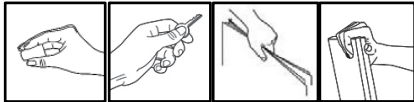
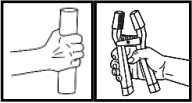


# MSD preliminary risk assessment checklist

Job title or task		Date	
Completed By			

Grip force		Check here if required at this job/task	Notes
Pinch grip	<ul style="list-style-type: none"> <li>Pinch gripping unsupported objects weighing 1kg or more per hand for more than 2 hours total per day</li> </ul> <p>OR</p> <ul style="list-style-type: none"> <li>Pinch gripping with a force of 2kg or more per hand for more than 2 hours total per day</li> </ul> 		
Power grip	<ul style="list-style-type: none"> <li>Power gripping unsupported object weighing 5kg or more per hand for more than 2 hours total per day</li> </ul> <p>OR</p> <ul style="list-style-type: none"> <li>Power gripping with a force of 5kg or more per hand for more than 2 hours total per day</li> </ul> 		

**Pinch grip:** force is primarily between the fingers and thumb.

**Power grip:** force is primarily between the fingers and palm.

Manual material handling tasks		Check here if required at this job/task	Notes
Back/shoulders	<ul style="list-style-type: none"> <li>Lifting/lowering is required for this job/task?                             <ul style="list-style-type: none"> <li>If checked, do weights exceed levels in tables 1 or 2?</li> </ul> </li> </ul>		
	<ul style="list-style-type: none"> <li>Pushing/pulling is required for this job/task?                             <ul style="list-style-type: none"> <li>If checked, do initial push forces exceed levels in tables 3 or 4?</li> </ul> </li> </ul>		

Modified from Part 3B: MSD Prevention Toolbox – Beyond the Basics  
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**If lifting/lowering is required for this job/task, does weight of the object exceed value in the appropriate table?**

- Step 1:** Choose the right table to use: If the task is performed by males only, use table 1. If the task is done by females only, or both males and females, use table 2.
- Step 2:** Determine whether the lift/lower is close or far
  - Close – hands are 17 cm or less from body at all times during the lift/lower
  - Far – hands are more than 17 cm from the body at any time during the lift/lower
- Step 3:** Determine if the lift/lower is short or long
  - Short – the object moves up/down no more than 25 cm
  - Long – the object moves up/down more than 25 cm
- Step 4:** Determine where the worker’s hands end up at the end of the lift/lower. Below knuckle height, between knuckle and shoulder height, or above shoulder height
- Step 5:** Determine how often the object is lifted/lowered – once every 15 sec., 1 min., 2 min., 5 min., 30 min., or 8 hours
- Step 6:** Compare the weight from the table to the actual weight of the object being lifted/lowered

**Example:** Only males do the job being assessed. The hands are more than 17 cm from the body, the item is moved up more than 25 cm, the worker’s hands at the end of the lift are at just below shoulder height and the item is lifted once every 5 min. The value from table 1 for this example is 19 kg. To get this number:

1. Look at numbers in table 1
2. Look at the numbers in the far-long row
3. Find the numbers in the far-long row, under the heading “Hands end between knuckle and shoulder height” and
4. Find the number for objects lifted once every 5 min. – 19 kg

**Table 1. Lift/lower weights (kg) – use when task performed by males only**

Type of lift/lower	Hands and below knuckle height once every...						Hands end between knuckle and shoulder height once every...						Hands end above shoulder height once every...					
	15 sec	1 min	2 min	5 min	30 min	8 hr	15 sec	1 min	2 min	5 min	30 min	8 hr	15 sec	1 min	2 min	5 min	30 min	8 hr
Far – long	13	16	19	20	21	24	16	18	18	19	21	23	12	14	14	14	16	17
Far – short	15	19	22	24	24	28	20	23	24	25	27	30	15	18	18	19	21	23
Close – long	17	22	25	28	28	33	17	20	20	21	23	25	16	18	19	19	24	24
Close – short	21	26	30	32	33	38	21	26	27	28	31	34	20	24	25	26	29	31

