



Form for recording force exertions (step 3) Hand Arm Risicobeoordelings Methode (HARM)

Task:





Amount of force	Measure (for the forces that are exerted during the task) the duration of the force exertions <u>over the course of one minute</u> (repeat the measurement a few times)	Calculate the average duration of the force exertions in seconds per minute (STEP 3B) (Average duration per minute: Add up all the durations for each force exertion and divide by the number of measurements)	Make a new observation and keep a count of how often the force exertion occurs during each observation (also record how long you observed the task)	Calculate the number of force exertions per minute (frequency) (STEP 3C) Frequency: Number of force exertions divided by the duration of the observation in minutes: <u>number of force exertions / minutes observed</u>
(extremely) low: weight < 100 g Force < 1 N.	....sec ....sec ....sec	Average duration per minute: seconds per minute	..... times in (K) minutes	Frequency: =..... force exertion per minute
average: weight 100-1000 g Force 1-10 N.	....sec ....sec ....sec	Average duration per minute: seconds per minute	..... times in (K) minutes	Frequency: =..... force exertion per minute
somewhat high: weight 1-3 kg Force 10-30 N.	....sec ....sec ....sec	Average duration per minute: seconds per minute	..... times in (K) minutes	Frequency: =..... force exertion per minute
high: weight 3-6 kg Force 30-60 N.	....sec ....sec ....sec	Average duration per minute: seconds per minute	..... times in (K) minutes	Frequency: =..... force exertion per minute




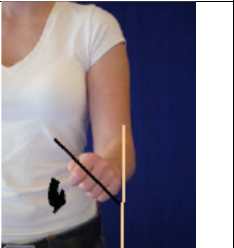
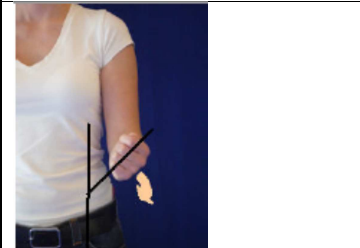


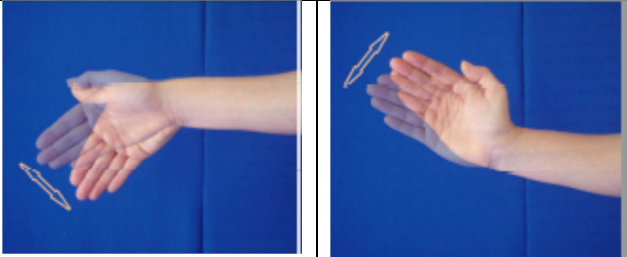
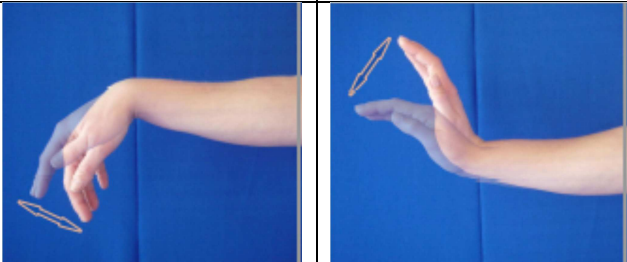
Form for recording postures (step 4) Hand Arm Risicobeoordelings Methode (HARM)

Taak:

Postures	Keep a count of how often the posture occurs per unit of time (also indicate how long you observed)		Duration of the postures (repeat the measurement a few times)	Duration of posture as a percentage of the task duration: = $\frac{\text{number observed} \times \text{average duration}}{\text{total duration of observation}}$
The head is tilted further forward than in the first photograph OR tilted further back than in the second photograph			..... sec sec sec Average duration per time: sec (G)	Percentage= $\frac{\text{.....(K) x .....sec (G)}}{\text{.....sec (O)}}$ =.....%
The head is tilted further to the side than in the first photograph OR the head is turned, as in the second photograph			..... times in (K) sec (O) sec (G)	Percentage= $\frac{\text{.....(K) x .....sec (G)}}{\text{.....sec (O)}}$ =.....%
The head is tilted forward and turned at the same time			..... times in (K) sec (O) sec (G)	Percentage= $\frac{\text{.....(K) x .....sec (G)}}{\text{.....sec (O)}}$ =.....%

