

Success factors in Workplace Safety Promotion: The Public Health Approach

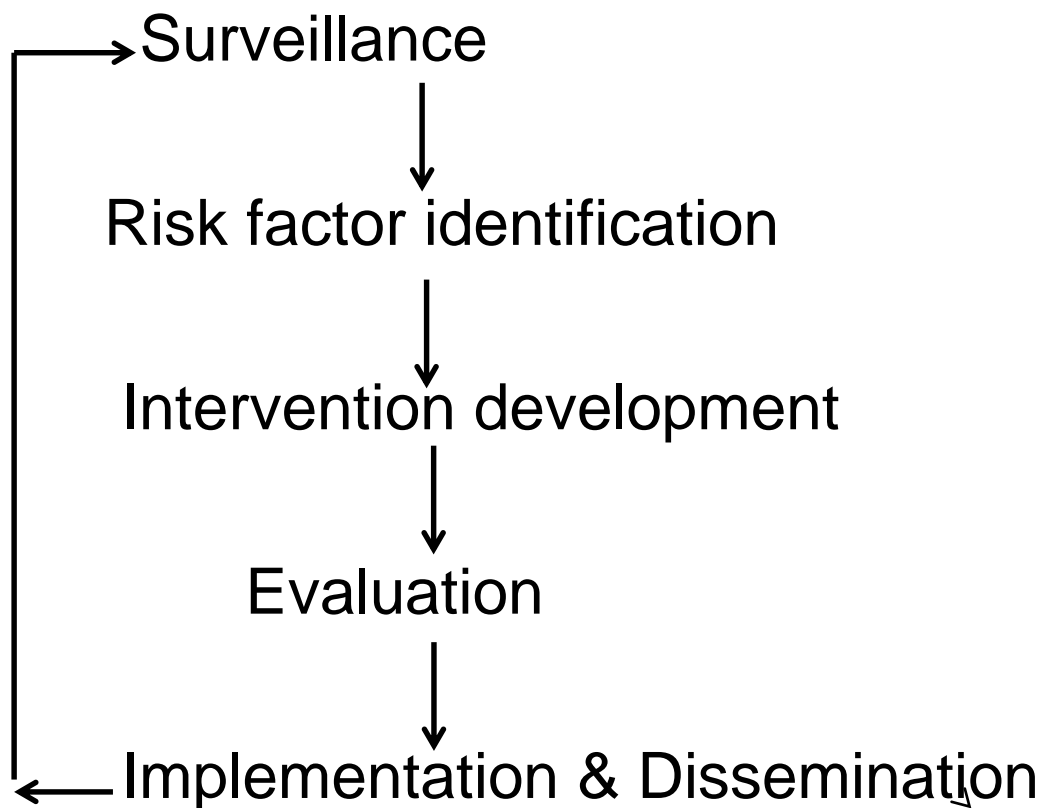
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Overview

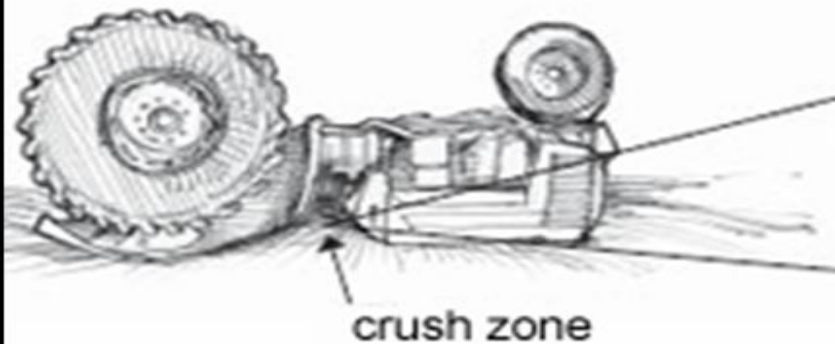
- What is the Public Health Approach in Occupational Safety and Health?
- Two central models to prevention in Occupational Safety and Health
- The role of energy and barriers in safety promotion
- Hierarchy of controls

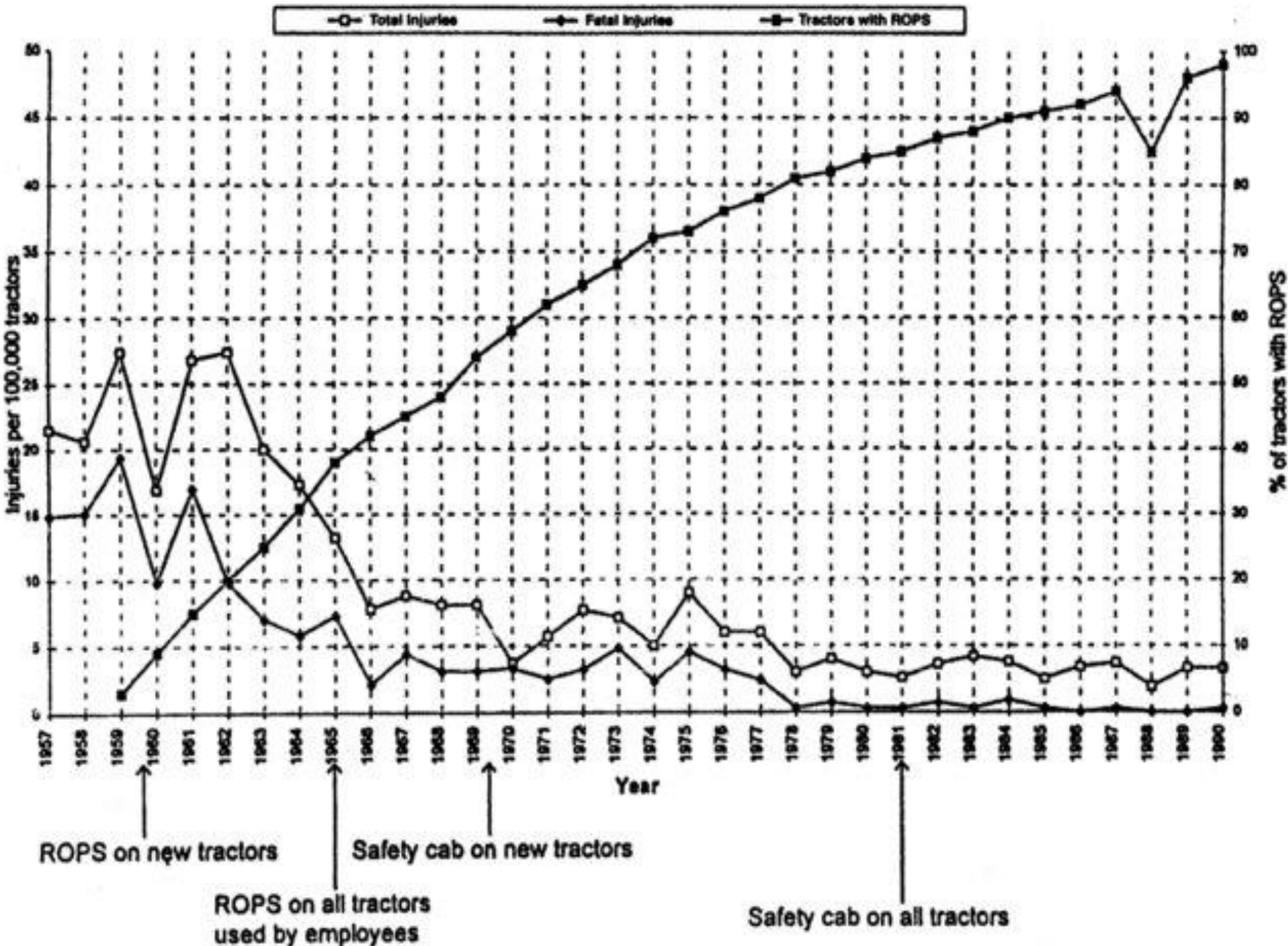
A public health approach to prevent work-related injuries