**Table 2. Lift/lower weights (kg) – use when task performed by females only OR both males and females**

Type of lift/lower	Hands and below knuckle height once every...						Hands end between knuckle and shoulder height once every...						Hands end above shoulder height once every...					
	15 sec	1 min	2 min	5 min	30 min	8 hr	15 sec	1 min	2 min	5 min	30 min	8 hr	15 sec	1 min	2 min	5 min	30 min	8 hr
Far – long	9	9	10	10	11	14	8	10	11	11	12	14	6	7	8	8	8	10
Far – short	11	11	12	12	13	18	9	12	13	13	14	17	8	9	9	9	10	12
Close – long	11	12	13	13	14	19	9	11	12	12	13	15	8	9	10	10	11	13
Close – short	13	14	15	15	17	23	11	13	14	14	16	18	9	12	12	12	14	16

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**If pushing/pulling is required for this job/task, does initial push force to move the object exceed value in the appropriate table?**

- Step 1:** Choose the right table to use: If the task performed by males only, use table 3. If the task is done by females only, or both males and females, use table 4.
- Step 2:** Determine where the worker's hands are on the object while it is being pushed/pulled – at or below knuckle height, between knuckle and chest height, at chest height or higher
- Step 3:** Determine how far the object is pushed/pulled – up to 2 meters, 2 - 7.5 meters, more than 7.5 meters
- Step 4:** Determine how often the object is pushed/pulled – once every 15/20/30 sec., 1 min., 2 min., 5 min., 30 min., or 8 hours
- Step 5:** Compare the force level from the table to the actual amount of force required for the push/pull to the object

**Example:** Both females and males do the job being assessed. The hands are below the worker's knuckle height on the object when it is being pulled, the item is pulled 1.5 metres, once a minute. The value from table 4 for this example is 17 kg. **To get this number:**

1. Look at numbers in table 4
2. Look at the numbers in the "At or below knuckle height" row
3. Find the numbers in the "At or below knuckle height" row that are under the heading for "Up to 2 metres"
4. Find the number for an object that is pulled up to 2 metres, once per min. - 17 kg











**Table 3. Initial push/pull forces (kg) – use when task performed by males only (e.g. carts, trolleys, rolls, cables, wheelbarrows)**




Height of hands on object being pushed/pulled	Up to 2 metres once every...						2 – 7.5 metres once every ...						More than 7.5 metres once every...					
	15 sec	1 min	2 min	5 min	30 min	8 hr	15 sec	1 min	2 min	5 min	30 min	8 hr	15 sec	1 min	2 min	5 min	30 min	8 hr
Chest height or higher	19	22	22	23	24	28	15	20	20	21	21	26	18	19	19	20	20	24
Between chest and knuckle	27	31	31	32	33	39	21	28	28	29	30	36	25	26	26	28	28	33
At or below knuckle height	30	34	34	37	37	44	24	31	31	33	34	40	28	29	29	31	32	38

**Table 4. Initial push/pull forces (kg) – use when task performed by females only OR both males & females (e.g. carts, trolleys, rolls, cables, wheelbarrows)**

Height of hands on object being pushed/pulled	Up to 2 metres once every ...						2 – 7.5 metres once every ...						More than 7.5 metres once every...					
	15 sec	1 min	2 min	5 min	30 min	8 hr	15 sec	1 min	2 min	5 min	30 min	8 hr	15 sec	1 min	2 min	5 min	30 min	8 hr
Chest height or higher	18	21	22	24	25	27	19	19	20	22	23	24	17	17	17	19	20	21
Between chest and knuckle	18	21	22	24	25	27	18	20	20	22	23	25	16	17	17	19	20	21
At or below knuckle height	15	17	17	19	20	21	15	17	17	19	20	21	13	14	15	16	17	18

Values in tables 1-4 are adapted from Snook SH and Ciriello VM, (1991), the design of manual handling tasks: Revised tables of maximum acceptable weights and forces, Ergonomics 34, 1197-1213.

