

## 6 > Impact on functioning and quality of life

### KEY POINTS

- The impact of arthritis and musculoskeletal conditions on functioning and quality of life is large, not only in terms of activity limitation and functional restrictions but also in terms of pain and self-perceived state of health.
- The independent living of a large proportion of people with arthritis and musculoskeletal conditions is compromised. Many experience psycho-social changes in their lives (e.g. in marital status and employment) as a result of their disease or condition.
- Persons with arthritis and musculoskeletal conditions commonly encounter limitations in activities of daily living. In particular, they need assistance with heavy household chores.
- Work disability is also common among these people. More than one-third are unable to work permanently; many others experience several employment restrictions.
- The activity limitations associated with arthritis and musculoskeletal conditions are often exacerbated by the presence of other long-term conditions. This is particularly the case among those aged 80 and over.
- The health-related quality of life of people with arthritis and musculoskeletal conditions is generally poorer than that of those living in the community at large. This is particularly the case for people with rheumatoid arthritis.
- Certain elements of the impact of arthritis and musculoskeletal conditions cannot be easily measured, nor can the costs of the resulting human suffering be estimated.

Arthritis and musculoskeletal conditions have a large impact on the functioning and quality of life of a significantly large proportion of the Australian population, particularly the elderly. These diseases and conditions not only limit a person's mobility but also cause them difficulty in carrying out a wide range of daily tasks. The quality of their day-to-day life is low in terms of physical functioning, bodily pain and role performance. In view of the great number of those affected, the societal impact of these diseases and conditions is considerable (Kelsey & Hochberg 1988; Arthritis Australia 2004).

The adverse impact of arthritis and musculoskeletal conditions is much more insidious than the symptoms of joint pain and mobility restriction would suggest. Not only do affected people have difficulty in performing activities of daily living and working, but also they fear altered body image, and have concerns about dependency. The need to seek help is often a blow to their self-esteem and self-image. The effect on emotional wellbeing and sexual relationships is also high (McDuffie et al. 1996). The burden placed by some of these conditions on the person who has the condition and their family members are pervasive. Persons with arthritis and musculoskeletal conditions also face high health care expenses (Arthritis Australia 2004).

This chapter provides an overview of these issues in Australia, using the concepts behind the International Classification of Functioning, Disability and Health as a guide (ICF) (WHO 2001). Impairments due to arthritis and musculoskeletal conditions, leading to disability, are described. Limitations of activity are also covered. Their impact upon independent living and social participation is examined. Since arthritis and musculoskeletal conditions tend to be chronic in nature, with poor functional outcomes, the chapter also focuses on long-term issues such as health status, problems at work and occupational modifications required. The overall impact is summarised in terms of health-related quality of life (HRQoL) and self-perceived health status.

## Impairments

Disability may include a variety of bodily impairments (i.e. problems in body function and structure with significant deviation or loss). In arthritis and musculoskeletal conditions, chronic or recurrent pain may occur. There may also be limitation in manual performance, incomplete use of body parts, and disfigurement or deformity (Table 6.1). The role of these impairments, deformities and disfigurements, in particular, among young people, is high.

The most common impairment associated with arthritis and musculoskeletal conditions is chronic or recurrent musculoskeletal pain. Almost 56% of those with arthritis and musculoskeletal conditions who responded to the 2003 Survey of Disability, Ageing and Carers (SDAC) reported chronic or recurrent pain that impacted on their quality of life. Chronic pain is not being regarded here as a protracted form of acute pain—a symptom—but an impairment in its own right. For example, joint pain could be associated with functional limitation even in the absence of radiographic evidence of arthritis (Leveille et al. 2001).

One in two SDAC respondents with arthritis and musculoskeletal conditions also reported difficulty in gripping or holding things. Another major upper body impairment reported was incomplete use of arms or fingers. Disfigurement or deformity caused by arthritis and related disorders was reported by about 3% of the respondents.

**Table 6.1: Physical impairments/limitations associated with arthritis and related disorders, 2003**

Impairment/limitation	Number '000	Per cent
Chronic or recurrent pain or discomfort	312	55.7
Difficulty gripping or holding things	278	49.6
Incomplete use of feet or legs	137	24.4
Incomplete use of arms or fingers	95	17.0
Disfigurement or deformity	16	2.8

Note: The proportions are based on the total number of people with disability associated with arthritis and related disorders (N=560,104).

Source: AIHW analysis of ABS 2003 Survey of Disability, Ageing and Carers CURF.

## Independent living

The ability to perform core activities of life, or activities of daily living (ADL), is central to independent living. These activities include self-care (showering, toileting and dressing), mobility (transferring from beds or chairs, and sometimes walking around the house) and communication. People with arthritis and musculoskeletal conditions generally have moderate difficulty in performing many of these tasks. Not everyone with arthritis or a musculoskeletal condition is affected the same way though. As the disease progresses, the capacity to perform these core activities decreases. The pain becomes more severe and the body becomes stiffer. Depending upon the amount of pain and upper or lower body limitation, people experience a range of activity limitations.

The inability to do housework, shop, prepare meals, or to manage medication and transportation generally has a low impact on a person's quality of life. Those experiencing a moderate activity limitation would have some difficulty in performing these activities. But, those with a mild activity limitation may not have much difficulty at all; they would, however, have difficulty walking long distances, using public transport, walking up and down stairs, or bending to pick up an object from the floor (ABS 2004).

Both formal and informal support and care are sometimes required by many people who have difficulties with one or more activities of daily living.

## Assistance required

In the 2003 SDAC, the majority of respondents (people reporting arthritis and related disorders as the main disabling condition) indicated limitations in one or more core activities. However, most of these people, other than those aged 80 and over, did not actually need assistance in undertaking these activities.

Limited restriction was reported by people with arthritis and related disorders in showering, eating, toileting and bladder/bowel control. A relatively small number of people therefore require assistance with these activities of self-care (Table 6.2). Dressing, however, is one self-care activity where people with arthritis and musculoskeletal conditions do require assistance more often. This is particularly the case for those aged 80 and over.

**Table 6.2: Assistance with self-care for people with disability associated with arthritis and related disorders, 2003**

Activity requiring assistance	Age group				Total	Number '000
	25-44	45-64	65-79	80+		
	Per cent					
Showering/bathing	7.3	6.3	6.4	25.4	9.3	51.6
Dressing	12.2	10.6	12.5	28.7	14.2	78.6
Eating	1.4	3.3	3.7	14.7	5.1	28.2
Toileting	3.0	0.9	2.4	13.9	3.6	20.1
Bladder/bowel control	0.0	0.7	2.0	16.0	3.5	19.3

Note: A person may need assistance with more than one activity.

