessary to make a diagnosis for RA, but it may help determine whether damage to the bones or cartilage has occurred.

Such damage is rare during the early stages of the disease, and can be greatly reduced in later stages under proper treatment / management regimes.

8.5 Complications / Issues

Like all forms of Arthritis, if left untreated, the sufferer may experience severe pain and discomfort, which will impact on all facets of their life.

8.6 Treatment

Like other forms of Arthritis, there is no cure for Rheumatoid Arthritis (RA) but many treatment options are available to relieve specific symptoms and minimize the damage caused by the condition. The most appropriate management and treatment options for RA depend on the individual's symptoms.

There is a lot that RA sufferer's can do to control the symptoms of the condition, manage the pain, and live a full life with the disease. Treatments for RA usually include a combination of education, medication, exercise, and rest. The treatment of RA is often a team effort between the person and several types of healthcare professionals.

As with all forms of Arthritis, treatment will provide the best results if:

- Sufferers make efforts to learn about and understand their condition.
- Sufferers learn techniques to help manage their arthritis.

- Sufferers should begin treatment as soon as possible to begin managing the condition, reduce pain and discomfort, minimise joint / bone deterioration, and help them maintain mobility.
- Sufferers should consult their doctor / rheumatologist regularly so that they can keep up to date with new treatments and management techniques.

8.7 Prevention

There is no way to prevent the onset of this form of Arthritis, however, the symptoms of the condition can be managed and treated to reduce pain, discomfort, and damage to joints and bones.

9 Scleroderma

Scleroderma can be a chronic (that is, it gets worse as a person ages), progressive auto-immune disease, which means that a sufferer's own immune system attacks their own body tissues, causing the symptoms. That is, the person's own immune system turns against parts of the body that it is designed to protect, causing inflammation and damage to various body tissues.

Scleroderma predominantly affects the skin, but can also affect different parts of the body with symptoms varying enormously from a minor irritation to a life-threatening illness. The symptoms caused by Scleroderma can generally be managed with appropriate treatments.

There are several types of Scleroderma:

- If the Scleroderma affects the skin alone, then it is known as ***Localised Scleroderma***. Localised Scleroderma may cause patches of thickened skin, known as *morphea*, or as ***Linear Scleroderma***, where a line of thickened skin that may extend along an arm or a leg.
- If the Scleroderma also affects the internal organs, then it is known as ***Systemic Scleroderma***. If the Systemic Scleroderma only affects the skin below the elbow and on the face, then it is known as ***Limited***

Scleroderma. However, if skin all over the body is affected, then it is known as *Diffuse Scleroderma*.

9.1 Symptoms

The symptoms of Scleroderma vary greatly from person to person and from case to case, and depend on the type of Scleroderma and on which part(s) of the body are affected. The symptoms may include one or more of the following:

- Thickening of the skin, particularly on the fingers, arms and sometimes face.
- Colour changes in the hands and feet, usually from pale to blue to red, and especially often after exposure to a specific cold (*Raynaud's Disease*).
- Small calcium deposits in the form of nodules on the fingertips and bony prominences.
- Stiffness in the muscles and joints.
- Indigestion (heartburn).
- Diarrhoea.
- Constipation.
- Lung or kidney impairment.

9.2 Risk Factors

The main risk factors for Scleroderma include:

- Sex
- Age
- Family history

Scleroderma affects more women than men, so sex is a risk factor for the condition.

Also, the onset of Scleroderma normally occurs between the ages of 20 and 40 years but it can occur at any age, implicating age as a risk factor for the condition.

Scleroderma does not appear to be inherited, and the condition does not run in families.

9.3 Causes

The exact causes of Scleroderma are unknown at this time.

However, some recent research suggests that problems in the connective tissues (such as the tissues that hold together muscle, blood vessels, fat and skin) can result in the tissue becoming damaged and replaced by scar tissue.