Awkward postures		Check here if required at this job/task	Notes
Neck	<ul style="list-style-type: none"> <li>Working with the neck bent forward or to the side more than 30° for more than two hours total per day</li> </ul> <div style="display: flex; justify-content: center; gap: 20px;">   </div> <p style="text-align: center;">side      forward</p> <p style="text-align: center;">(circle the appropriate movements)</p>		
	<ul style="list-style-type: none"> <li>Working with the neck rotated more than 45° in either direction for more than two hours total per day</li> </ul> <div style="text-align: center;">  </div>		
	<ul style="list-style-type: none"> <li>Working with the neck bent back/up more than 20 degrees for more than two hours per day</li> </ul> <div style="display: flex; justify-content: center; gap: 20px;">   </div>		
Shoulder(s)	<ul style="list-style-type: none"> <li>Working with the hand(s) at or above the head for more than two hours total per day</li> </ul> <div style="text-align: center;">  </div>		
	<ul style="list-style-type: none"> <li>Working with the elbow(s) at or above the shoulder for more than two hours total per day</li> </ul> <div style="text-align: center;">  </div>		
Back	<ul style="list-style-type: none"> <li>Working while sitting or standing with the back bent forward, side- ways, or twisted more than 30° for more than two hours total per day</li> </ul> <div style="display: flex; justify-content: center; gap: 20px;">    </div> <p style="text-align: center;">Forward      Side      Twisted</p> <p style="text-align: center;">(circle the appropriate movements)</p>		

Awkward postures		Check here if required at this job/task	Notes
	<ul style="list-style-type: none"> <li>Working while sitting or standing with the back bent back more than 20°, and with no support for the back, for more than two hours total per day</li> </ul>  <p>Backward</p>		
Knees	<ul style="list-style-type: none"> <li>Worker squats/ kneels for more than two hours total per day</li> </ul>   <p>Squat      Knee</p> <p>(circle the appropriate movements)</p>		

Static whole-body postures		Check here if required at this job/task	Notes
Prolonged sitting	<ul style="list-style-type: none"> <li>Worker sits for more than six hours total per day</li> </ul>		
Prolonged standing	<ul style="list-style-type: none"> <li>Worker stands on a hard surface for more than four hours total per day (standing in one location without taking more than two steps in any direction).</li> </ul>		

Repetition		Check here if required at this job/task	Notes
Neck, shoulders, elbows, wrists, or hands	<ul style="list-style-type: none"> <li>Worker repeats the same motion with the neck, shoulders, elbows, wrists, or hands every few seconds with little or no variation for more than two hours total per day (excluding keying activities).</li> </ul> <p>Check body part(s) that apply:</p> <p><input type="checkbox"/> Neck <input type="checkbox"/> Shoulder(s) <input type="checkbox"/> Elbow(s) <input type="checkbox"/> Wrist(s)</p> <p><input type="checkbox"/> Hands</p>		
Keyboarding	<ul style="list-style-type: none"> <li>Worker performs intensive keying more than four hours total per day</li> </ul>		

Repeated impacts		Check here if required at this job/task	Notes
Hands/knees	<ul style="list-style-type: none"> <li>Employee uses one of the following as a hammer more than 10 times per hour and for more than two hours total per day.</li> </ul> <p>Check the body part(s) that apply:</p> <p><input type="checkbox"/> Hand (heel/base of palm) <input type="checkbox"/> Knee</p>		

Hand-arm vibration		Check here if required at this job/task	Notes
Hands/wrists	<ul style="list-style-type: none"> <li>Use high vibration tools (impact wrenches, carpet strippers, chainsaws, jackhammers, scalers, riveting hammers) for more than 30 minutes total per day</li> </ul>		
	<ul style="list-style-type: none"> <li>Use hand tools that typically have moderate vibration levels (grinders, sanders, jigsaws) for more than two hours total per day</li> </ul>		

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Notes: