

**Table 3.8: Summary table for a single manual handling activity
(forceful exertion)**

Activity (where applicable)	Recommended weight limit	Exceed limit?	
		Yes	No
Lifting and lowering only; or	based on Figure 3.1 and Table 3.3		
Repetitive lifting and lowering; or	based on Figure 3.1 and Table 3.4		
Twisted body posture while lifting and lowering; or	based on Figure 3.1 and Table 3.5		
Repetitive lifting and lowering with twisted body posture; or	based on Figure 3.1, Table 3.4 and Table 3.5		
Pushing and pulling; or	based on Table 3.6		
Handling in seated position; or	based on Figure 3.2		
Carrying	based on Table 3.7		

Forceful exertion in any of the manual handling activities in **Table 3.8** with a **YES**, score of **1** requires an advanced assessment.

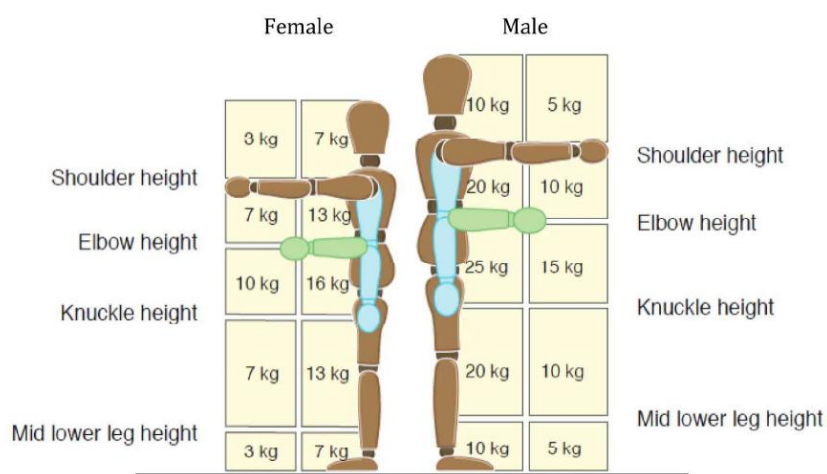


Figure 3.1: Recommended weight

Note: If the lifter's hands enter more than one box during the operation, then the smallest weight figure applies. An intermediate weight can be chosen if the hands are close to a boundary between boxes.

Table 3.3: Recommended weight limit for lifting and/or lowering

Working Height (where force is applied)	Recommended weight limit (male or female)	Current weight handled	Exceed limit?	
			Yes	No
Between floor to mid-lower leg				
Between mid-lower leg to knuckle				
Between knuckle height and elbow				
Between elbow and shoulder				
Above the shoulder				

Guide to use Table 3.3

Step 1: Determine the gender of the employee.

Step 2: Determine the working height of the employee.

Step 3: Determine the proximity of the handling during forceful exertion (further away or close to the body).

Step 4: Key in the recommended weight based on Figure 3.1.

Step 5: Determine the current weight handled.

Step 6: Compare if the limit is exceeded based on the current weight handled.

**Table 3.4: Recommended weight limit for lifting and/or lowering
with repetitive operation**

If employee repeats operations	Weight limit * should be reduced by
Once or twice per minutes	30%
Five to eight times per minute	50%
More than 12 times per minute	80%

* weight limit based on the Figure 3.1

**Table 3.5: Recommended weight limit for lifting and/or lowering
with twisted body posture**

If employee twists body from forward facing to the side	Weight limit * should be reduced by
45 degrees	10%
90 degrees	20%

*weight limit based on the Figure 3.1

Table 3.6: Recommended load weight based on type of activity for pushing and/or pulling

Activity	Recommended weight	
	Male	Female
Stopping or starting a load	approximately 1000kg load (equivalent to 200N pushing or pulling force) on smooth level surface using well maintained handling aid	approximately 750kg load (equivalent to 150N pushing or pulling force) on smooth level surface using well maintained handling aid
Keeping the load in motion	approximately 100kg load (equivalent to 100N pushing or pulling force) on uneven level surface using well-maintained handling aid	approximately 70kg load (equivalent to 70N pushing or pulling force) on uneven level surface using well-maintained handling aid

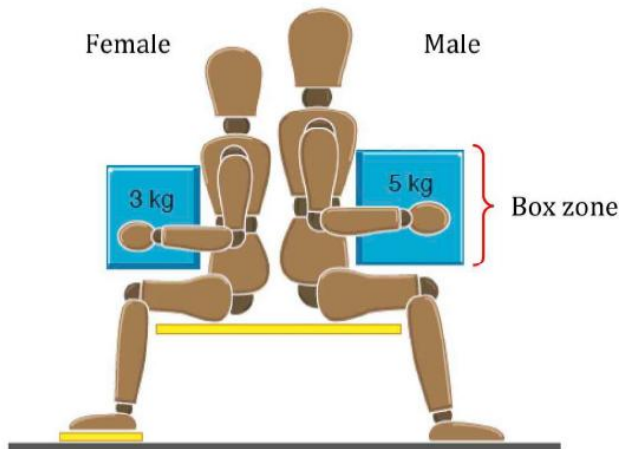


Figure 3.2: Recommended weight for seated position

Table 3.7: Summary for carrying activity

Factor	Condition	Outcome
Floor Surface	Dry and clean floor in good condition	Acceptable
	Dry floor but in poor condition, worn or uneven	Conduct advanced ERA
	Contaminated/wet or steep sloping floor or unstable surface or unsuitable footwear	
Other environmental factors	No factors present	Acceptable
	One or more factor present (i.e. poor lighting condition, extreme temperature)	Conduct advanced ERA
Carry distance	2 m—10 m	Acceptable
	More than 10 m	Conduct advanced ERA
Obstacles en route	No obstacles and carry route is flat	Acceptable
	Steep slope or up steps or through closed doors or trip hazards or using ladders	Conduct advanced ERA

An advanced ERA for manual handling activity with carrying operation should be conducted if the outcome from any of the factor above is not acceptable.