Source: AIHW analysis of ABS 2003 Survey of Disability, Ageing and Carers CURF.

A relatively larger proportion of people with disability associated with arthritis and musculoskeletal conditions are unable to undertake property maintenance and health care without assistance (Table 6.3). The need for help increases with age, and is greatest among those aged 80 and over.

**Table 6.3: Assistance with daily activities for disability associated with arthritis and related disorders, 2003**

Activity requiring assistance	Age group				Total	Number '000
	25-44	45-64	65-79	80+		
	Per cent					
Health care	10.0	11.2	16.5	54.9	19.8	109.6
Housework	12.7	11.1	17.2	36.9	17.5	96.9
Property maintenance	20.8	12.6	16.9	33.6	18.0	99.8
Paperwork	2.2	1.6	5.2	27.8	7.0	38.9
Meal preparation	6.8	4.4	6.6	18.0	7.5	41.3
Transportation	12.2	9.1	16.6	40.2	16.9	93.6

Note: A person may need assistance with more than one activity.

Source: AIHW analysis of ABS 2003 Survey of Disability, Ageing and Carers CURF.

Mobility away from home is another activity in which older people with arthritis and musculoskeletal conditions require assistance. People in older age groups are also likely to need assistance in moving about the house (Table 6.4). Those younger than 64 are less likely to ask for assistance in respect to mobility and transport.

**Table 6.4: Assistance with mobility and transport for disability associated with arthritis and related disorders, 2003**

Activity requiring assistance <sup>(a)</sup>	Age group				Total	Number '000
	25-44	45-64	65-79	80+		
	Per cent					
Using public transport	4.3	4.2	6.3	10.2	5.9	32.7
Mobility away from the home	11.6	10.4	16.8	56.4	19.9	110.4
Moving about the house	8.1	4.8	7.2	25.1	9.0	49.9
Transferring to and from bed <sup>(b)</sup>	14.6	9.4	7.2	20.6	10.6	58.8

(a) A person may need assistance in more than one activity.

(b) Transferring to and from bed or chair.

Source: AIHW analysis of ABS 2003 Survey of Disability, Ageing and Carers CURF.

## Use of devices and home modifications

As described above, the pronounced effect of arthritis and musculoskeletal conditions on physical dysfunction does not always translate into difficulties in attending to personal and household care problems. People can make successful adjustments by using specialised devices or modifying their dwelling so that their roles and daily activities are not seriously affected. Indeed, the use of devices and appliances in performing daily activities is common among people with arthritis and musculoskeletal conditions.

Of the wide variety of devices reported as being used by persons with disability associated with arthritis and musculoskeletal conditions in the 2003 SDAC, the most common were those for showering, toileting and meal preparation (Table 6.5). These included long-handled reachers, shoe horns, sponges, brushes and special tooth brushes as well as specific types of medical and mobility aids (the latter being helpful in moving around the house and around places other than the place of residence).

**Table 6.5: Use of devices in core activities for disability associated with arthritis and related disorders, 2003**

Activity <sup>(a)</sup>	Males		Females		Persons	
	Number '000	Per cent	Number '000	Per cent	Number '000	Per cent
Showering	18.2	10.7	52.9	13.5	71.1	12.7
Toileting	12.0	7.1	30.0	7.7	42.0	7.5
Dressing	7.1	4.2	10.1	2.6	17.2	3.1
Eating	0.4	0.2	2.9	0.7	3.3	0.6
Meal preparation	1.2	0.7	14.4	3.7	15.6	2.8
Transferring to and from bed <sup>(b)</sup>	9.2	5.4	21.3	5.5	30.5	5.4
Other	28.5	16.8	76.8	19.7	105.3	18.8

(a) The proportions are based on the total number of people with disability associated with arthritis and related disorders (M=169,572; F=390,532; N=560,104).

(b) Transferring to and from bed or chair.

Source: AIHW analysis of ABS 2003 Survey of Disability, Ageing and Carers CURF.

People with disability associated with arthritis and musculoskeletal conditions sometimes make structural changes and adaptations to their homes (Table 6.6). Most of these people are semi-ambulant. Nonetheless, steps and stairs present one of their greatest challenges. They also have limited grip strength and reach, and have pain on movement. The modern toilet may be too low and the vanity unit too high for them to use. In view of these difficulties, various types of home modifications are required.

About 16% of respondents with disability associated with arthritis and related disorders in the 2003 SDAC reported one or more modifications to their house. The proportion was greater among females (17%) than males (12%), probably reflecting differences in age distribution. The addition of hand grabs and rails was the most common home modification reported. Changes to toilets, baths and laundry were other major changes. Addition of ramps and a variety of structural changes to the building were also reported (Table 6.6).

**Table 6.6: Home modifications for disability associated with arthritis and related disorders, 2003**

Modification <sup>(a)</sup>	Males		Females		Persons	
	Number '000	Per cent	Number '000	Per cent	Number '000	Per cent
Structural	1.4	0.8	5.7	1.5	7.1	1.3
Ramps	2.2	1.3	11.3	2.9	13.5	2.4
Toilet, bath, laundry	9.6	5.7	30.4	7.8	40.0	7.1
Hand grab and rails	13.5	8.0	42.6	10.9	56.1	10.0
Other changes	0.9	0.5	10.9	2.8	11.8	2.1

(a) The proportions are based on the total number of people with disability associated with arthritis and related disorders (M=169,572; F=390,532; N=560,104).

Source: AIHW analysis of ABS 2003 Survey of Disability, Ageing and Carers CURF.

## Work disability

Arthritis and musculoskeletal conditions are among the leading causes of work loss (Kraus et al. 1996). They have a major impact on the capacity to work or gain employment. Many working-aged persons are not able to continue working at the same level as they would have if they had not developed the disease or condition; many others need to adapt to new circumstances. An adverse outcome may be reduced work hours or a desire not to work outside the home (Reisine et al. 1995). Some people may need to change jobs (Cunningham & Kelsey 1984).

