



14. Force - pushing/pulling with arms



What do you notice about strain from pushing or pulling with arms?

Note: For background information, see other side.

In conclusion, the current situation

is acceptable

needs improvement

What *specific* improvements can be made?

Should we analyze the situation or the proposed solutions in more detail?

no

yes - more detail on other side





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We looked at ...	Why be concerned? (consequences)	Recommendations
Strain from pushing and pulling with the arms	<p>Using a cart leads to:</p> <ul style="list-style-type: none">• Reduced muscular strain and problems <p>But an increased risk of:</p> <ul style="list-style-type: none">• Getting fingers and hands caught• Injuring feet and legs• Dislocating arm, shoulder, or back joint	<ul style="list-style-type: none">• Provide:<ul style="list-style-type: none">- 2, 3, or 4-wheeled handcarts for loads up to 200 kg (440 lb)- Hand dollies for loads under 700 kg (1550 lb)- Maximum use: 200 times per work day- Carrying distance under 35 m (115')- Motorized carts or conveyers for heavy loads to be moved over long distances• Ensure that the floor is not slippery or uneven• Reduce friction of rolling surfaces• Provide 4 large-diameter, wide, low-friction wheels• Provide a handle slightly above elbow height• Reduce the load if it must be pushed or pulled<ul style="list-style-type: none">- with the hands above shoulder level or below waist level- or for more than 5 seconds- or when the object is not directly in front• Reduce the distance to be covered by bringing the stock area closer, for instance• Push rather than pull• Provide non-slip shoes

Translated and adapted from SOBANE materials, available at www.sobane.be/fr/tms_obs.html