The Problem.....?

not survivable





The Public Health Approach

Roll Over Protections

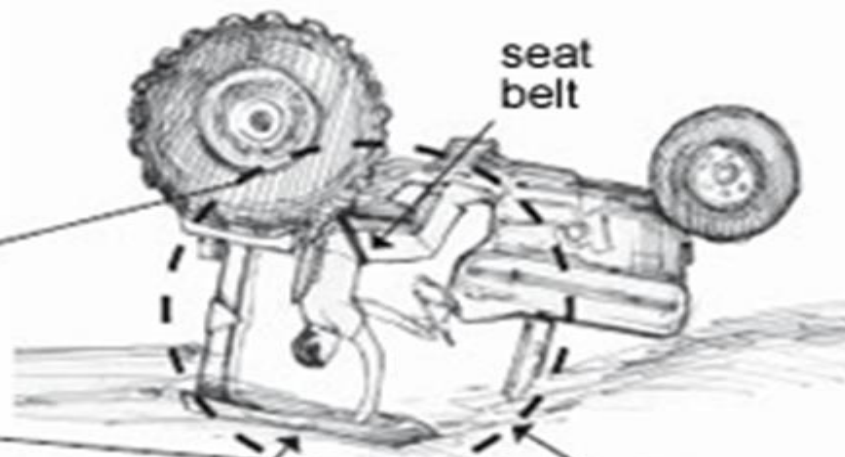


not survivable



crush zone

survivable



ROPS

survival
zone

seat
belt



- Got two fingers cut during work at fish processing unit in Northern Norway, but since he is hired by a Baltic subcontractor, he will likely get sick pay from his country.
- Was given NOK 2000 and put on a flight



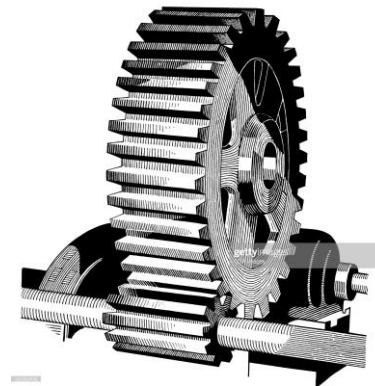
<https://www.nrk.no/troms/mistet-fingre--tilbudt-2000-kroner-1.7540426>

Two Central Models for Prevention in Occupational Safety and Health

- Focus on the individual (1900- ca.1960)



- Focus on the working environment (ca. 1960-present)



