



Rheumatoid arthritis

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Rheumatoid arthritis is an autoimmune disease where the body's immune system attacks its own tissues. Rheumatoid arthritis can affect anyone at any age, and may cause significant pain and disability.

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Findings from this report:

- In 2017-18, there were 12,045 hospitalisations for rheumatoid arthritis, a rate of 43 per 100,000 persons
- About 456,000 Australians (1.9% of the total population) have rheumatoid arthritis
- Rates of rheumatoid arthritis are slightly higher for women (2.3%) than men (1.5%)
- Rheumatoid arthritis is most common in people aged 75 years or over

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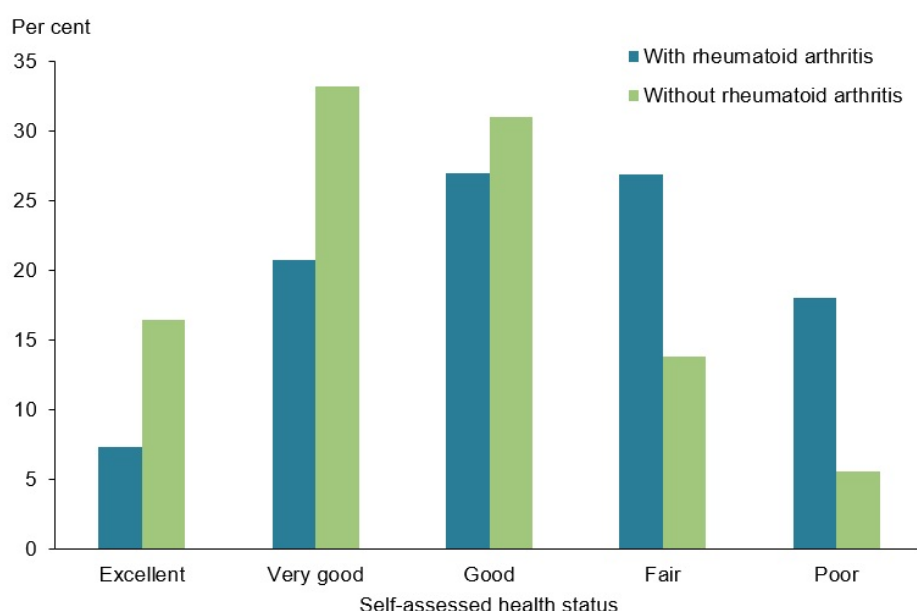
Impact of rheumatoid arthritis

Rheumatoid arthritis can severely affect a person’s quality of life and cause significant disability. Physical limitations, pain, fatigue and mental health issues are symptoms of rheumatoid arthritis that can impact a person’s ability to engage in daily activities (Radner et al. 2010). In Australia, rheumatoid arthritis accounted for 15% of the total burden of disease due to musculoskeletal conditions in 2015 (AIHW 2019a). Additionally, there is an economic impact to rheumatoid arthritis. In 2015-16, rheumatoid arthritis cost the Australian health system an estimated \$1.2 billion, representing 9.6% of disease expenditure on musculoskeletal conditions and 1% of total disease expenditure (AIHW 2019b).

Perceived health status

People aged 45 and over with rheumatoid arthritis had lower self-assessed health status compared with people without the condition—based on self-reported data from the ABS 2017-18 [National Health Survey \(NHS\)](#). People with rheumatoid arthritis were 3.2 times as likely to describe their health as poor (18%) compared with those without the condition (5.6%) (Figure 1).

Figure 1: Self-assessed health of people aged 45 and over with and without rheumatoid arthritis, 2017-18



Note: Rates are age-standardised to the Australian population as at 30 June 2001.