9.4 Diagnosis

At the current time, there is no single test for Scleroderma, but a range of tests may be used. To obtain a diagnosis for Scleroderma a doctor may perform one or more of the following tests:

- Physical examination,
- Medical history check,
- Blood tests,
- Skin biopsy,
- Antinuclear Antibody (ANA) Test - the vast majority (about 95%) of Scleroderma sufferers test positive to this test. Antinuclear Antibodies are antibodies to DNA, and they react against components of the cell nucleus, the "command centre" of the body's cells. This test is also used for **Lupus** - see section **10.4** below.
- X-Rays of the affected joints, and/or,
- A fluid sample from the affected joint.

These tests will help to confirm a diagnosis, or help rule out other types of Arthritis.

9.5 Complications / Issues

Like all forms of Arthritis, if left untreated, the sufferer may experience severe pain and discomfort, which will impact on all facets of their life.

9.6 Treatment

Like other forms of Arthritis, there is no cure for Scleroderma but there are many treatments for specific symptoms. The most appropriate management and treatment options for Scleroderma depend on the individual's symptoms.

For example, the following Scleroderma treatments may be appropriate:

- Suitable exercise to preserve the range of motion for the affected joints and improve overall health.
- Medication to slow the progression of skin involvement
- The effects of Raynaud's Disease may be reduced by avoiding changes in temperature and by using gloves and other warming devices. Medication may also be used to decrease the severity of the symptoms and issues caused by Raynaud's Disease.
- Medication to treat any issues if the lungs or kidneys are affected.

For most people, Scleroderma is not systemic or progressive. For many, Scleroderma presents itself as a mild skin condition. However some people may have involvement throughout the body.

As with all forms of Arthritis, treatment will provide the best results if:

- Sufferers make efforts to learn about and understand their condition.
- Sufferers learn techniques to help manage their arthritis.
- Sufferers should begin treatment as soon as possible to begin managing the condition, reduce pain and discomfort, minimise joint / bone deterioration, and help them maintain mobility.
- Sufferers should consult their doctor / rheumatologist regularly so that they can keep up to date with new treatments and management techniques.

9.7 Prevention

There is no way to prevent the onset of this form of Arthritis, however, the symptoms of the condition can be managed and treated to reduce pain, discomfort, and damage to joints and bones.

10 Systemic Lupus Erythematosus (lupus)

Systemic Lupus Erythematosus (SLE), also simply known as *Lupus*, is an auto-immune disease which means that a sufferer's own immune system attacks their own body tissues, causing the symptoms. That is, the person's own immune system turns against parts of the body that it is designed to protect, causing inflammation and damage to various body tissues. Lupus can affect many parts of the body, including the joints, skin, kidneys, heart, lungs, blood vessels, and brain.

10.1 Symptoms

The symptoms of Lupus vary from person to person and from case to case, and the symptoms can range from mild to severe and may come and go over time. The symptoms may include one or more of the following:

- Painful or swollen joints,
- Unexplained fever,
- Extreme fatigue, and/or,
- A characteristic red skin rash - called *Butterfly Rash* or *Malar Rash* - may also appear across the nose, face, ears, upper arms, shoulders, chest, and/or hands.

Lupus is characterised by periods of illness, called *flares*, and periods of wellness or remission. Understanding how to prevent or anticipate flares, and how to treat them when they do occur, helps people with Lupus maintain better health.

10.2 Risk Factors

The main risk factors for Lupus include:

- Age
- Sex
- Race

➤ Family history

Lupus usually first affects people between the ages of 15 and 45 years, but it can occur in childhood or later in life as well.

Many more women than men have Lupus, and Lupus is more common in non-Caucasian women.

In addition, Lupus can run in families, but the risk that a child or a brother or sister of a patient will also have Lupus is still quite low.

10.3 Causes

Lupus is a complex disease and, at the current time, its exact causes are unknown.

Currently, it is believed that a combination of genetic, environmental, and possibly hormonal factors work together to cause the disease. Other factors, such as sunlight, stress, certain drugs, and exposure to certain viruses may also play a role in causing Lupus.