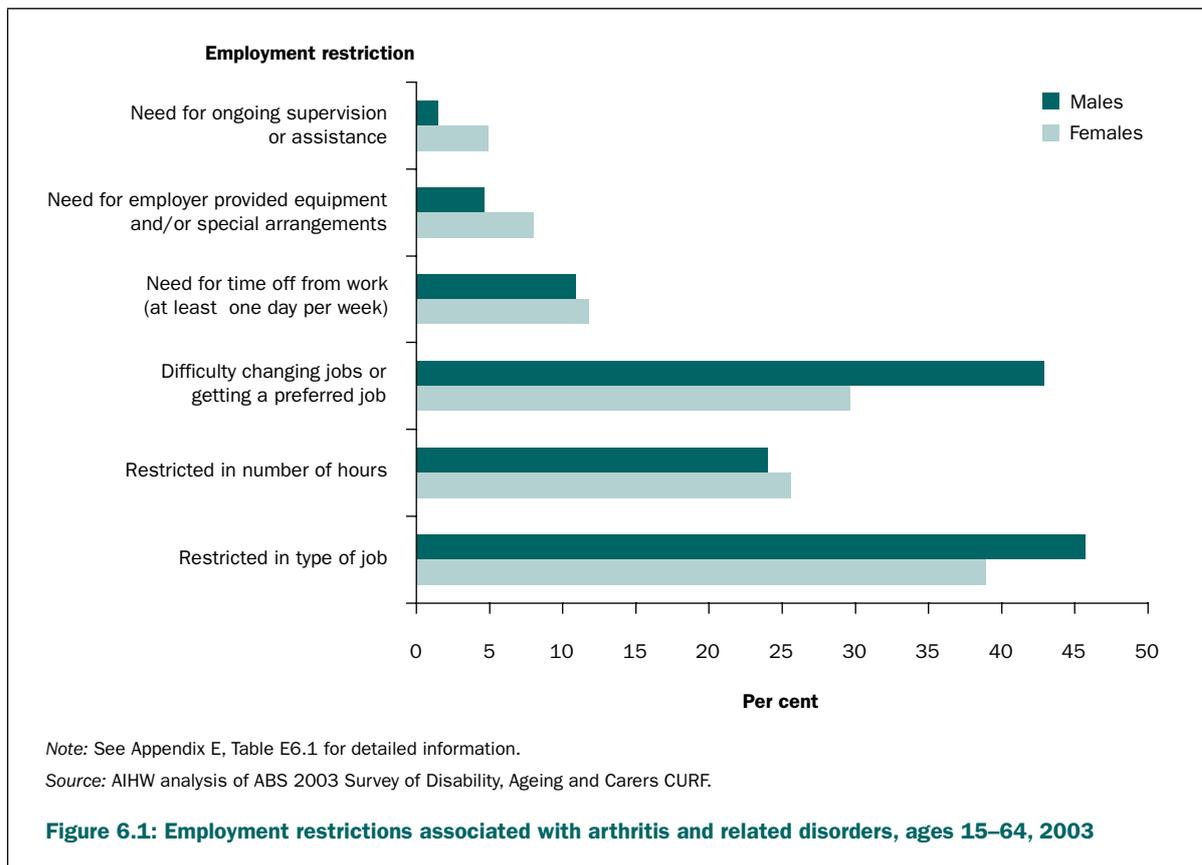
The causes of work disability due to arthritis and musculoskeletal conditions are diverse; they include issues with mobility, manual dexterity, fatigue, depression and age. External contributing factors include the physical demands of the job, the ability to control the pace of work, and difficulty in transport. Many intrinsic and extrinsic factors have potential for modification, indicating that early management and treatment should reduce this form of work disability.

People with certain types of arthritis and musculoskeletal conditions are more at risk of work disability than others. Those with rheumatoid arthritis are at risk from the onset of their symptoms (Sokka 2003). With osteoarthritis, work disability is common after the age of 50 (Lawrence et al. 1998).

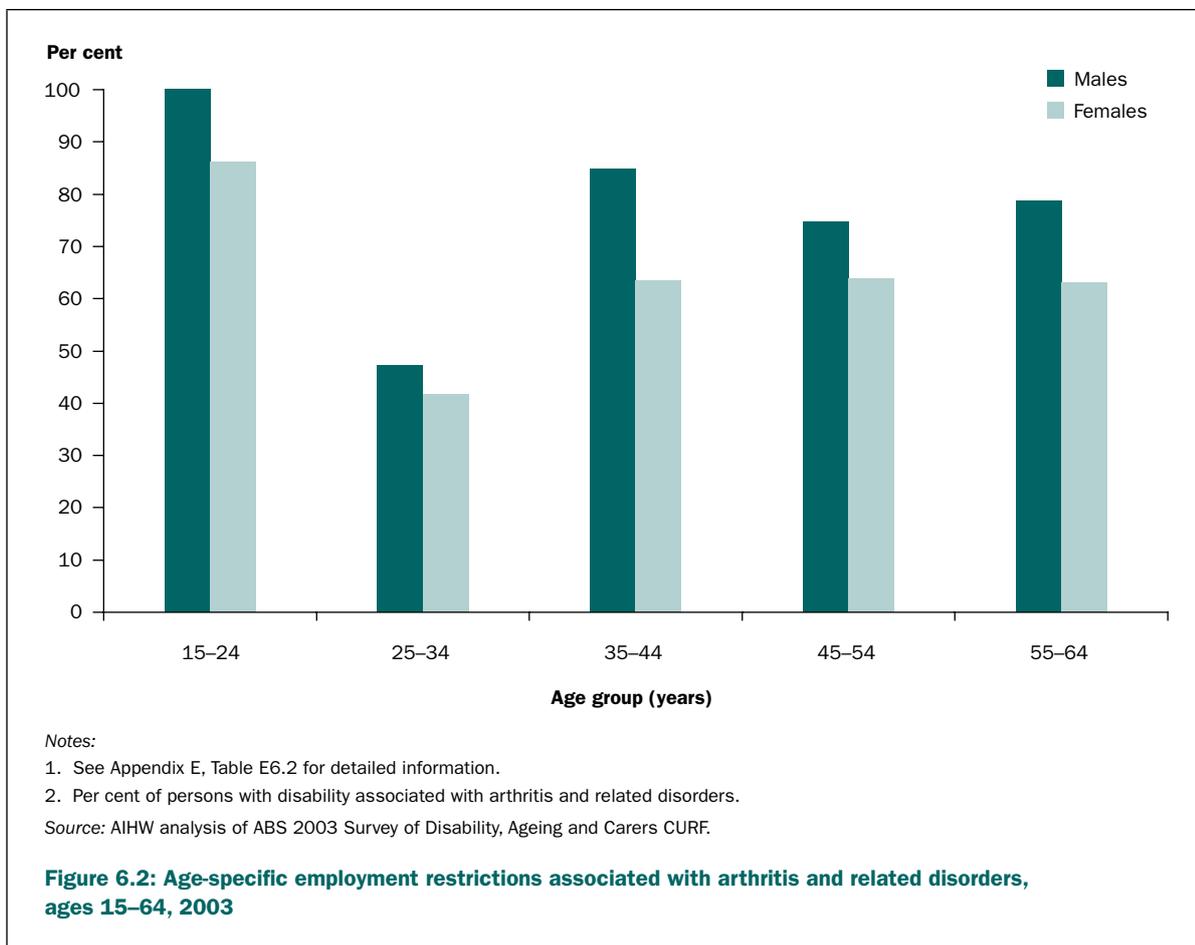
According to the 2003 SDAC, more than 2.2 million Australians of working age (15–64) had a disability, of which 266,000 reported arthritis and related disorders as their main disabling condition. More than one-third of these people were unable to work permanently. On the other hand, about 30% had no employment restrictions. The remainder reported several employment restrictions, as described below.