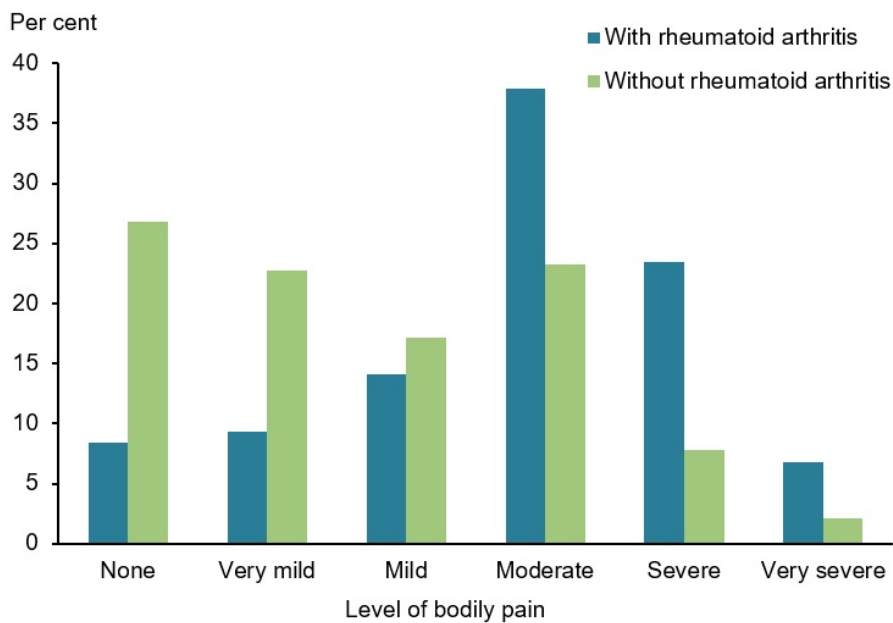
Source: AIHW analysis of ABS 2019 ([Data table](#)).

Pain

Rheumatoid arthritis is a significant cause of physical disability. Functional limitations arrive soon after the onset of the disease and worsen with time. Joint damage in the wrist is reported as the cause of most severe limitation even in the early stages of rheumatoid arthritis (Koevoets et al. 2019).

Based on findings from the ABS NHS, in 2017-18, more than 2 in 3 people with rheumatoid arthritis aged 45 and over (68%) experienced ‘moderate’ to ‘very severe’ pain in the last 4 weeks. People with rheumatoid arthritis were 3.1 times as likely to have severe or very severe bodily pain in the last 4 weeks (30%) compared with those without the condition (10%) (Figure 2).

Figure 2: Pain^(a) experienced by people aged 45 and over with and without rheumatoid arthritis, 2017-18



(a) Bodily pain experienced in the 4 weeks prior to interview.

Note: Rates are age-standardised to the Australian population as at 30 June 2001.

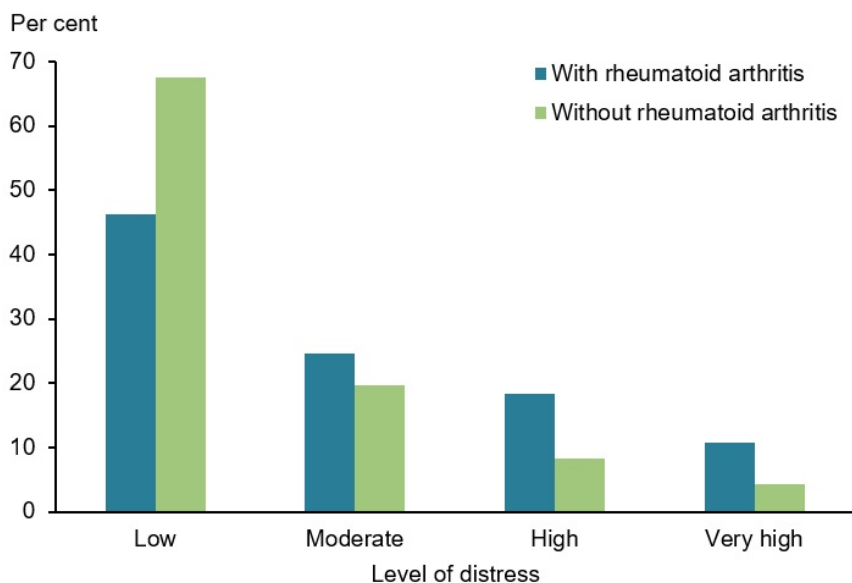
Source: AIHW analysis of ABS 2019 ([Data table](#)).

