
Executive summary

Health Council of the Netherlands. Falls from height. The Hague: Health Council of the Netherlands, 2013; publication no. 2013/36.

The request for advice

At the request of the Minister of Social Affairs and Employment (SZW), the Health Council of the Netherlands has explored the possibilities of deriving (either at the present time or in the near future) a health-based exposure limit or a safety-based exposure limit for working at height. This advisory report is part of a series of reports in which the Committee on the Identification of Workplace Risks examines various occupational risks covered by the Working Conditions Act and its associated regulations. The Committee has examined scientific data relating to the adverse health effects of falls from heights.

Scope and legislation

In the Netherlands, eighteen workers die each year after falling from height while working, and a further 1,230 are hospitalised. Many of them sustain permanent injuries as a result. Aside from the personal suffering involved, falling from height can result in high social costs due to absence through sickness, rehabilitation, and disability.

Current Dutch legislation (Article 3.16 of the Working Conditions Decree) requires employers to take measures if individuals are in danger of falling during the course of their work. According to the legislature, a danger of falling exists where individuals are working at heights of 2.5 metres or more.

Risks due to falling

Various scientific studies have examined the association between the height of a fall and the severity of injury involved. Individuals who sustained serious injuries or who subsequently died (patients) as a result of a fall, were compared to a control group. This showed that the higher the fall, the greater the risk of fractures, severe injuries, and death. However, it is not possible to determine a safe height from which falls do not result in any adverse health effects. This is because even falls from low heights may result in injury.

Nor can this data be used to calculate the exact risk of injury resulting from a fall (per height of fall). In the absence of combined information about how many people are working at what height, and for how long, the Committee is unable to link the risk of injury resulting from falls from height to details of the risk associated with various heights. In addition, information on how many people fall, with no or minimal injuries, are lacking. As a result, it is not possible to calculate the absolute risk of injury per working height. Using this data it is only possible to make a rough estimate of the risk of serious or fatal injury following a fall from height.

Recommendation

There is clearly an association between the height from which a worker falls and the severity and extent of any resultant injury, or indeed their risk of dying. The higher the fall, the greater the risk of serious injury and death. In the light of current knowledge, however, the Committee takes the view that it is not possible to establish a safe (or health-based) exposure level for fall height.

When a risk for falling exists, the Working Conditions Decree requires employers to take measures against the risk, regardless of the height at which work is being carried out.

This corresponds with the findings of the Committee that an health based or safe exposure level cannot be recommended. However, the Committee does recommend a greater focus on making employers aware of the fact that even working at heights of less than 2.5 metres poses a potential risk, and that measures need to be taken in these cases too.