

# ASSESSING WORKING POSTURES WITH WRAP



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Risks of complaints of muscles, ligaments and joints are often associated with physically heavy work. However, working for long durations or frequently working in unfavourable postures can lead to complaints as well.

But, what are unfavourable postures, and how can you tell that the duration is too long? To answer these questions, TNO has developed the working posture risk assessment tool (WRAP).

## HOW DOES WRAP DETERMINE THE RISKS?

The assessment takes place per task, i.e. for all employees who perform that task, and not per employee, function, the job or day. The method is suitable for assessing risks in all sectors of industry, for:

- adult employees between the ages of 18 and 65;
- tasks that are performed during a working day and that take longer than 30 minutes per day;
- tasks in which the force exerted by one hand is less than 1 kg or 10 N.

Examples of such tasks are driving a lorry, washing patients (by nurses), general dentistry work, performing quality checks, and sorting of products weighing less than 1 kg.

The method is not recommended for the evaluation of computer-related work. Other methods that test the ergonomics of computer work stations and devices are recommended for this purpose.

## HOW CAN THE WRAP RESULTS SUPPORT ME?

The results of WRAP give an insight into whether there is an increased risk for complaints within the task at hand and for which particular postures this is the case. For each posture the user can see what the influence is of specific measures, like adapting the maximum duration per day or the frequency with which the posture occurs. With this information, measures can be taken more effectively. In addition, WRAP suggests solutions for each risk factor for reducing these risks.



#### WHO CAN USE WRAP?

WRAP has been developed for those who are responsible for a company's working conditions, such as Occupational Safety and Health assistants, working conditions coordinators, personnel officers, HR management staff or - in small companies - the director him- or herself as well as OSH experts and working conditions service providers. They can use the method to gain insight into:

- the risk for physical complaints due to unfavourable working postures
- the main causes of these risks, so it becomes clear on what issues measures should be targeted
- the effects of measures; does implementation of a measure actually lead to a reduction of the risk?

#### WHERE CAN I FIND WRAP?

The method does not require any specific prior knowledge and is available online, free of charge, at:

[www.fysiekebelastingbeoordelen.tno.nl/en/](http://www.fysiekebelastingbeoordelen.tno.nl/en/)

On this website you can also find additional information about WRAP as well as two other methods: the Physical Load Checklist (for making a first risk inventory of all aspects of physical workload) and HARM (the Hand Arm Risk Assessment Method, for assessing risks associated with hand arm tasks).



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#### HEALTHY LIVING

TNO initiates technological and social innovation for a healthy life and for a vital society.

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