Psychological distress

People with rheumatoid arthritis are more likely to suffer from anxiety, depression and low self-esteem (Kovic et al. 2012). Rheumatoid arthritis can affect a person's ability to participate in work, hobbies and social and daily activities. Combined with the chronic pain associated with rheumatoid arthritis, this can lead to mental health issues including stress, depression and anxiety (Arthritis Australia 2017).

People aged 45 and over with rheumatoid arthritis were 2.5 times as likely to describe very high levels of psychological distress (11%) compared with those without the condition (4.3%), according to the 2017-18 NHS (Figure 3).

Figure 3: Psychological distress ^(a) experienced by people aged 45 and over with and without rheumatoid arthritis, 2017-18



(a) Psychological distress is measured using the Kessler Psychological Distress Scale (K10), which involves 10 questions about negative emotional states experienced in the previous 4 weeks. The scores are grouped into Low: K10 score 10-15, Moderate: 16-21, High: 22-29, Very high: 30-50.

Note: Rates are age-standardised to the Australian population as at 30 June 2001.

Source: AIHW analysis of ABS 2019 ([Data table](#)).

Comorbidities of rheumatoid arthritis

People with rheumatoid arthritis often have other chronic conditions, or 'comorbidities' (2 or more health conditions occurring at the same time). For this analysis, these selected comorbidities were considered:

- heart, stroke and vascular disease
- kidney disease
- arthritis
- mental and behavioural conditions
- asthma
- diabetes
- chronic obstructive pulmonary disease (COPD)
- osteoporosis
- cancer.

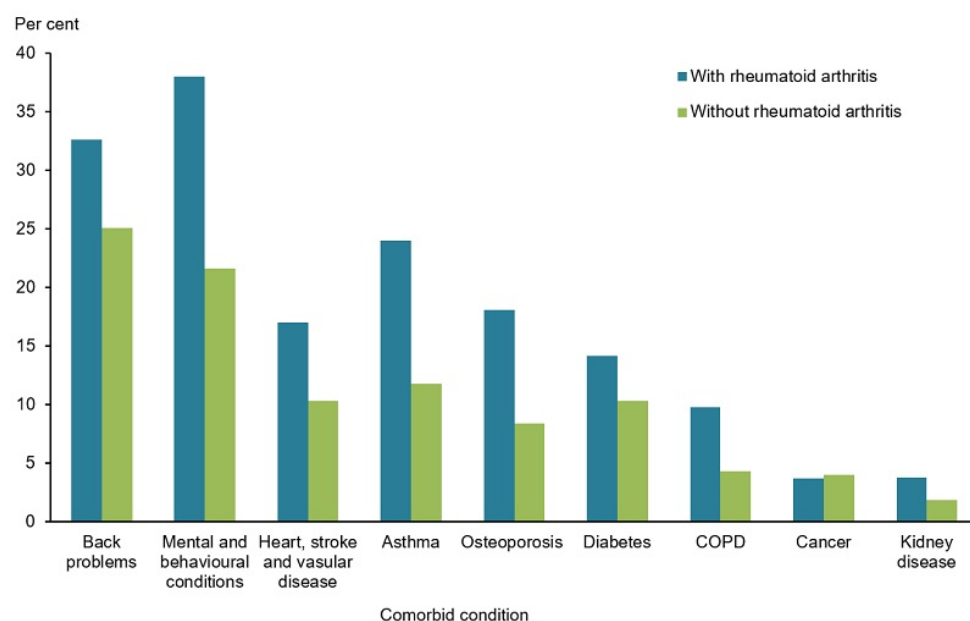
According to self-reported data from the ABS NHS 2017-18, among people aged 45 and over with rheumatoid arthritis:

- 36% also had back problems compared with 25% of people without rheumatoid arthritis
- 35% also had mental and behavioural conditions compared with 22% of people without rheumatoid arthritis
- 22% also had heart, stroke and vascular disease compared with 11% of people without rheumatoid arthritis ([Data table 2.4](#)).