Focus on the individual

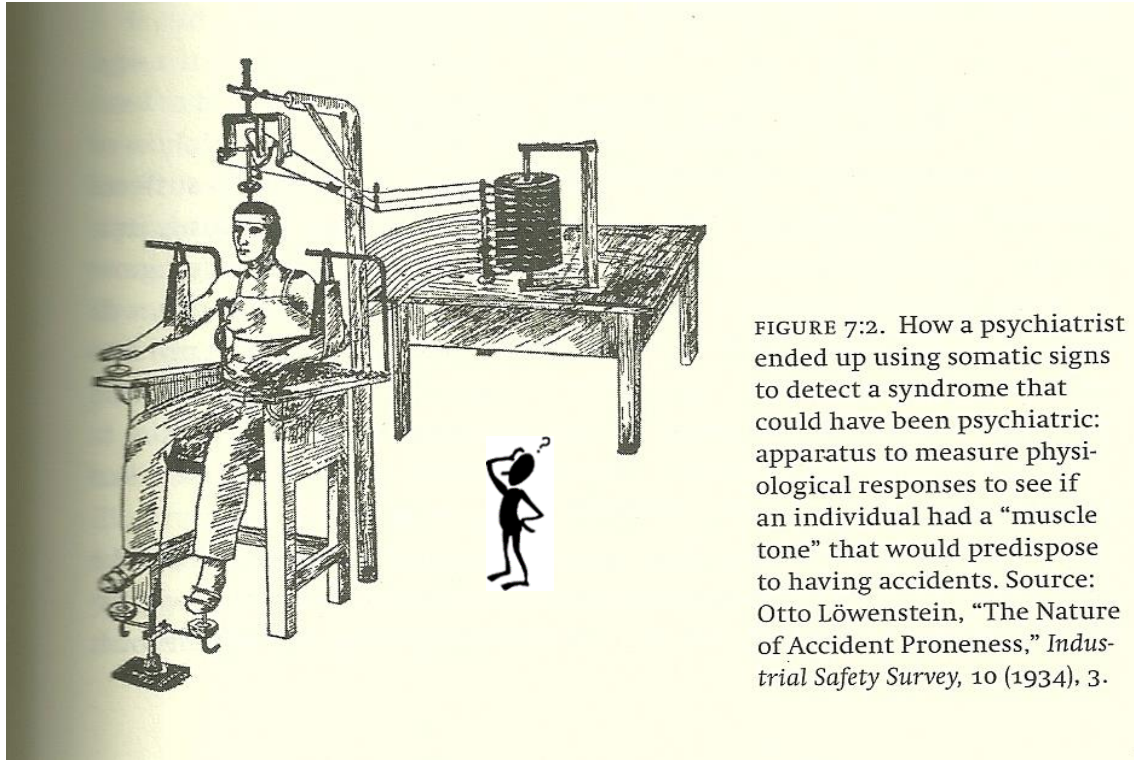
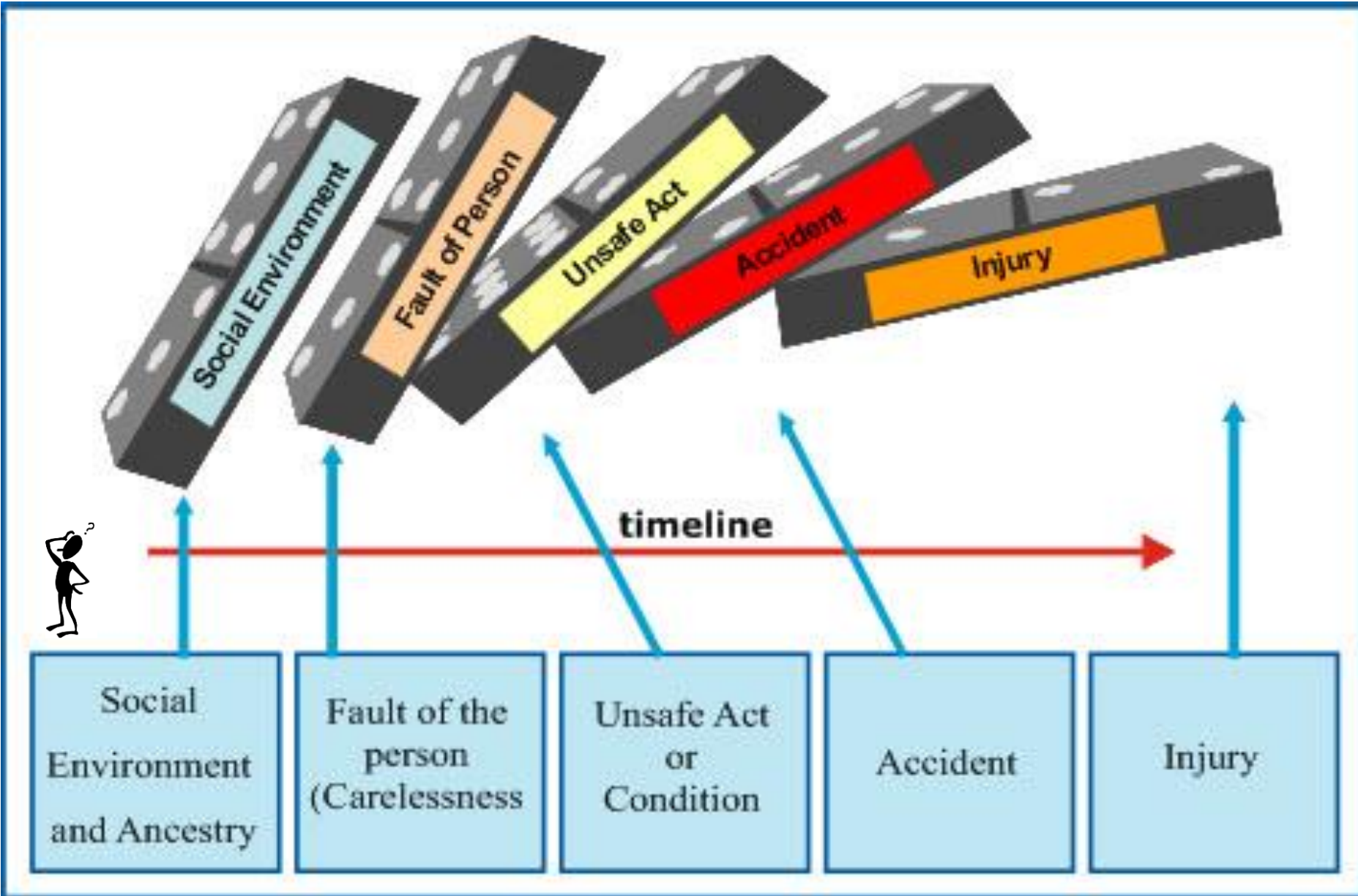


FIGURE 7:2. How a psychiatrist ended up using somatic signs to detect a syndrome that could have been psychiatric: apparatus to measure physiological responses to see if an individual had a “muscle tone” that would predispose to having accidents. Source: Otto Löwenstein, “The Nature of Accident Proneness,” *Industrial Safety Survey*, 10 (1934), 3.

Source: Accident Prone A History of Technology, Psychology, and Misfits of the Machine Age. Burnham 2009



Focus on the Working Environment

- Crystal Eastman (1881-1928)

