

# Production Ergonomics

# Poor Ergonomics can cost your company dearly

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**US\$15-20bn.** That is what ergonomics-related injuries cost American businesses in compensation every year according to the the US Department of Labor (OSHA).

The bureau statistics shows, that such injuries accounted for 380.600 days away from work cases in 2013. That is one-third of the total number of called-in days absent. Furthermore, employee's suffering from poor ergonomics has an average of 11 sick days a year. Other work-related injuries account for only 8 per employee on average.

A broad variety of industries suffer from poor ergonomics. From manufacturing, agriculture, and construction, to transportation, warehousing, and even healthcare, and entertainment/recreation.

The typical culprits are lifting heavy items, bending, reaching overhead, pushing and pulling heavy loads, repetitive movement to perform similar tasks, and generally working in awkward postures. Also sedentary work can influence ergonomics negatively.

As an employer it is your responsibility to ensure workers stay safe, to avoid loss of productivity, and to keep costs of occupational illness and injuries to a minimum.

That is why Production Ergonomics also matters to you!

## **5 obvious benefits of ergonomics:**

- Reduces costs
- Improves productivity
- Improves quality
- Improves employee engagement
- Creates a better safety culture

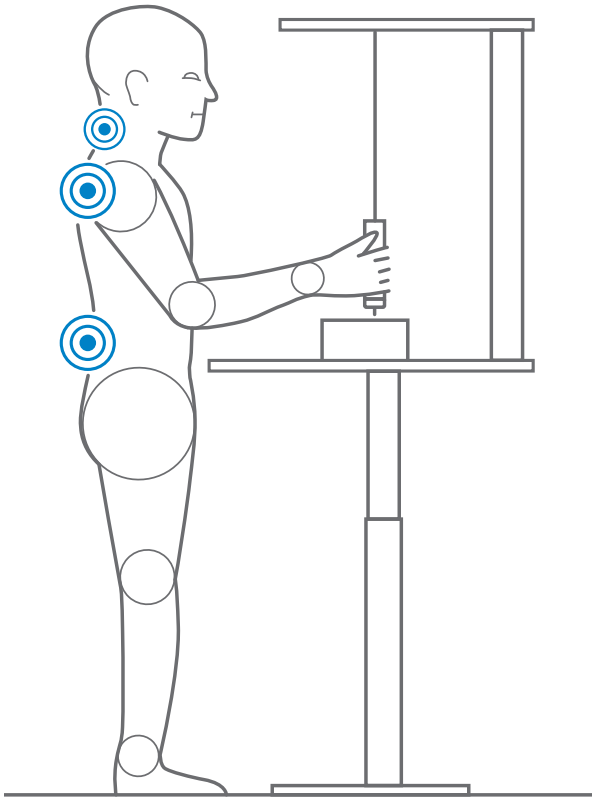
## **5 ergonomic trends:**

- Being proactive
- Integrating the process
- Engaging others
- Moving upstream
- Addressing the office

# Musculoskeletal disorders you can avoid

Ergonomics is all about fitting a job to your employee. Improved ergonomics helps lessen muscle fatigue and in many cases avoid musculoskeletal disorders (MSDs).

The MSDs typically comprise of bone, joint and muscle problems affecting the neck, shoulders, arms, hands, or spine.



20.1% of all reported workrelated health problems account for bone, joint or muscle problems affecting the shoulders, neck, arms and hands

29.5% of all reported work-related health problems account for bone, joint or muscle problems affecting the back

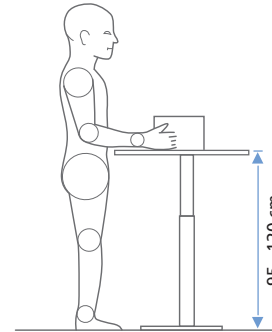
# How to use your workstation

Purchasing adjustable workstations is a good idea, if you want to improve ergonomics. However, it literally cannot stand alone. A thorough risk assessment of the workplace needs to precede the purchase to help you clarify precisely what type of solution your employees need. The second part is teaching the employees how to use the adjustable workstation correctly. There are a few guidelines to start with.

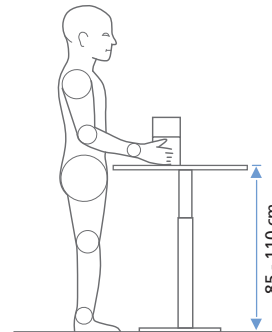
Nitty-gritty precision work is usually done close to the body and relatively close to the employee's eyes. This means the tabletop needs to be quite elevated. Assembly work is often a more speedy process requiring a bit more space to move the arms, while heavier workloads require a lower table to minimise the weight to lift, push or pull by the worker.