Most chronic diseases are more common in older age groups. The average age of people with rheumatoid arthritis is older than the average age of the general population, therefore people with rheumatoid arthritis are more likely to have age-related comorbidities. The rates of back problems, mental and behavioural conditions, heart, stroke, and vascular disease, asthma, osteoporosis, and COPD as comorbidities remained significantly higher for people with rheumatoid arthritis compared with those without after adjusting for age (Figure 4). There was no significant difference for diabetes, cancer or kidney disease.

It is important to note that regardless of the differences in age structures, having multiple chronic health problems is often associated with worse health outcomes (Parekh et al. 2011), in addition to a poorer quality of life (McDaid et al. 2013) and more complex clinical management and increased health costs. Rheumatoid arthritis is also associated with increased mortality due to comorbidities and related complications (Lassere et al. 2013).

Figure 4: Prevalence of other chronic conditions in people aged 45 and over with and without rheumatoid arthritis, 2017-18



Notes:

1. Rates are age-standardised to the 2001 Australian population.
2. These components do not total 100% as one person may have more than one comorbidity.

Source: AIHW analysis of ABS 2019 ([Data table](#)).

Data notes

The National Health Survey (NHS) uses three factors to determine whether or not a person is counted as having a particular condition: whether the condition is current, whether it is long term and whether it was medically diagnosed. The combination of these factors required for a person to count as having the condition varies according to the nature of the condition. For example, some conditions, such as diabetes and HSVD, once diagnosed, are seen to be lifelong. Even if a person no longer reports symptoms, they still count as having the condition. While other conditions, such as depression, asthma, cancer or back problems, can be lifelong, episodic or in complete remission.

Most conditions do not need the respondent to have been diagnosed by a doctor or nurse. The respondent is counted if they said they have the condition. However, in cases where the respondent said they had diabetes or HSVD and that the condition was not current, they need to have received a diagnosis to be counted.


Condition	Current	Long term	Has the condition been diagnosed by a doctor or nurse?
Asthma	current	long term	no diagnosis required
Back problems	current	long term	no diagnosis required
Cancer	current	long term	no diagnosis required
COPD	current	long term	no diagnosis required
Diabetes	current	long term	no diagnosis required
(2 combinations)	ever had	not long term	diagnosis required
Heart, stroke and vascular disease (HSVD)	current	long term	no diagnosis required
(2 combinations)	ever had	not long term	diagnosis required
Kidney disease	current	long term	no diagnosis required
Mental and behavioural conditions	current	long term	no diagnosis required
Osteoporosis	current	long term	no diagnosis required
Rheumatoid arthritis	current	long term	no diagnosis required

Note: Please see the [2017-18 NHS User Guide](#) for more information on the definitions of the conditions.

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Treatment and management of rheumatoid arthritis

At present there is no cure for rheumatoid arthritis. The Australian Models of Care for the management of the disease focus on early diagnosis, early management, and coordination of multidisciplinary care needs (Speeran et al. 2014; Arthritis Australia 2014). The goal of rheumatoid arthritis treatment is to stop inflammation (put the disease in remission), relieve symptoms, prevent joint and organ damage, reduce complications and improve physical function. Early treatment for rheumatoid arthritis is aggressive in order to stop inflammation as soon as possible (Arthritis Australia 2014).

Medications are primarily used to treat rheumatoid arthritis, however physical therapy and surgery can also be used.

Medications

Treatment for rheumatoid arthritis has improved dramatically over the past 20 years, with new medicines now very helpful for people, particularly in the early stages of the disease.

Medications for symptoms

Paracetamol, codeine, and nonsteroidal anti-inflammatory drugs (NSAIDs) are sometimes called the 'first-line' medicines in management of rheumatoid arthritis, as these are the initial medicines provided for symptom relief (AIHW 2010).

