Work-related musculoskeletal disorders statistics in Great Britain, 2022

Data up to March 2022
Annual statistics
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Summary

477,000 workers suffering from work-related musculoskeletal disorders (new or long-standing) in 2021/22
*Labour Force Survey (LFS)*

7.3 million working days lost due to work-related musculoskeletal disorders in 2021/22
*Labour Force Survey (LFS)*

**Work-related musculoskeletal disorders by affected area, 2021/22**

![Diagram showing the distribution of musculoskeletal disorders by area: Lower limbs 21% (99,000), Back 42% (202,000), Upper limbs or neck 37% (175,000).]

*Source: LFS estimate 2021/22*

**Rate of musculoskeletal disorders per 100,000 workers: new and long-standing**

![Graph showing the rate of musculoskeletal disorders per 100,000 workers from 2001/02 to 2021/22.]

Prior to the coronavirus pandemic, the rate of self-reported work-related musculoskeletal disorders showed a generally downward trend. The current rate is
similar to the 2018/19 pre-coronavirus levels.

No ill health data was collected in 2002/03 and 2012/13, represented by the dashed line

Latest data includes the effects of the coronavirus pandemic, shown as a break in the time series

Shaded area and error bars represent a 95% confidence interval

Source: LFS annual estimate, from 2001/02 to 2021/22

The latest estimates from the Labour Force Survey (LFS) show:

• The total number of cases of work-related musculoskeletal disorders in 2021/22 was 477,000, a prevalence rate of 1,430 per 100,000 workers. These comprised of 175,000 cases where the upper limbs or neck was affected, 202,000 where the back was affected and 99,000 where the lower limbs were affected.

• Prior to the coronavirus pandemic, the rate of self-reported work-related musculoskeletal disorders showed a generally downward trend. The current rate is similar to the 2018/19 pre-coronavirus levels.

• The number of new cases was 139,000, an incidence rate of 420 per 100,000 workers. The total number of working days lost due to work-related musculoskeletal disorders in 2021/22 was 7.3 million days. This equated to an average of 15.2 days lost per case.

• Prior to the coronavirus pandemic, working days lost per worker due to self-reported work-related musculoskeletal disorders showed a generally downward trend. The current rate is similar to the 2018/19 pre-coronavirus levels.

• In 2021/22 musculoskeletal disorders accounted for 27% of all work-related ill health cases and 24% of all working days lost due to work-related ill health.

• By top-level industry averaged 2019/20-2021/22, musculoskeletal disorders were most prevalent in:
  – Agriculture, forestry and fishing
  – Construction
  – Human health and social work activities
In terms of occupation averaged 2017/18-2019/20, higher rates of musculoskeletal disorders were found in:

- Skilled trades occupations
- Caring, leisure and other service occupations
- Process, plant and machine operatives

The main work factors cited by respondents as causing work-related musculoskeletal disorders were manual handling, working in awkward or tiring positions, and keyboard or repetitive work (2009/10-2011/12).

Of the 477,000 workers suffering from a work-related MSD in 2021/22 an estimated 72,000 believed it was caused or made worse by the effects of the coronavirus pandemic.

These estimates of the number of workers who suffered work-related musculoskeletal disorders as a result of the coronavirus pandemic should not be subtracted from the overall estimate of work-related musculoskeletal disorders. It cannot be assumed that those individuals would not have otherwise suffered from work-related musculoskeletal disorders in the absence of coronavirus.
Introduction

Work-related musculoskeletal disorders (WRMSDs) can affect muscles, joints and tendons in all parts of the body. Most WRMSDs develop over time. They can be episodic or chronic in duration and can also result from injury sustained in a work-related accident. Additionally, they can progress from mild to severe disorders. These disorders are seldom life threatening but they impair the quality of life of a large proportion of the adult population.

Work-related musculoskeletal disorders can develop in an occupational setting due to the physical tasks with which individuals carry out their normal work activities. WRMSDs are associated with work patterns that include:

- Fixed or constrained body positions
- Continual repetition of movements
- Force concentrated on small parts of the body such as the hand or wrist
- A pace of work that does not allow sufficient recovery between movements

Additionally, workplace psychosocial factors such as organisational culture, the health and safety climate and human factors may create the conditions for WRMSDs to occur. Generally, none of these factors act separately to cause WRMSDs.

HSE’s preferred data source for calculating rates and estimates for WRMSDs are self-reports from the Labour Force Survey (LFS). Previously HSE also collected data on WRMSDs through The Health and Occupation Research network for general practitioners (THOR-GP). These data, although historic, provide a general practitioners perspective and are still useful data on work-related causes of musculoskeletal disorders.

