

MANUAL HANDLING OF LOADS



The manual handling of loads includes all those operations of transport or support of a load by one or more workers, including the actions of lifting, depositing, pushing, pulling, carrying or moving a load, if such actions, for their characteristics or as a consequence of unfavorable ergonomic conditions, involve, among other things, risks of back injury.

The manual handling of loads is regulated by art. 167 of Legislative Decree 81/08

LIMITS

In activities involving the handling of loads, it is necessary to verify the possibility of eliminating these operations or making them less tiring using suitable means in order to reduce the risk.

Legislative Decree 81/08 does not define limit values but Italian law establishes a series of values above which risk factors exist:

AGE	MALE	FEMALE
> 18 years	30 kg	20 kg
15 ÷ 18 years	20 kg	15 kg

In order to assess the occurrence of a risk to workers' health, it is still necessary to take into consideration, in addition to weight, the following parameters:

- The size, shape and characteristics;
- The lifting height, the distance to travel, the possibility or not of distributing the load;
- The characteristics of the work environment (available space, path to follow ...);

- Work done by the worker (temporary, repetitive ...).

Techniques have been developed to determine the recommended limit weight, in particular for each lifting action, reference can be made to the NIOSH method of 1993.

RISKS AND PREVENTION

The muscle effort required by manual movement causes an increase in heart rate and respiratory rate and produces heat. Under the influence of this muscular effort

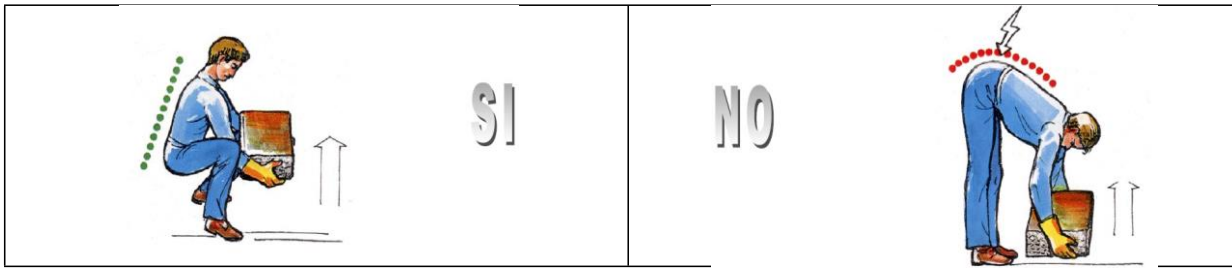
and the weight of the loads supported, the joints can, in the long run, be seriously damaged, in particular those of the vertebral column (wear of the intervertebral discs, lumbago, herniated disc with compression, sometimes, of the spinal cord and the nerves of the thighs and legs).

Sudden pains will appear that limit the mobility and vitality of those affected by it all the more easily when the loads are:

- Heavier;
- Taken at a fast pace;
- Of substantial size;
- Raised and deposited with the torso very curved forward;
- Raised or carried away from the body axis;
- When the difference between the height of the socket and that of the deposit is large;
- When handling requires torsion movements of the torso when manual transport occurs over a long distance.

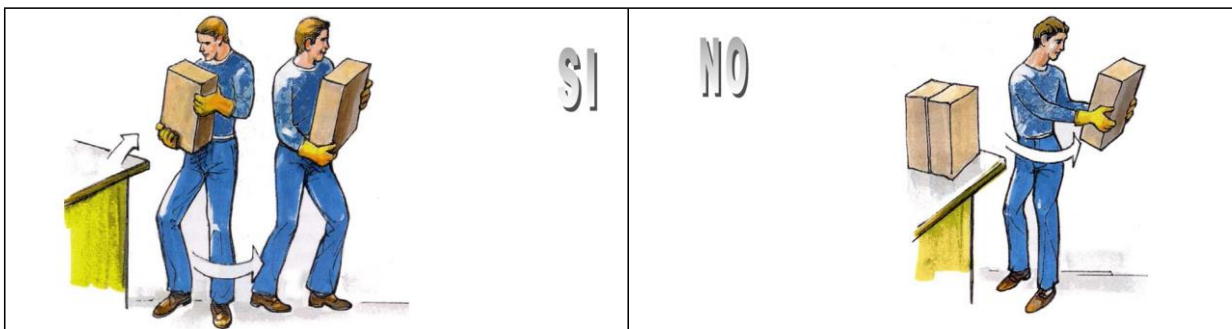
Some precautions should be taken into account when handling loads:

- Always wear safety shoes;
- When lifting from the ground, flex the knees and not the back to reduce the stress on the vertebrae;
- Keep the support base wide to promote balance;
- Keep the load as close to the body as possible to reduce pressure flexion.

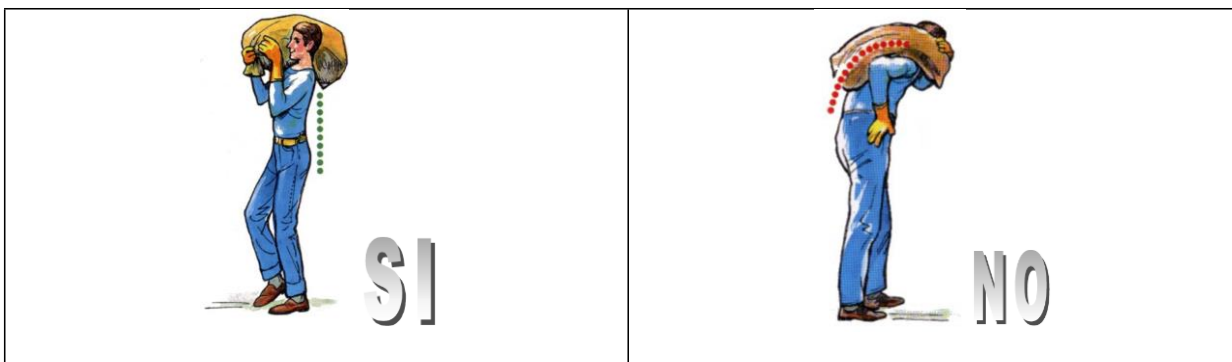


When moving a load, whatever the weight and size:

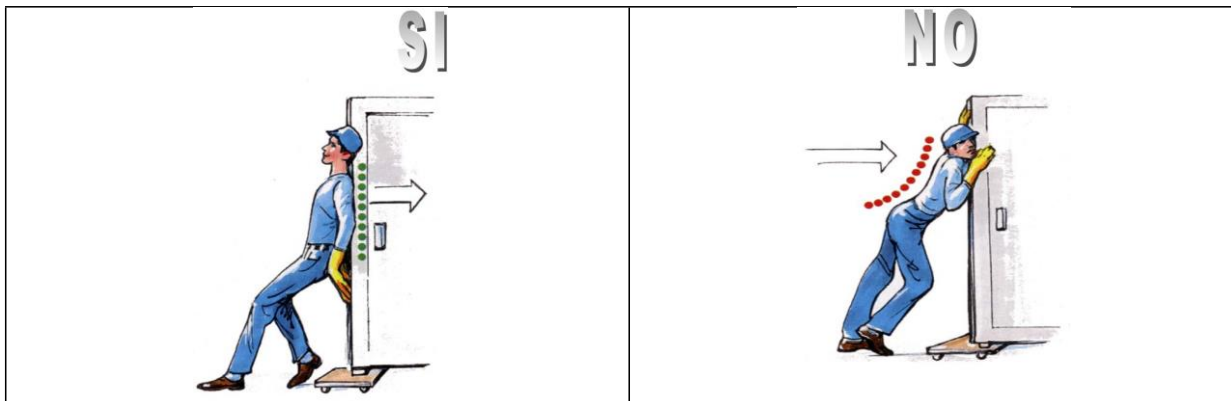
- Avoid rotating only the trunk;
- Move, instead, the whole body, using the feet and legs.



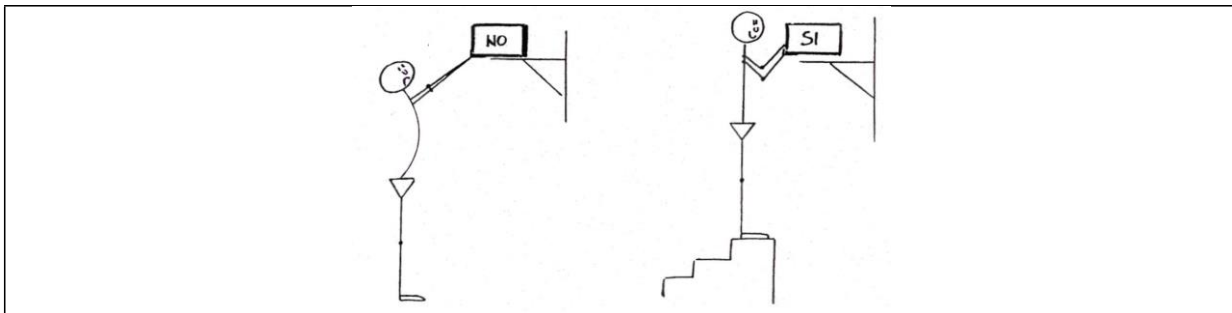
In the case of shoulder movements, they must be carried out keeping the body in an upright position, without bending the back:



To move bulky loads, never bend forward or backward, but rest your back vertically and push with your legs:



To place or remove objects placed on high floors, avoid arching your back too much. If possible, use a ladder or other aids that offer secure support:



HEALTH SURVEILLANCE

Health surveillance is set on preventive assessments (on hiring), to assess the possible presence of contraindications to the specific job and periodic checks to check the health status of the worker.