## Basic principles for standing work

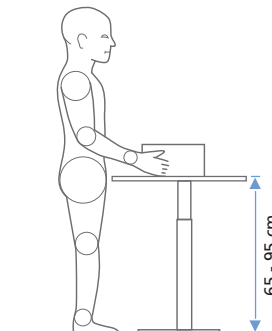
- The human is built for movement, so change working positions frequently. Changing body positions improves blood supply to the muscles and helps reduce overall fatigue. It also distributes the load more equally on different parts of the body, reducing strain on individual muscles and joints used to maintain the upright position.
- Pace work appropriately
- Ensure suitable rest periods



**Precision work**  
e.g. electronic assembly  
about 5 cm above  
elbow height



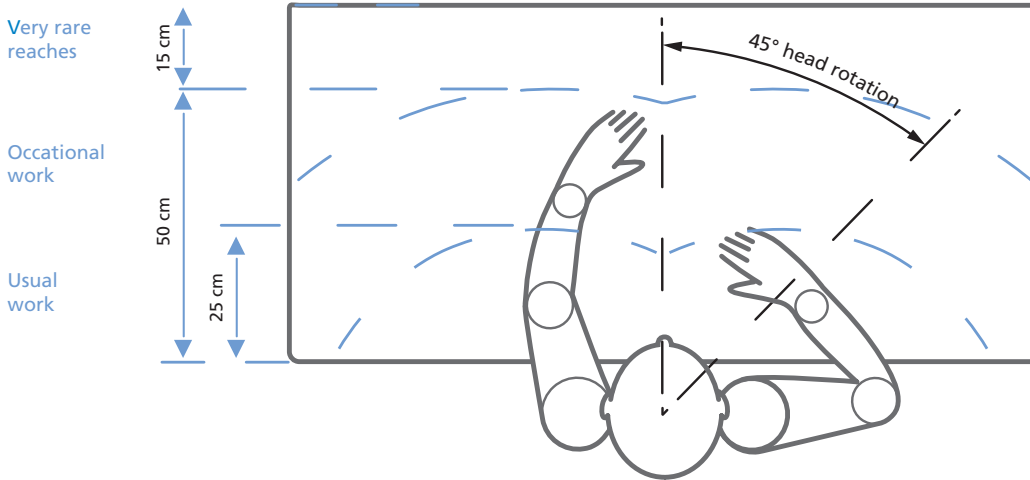
**Light work**  
e.g. assembly line  
about 5-10 cm below  
elbow height



**Heavy work**  
high downward forces  
about 20-40 cm  
below elbow height

The risk assessment will also help disclose what tasks are the most frequently performed by each employee. To minimise the strain on arms, shoulders, neck and back these repetitive tasks and associated movements should be limited to the area right in front of the employee.

The Canadian Centre for Occupational Health and Safety created a few rules of thumb to explain how to arrange work at the workstation. Needless to say, adjustable workstations will help you align with these rules and surely make your employees happier.



#### Rules of thumb:

- Always face the object of work
- Keep the body close to the work
- Organise the work so frequent operations are done within close reach
- Avoid reach above or behind the shoulder line
- Avoid extreme bending, stretching and twisting
- Elbow support for precision work helps reduce tension in the upper arm and neck



## Workstation

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## Adjustment solutions

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## Other lifting column solutions

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## Adjustment solutions

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BL1



CBD6S



DPF w. display

## Other lifting column solutions

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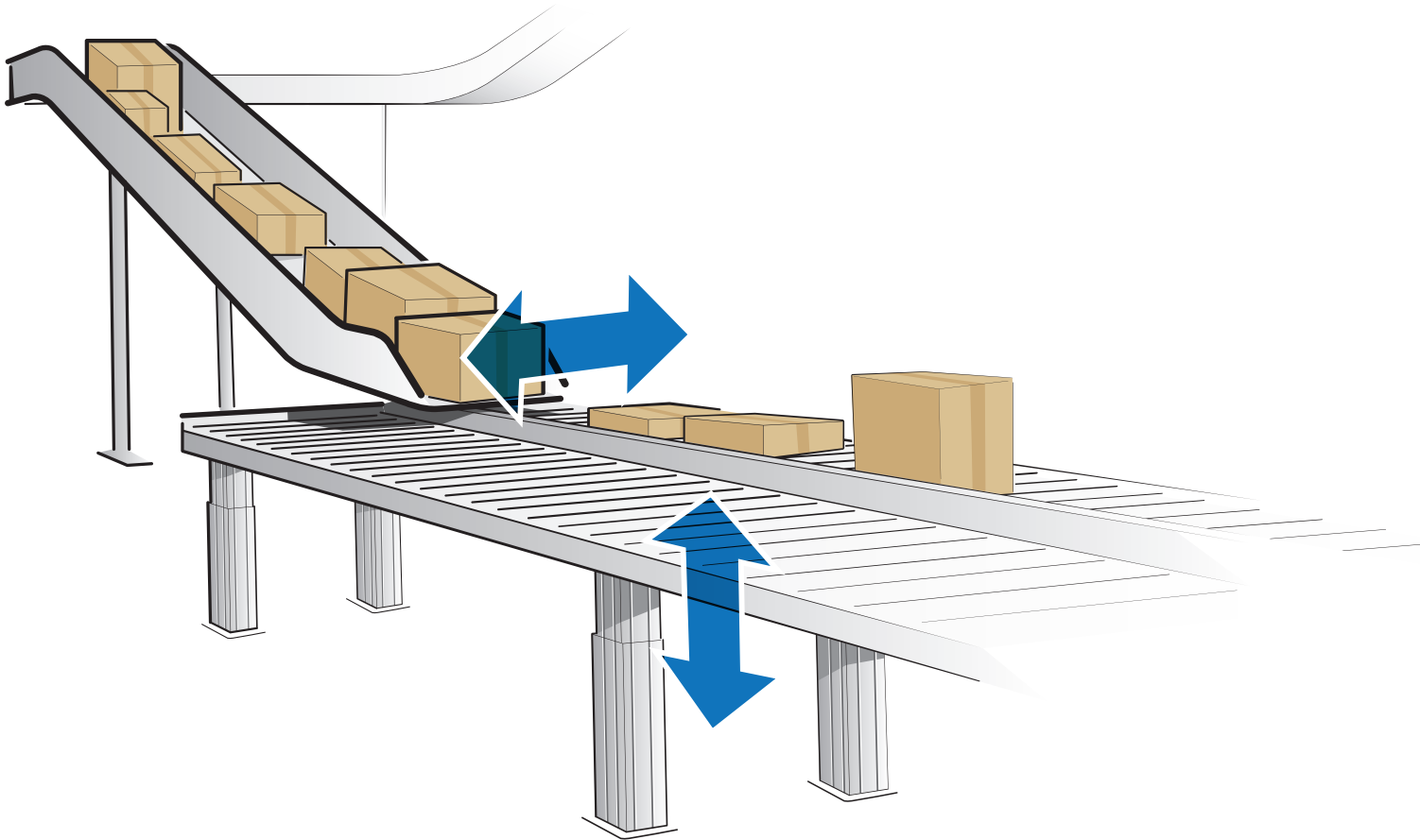
LP2



DL2

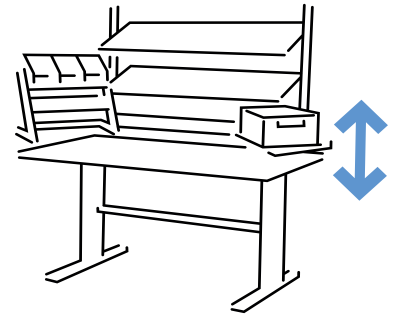


# Conveyor belt



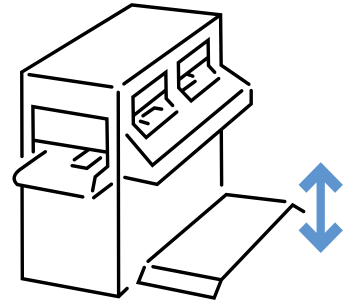
### Workstation

Reduce the strain that is put on the back, neck and shoulders by adjusting the workstation to the individual worker.



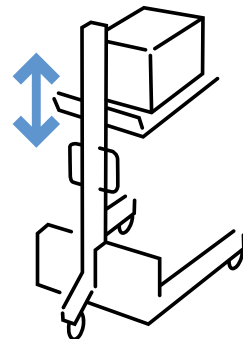
### Platform

Create a good working environment and higher employee satisfaction simply by making the production machine easier to reach. Adjustment of the platform to the worker's height is your solution.



### Lift

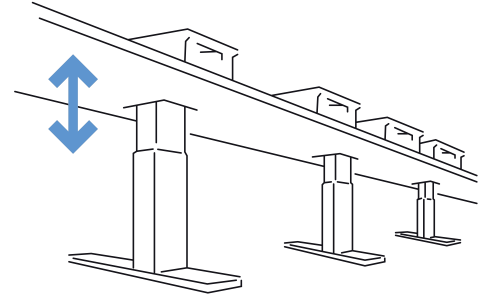
Reduce heavy lifting, and with it the risk of back injury. Use an automated lifting solution.



### Conveyor belt

Improve the reach of the worker and thus the efficiency at the production line by height adjusting the conveyor belt.

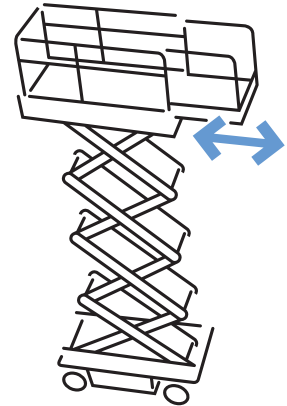
Product suggestions: **DL2** **LP2** **BL1**



### Scissor lift

Avoid awkward working positions and reduce the need to reach beyond the comfort zone. Extensor retract the deck on a scissor lift for easy reach.

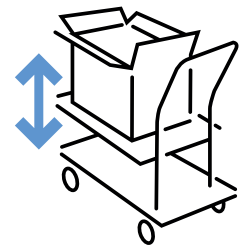
Product suggestions: **LA36** **LA23**



### Trolley

Make it easy to move items for production, and avoid awkward postures and heavy lifting with height adjustment of the trolley.

Product suggestions: **DL1A** **DL2** **DL5** **BL1**





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