Medications for slowing disease

Stronger medications such as corticosteroids, disease-modifying anti-rheumatic drugs (DMARDs) and biologic disease-modifying anti-rheumatic drugs (bDMARDs) may be prescribed when insufficient symptom control is obtained from first-line medicines. Corticosteroids and DMARDs are typically prescribed and monitored by specialist rheumatologists and require close medical monitoring to ensure effectiveness and to minimise side effects. Evidence suggests initiation of aggressive treatment with DMARDs within 12 weeks of symptom onset is associated with less joint destruction and a higher chance of achieving DMARD-free remission as compared with a longer delay in assessment (Van der Linden 2010).

bDMARDs are specialised immunosuppressant medications that have been shown to halt or slow the disease process sufficiently to reduce the joint destruction and disability associated with early rheumatoid arthritis (Nam et al. 2014). bDMARDs are also used for other autoimmune conditions such as juvenile arthritis, psoriatic arthritis and Crohn's disease.

Treatment options for rheumatoid arthritis, including bDMARDs are available through the Pharmaceutical Benefits Scheme (PBS) and Repatriation Pharmaceutical Benefits Scheme (RPBS) (AIHW 2013).

Physical therapy

Maintaining a healthy and active lifestyle is an important management strategy in rheumatoid arthritis. Low-impact physical activity can assist in reducing inflammation, increasing and maintaining mobility and strengthening muscles around affected joints (Cooney 2011). A physiotherapist can prescribe an exercise program to assist in the management of rheumatoid arthritis.

Joint replacement surgery

Joint replacement surgery can relieve pain and restore function to joints severely damaged due to rheumatoid arthritis.

General practitioners and rheumatoid arthritis treatment

Treatment of rheumatoid arthritis often begins with the patient visiting a general practitioner (GPs). This is an important step in the treatment of rheumatoid arthritis because it is optimal for inflammation to be managed early on to reduce the chances of joint damage occurring (Speerin et al. 2014) and improve long-term outcomes (Bakker et al. 2011). GPs often conduct initial assessment and diagnosis of rheumatoid arthritis. The time from onset of rheumatoid arthritis symptoms and referral to a specialised rheumatologist for treatment needs to be as efficient as possible to improve long-term treatment outcomes (Nam et al. 2014). The RACGP recommends GPs complete diagnosis of rheumatoid arthritis as soon as possible and refer patients to a rheumatologist if joint swelling persists beyond 6 weeks (RACGP 2009).

Hospitalisation and the treatment of rheumatoid arthritis

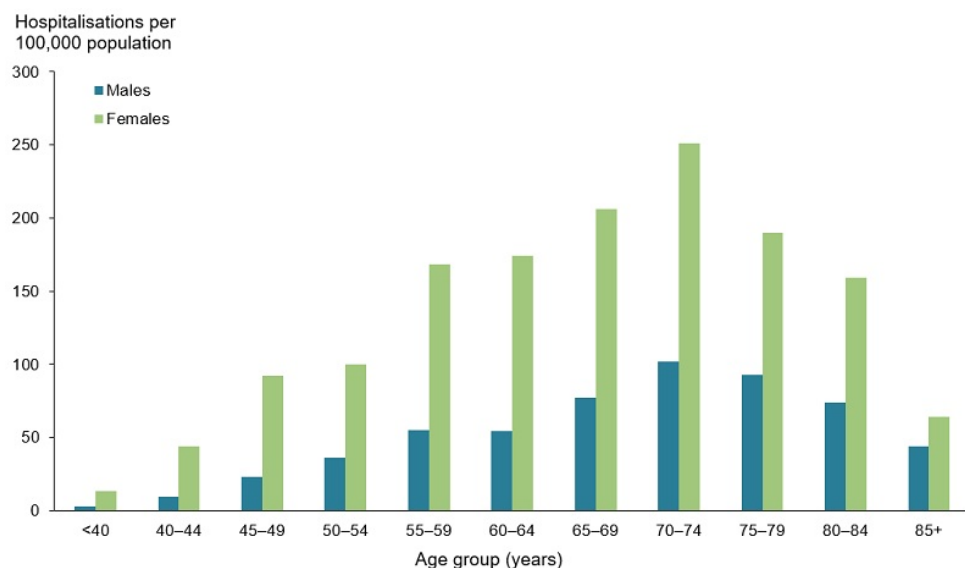
Treatment of rheumatoid arthritis is usually managed by general practitioners in partnership with rheumatologists and allied health professionals (such as physiotherapists) and centres on managing pain, reducing inflammation and joint damage, and preventing loss of function.

