

# Upper limb disorders in the workplace

## Risk factor checklist

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**A**lthough not a substitute for an employer's own risk assessment, this basic checklist should help safety representatives and others carry out workplace assessments of repetitive handling tasks. It is suitable for organisations of different sizes, industries and locations.

### Which activities should you examine?

**Make a difference.** Aim to examine a cross-section of different tasks, not all of them. Consider the range of different tasks that people do during a day. Focus on tasks which involve high repetition and little variety – try to identify ways to improve them and/or combine them with other tasks to provide greater variety.

### What risks should you look for?

The following checklist will help you identify risk factors and consider possible solutions to avoid or reduce the risk. Think about the factors and solutions that are most applicable to the activity under review. If your employer has not carried out an adequate risk assessment of the tasks you examine, ask them to do one. Sharing your findings with them can maximise the benefits of your work.

This checklist is not by itself a full risk assessment. If you have concerns about a particular task you should refer to the HSE publication *Upper limb disorders in the workplace* (see 'Want to know more?') and the references in it.

There may be some jobs where you can agree automation or job aids with your employer, without detailed assessment.

### Want to know more?

For information about back pain and other musculoskeletal disorders, visit: [hse.gov.uk/msd](http://hse.gov.uk/msd)

For information about the Better Backs campaign, visit: [www.hse.gov.uk/msd/campaigns](http://www.hse.gov.uk/msd/campaigns)

Or call HSE's Infoline on 0845 345 0055 for further information

*Aching arms (or RSI) in small businesses: Is ill health due to upper limb disorders a problem in your workplace?* Leaflet INDG171(rev1) HSE Books 2003 (single copy free or priced packs of 15 ISBN 978 0 7176 2600 7) [www.hse.gov.uk/pubns/indg171.pdf](http://www.hse.gov.uk/pubns/indg171.pdf)

*Upper limb disorders in the workplace* HSG60 (Second edition) HSE Books 2002 ISBN 978 0 7176 1978 8

### Problems to look for when making an assessment

**The tasks, do they involve:**

highly repetitive work – for example more than 30 repetitions a minute?

awkward reaching requiring twisting, stooping or extended arm movements?

sudden or jerky movements of the arms?

awkward head and neck postures (bent or twisted)?

work above shoulder height?

application of high impact forces?

insufficient rest or recovery time?

a work rate imposed by a process, eg handling items on a production line?

standing for prolonged periods?

**The product:**

is it awkward to position or hold?

does it need high assembly forces due to poor tolerances?

is it heavy?

is it difficult to manipulate?

### Ways of reducing the risk of injury

**Is it possible to:**

work co-operatively with co-workers on a range of related tasks, so the same actions are not repeated so frequently?

adjust the layout to improve postures – place items within easy reach?

identify ways of avoiding such movements (eg better tools)?

get better lighting or a better work height to improve head position?

use a platform to stand on, or lower the work?

use a powered tool, or find a better way to avoid the impact?

vary the work, allowing one set of muscles to rest while another is used? Take short breaks during the working day.

use, eg a 'holding table' so items can accumulate, if necessary? Where someone does not keep pace with the line, items can wait in the holding area until they can be dealt with.

encourage, eg job rotation and breaks?

use a raised seat and footrest to allow alternately sitting and standing while doing the work?

**Is it possible to:**

provide a jig or clamp to orientate or hold the product in a convenient position?

identify ways to reduce force by, eg improving alignment, making sure screw threads are clear?

automate to avoid handling?

improve the flexibility and means of holding by warming stiff material or using tools to provide a better grip?

### Problems to look for when making an assessment

#### ***The working environment, are there:***

constraints on posture?	<input type="checkbox"/>
hot/cold/humid conditions?	<input type="checkbox"/>
uncomfortable draughts?	<input type="checkbox"/>
poor lighting conditions?	<input type="checkbox"/>
restrictions on movements or posture from clothes or personal protective equipment (PPE)?	<input type="checkbox"/>

#### ***Individual capacity, does the job:***

require unusual capability, eg above-average strength or dexterity?	<input type="checkbox"/>
endanger those with a health problem or learning/physical disability?	<input type="checkbox"/>
endanger pregnant women? By eg exposing them to particularly hot/cold temperatures?	<input type="checkbox"/>
call for special information or training?	<input type="checkbox"/>

### Ways of reducing the risk of injury

#### ***Is it possible to:***

remove obstructions to free movement?	<input type="checkbox"/>
prevent extremes of hot and cold?	<input type="checkbox"/>
deflect air from exposed skin?	<input type="checkbox"/>
improve lighting?	<input type="checkbox"/>
provide protective clothing or PPE that is less restrictive?	<input type="checkbox"/>

#### ***Is it possible to:***

give more information, eg about the range of tasks they are likely to face?	<input type="checkbox"/>
pay more attention to those who have a disability?	<input type="checkbox"/>
take extra care of pregnant workers, eg by introducing extra breaks?	<input type="checkbox"/>
provide more training?	<input type="checkbox"/>
get advice from an occupational health advisor?	<input type="checkbox"/>

**Problems to look for when making an assessment**

**Job aids and equipment:**

are objects held in place by hand?

are there high grip forces?

are tool handles imposing awkward wrist postures?

do power tools impose a high loading on the hand and wrist?

are assembly forces high?

are knife forces high?

are working heights suitable?

**Work organisation factors:**

is the work repetitive or boring?

is the work machine or system paced?

do workers feel the demands of the work are excessive?

have workers little control of the work and working methods?

is there poor communication between managers and employees?

**Ways of reducing the risk of injury**

**Is it possible to:**

provide jigs to better locate objects?

provide jigs to hold objects, better handles etc?

select handles which allow a straight wrist when used?

select lighter, better balance tools?

use tool balancers (eg spring loaded cables or counterbalanced arms) to help support the tool?

ensure screw threads are clear, is better quality control needed to ensure pieces align properly?

investigate sharpening regimes, better knives?

select benches or tables which provide convenient work heights?

**Is there scope to:**

enlarge tasks to reduce the monotony?

build in flexibility for timing operations by providing local controls, buffer stores or more batch-based working?

make workloads and deadlines more achievable?

encourage good communication and teamwork?

involve workers in decisions?

provide better training and information?