### Types of employment restrictions

More than 40% of the 2003 SDAC respondents felt that they were restricted in the type of job they could do. A similar proportion felt that they had difficulty changing jobs or getting a preferred job. All these difficulties had a large effect on their continued employment. One out of four respondents was restricted in the number of hours he or she could work; many needed time off work. A small proportion felt the need for ongoing supervision or assistance (Figure 6.1).



Proportionately more males than females with arthritis and related disorders as their main disabling condition had employment restrictions (Figure 6.2). This is due, of course, to the fact that more males work. No clear age-specific pattern was noted in these restrictions.

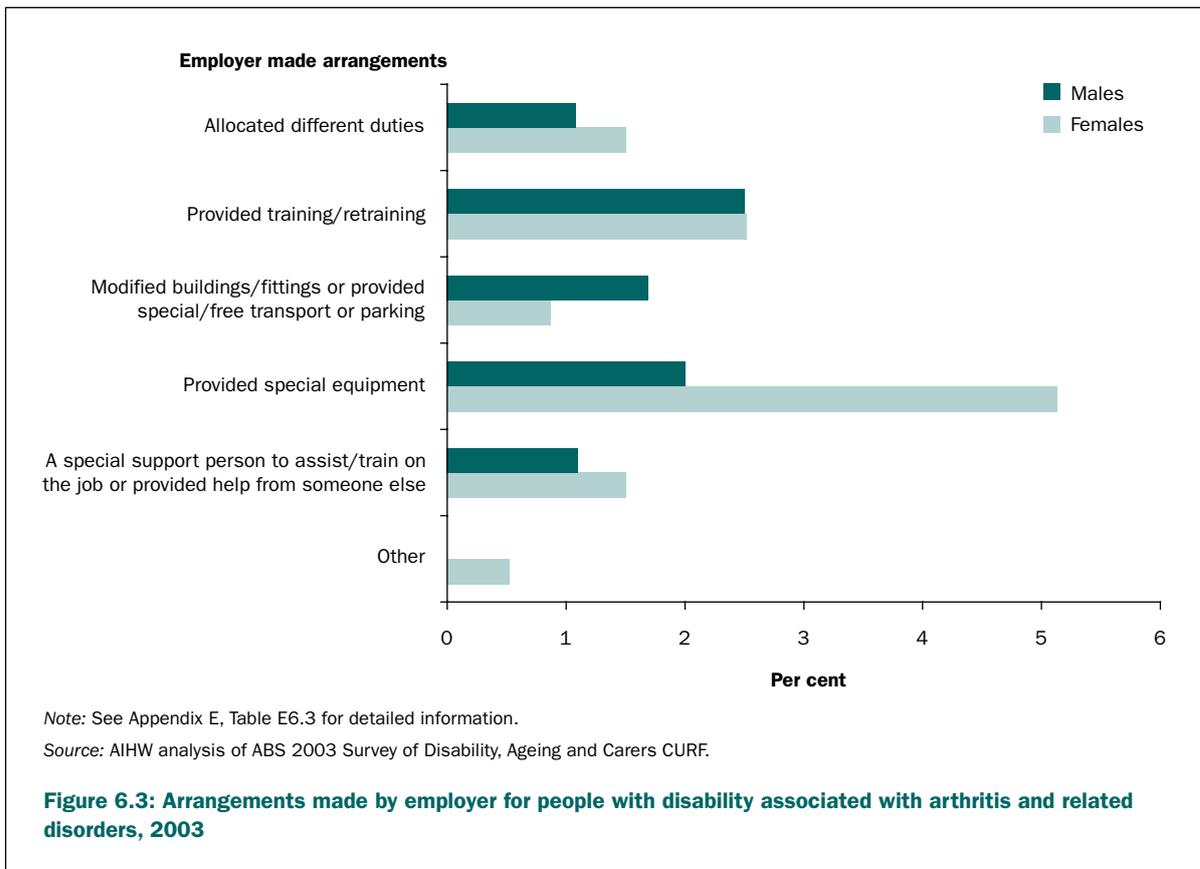


## Occupational modifications

Many of the employment restrictions or problems at work could be reduced by effective workplace accommodation. Several potential work-related modifications have been identified that should help people with arthritis and related disorders stay employed (Yelin et al. 1987).

Respondents to the 2003 SDAC indicated that many employers have made arrangements to allow them to continue with their work. The most common adaptations made were providing special equipment, special training, and altering the duties of the job (Figure 6.3).

These employer-made arrangements correspond well with the needs outlined by 2003 SDAC respondents. Between 5–10% of respondents with employment restrictions indicated a need for special employer arrangements or equipment (Figure 6.3). Almost 4% of the male and 2% of the female respondents reported those arrangements made by their employer. Many were also provided training/retraining to suit their jobs. Some were allocated new duties.



## Social participation

Arthritis and related disorders impact considerably on social participation (Arthritis Australia 2004). Emotional distress arising from high physical disability is reported to be the most important factor for low social participation (Fyrand et al. 2002).

Although the majority of respondents to the 2003 SDAC had limitation in activities of daily living, most were able to participate in social and cultural activities and could go out of their house as often they wanted to (Table 6.7). Those who were able to go out most likely visited friends or went to restaurants or clubs. One-third of the respondents, however, were unable to go out as often as they wished; almost 1% of the respondents did not leave home at all.

**Table 6.7: Disability associated with arthritis and related disorders, participation in social activities, 2003**

Level of participation	Males		Females		Persons	
	Number '000	Per cent	Number '000	Per cent	Number '000	Per cent
Can go out as often as would like	121.8	71.8	259.4	66.4	381.2	68.1
Can not go out as often as would like because of the condition	41.9	24.7	117.9	30.2	159.8	28.5
Does not leave home at all	3.7	2.1	1.3	0.3	5.0	0.9
Not applicable	2.2	1.3	11.8	3.0	14.0	2.5

(a) The proportions are based on the total number of people with disability associated with arthritis and related disorders (M=169,572; F=390,532; N=560,104).

Source: AIHW analysis of ABS 2003 Survey of Disability, Ageing and Carers CURF.

There is much variation in the extent to which people with arthritis or specific type of musculoskeletal condition participate socially. People with rheumatoid arthritis are generally more restricted. As rheumatoid arthritis progresses, it takes a considerable toll on the ability of those affected to perform valued life activities. Several studies report negative influence the disease has on social participation within the first few years of its onset (van Jaarsveld et al. 1998).

