

# **MANUAL OSTEOPATHY JOINT MOBILIZATION FOR TREATMENT OF RHEUMATOID ARTHRITIS**

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## ***What is manual osteopathy?***

Manual osteopathy is an established recognised system of treatment, which lays its main emphasis on the structural and functional integrity of the body. It is distinctive by the fact that it recognises that much of the pain and disability which we suffer stems from abnormalities in the function of the body structure as well as damage caused to it by disease.

Manual osteopathy also encompasses all recognized tools of healing including osteopathic palpatory and manual medicine treatment methods. The goal of osteopathy is the regaining of the normal equilibrium of form and function that typifies good health. The osteopath helps achieve this by treatment methods that are in harmonious accord with the human organism's own biological constitution and organisation. The treatment methods are aimed to enable or help the organism recover from displacement, derangements and disorganisations. Osteopaths do this without using or introducing any extraneous, artificial or medicinal intervention. So: they rely only on those remedial resources contained within the organism. They are able to do this within the organism. They are able to do this through their knowledge and discovery of organic laws; through careful and exacting scientific research into the anatomical physiological and psychological structure and function of the human being

### ***•Definition of Rheumatoid Arthritis:***

Rheumatoid arthritis is an autoimmune condition in which synovial membranes of various joints are attacked by immune system cells. Unlike many other forms of arthritis, rheumatoid arthritis can also involve inflammation of tissues outside musculoskeletal system. A chronic systemic disorder manifesting as an arthritic condition

### ***•Etiology:***

The etiology of rheumatoid arthritis is not well understood, most researchers consider it to be an autoimmune disease: the immune system attacks parts of the body. The primary target in rheumatoid arthritis is **synovial membranes** of certain joints, but other areas (blood vessels, serous membranes, the skin, eyes, lungs, liver, and heart) may also be affected. When a synovial membrane is under attack, all of the signs of inflammation develop: heat, pain, redness, swelling, and loss of function

In response, the synovial membrane thickens and swells. Fluid accumulates inside the joint capsule, while causes pressure and pain. The inflamed tissues release enzymes that erode cartilage, eventually all the way down to the bone. This is the process that causes the telltale deformation of the joint capsules and gnarled appearance of rheumatoid arthritis

### ***•Signs and Symptoms***

Symptoms of rheumatoid arthritis vary considerably at the onset of the disease. Many people have a period of weeks or months with a general feeling of illness: lack of energy, lack of appetite, low-grade fever, and vague muscle pain, which gradually becomes sharp, specific joint pain. Some patients have a sudden onset with joint pain alone  
Rheumatic nodules, small, painless bumps that appear around fingers, elbows, and other

pressure-bearing areas, are also common indicators of the disease

In the acute stage the affected joints are red, hot, painful, and stiff, although they improve considerably with moderate amounts of movement and stretching

The joints rheumatoid arthritis most often attacks are the knuckles in hands and toes. It frequently develops in ankles and wrists; knees are less common

One of the most serious places to get it is in the neck, where it can lead to dangerous instability. It generally affects the body bilaterally, although it is sometimes worse on one side than the other

Like many autoimmune diseases, rheumatoid arthritis appears in cycles of flare followed by periods of remission. Some patients have only a few flares in their life and are never affected again

•Moderate cases involve cycles of flare and remission up to several times a year. Severe rheumatoid arthritis involves chronic inflammation that never fully subsides

•Joint instability:

1. Joint displacements
  - 1) Ulnar drifting
  - 2) Swan neck
  - 3) Boutonniere
2. Joint deformities
  - 1) Bumpy joints
  - 2) Swollen joint

•Classic Triad of Symptoms:

1. “Morning Gel” phenomenon
2. Bilateral symmetry
3. Subcutaneous nodules (extensor)

•**Complications**

If someone has rheumatoid arthritis, it means her immune system is confused about what it should be fighting off. Synovial membranes are just one of the types of tissue that may be attacked. Other possibilities include:

1. Rheumatic nodules on the sclera (whites) of the eyes.
2. *Sjogren's syndrome* (pathologically dry eyes and mouth)
3. Pleuritis, which makes breathing painful and increases vulnerability to lung infection
4. Carditis or pericarditis, that is, inflammation of the heart or pericardial sac
5. Hepatitis, or inflammation of the liver
6. Vasculitis, or inflammation of blood vessels. This complication carries another set of risks: Raynaud syndrome, skin ulcers, bleeding intestinal ulcers, and internal hemorrhaging
7. Bursitis and anemia, especially when onset of the disease occurs in childhood
8. Advanced structural damage brings a different set of complications

9. Deformed and bone damaged joints may dislocate or even collapse, rendering them useless. The tendons that cross over distorted joints sometimes become so stretched that they snap
10. If the disease is at the C1- -C2 joint and the joint collapses, the resultant injury to the spinal column may even result in paralysis.