10.4 Diagnosis

It can take months or even years for doctors to piece together the symptoms to diagnose this complex disease accurately. Making a correct diagnosis for Lupus requires knowledge and awareness on the part of the doctor and open and accurate communication on the part of the patient.

At the current time, there is no single test for Lupus, but a range of tests may be used. To obtain a diagnosis for Lupus a doctor may perform one or more of the following tests:

- Physical examination,
- Medical history check,
- Blood tests,
- Skin biopsy,
- Antinuclear Antibody (ANA) Test - the majority of Lupus sufferers test positive to this test. Antinuclear Antibodies are antibodies to DNA, and they react against components of the cell nucleus, the "command centre" of the body's cells. This test is also used for **Scleroderma** - see section **9.4** above.

- X-Rays of the affected joints, and/or,
- A fluid sample from the affected joint.

These tests will help to confirm a diagnosis, or help rule out other types of Arthritis.

No single test can determine whether a person has lupus, but several laboratory tests may help the doctor to make a diagnosis. For example, most people with lupus test positive for certain antinuclear antibodies (ANA) – e.g. antibodies to DNA - that react against components of the nucleus, or "command centre" of the body's cells.

10.5 Complications / Issues

Despite the symptoms of Lupus and the potential side-effects of treatment, people with Lupus can, for the most part, maintain a high quality of life.

It is important for people with Lupus to receive regular health care, instead of seeking help only when symptoms worsen.

Because people with Lupus can be more susceptible to infections, a doctor may recommend yearly *influenza vaccinations* or *pneumococcal vaccinations* for some patients.

Like all forms of Arthritis, if left untreated, the sufferer may experience severe pain and discomfort, which will impact on all facets of their life.

10.6 Treatment

Like other forms of Arthritis, there is no cure for Lupus but there are many treatments for specific symptoms. The most appropriate management and treatment options for Lupus depend on the individual's symptoms, and the condition can be effectively treated with drugs, and most people with the disease can lead active, healthy lives.

Treatment plans are tailored to the individual's needs based on the patient's age, sex, health, symptoms, and lifestyle, and may change over time.

Lupus is characterised by periods of illness, called *flares*, and periods of wellness or remission. Understanding how to prevent or anticipate flares, and how to treat them when they do occur, helps people with Lupus maintain better health.

As with all forms of Arthritis, treatment will provide the best results if:

- Sufferers make efforts to learn about and understand their condition.
- Sufferers learn techniques to help manage their arthritis.
- Sufferers should begin treatment as soon as possible to begin managing the condition, reduce pain and discomfort, minimise joint / bone deterioration, and help them maintain mobility.
- Sufferers should consult their doctor / rheumatologist regularly so that they can keep up to date with new treatments and management techniques.

10.7 Prevention

There is no way to prevent the onset of this form of Arthritis, however, the symptoms of the condition can be managed and treated to reduce pain, discomfort, and damage to joints and bones.

11 Statistics

- Arthritis is a major cause of disability and pain.
- There is currently no cure for Arthritis, but the symptoms can be managed and treated.
- Most forms of Arthritis are thought to be a reaction of the body immune system against its own joint tissues.
- Arthritis is second only to heart disease as a cause of work disability.
- One in six people in has Arthritis. By 2020 one in five people could have the condition.

- Arthritis currently impacts directly on more than 15% of the population ... and indirectly on their businesses, and numerous other people, including their work colleagues, friends, family, and other tax payers.
- Arthritis costs economies around the world 10's of billion of dollars a year. Emotionally and socially, the hidden costs of arthritis are immeasurable.
- Arthritis limits even everyday activities such as walking, dressing, and bathing.
- Half of those people suffering from Arthritis do not think that anything can be done to help them.
- Arthritis refers to more than 100 different diseases that affect areas in or around joints.
- Arthritis strikes women more often than men.