Hazardous Machines

Long working hours

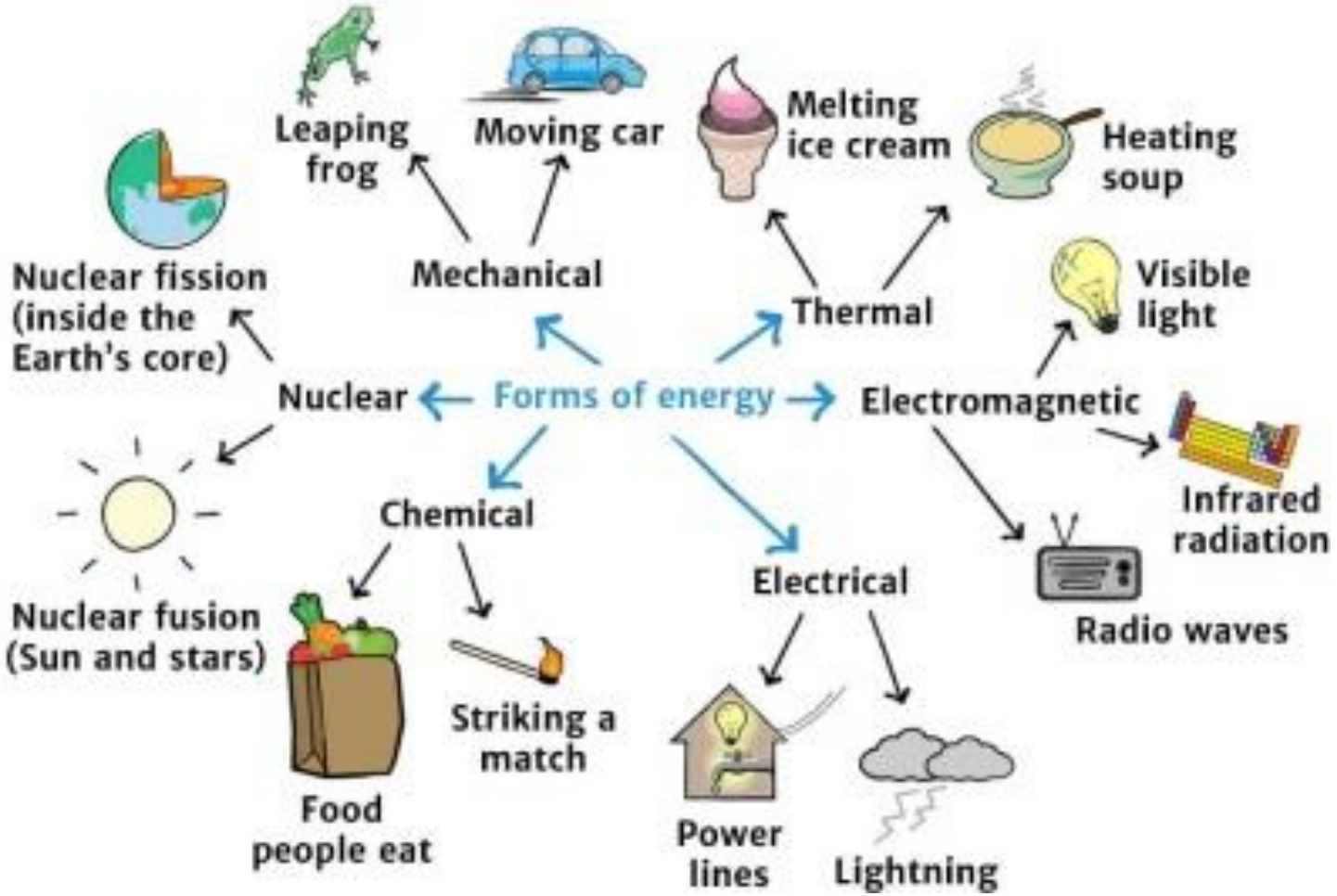


Lack of safety measures

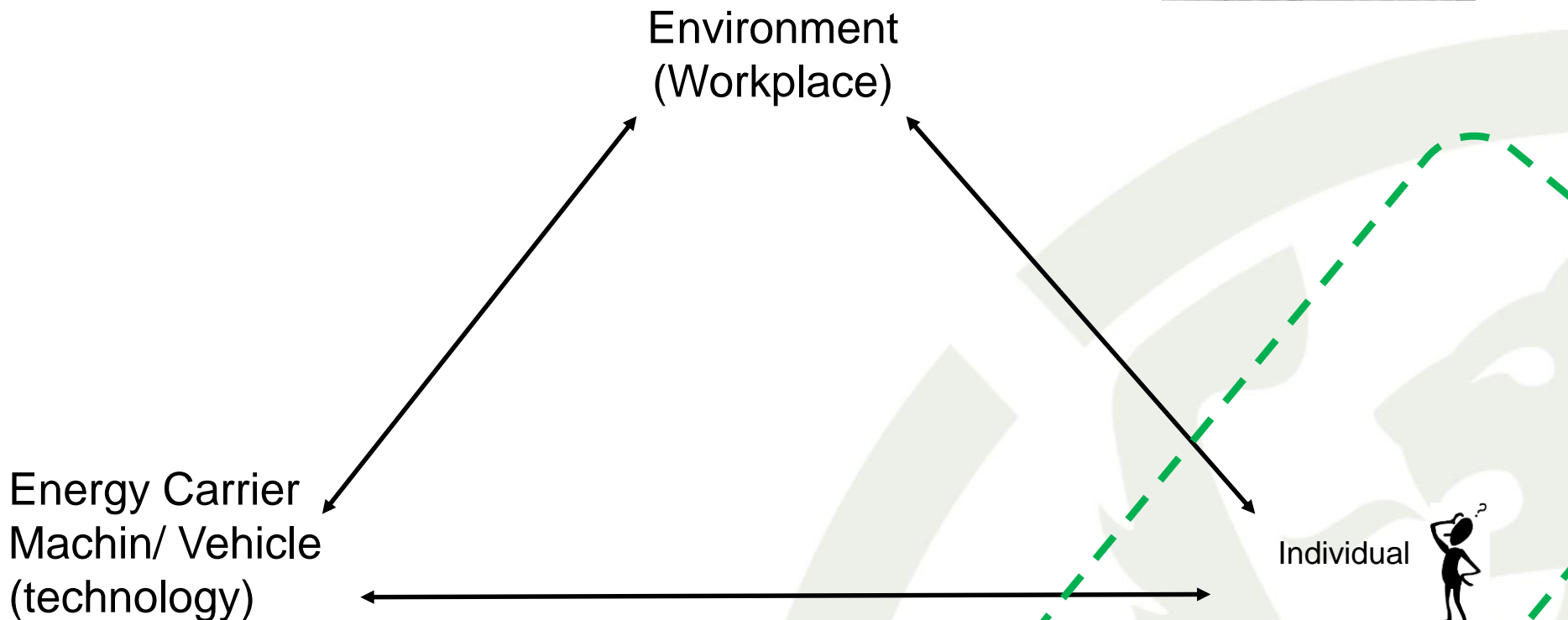
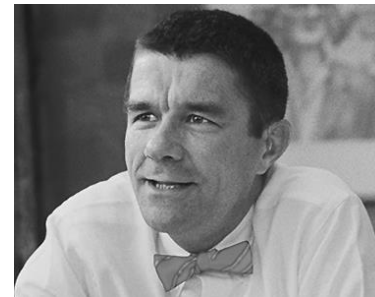
Lack of employers responsibility



Types of Energy



Ca. 1960 Dr. William Haddon Jr. (1926-1985)
Energy isolation as a prevention strategy



Two Central Models for Occupational Safety

Individual in focus

Targets the Individual

For e.g.

PPE

Behaviour Based Safety



Working environment in focus

Hierarchy of controls

For e.g.

Scaffoldings

Machine guards

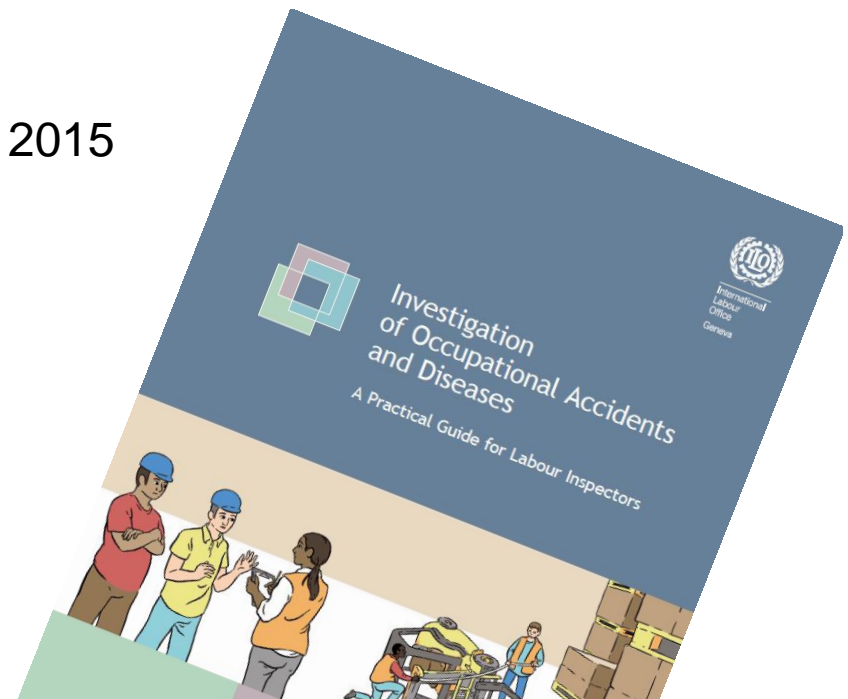
ROPS (Roll Over Protections)



Regulations concerning organisation, management and employee participation § 10-1 (b)

- Collective protective measures shall be given priority over personal protective measures.
- **EU-OSH directive article 6 (h) (89/391/EØF)** Collective protective measures shall be given priority over personal protective measures.

Apply the Public Health Model - ILO 2015



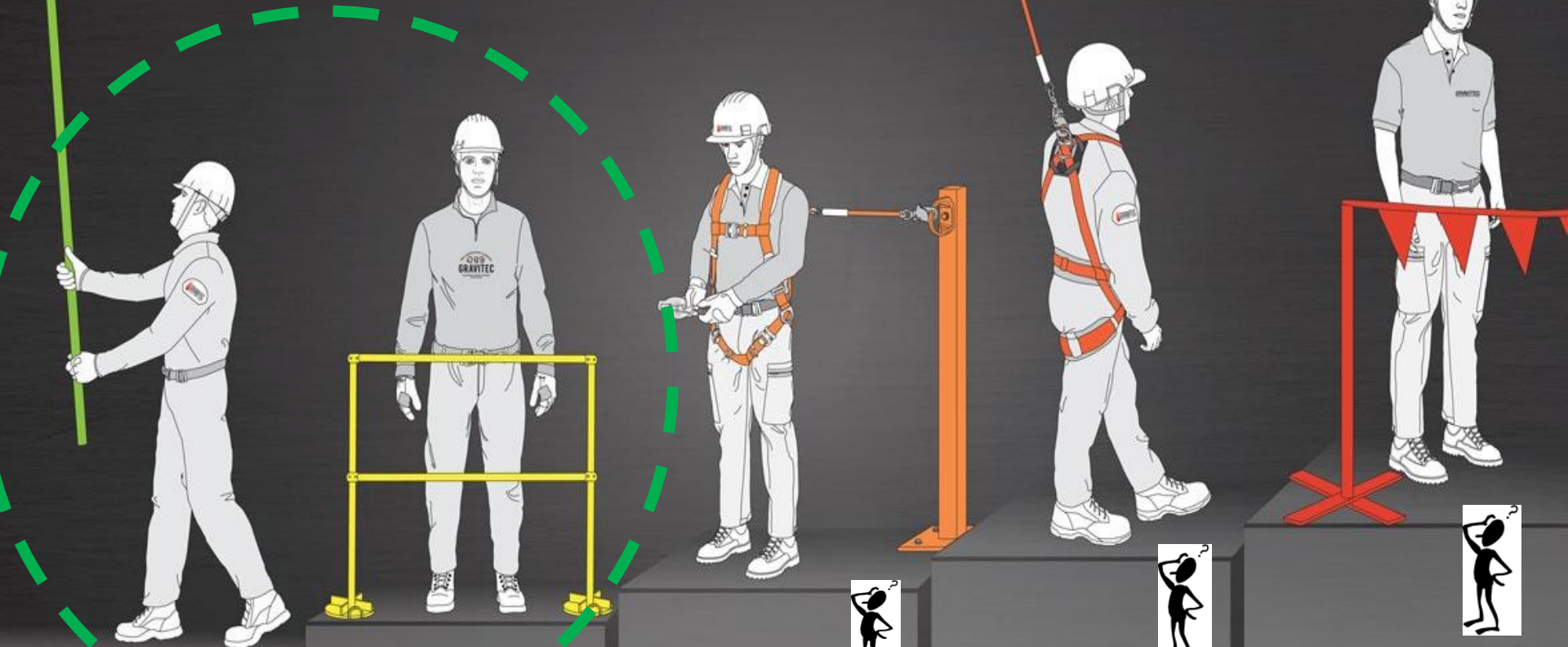
HIERARCHY OF CONTROLS





HIERARCHY OF FALL PROTECTION

The Hierarchy of Fall Protection is the preferred order of control for fall hazards. As the Hierarchy progresses, so does the risk.



1 HAZARD ELIMINATION

Preferred solution is to eliminate exposure to the fall hazard.

2 PASSIVE FALL PROTECTION

Physical barriers, like guardrails around unprotected edges and covers over holes.

3 FALL RESTRAINT SYSTEMS

Use personal protective equipment to restrict the worker's range of movement so they cannot fall.

* Training required

4 FALL ARREST SYSTEMS

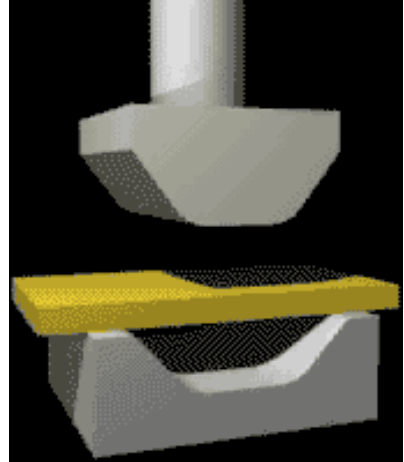
Use personal protective equipment to arrest a fall within acceptable force and clearance margins.

* Training and rescue planning required

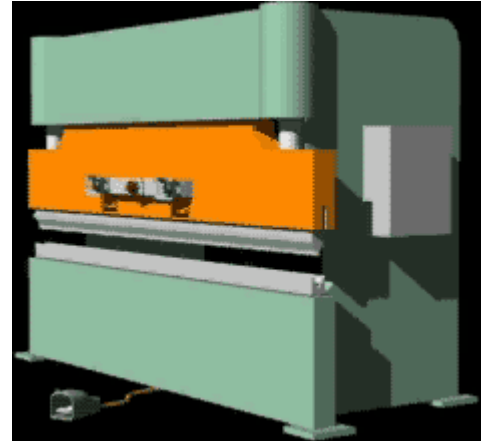
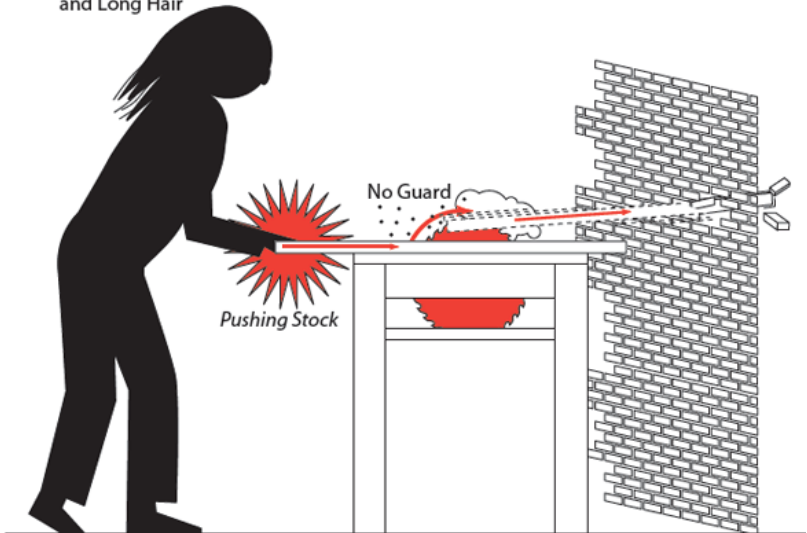
5 ADMINISTRATIVE CONTROLS

Least preferred solution is work practices or procedures that increase a worker's awareness of a fall hazard.

* Not recommended



No Face Shield,
No Safety Glasses
No Goggles
No Hat
and Long Hair



Point of Operation

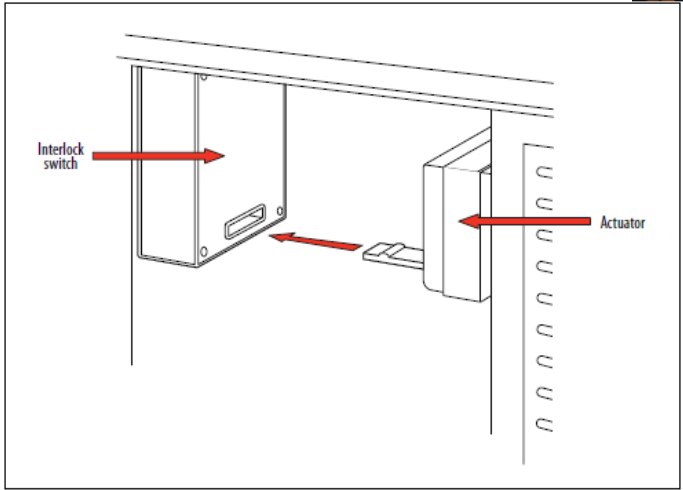
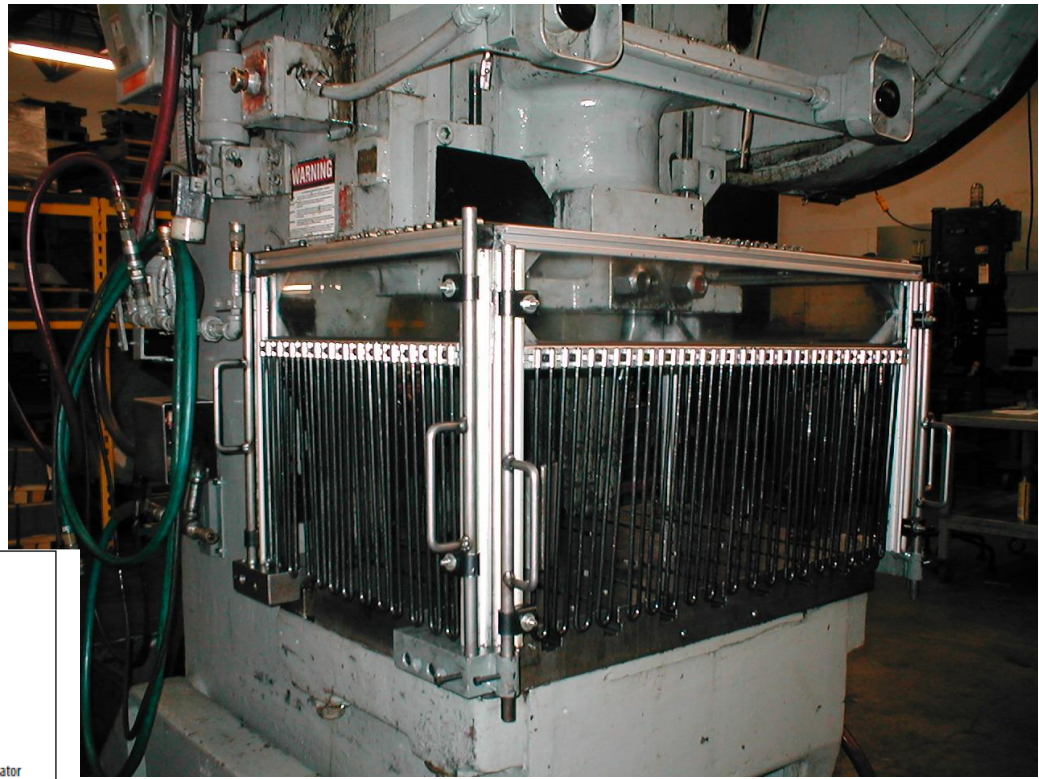




This is preventable!



Interlocked guards-Type barrier



Kilde: Machine guarding program (NIOSH Financed)

Figure 3.9. Interlocked guard. The interlocked door must be closed before the machine can be started.

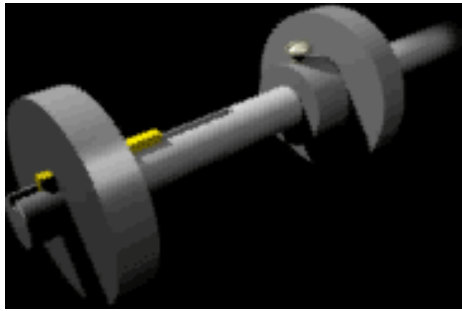
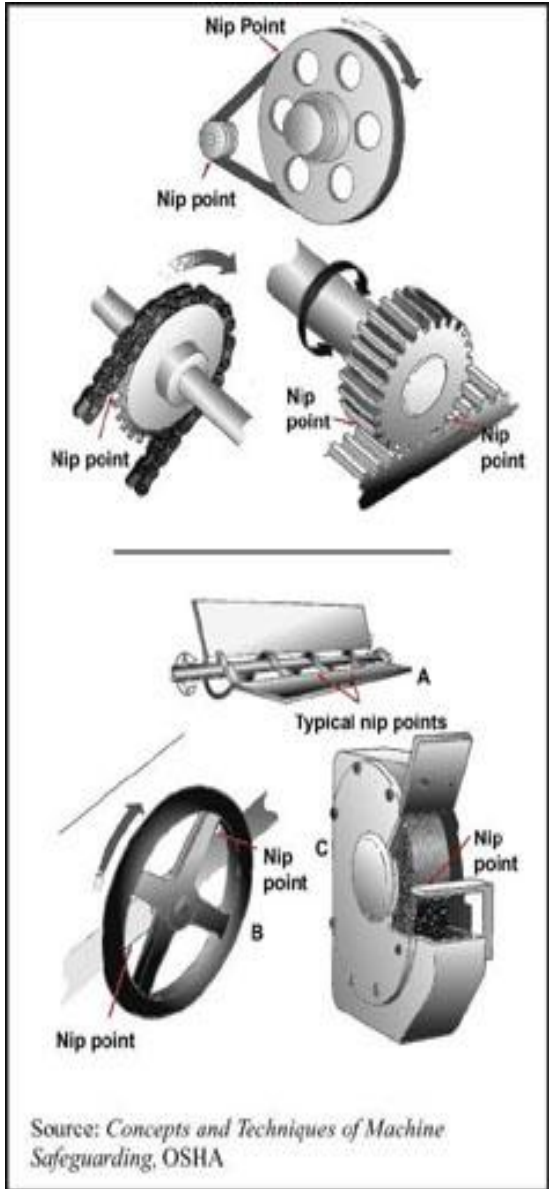


← Interlocking guards – prevents contact with hazardous energy

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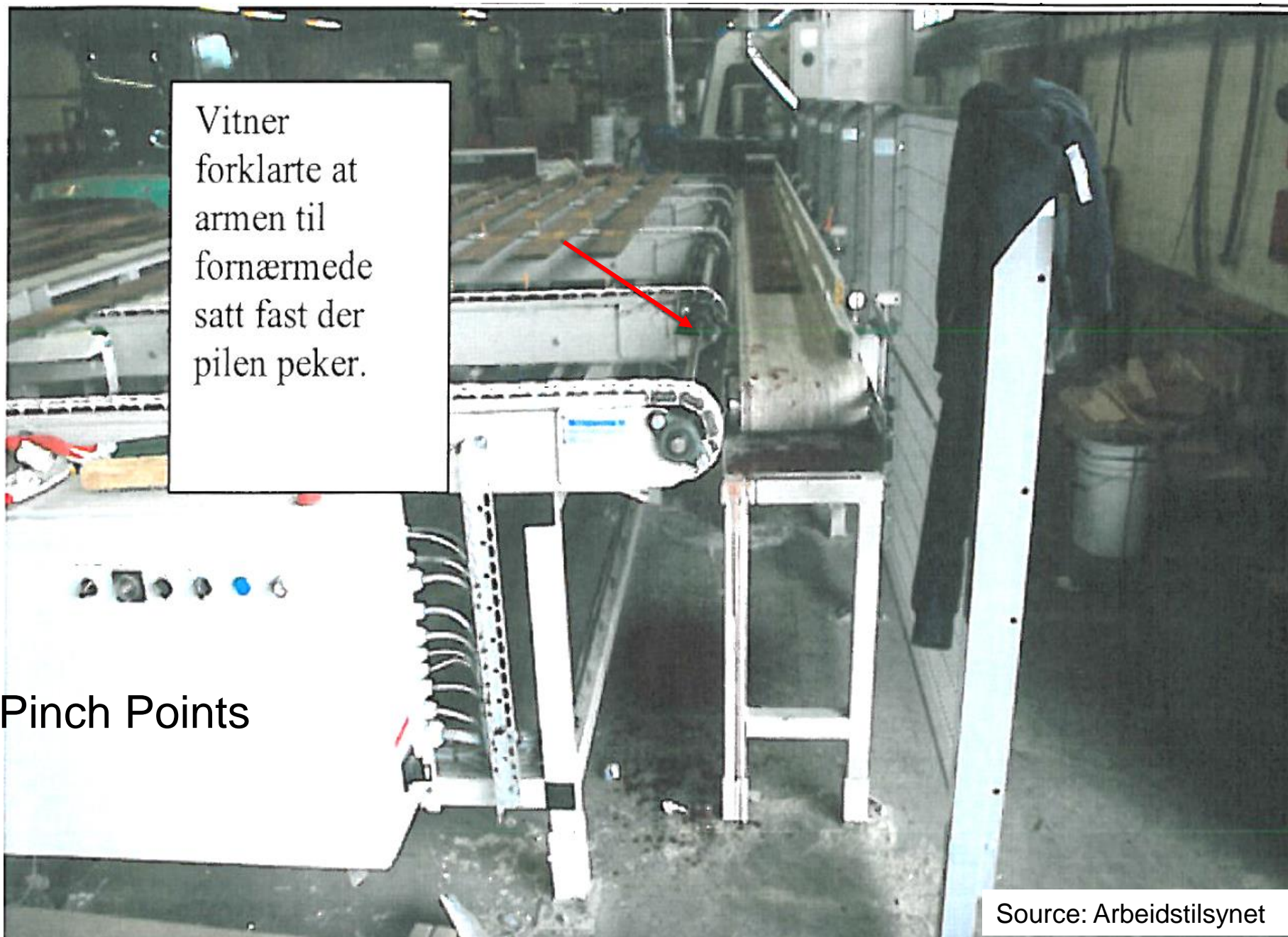