## Informal care

Depending on the severity of disability, many people require help and informal care from other family members. Informal care is often perceived to be the best option for those who require assistance with activities of daily living. Family members are the main providers of help or informal care. According to the 2003 SDAC, around 52,018 primary carers reported providing care to people with disability associated with arthritis and related disorders.

Although many more females than males take on a primary carer's role, a slightly larger proportion of males took on the task of caring for a person with disability due to arthritis and musculoskeletal conditions (54% of males compared with 46% of females). Of those primary carers, 57% were aged 15–64 years. Almost two-thirds (66%) of males and one-third (34%) of females were caring for their partners. Another 26% were caring for a parent. Carers were sometimes living with the care recipient in the same house (20%) and a majority (68%) had spent at least 10 years in the role.

Many carers (42%) tended to provide longer hours of care per week—40 hours or more. Almost 35% tended to care for shorter periods (less than 20 hours). Carers were providing ongoing assistance mainly with core-activities of daily living: more than 80% helped with household tasks and mobility, and nearly three-quarters with self-care, meal preparation and transport.

The caring intensity may vary, however, according to both the severity and nature of activity restrictions and to the age of the care recipient, thus making heavy demands on the carer's health, socially and economically (Box 6.1). The constancy and time consuming nature of long-term caring may lead to carer stress (CAA 2000).

### Box 6.1: Factors potentially contributing to carer stress

- physical and psychological demands placed on carer in caring role
- advancing age of many carers
- the serious health conditions of many carers
  - disability
  - activity restrictions

Although many primary carers (31%) reported that they were satisfied with the nature of their caring role (26% felt that caring had strengthened their relationship with the care recipient), a large number reported that this role had changed their overall state of wellbeing (57%), and that it had affected their relationship with co-residents and friends (Table 6.8). A large proportion of carers did not report any change to their income or financial situation (47% and 49%, respectively) as a result of their caring role. However, a sizeable minority (14%) stated that their income had decreased, and another 27% reported incurring extra expenses. Almost 26% reported having difficulty meeting everyday living costs.

As most of the carers were partners or spouses, and less likely to have other caring responsibilities, they had relatively few unmet needs. For a sizeable minority of carers items of significant unmet need clustered around aspects to do with receiving assistance in their caring role—during week days (10%) and weekends (7%) and in respect to respite care: short notice or irregular basis (9%), and on weekends (7%).

**Table 6.8: Impact on carers of people with arthritis and related disorders, 2003**

Type of impact	Number '000	Per cent
<b>Physical or emotional effects</b>		
Feeling of satisfaction	14.0	30.7
Fatigue and weariness	13.0	28.3
Feeling of worry and depression	8.1	17.8
Feeling of anger and resentment	4.2	8.9
<b>Main effects on relationship with co-residents and friends</b>		
Relationships strained	3.8	8.2
Less time to spend with them	2.5	5.4
Brought closer together	2.5	5.4
Lost or losing touch with existing friends	8.4	18.3
Circle of friends has changed	3.3	7.2
Circle of friends has increased	1.4	3.1
<b>Financial effects</b>		
Income not affected	21.7	47.4
Income increased	0.7	1.5
Income decreased	6.3	13.8
Extra expenses	12.2	26.6
Has difficulty meeting everyday living costs	11.8	25.8

Source: AIHW analysis of ABS 2003 Survey of Disability, Ageing and Carers CURF.

## Health-related quality of life

The concept of health-related quality of life (HRQoL) refers to the perceived physical and mental health over time of a person or group. In short, it refers to the impact that illness, disease or disability has on a person's day-to-day life—on their ability to function and to do the things they want to do. The concept is also extended to populations or sub-groups with specific disorders (Wittink et al. 2004).

The HRQoL framework covers a variety of domains, including health perceptions, pain, energy/fatigue, loss of functional capacity and psychological wellbeing. It may also cover the domains of illness, morbidity and mortality, but these biological concepts are not greatly emphasised.

Several studies have recorded differences in the impact of various diseases and conditions on HRQoL. For example, arthritis and musculoskeletal conditions are ranked third after ischaemic heart disease and stroke in their impact on quality of life (Reginster & Khaltayev 2002). Variation is also noted within the musculoskeletal system; osteoarthritis of the hip, osteoporosis and rheumatoid arthritis impact more severely upon HRQoL than other conditions (Picavet & Hoeymans 2004).

## Measuring health-related quality of life

Two basic approaches to HRQoL measurement are available: generic instruments that provide a summary of HRQoL overall, and specific instruments that focus on problems associated with a single disease state, patient group or area of function (Gordon et al. 1993). Self-reported measures are generally used to study cross-sectional HRQoL differences between individuals at a point in time, or longitudinal changes over time.

An instrument commonly used to measure HRQoL is the Medical Outcome Survey 36-item short form (SF-36), which measures health status in eight different scales (Ware & Sherbourne 1992). Other instruments measure HRQoL in a more integrated fashion.