12 Dietary Guidelines

Health and nutrition experts recommend the following eating and dietary practices for all people aged 2 years and older:

- Eat a variety of foods to get the energy (calories), protein, vitamins, minerals, and fiber you need for good health.
- Maintain a healthy weight for your height (see "**Appendix 1 - Height and Weight Charts**" on page 36) to reduce the chances of having a stroke or developing high blood pressure, heart disease, various cancers, diabetes, and other health complications.
- Eat a diet that is low in fat, saturated fat, and cholesterol to reduce your risk of heart disease, various types of cancer, and other health complications. Fat contains more than twice the calories of an equal amount of carbohydrates or protein, so a diet low in fat can help you maintain a healthy weight.

- Eat plenty of vegetables, fruits, and grain products that provide the required vitamins, minerals, fiber, and complex carbohydrates. These products are also generally lower in fat, which is also good.
- Drink plenty of water.
- Eat sugar in strict moderation. A diet consisting of lots of sugar will result in too many calories and too few nutrients for most people, and can also cause tooth decay and other health complications.
- Eat salt and other forms of sodium in moderation to help reduce your risk of high blood pressure and other health complications.
- If you drink alcoholic beverages, then do so in moderation. Alcoholic beverages are high in calories and contain little or no nutrients. Drinking alcohol is also the cause of many health problems and can lead to addiction.

13 Further Information on Arthritis

To find the Arthritis in your area using the internet, go the to **Google** web site :

<http://www.google.com>

and type in "Arthritis".

In the sections below, you can find some useful web links that can provide a wealth of information about Arthritis and Arthritis related clinical trials and research programs.

13.1 Web Links

The following are some useful web links that can provide a wealth of information about Arthritis.

- **Arthritis Foundation (non-profit organisation)**

- <http://www.arthritis.org/>
- **American College of Rheumatologists (US professional body)**
<http://www.rheumatology.org/>
 - **British Society for Rheumatology (UK professional body)**
<http://www.rheumatology.org.uk/>
 - **Arthritis Research Campaign (UK non-profit organisation)**
<http://www.arc.org.uk/>
 - **Arthritis on About.com**
<http://arthritis.about.com/>
 - **Arthritis.Com**
<http://www.arthritis.com/>
 - **MyDr Arthritis Health Centre**
<http://www.mydr.com.au/default.asp?Section=arthritis>
 - **All About Arthritis**
<http://www.allaboutarthritis.com/>

14 Acronyms and Abbreviations

See the Error! Reference source not found. above for explanations of these terms.

- ANA - Antinuclear Antibody (Test)

- AS - Ankylosing Spondylitis
- ESR - Erythrocyte Sedimentation Rate
- JA - Juvenile Arthritis
- JIA - Juvenile Idiopathic Arthritis
- OA - Osteoarthritis
- RA - Rheumatoid Arthritis

15 Appendix 1 - Height and Weight Charts

Height and weight charts are provided below in imperial units (Feet, Inches and Pounds), and metric units (Meters and Kilograms).

- All weights include an allowance for indoor clothing and shoes. So, if you are measuring your weight while naked, you will need to take some value off the measurements – see the note below each table for details.
- All heights and weights are courtesy of the "**Ideal Weights according to the Metropolitan Life Insurance Company Tables (1983)**".

15.1 Weight Chart for Women (Feet, Inches and Pounds)

Height	Small Frame	Medium Frame	Large Frame
4'10"	102-111	109-121	118-131
4'11"	103-113	111-123	120-134
5'0"	104-115	113-126	122-137
5'1"	106-118	115-129	125-140
5'2"	108-121	118-132	128-143
5'3"	111-124	121-135	131-147
5'4"	114-127	124-138	134-151
5'5"	117-130	127-141	137-155
5'6"	120-133	130-144	140-159
5'7"	123-136	133-147	143-163
5'8"	126-139	136-150	146-167
5'9"	129-142	139-153	149-170
5'10"	132-145	142-156	152-173
5'11"	135-148	145-159	155-176
6'0"	138-151	148-162	158-179

- All weights include an allowance of 3 pounds (1.4 Kg) for indoor clothing and shoes. If naked, take 3 pounds (1.4 Kg) off the above measurements.
- All heights and weights are courtesy of the "**Ideal Weights according to the Metropolitan Life Insurance Company Tables (1983)**".