Severe disease however may require hospitalisation to relieve pain and restore function to damaged joints.

Data from the AIHW [National Hospital Morbidity Database \(NHMD\)](#) show that, in 2017-18:

- there were 12,045 hospitalisations with the principal diagnosis of rheumatoid arthritis, a rate of 43 hospitalisations per 100,000 population (age standardised to the 2001 Australian population)
- three-quarters (75%) of rheumatoid arthritis hospitalisations were for females
- the hospitalisation rate was lowest among those aged 40 and under, increased until the age of 70-74, and then decreased again among people aged 75 and over (Figure 1).

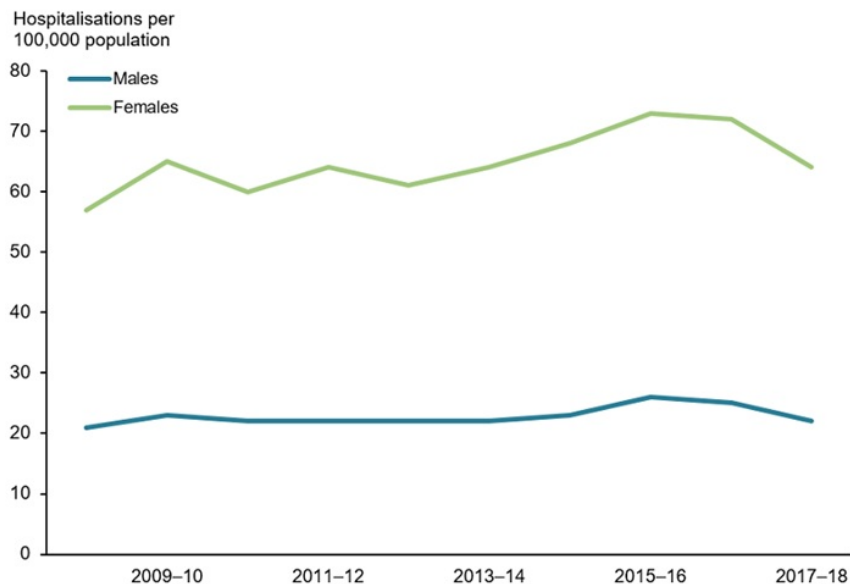
Figure 1: Rate of hospitalisation for rheumatoid arthritis, by sex and age, 2017-18



Source: AIHW National Hospital Morbidity Database ([Data table](#)).

Between 2008-09 and 2017-18, the age-standardised hospitalisation rate for rheumatoid arthritis peaked in 2015-16 at 50 per 100,000, compared with 43 per 100,000 in 2017-18. The hospitalisation rate peaked at 73 per 100,000 for females and at 26 per 100,000 for males, in 2015-16 (Figure 2).

Figure 2: Rate of hospitalisation for rheumatoid arthritis, by sex, 2008-09 to 2017-18



Note: Rates are age-standardised to the Australian population as at 30 June 2001.

Source: AIHW National Hospital Morbidity Database ([Data table](#)).

Common hospital procedures for rheumatoid arthritis

In 2017-18, a total of 20,807 procedures were performed in rheumatoid arthritis hospitalisations. Administration of pharmacotherapy (40%), generalised allied health interventions (including physiotherapy, occupational therapy and dietetics) (25%) and cerebral anaesthesia (5.9%) were the most common groups (blocks) of procedures for rheumatoid arthritis hospitalisations.

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Data

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