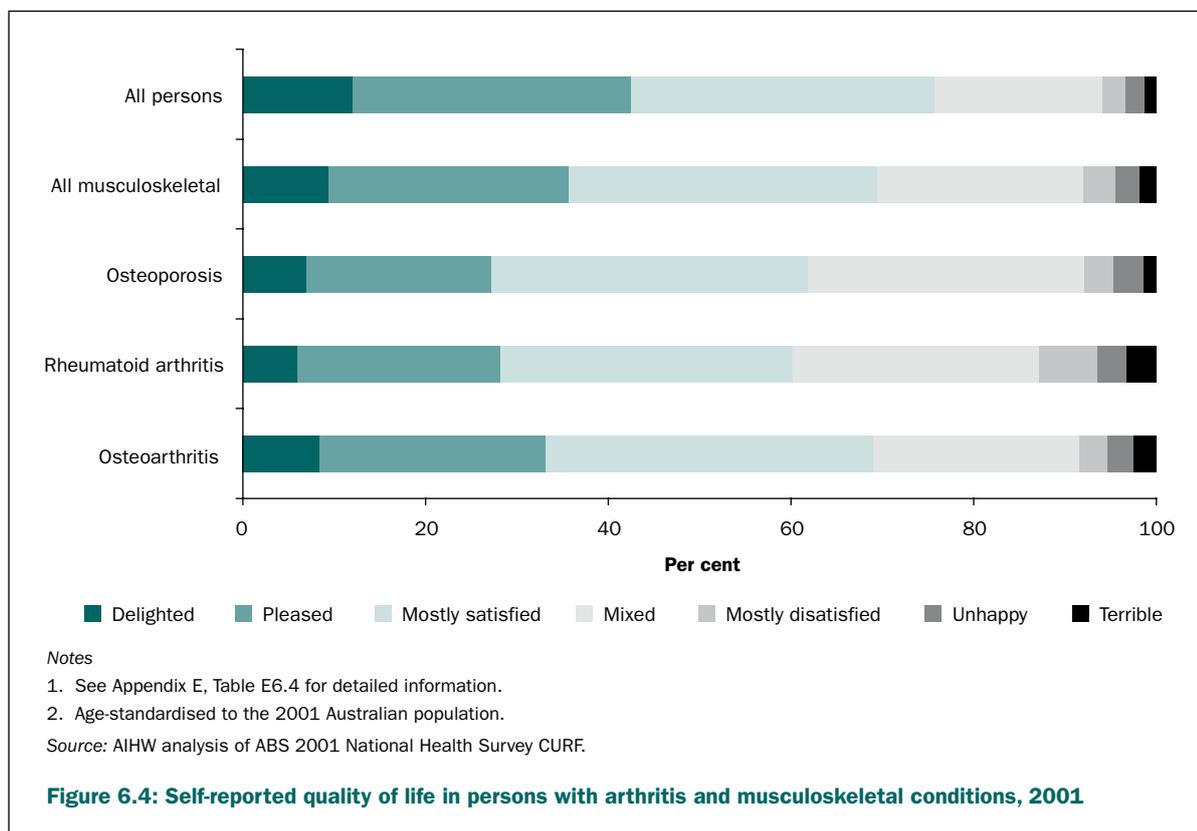
At national level, two useful sources of information on HRQoL are the NHS and the SDAC. The NHS does not cover people in hospitals and institutions nor the homeless. The SDAC, on the other hand, also covers nursing homes and other similar institutions. The terms and definitions used in NHS generic health outcomes assessment are given in Box 6.2. Respondents to the South Australian Health Omnibus Survey were also administered a validated Australian version of the SF-36 questionnaire which provides some insight into HRQoL in relation to arthritis in a regional population (Hill et al. 1999).

Box 6.2: Terms and definitions employed in NHS generic health outcomes assessment	
Term	Definition
Item	Satisfied with life
Scale	7-point categorical scale (delighted, pleased, mostly satisfied, mixed, mostly dissatisfied, unhappy, terrible)
Domain	Quality of life
Item	Self-perceived health status
Scale	5-point scale (excellent, very good, good, fair, poor)
Domain	Health status

**Health-related quality of life scores**

Results from the 2001 NHS indicate that people with arthritis and musculoskeletal conditions are mostly satisfied or pleased with the quality of their life. Those with osteoarthritis perceive their quality of life to be somewhat better than those with rheumatoid arthritis or osteoporosis (Figure 6.4). A large proportion of people with rheumatoid arthritis, in particular, are dissatisfied with their quality of life.

A more comprehensive analysis of HRQoL in relation to arthritis in South Australia reveals significantly lower SF-36 scores for respondents with arthritis compared with those for the rest of the population across all the scales (Hill et al. 1999; March & Bagga 2004). Other studies have indicated that arthritis and musculoskeletal conditions at onset have a marked and deleterious effect on the quality of life in the physical domain, but lesser effects on social and mental functioning (Roux et al. 2005).



## Self-reported health status

The chronic, pervasive nature of arthritis and other musculoskeletal conditions is likely to have a strong impact upon people's perception of their own health. The self-reported health status, therefore, is a powerful predictor of psychosocial health.

The self-assessment of health by persons with arthritis and musculoskeletal conditions was considerably poorer than that reported by the community at large, in the 2001 NHS. In that survey, 37% of persons with these diseases and conditions, ages 18 and over, rated their health to be excellent/very good, and 34% as good (Table 6.9). However, a little over 20% described the state of their health as fair; less than 9% rated their health as poor.

**Table 6.9: Self-reported health status by persons with arthritis and musculoskeletal conditions, ages 18 and over, 2001**

Status	Males		Females		People	
	Arthritis or musculo-skeletal conditions	Total Australian population	Arthritis or musculo-skeletal conditions	Total Australian population	Arthritis or musculo-skeletal conditions	Total Australian population
	Per cent					
Excellent/ very good	37.2	48.9	37.2	51.7	37.2	50.3
Good	34.1	32.3	33.5	29.6	33.8	30.9
Fair	20.4	13.7	20.5	13.9	20.4	13.8
Poor	8.3	5.1	8.8	4.8	8.5	5.0

### Notes

1. Rates are age-standardised to the 2001 Australian population.
2. People in nursing homes and hostels were not included in the survey.

Source: AIHW analysis of ABS 2001 National Health Survey CURF.

The proportion of people rating their health as fair or poor was considerably larger among those with arthritis or a musculoskeletal condition compared with the general community. The rate ratios for 'fair' and 'poor' health in persons with arthritis and musculoskeletal conditions were 1.5 and 1.7, respectively.

The distribution of responses was similar for both sexes but varied considerably by age group (Figure 6.5). Contrary to the trend in the population as a whole (AIHW 2004), the proportion of people with arthritis and musculoskeletal conditions reporting poor health decreased with age. The proportion of persons reporting their health as fair was also the largest in the age groups 18–34 and 75 and over.

A major reason for the reporting of 'poor' health by persons with arthritis and musculoskeletal conditions is physical impairments leading to functional limitations. The presence of multiple conditions is also likely to be associated with poor health status, resulting in more severe experience of disability.

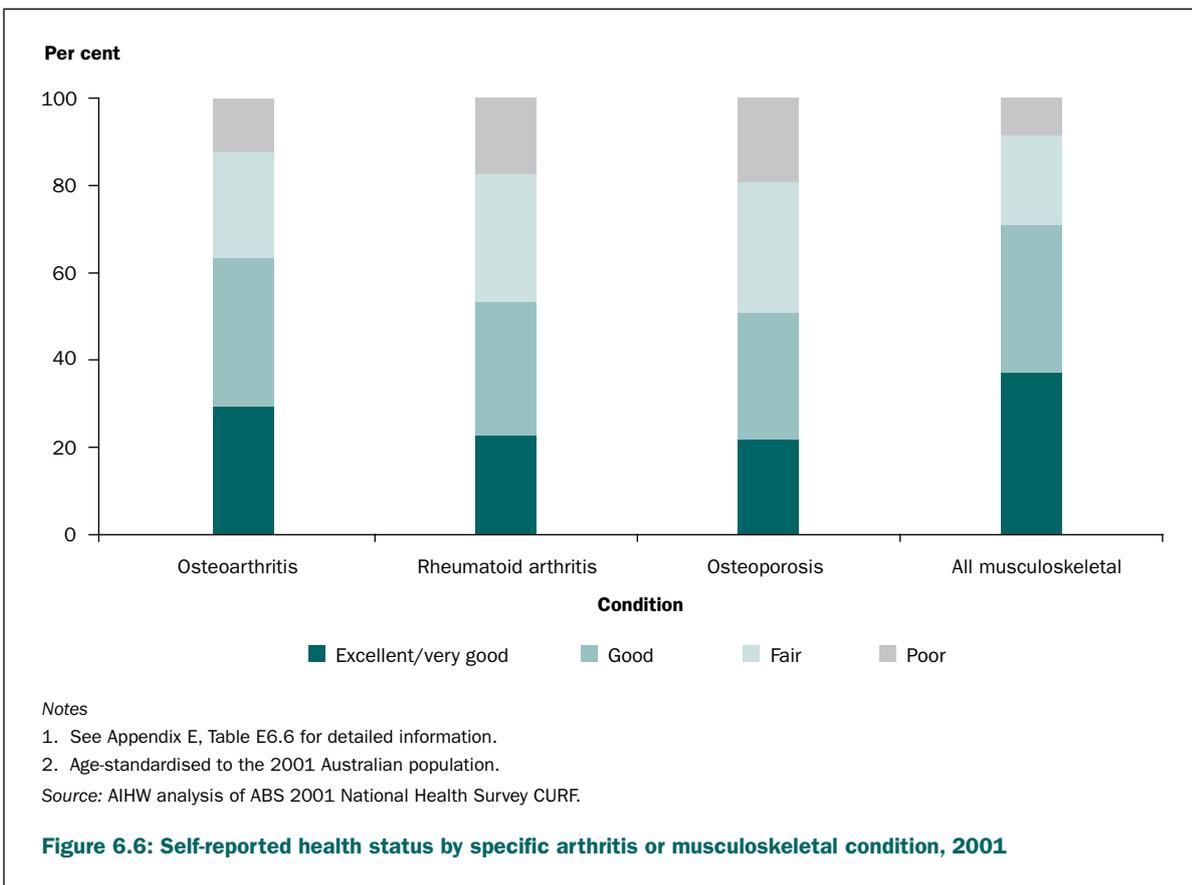
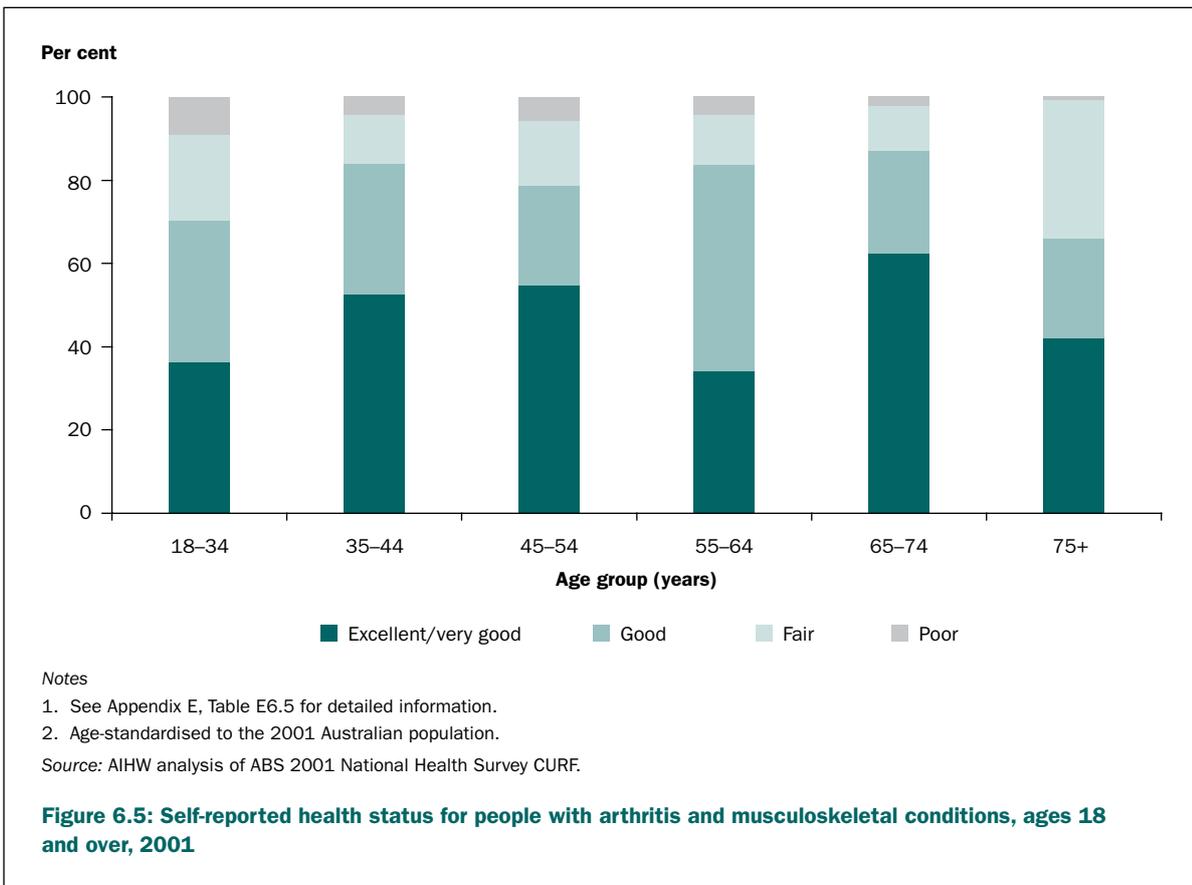
Most people with arthritis and musculoskeletal conditions are older people. These people are more likely to have other long-term conditions such as glaucoma, total hearing and vision loss and heart disease. All these conditions may contribute to the poor perception of health status.

The greater labelling of their health as 'poor' by young adults with arthritis and musculoskeletal conditions (age 18–34) seems paradoxical. Arthritis and musculoskeletal conditions are generally associated with ageing; for young people the presence of these diseases and conditions can therefore be stigmatising. Also, the psychological impact of arthritis and musculoskeletal conditions is high at first onset.

Not many people in the age group 75 and over report their health as 'poor', although the proportion of those reporting their health as 'fair' is large—the presence of arthritis and musculoskeletal conditions notwithstanding. This is more likely to be due to a healthy ageing effect as the NHS sample is only community based. Those in the age group 55–64 report excellent/very good health much less often and state their health as being good.

## Disease-specific variation

Large differences are noted in the quality of life between people with osteoarthritis, rheumatoid arthritis and osteoporosis. Those with osteoarthritis are much more likely to report their health as being excellent/very good and well satisfied with the quality of their life. Persons with rheumatoid arthritis, on the hand, are likely to score worst against both these measures (Figure 6.6).



The illness associated with osteoarthritis varies in intensity but tends to be self-limited, and usually remits leaving little residual effect. Even at the height of illness, patients often state that they would be well were it not for the pain in the joint(s) involved. Nonetheless, patients with osteoarthritis suffer limitation in their activities and reduced participation (WHO Scientific Group 2003). In particular, osteoarthritis of the hip has a strong impact upon the health of the afflicted person.

Rheumatoid arthritis, on the other hand, has a substantial impact on quality of life, owing to its painful and disabling nature. It impinges significantly on comfort, physical function, social and emotional relationships and mental health (Hill et al. 1999; Rupp et al. 2004). The afflicted are chronically ill, easily fatigued, suffer stiffness and have generalised weakness. Joint pain and deformity are other features of rheumatoid arthritis. But the cardinal feature is the pervasive sense of being sick for long periods.

In osteoporosis, the ill health related to pain and the long-term disability associated with fragility fractures significantly impact on the quality of life, leading to decreased physical, psychological and social function (Grigoryan et al. 2003). For example:

- In the case of hip fractures, the quality of life is significantly lower than normal in regard to physical function and roles, and social participation, for up to two years after the event (Hallberg et al. 2004).
- In the case of vertebral fractures, both physical and mental domains of health are influenced (Hallberg et al. 2004; Cockerill et al. 2004). The impact of vertebral fractures includes acute and chronic back pain, limitation of physical activity, spinal deformity, loss of independence and loss of height (Jensen & Harder 2004).

These impacts, in turn, lead to a loss of functional capacity and an inability to participate in recreational activities. This can result in social isolation, depression and low self-esteem (Geusens 2003).

### Health and disability

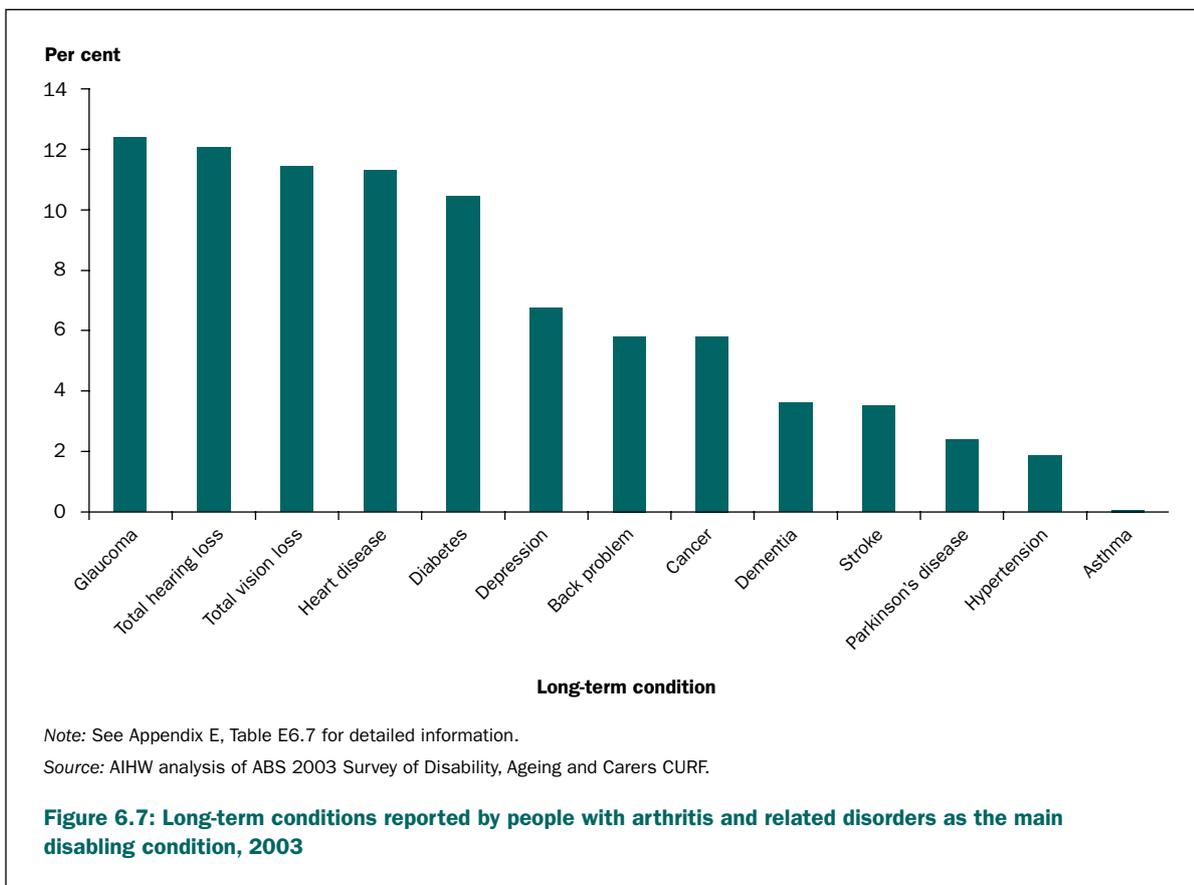
People with a disability tend to report lower levels of health than the general population. In the 2003 SDAC, poor health was reported by 8% of the people reporting arthritis and related disorders as their main disabling condition. This compares with poor health reported by 8% of SDAC respondents with a disability, but by only 0.01% of those without a disability.

### Co-morbidity and disability

Much of the information about the effects of arthritis and musculoskeletal conditions on activity limitations and functional restrictions, and their psychosocial impact, has been based on cross-sectional data. Although the information provided pertains only to respondents reporting arthritis or a musculoskeletal condition as their main disabling condition, the limitations and restrictions reported are not necessarily due to these particular diseases and conditions. A large proportion of these respondents, especially those in the higher age groups, also had other long-term or chronic conditions that would have contributed to various limitations.

The 2003 SDAC data indicate the presence of glaucoma, hearing loss, vision impairment, heart disease and diabetes, each in more than one out of 10 respondents who had arthritis and related disorders as their main disabling condition (Figure 6.7). Back problems, stroke and depression were other common co-morbidities.

Some of these long-term health conditions contribute to greater amount of difficulty in physical functions, personal care and household care—limitations and restrictions generally associated with arthritis and musculoskeletal conditions. The increased deficit is in physical functions such as walking, reaching, stooping etc., and in physical work that requires endurance and strength. For example, heart disease is associated with difficulties in activities requiring endurance. Similarly, visual impairments can compromise the ability to perform many activities of daily living.



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