15.2 Weight Chart for Women (Meters and Kilograms)

Height (Meters)	Small Frame	Medium Frame	Large Frame
1.47	46.2-50.3	49.4-54.8	53.5-59.4
1.50	46.7-51.2	50.3-55.7	54.4-60.7
1.52	47.1-52.1	51.2-57.1	55.3-62.1
1.55	48-53.5	52.1-58.5	56.6-63.5
1.57	48.9-54.8	53.5-59.8	58-64.8
1.60	50.3-56.2	54.8-61.2	59.4-66.6
1.63	51.7-57.6	56.2-62.5	60.7-68.4
1.65	53-58.9	57.6-63.9	62.1-70.3
1.68	54.4-60.3	58.9-65.3	63.5-72.1
1.70	55.7-61.6	60.3-66.6	64.8-73.9
1.73	57.1-63	61.6-68	66.2-75.7
1.75	58.5-64.4	63-69.3	67.5-77.1
1.78	59.8-65.7	64.4-70.7	68.9-78.4
1.80	61.2-67.1	65.7-72.1	70.3-79.8
1.83	62.5-68.4	67.1-73.4	71.6-81.1

- All weights include an allowance of 3 pounds (1.4 Kg) for indoor clothing and shoes. If naked, take 3 pounds (1.4 Kg) off the above measurements.
- All heights and weights are courtesy of the "**Ideal Weights according to the Metropolitan Life Insurance Company Tables (1983)**".

15.3 Weight Chart for Men (Feet, Inches and Pounds)

Height	Small Frame	Medium Frame	Large Frame
5'2"	128-134	131-141	138-150
5'3"	130-136	133-143	140-153
5'4"	132-138	135-145	142-156
5'5"	134-140	137-148	144-160
5'6"	136-142	139-151	146-164
5'7"	138-145	142-154	149-168
5'8"	140-148	145-157	152-172
5'9"	142-151	148-160	155-176
5'10"	144-154	151-163	158-180
5'11"	146-157	154-166	161-184
6'0"	149-160	157-170	164-188
6'1"	152-164	160-174	168-192
6'2"	155-168	164-178	172-197
6'3"	158-172	167-182	176-202

6'4"	162-176	171-187	181-207
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- All weights include an allowance of 5 pounds (2.3 Kg) for indoor clothing and shoes. If naked, take 5 pounds (2.3 Kg) off the above measurements.
- All heights and weights are courtesy of the "**Ideal Weights according to the Metropolitan Life Insurance Company Tables (1983)**".

15.4 Weight Chart for Men (Meters and Kilograms)

Height (Meters)	Small Frame	Medium Frame	Large Frame
1.57	58-60.7	59.4-63.9	62.5-68
1.60	58.9-61.6	60.3-64.8	63.5-69.3
1.63	59.8-62.5	61.2-65.7	64.4-70.7
1.65	60.7-63.5	62.1-67.1	65.3-72.5
1.68	61.6-64.4	63-68.4	66.2-74.3
1.70	62.5-65.7	64.4-69.8	67.5-76.2
1.73	63.5-67.1	65.7-71.2	68.9-78
1.75	64.4-68.4	67.1-72.5	70.3-79.8
1.78	65.3-69.8	68.4-73.9	71.6-81.6
1.80	66.2-71.2	69.8-75.2	73-83.4
1.83	67.5-72.5	71.2-77.1	74.3-85.2
1.85	68.9-74.3	72.5-78.9	76.2-87
1.88	70.3-76.2	74.3-80.7	78-89.3
1.91	71.6-78	75.7-82.5	79.8-91.6
1.93	73.4-79.8	77.5-84.8	82.1-93.8

- All weights include an allowance of 5 pounds (2.3 Kg) for indoor clothing and shoes. If naked, take 5 pounds (2.3 Kg) off the above measurements.
- All heights and weights are courtesy of the "**Ideal Weights according to the Metropolitan Life Insurance Company Tables (1983)**".