### •*Diagnosis*

Rheumatoid arthritis can be difficult to diagnose because its early symptoms are often subtle; they vary greatly from one person to another; and a long list of diseases with similar symptoms must be ruled out before a diagnosis can be conclusive

A sense of urgency exists around a conclusive diagnosis however, because it has been found that cartilage and bone damage may occur as early as the first or second year of the disease process, and if treatment can be administered earlier, this damage can be averted

Rheumatoid arthritis is typically diagnosed through a description of symptoms, radiography, and a blood test to check for rheumatoid factor, a substance that is present in most but not all cases

An erythrocyte sedimentation test may be conducted to look for signs of general inflammation and the blood is also examined for signs of anemia

Even when all signs are positive the diagnosis is sometimes not considered conclusive until the patient has been under observation for a long while

A set of diagnostic criteria has been provided by the American Rheumatology Association. When four of these seven signs are present, a diagnosis of rheumatoid arthritis can be made:

- Morning stiffness that lasts at least 1 hour
- Arthritis in three or more joints
- Involvement of the proximal interphalangeal joints (PIPs), or wrist
- Bilateral distribution
- Positive serum rheumatoid factor, Rheumatoid nodules
- Radiographic (x-ray) evidence

### •*Treatment*

Once the diagnosis of rheumatoid arthritis has been confirmed, the goals of treatment are to reduce pain, limit inflammation, halt joint damage, and improve function. Medications that help to achieve these goals are divided into first-line and second-line drugs

First-line drugs include nonsteroidal anti-inflammatories, corticosteroids, and cyclo-oxygenase (COX)-2 inhibitors to limit inflammation and pain.

These are often used along with exercise, manual osteopathy, hydrotherapy, physical therapy, and occupational therapy in the hopes that progression can be limited without further intervention

Second-line drugs attempt to interfere with the disease process. These include biological

response modifiers and immunosuppressant drugs

They often give significant relief, but they also carry a long list of serious side effects and sometimes cannot be used for long-term care

Nonmedical intervention for rheumatoid arthritis can include adjustments to diet, exercise, and stress reduction techniques (including osteopathic soft tissue therapy).

Research is being conducted into the use of some alternative and complementary strategies for symptom management, including botanicals, tai chi, and meditation.

Surgery can be a successful option for rheumatoid arthritis patients, if the disease has affected a joint that can be easily treated.

Joint replacement is sometimes an option, along with surgery to rebuild damaged or ruptured tendons and to remove portions of affected synovial membranes.

### ***•Osteopathy Treatment***

The general manual osteopathic treatment is a system of treating the body of the patient as a whole. It allows the manual osteopath to perform a total body treatment, hence its alternative name, the total body adjustment.

### ***Osteopathic Soft tissue treatment***

Osteopathic Soft tissue treatment addresses neurovascular components within muscular and fascial structures of the joint. The manual osteopath may knead, stretch, or apply inhibitory pressure to a group of muscles to relax hypertonic muscles, alter passive fascial structures, improve local circulation or lymphatic drainage, and provide a general state of relaxation. These techniques may also be used to relax tissues for application of additional treatment techniques.

Contraindications include fractures, excessive pain, and undiagnosed localized infection or inflammation

### ***Springing treatment***

Springing manual osteopathy treatment (low-volume/moderate amplitude technique) has been used to gently alter physiologic carriers of muscles and fascia by inducing a series of precise movements against palpated articular restrictions. These movements may be gentle rocking or manual pulses that are controlled, repetitive, slow, and passive. The manual osteopath continues these motions until the barrier is reduced or physiologic motion of the joint has improved. The patient may experience reduced anxiety or muscle tension as joint tissues may be prepared for other types of treatment techniques, such as muscle energy.

### ***Osteopathic muscle energy technique***

Frederic L. Mitchell, Sir, DO, developed the concept of muscle energy treatment.

Frederic L. Mitchell, Jr, DO, has also written extensively about this treatment approach, which utilizes the patient's own muscle contractions to alter restriction of motion

### ***Osteopathic myofascial release treatment***

Robert C. Ward, DO, has developed techniques that address fascial and muscular tensions or imbalances in a joint. The manual osteopath palpates distortions of connective tissue, assesses for range of motion, and identifies anatomicophysiological barriers of joint motion. Restricted tissues are gently positioned away from the barrier, into regions of “ease,” and maintained until the patient perceives decreased pain or the manual osteopath appreciates alteration of tissue texture or relaxation. Joint traction or compression may be added to further relax the connective tissues.

If necessary, the joint may be evaluated for changes in range of motion and then placed into new positions of ease until pain is resolved or the joint is stabilized. Treatment of connective tissue may also stabilize posture and gait. Contraindications may include fracture or lack of patient’s cooperation in joint repositioning.

### ***Manual osteopathy treatment approaches***

Selection of the treatment approach depends on location of restriction, that is, bone, muscle, fascia; severity of pain; permitted range of motion; acuteness of condition; and the patient’s anxiety. Postural balance and gait may be stabilized by treating groups of muscles that influence joints to withstand gravitational strain. Muscle energy and myofascial treatment techniques would be appropriate. Both the patient and the manual osteopath would note improvement in strength and range of motion. Soft tissue and springing techniques may relax the patient as well as soften tissues by stimulating circulation to the region or encouraging lymphatic drainage from a limb. Any of the already mentioned treatment techniques may be applied locally to increase joint motion also. Severely restricted regions of the musculoskeletal system in anxious patients respond well to gentle treatment, which not only mobilizes joints, but also balances muscle tension and reduces edema.

The manual osteopath also does not have to exert lots of physical energy to execute treatment. The manual osteopath is not “putting back” a joint that is “out of place.” Hence, the application of the treatment procedure is specific and accomplished with minimal effort, while one monitors accumulation of forces across the joint. The joint may be spinal or of an extremity. At the conclusion of manual osteopathic treatment, the manual osteopath should recheck the structures treated and the local and distal effects of musculoskeletal changes.