RHEUMATOID ARTHRITIS

MOVEMENT

Exercise Physiology • Hydrotherapy • Injury Rehabilitation

## Pathophysiology

Rheumatoid arthritis (RA) is a chronic, systemic, autoimmune disease characterised by decline in joint health involving joint pain, inflammation, fatigue, increased incidence and progression of cardiovascular disease, and accelerated loss of muscle mass (rheumatoid cachexia). RA is most prevalent in individuals aged 40 years or older with the risk of developing RA being up to 5 times higher in women. RA is characterised by severe joint pain, reduced muscle strength, and impaired physical function. While the disease outcomes have improved with the implementation of drugs such as methotrexate and biologics, the disease is still progressive in nature with long-term joint damage and disability expected. This is due to severe inflammation of the synovium where there is a 3–100 times elevation of proinflammatory cytokines.

Systemic symptoms include early morning stiffness of affected joints, generalised afternoon fatigue and malaise, anorexia, generalised weakness, and occasionally low-grade fever. Joint symptoms include pain, swelling, and stiffness.

The joints which are primarily involved include the following:

- Wrists and the index (2nd) and middle (3rd) metacarpophalangeal joints (most commonly involved)
- Proximal interphalangeal joints
- Metatarsophalangeal joints
- Shoulders
- Elbows
- Hips
- Knees
- Ankles

## BENEFITS OF EXERCISE

For those with RA, exercise improves activities of daily living (ADL) capacity, quality of life and reduction in risk of comorbidities. Exercise also prevents the vicious cycle of joint pain leading to joint stiffness, soft tissue contracture, diminished muscle strength and endurance, and loss of independence. Exercise can also help to:

- Improve energy levels
- Increase/maintain range of motion
- Reduce joint pain
- Increase bone density
- Increase muscle strength
- Prevention of heart disease
- Increase immunity
- Reduce fatigue
- Improve sleep patterns
- Improve emotional and mental wellbeing by reducing depressive symptoms
- Increase cardiovascular fitness

### References


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admin@mkmovement.com.au


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