

Workplace instruction –  
Lifting and carrying



## Lifting and carrying

Guidance for occupational instructions for employees

# Protect the back from injuries caused by incorrect lifting and carrying

## Facts

The human spine fits for an upright position and not for heavy lifting and carrying. To prevent back injuries due to incorrect posture, you should know and use correct handling techniques at work. In addition,

hazards can arise due to lacking or incorrect use of lifting technology or transport equipment as well as poor collaboration if loads have to be moved by various workers.

## What are the risks?

### Overload of the back

Considerable overexertion can cause immediate injuries, for example:

- Fractures of the vertebral bodies
- Slipped discs

### Long-term overload

Long-term overexertion can cause premature wear and tear and chronic diseases like e.g.:

- Back pain due to muscle tension
- Erosion of the vertebral bodies
- Damage to the intervertebral disc



Lifting up loads with bent back causes much pressure on a small segment of the spine and vertebral discs. Possible consequences: A part of the intervertebral disc slips and shifts out (see picture), what is associated with severe pain. Therefore: Always lift up with straight back and keep the load close to the body!

## Consider when lifting loads

- Use available lifting aids
- Lift load smoothly
- Avoid hollow back
- Avoid twisting the back when lifting
- Squat down and keep your back straight as you lift and lower the load





## Consider when carrying loads

- Use available lifting aids
- Take an upright position when carrying loads
- Keep the load close to the body and support it (with chest, thighs and hip)
- Do not carry loads one-sidedly
- For loads that are difficult to grasp or bulky various workers are needed for transporting, who must coordinate themselves

Lifting devices are offered for all weight categories and should be used (Here: Using a vacuum tube lifter)



## Guide values for lifting and carrying

The weight limit cannot be determined in general terms. In addition to weight, there is a range of other influencing factors, so that admissible maximum weight has to be determined from case to case.

For women: Avoid frequent and regular lifting and carrying of loads of above 10 kg;  
for men: Avoid loads with more than 20 kg.

## Expectant mothers

Pregnant women are not allowed to perform regular lifting or handling, pushing or pulling of loads above 5 kg or occasionally of loads of more than 10 kg without mechanical aids.



### Tip

Expectant mothers are allowed to lift and carry loads with a weight of maximum 5 kg regularly!

**Picture credits:**

**Left side:** BG ETEM

**Right side:** Worker: endostock/stock.adobe.com-52357063

Vacuum tube lifter: J. Schmalz GmbH

Pregnant woman: iStock.com/Martinan-64899667

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