Postures		Keep a count of how often the posture occurs per unit of time (also indicate how long you observed)	Duration of the postures (repeat the measurement a few times)	Duration of posture as a percentage of the task duration: = $\frac{\text{number observed} \times \text{average duration}}{\text{total duration of observation}}$
The head is tilted backward and turned at the same time		..... times in (K) sec (O)	.... sec sec sec Average time duration: sec (G)	Percentage= $\frac{\text{.....(K) x .....sec (G)}}{\text{.....sec (O)}}$ =.....%
Head/chin are pushed (far) forward		..... times in (K) sec (O)	.... sec sec sec Average time duration: sec (G)	Percentage= $\frac{\text{.....(K) x .....sec (G)}}{\text{.....sec (O)}}$ =.....%
The forearm arm is unsupported and the upper arm is further forward OR further sideways of the trunk than in the photographs, OR behind the trunk		..... times in (K) sec (O)	.... sec sec sec Average time duration: sec (G)	Percentage= $\frac{\text{.....(K) x .....sec (G)}}{\text{.....sec (O)}}$ =.....%

Postures			Keep a count of how often the posture occurs per unit of time (also indicate how long you observed)	Duration of the postures (repeat the measurement a few times)	Duration of posture as a percentage of the task duration: = $\frac{\text{number observed} \times \text{average duration}}{\text{total duration of observation}}$
Shoulders raised (high)			<p>..... times in (K)</p> <p>..... sec (O)</p>	<p>.... sec</p> <p>.... sec</p> <p>.... sec</p> <p>Average time duration:</p> <p>.... sec (G)</p>	<p>Percentage=</p> $\frac{\text{.....(K) x .....sec (G)}}{\text{.....sec (O)}}$ <p>=.....%</p>
Elbow significantly bent or extended			<p>..... times in (K)</p> <p>..... sec (O)</p>	<p>.... sec</p> <p>.... sec</p> <p>.... sec</p> <p>Average time duration:</p> <p>.... sec (G)</p>	<p>Percentage=</p> $\frac{\text{.....(K) x .....sec (G)}}{\text{.....sec (O)}}$ <p>=.....%</p>
The forearm is rotated further (in the direction of the arrows) than in the photographs			<p>..... times in (K)</p> <p>..... sec (O)</p>	<p>.... sec</p> <p>.... sec</p> <p>.... sec</p> <p>Average time duration:</p> <p>.... sec (G)</p>	<p>Percentage=</p> $\frac{\text{.....(K) x .....sec (G)}}{\text{.....sec (O)}}$ <p>=.....%</p>

Postures		Keep a count of how often the posture occurs per unit of time (also indicate how long you observed)	Duration of the postures (repeat the measurement a few times)	Duration of posture as a percentage of the task duration: = $\frac{\text{number observed} \times \text{average duration}}{\text{total duration of observation}}$
<p>The hand is bent sideways (in the direction of the little finger and/or thumb) at the wrist so that the position of the wrist is between the positions shown in the photographs.</p>		<p>..... times in (K)</p> <p>..... sec (O)</p>	<p>.... sec</p> <p>.... sec</p> <p>.... sec</p> <p>Average time duration: sec (G)</p>	<p>Percentage=</p> $\frac{\text{.....(K) x .....sec (G)}}{\text{.....sec (O)}}$ <p>=.....%</p>
<p>The hand is bent at the wrist so that the position of the wrist is between the positions shown in the photographs</p>		<p>..... times in (K)</p> <p>..... sec (O)</p>	<p>.... sec</p> <p>.... sec</p> <p>.... sec</p> <p>Average time duration: sec (G)</p>	<p>Percentage=</p> $\frac{\text{.....(K) x .....sec (G)}}{\text{.....sec (O)}}$ <p>=.....%</p>