**Important Note:** The coronavirus (COVID-19) pandemic and the government’s response has impacted recent trends in health and safety statistics published by HSE and this should be considered when comparing across time periods. More details can be found in our reports on the impact of the coronavirus pandemic on health and safety statistics.
Scale and trend in work-related musculoskeletal disorders

In 2021/22 there were an estimated 477,000 workers affected by work-related musculoskeletal disorders. This represents 1,430 per 100,000 workers, and thus accounts for 27% of all work-related ill health. In 2021/22 work-related musculoskeletal disorders accounted for 24% of all days lost due to work-related ill health.

Most of these work-related musculoskeletal disorders affect the upper limb or neck, 37% of all work-related musculoskeletal disorder cases, or the back, 42% of all work-related musculoskeletal disorder cases with the remaining 21% of cases affecting the lower limbs. Of all work-related musculoskeletal disorders working days lost, conditions affecting the back account for 40% of these with an estimated 14.2 days lost per case. This compares with conditions affecting the upper limbs and neck that accounts for 36% of these working days lost (14.9 days lost per case) and conditions affecting the lower limbs that account for 24% (17.8 days lost per case).

Figure 1: Estimated prevalence rates of self-reported work-related musculoskeletal disorders in Great Britain, for people working in the last 12 months

Prior to the coronavirus pandemic, the rate of self-reported work-related musculoskeletal disorders showed a generally downward trend. The current rate is similar to the 2018/19 pre-coronavirus levels.
No ill health data was collected in 2002/03 and 2012/13, represented by the dashed line. Latest data includes the effects of the coronavirus pandemic, shown as a break in the time series. Shaded area and error bars represent a 95% confidence interval. Source: LFS annual estimate, from 2001/02 to 2021/22.

Figure 2: Estimated working days lost per worker due to self-reported work-related musculoskeletal disorders in Great Britain, for people working in the last 12 months.

Prior to the coronavirus pandemic, working days lost per worker due to self-reported work-related musculoskeletal disorders showed a generally downward trend. The current rate is similar to the 2018/19 pre-coronavirus levels. No working days lost per worker data was collected in 2002/03 and 2012/13 represented by the dashed line, this data is also not available for 2020/21 as indicated by the missing point. Latest data includes the effects of the coronavirus pandemic, shown as a break in the time series. Shaded area and error bars represent a 95% confidence interval. Source: LFS annual estimate, from 2001/02 to 2021/22.
Work-related musculoskeletal disorders by industry

The average prevalence of work-related musculoskeletal disorders across all industries was 1,110 cases per 100,000 workers averaged over the period 2019/20-2021/22. The broad industry categories of Agriculture, forestry and fishing (2,000 cases per 100,000 workers), Construction (1,970 cases per 100,000 workers), Human health and social work activities (1,490 cases per 100,000 workers) all had significantly higher rates than the average for all industries.

Figure 3: Estimated prevalence rates of self-reported work-related musculoskeletal disorders in Great Britain, for people working in the last 12 months, by industries with higher rates, averaged 2019/20-2021/22

Agriculture, Forestry and Fishing estimates based on fewer than 30 sample cases
Source: LFS, estimated annual average 2019/20-2021/22
95% confidence intervals are shown on the chart
Work-related musculoskeletal disorders by occupation

For the three-year period averaged over 2017/18-2019/20, Skilled trades occupations (2,150 cases per 100,000 workers), Caring, leisure and other service occupations (1,680 cases per 100,000 workers), Process, plant and machine operatives (1,720 cases per 100,000 workers) had statistically significantly higher rates of work-related musculoskeletal disorders compared to the rate for all occupational groups (1,130 per 100,000 workers).

A number of smaller occupational groups, some part of the above bigger groupings, also had statistically higher rates (averaged over 2017/18-2019/20) including:

- Health professionals
- Skilled agricultural and related trades
- Skilled metal, electrical and electronic trades
- Skilled construction and building trades
- Caring personal service occupations
- Leisure, travel and related personal service occupations
- Transport and mobile machine drivers and operatives
- Elementary trades and related occupations
Figure 4: Estimated prevalence rates of self-reported work-related musculoskeletal disorders in Great Britain, for people working in the last 12 months, by occupation, averaged 2017/18-2019/20

Source: LFS estimated annual average 2017/18-2019/20
95% confidence intervals are shown on the chart
Work-related musculoskeletal disorders by age and gender

The most recent data shows that compared to all workers females overall had not statistically different rates of work-related musculoskeletal disorders and males showed not statistical difference from the all workers rate.

Compared to all workers:
- Males aged 16-34
- Females aged 16-34
had significantly lower rates of work-related musculoskeletal disorders.

By contrast:
- Males aged 45-54
- Males aged 55+
- Females aged 45-54
- Females aged 55+
had significantly higher rates.
Figure 5: Estimated prevalence rates of self-reported work-related musculoskeletal disorders in Great Britain, for people working in the last 12 months, by age and gender, averaged 2019/20-2021/22

Source: LFS estimated annual average 2019/20-2021/22
95% confidence intervals are shown on the chart
Work-related musculoskeletal disorders and workplace size

Compared with the rate of all workplaces size, small workplaces showed no statistically significant difference. Medium enterprises showed no statistically significant difference, while large workplaces showed no statistically significant difference.

Figure 6: Estimated prevalence rates of self-reported work-related musculoskeletal disorders in Great Britain, for people working in the last 12 months, by workplace size, averaged 2019/20-2021/22

Source: LFS estimated annual average 2019/20-2021/22
95% confidence intervals are shown on the chart
Causes of work-related musculoskeletal disorders

Of the 477,000 workers suffering from a work-related MSD in 2021/22 an estimated 72,000 believed it was caused or made worse by the effects of the coronavirus pandemic.

Source: LFS

These estimates of the number of workers who suffered work-related stress, depression or anxiety as a result of the coronavirus pandemic should not be subtracted from the overall estimate of work-related stress, depression or anxiety. It cannot be assumed that those individuals would not have otherwise suffered work-related stress, depression or anxiety in the absence of coronavirus.

Prior to the coronavirus pandemic the main causes of work-related musculoskeletal disorders from the Labour Force Survey (2009/10-2011/12) were manual handling, working in awkward or tiring positions and repetitive action or keyboard work.

Figure 7: Estimated prevalence rates of self-reported musculoskeletal disorders in Great Britain, by how caused or made worse by work, averaged 2009/10-2011/12

Source: LFS estimated annual average 2009/10-2011/12

95% confidence intervals are shown on the chart
The general practitioner’s network (THOR-GP 2013-2015) reported with cases of work-related musculoskeletal disease the main task contributing to the condition. These medically assessed cases indicate a similar pattern to self-reported data from the Labour Force Survey.

**Figure 8: Percentage of work-related musculoskeletal disorders reported to THOR-GP according to main attributed task, three-year aggregate total 2013-2015 in Great Britain**

![Bar chart showing percentage of cases for different tasks:
- Heavy lifting: 28%
- Material manipulation: 19%
- Keyboard work: 11%
- Guiding/holding tool: 10%
- Light lifting: 5%

Source: THOR(GP), data 2013-2015
Annex 1: Sources and definitions

The Labour Force Survey (LFS): The LFS is a national survey run by the Office for National Statistics of currently around 36,000 households each quarter. HSE commissions annual questions in the LFS to gain a view of self-reported work-related illness and workplace injury based on individuals' perceptions. The analysis and interpretation of these data are the sole responsibility of HSE.

- Self-reported work-related illness: People who have conditions which they think have been caused or made worse by their current or past work, as estimated from the LFS. Estimated total cases include long-standing as well as new cases. New cases consist of those who first became aware of their illness in the last 12 months.

- It is important to note that an estimate of work-related MSDs for the latest year in the absence of the coronavirus pandemic cannot be derived from the estimates presented in this document. This is due to the fact that it cannot be assumed that any individual case attributed to the coronavirus pandemic would not have developed anyway in the given year.

Reports of ill health by general practitioners (GPs) (THOR GP): THOR GP is a surveillance scheme in which GPs are asked to report new cases of work-related ill health. It was initiated in June 2005. Participating GPs report anonymised information about newly diagnosed cases to the Centre for Occupational and Environmental Health (COEH), University of Manchester. HSE funding ended in 2016 so the last year of data available to HSE is 2015.

Rate per 100,000: The number of annual workplace injuries or cases of work-related ill health per 100,000 employees or workers.

95% confidence interval: The range of values within which we are 95% confident contains the true value, in the absence of bias. This reflects the potential error that results from surveying a sample rather than the entire population.

Statistical significance: A difference between two sample estimates is described as 'statistically significant' if there is a less than 5% chance that it is due to sampling error alone.

For more information, see [www.hse.gov.uk/statistics/sources.pdf](http://www.hse.gov.uk/statistics/sources.pdf)
Potential impact of COVID-19 on HSE’s main statistical data sources in 2021/22
Annex 2: Links to detailed tables

The data in this report can be found in the following tables:

LFS tables

THOR GP tables
THORGP11-Musculoskeletal disorders: by task/movement:

More data tables can be found at: [www.hse.gov.uk/Statistics/tables/index.htm](www.hse.gov.uk/Statistics/tables/index.htm)
National Statistics

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An account of how the figures are used for statistical purposes can be found at www.hse.gov.uk/statistics/sources.htm.

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A revisions policy and log can be seen at www.hse.gov.uk/statistics/about/revisions/

Additional data tables can be found at www.hse.gov.uk/statistics/tables/

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