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Pinch Points on a machine (Nip Points)





Vitner
forklarte at
armen til
formærmede
satt fast der
pilen peker.

Pinch Points

Isolate the energy with barriers

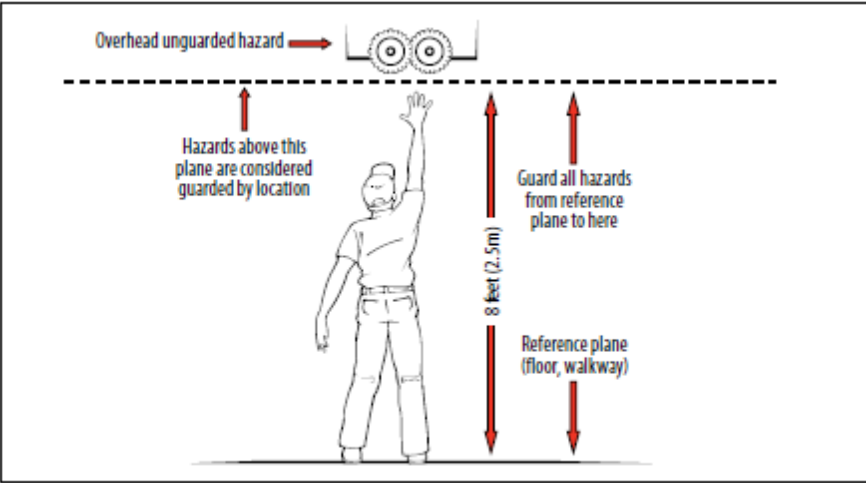


Figure 3.16. Safe distance for reaching up to an unguarded hazard.

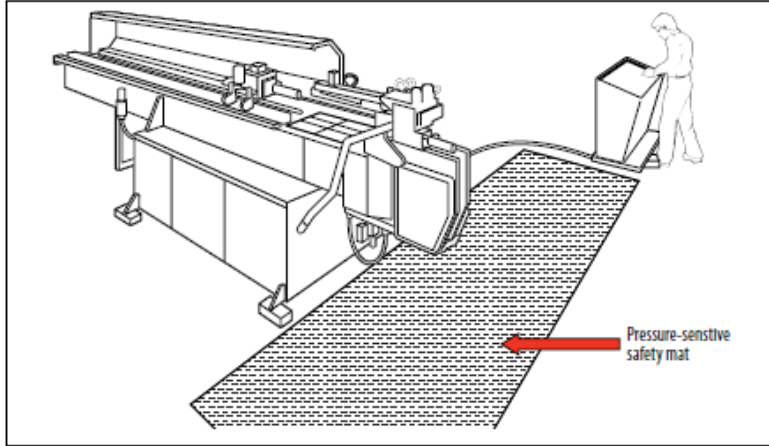
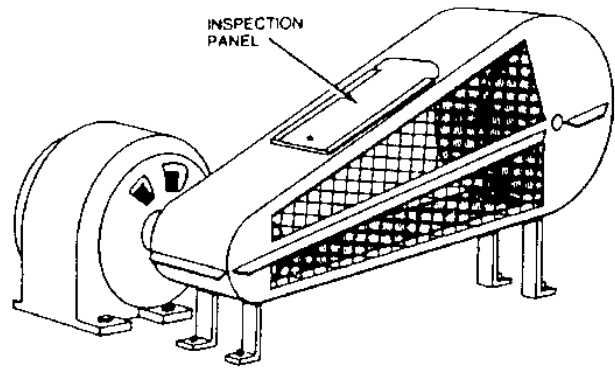


Figure 3.12. Pressure-sensitive safety mat safeguarding access to machine. The machine will come to an emergency stop if anyone, including the operator, steps on the mat.



HIERARCHY OF CONTROLS



1 Kartlegg farene



2 Vurder risikoen



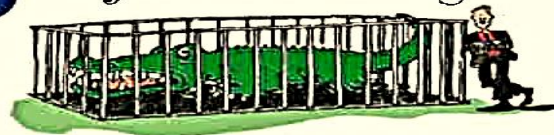
3 Velg alternativ: enten kan du
- fjerne faren



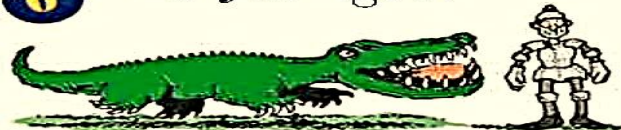
4 - finne en erstatning



5 - skjerme faren fra deg



6 - beskytte deg selv



7 eller stikke av!

A være oppmerksom er bra
- sikre seg er bedre

