

MACHINERY SAFETY WEBINAR SERIES

Module 5: Understanding common health-related risks with machinery.



Welcome and background

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Module Overview

Building your knowledge and understanding in managing the risk of machinery across 9 key areas including;

1. Trends and duty holder responsibilities
2. AS/NZS4024 standards in managing machinery risk
3. How machine risk is reduced
4. Understanding physical risks of machinery
5. Understanding common health risks of machinery
6. Common types of machinery risk controls
7. Undertaking a meaningful risk assessment with workers
8. Common safe systems of work and lock out-tag out

Module 5

In this module we will explore:

1. Risk approach to chronic/health risks
2. Common health risks with machinery
3. Machinery standards about health risks
4. Hierarchy of controls as applied

New Zealand Standards



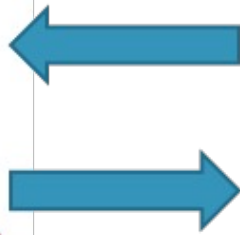
AS/NZS 4024.1303:2014

(ISO/TR 14121-2:2012, IDT)

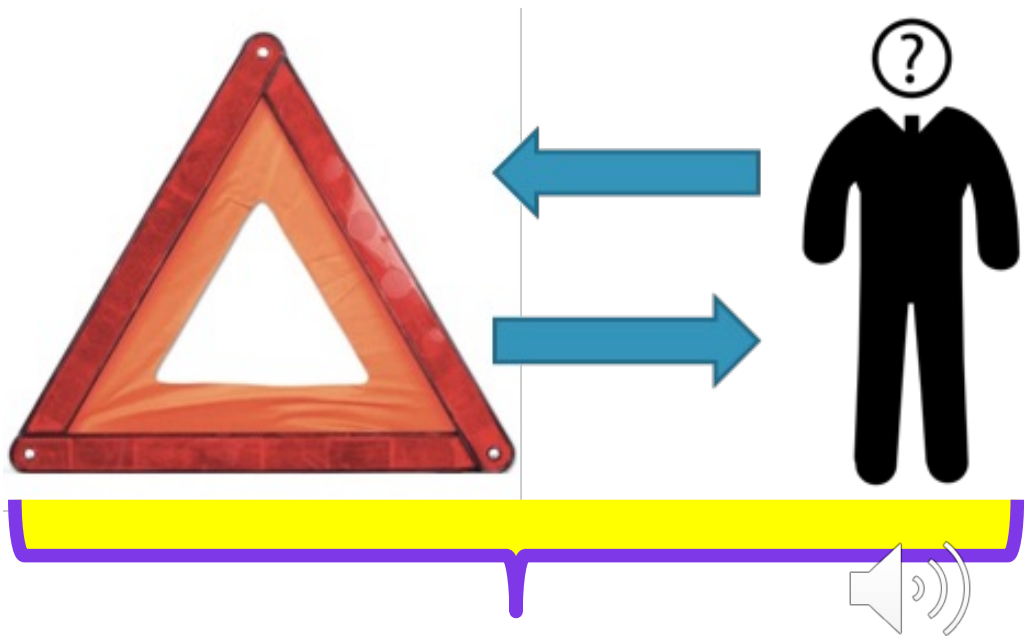
Australian/New Zealand Standard

Safety of machinery

**Part 1303: Risk assessment—Practical guidance
and examples of methods**



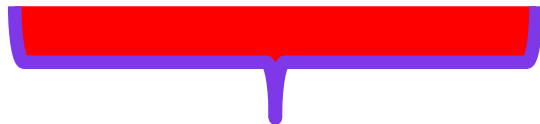
OCCURRENCE
OF HARM - 2
WAY EFFECT



Exposure

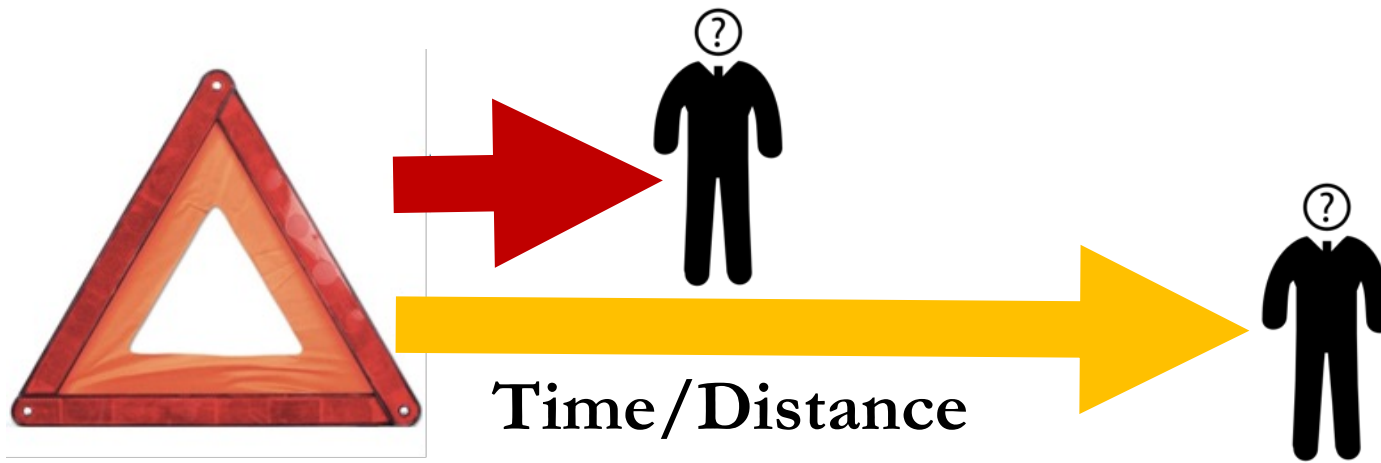


Time



Harm to health

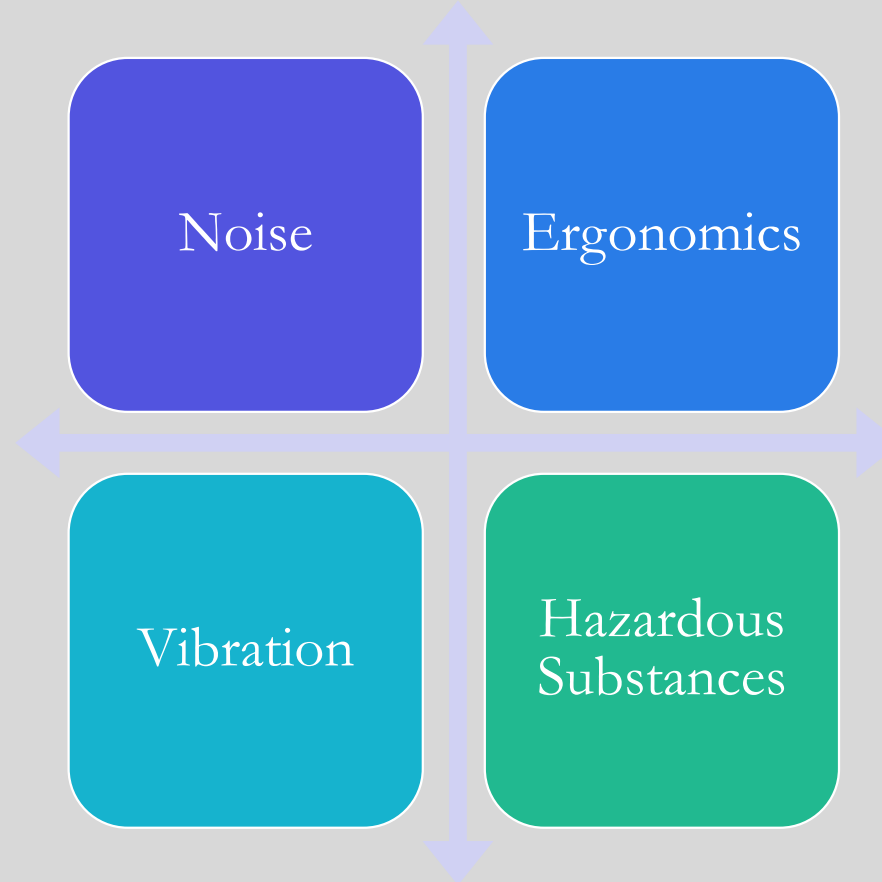
OCCURRENCE
OF HARM –
CHRONIC
PROCESS



OCCURRENCE
OF HARM –
CHRONIC
PROCESS

Risk perception of harm to health

Common Health Risks



New Zealand Standards



AS/NZS 4024.1401:2014

(EN 614-1:2006 inc A1:2009, IDT)

Australian/New Zealand Standard

Safety of machinery

Part 1401: Ergonomic principles—Design principles—Terminology and general principles

New Zealand Standards



AS/NZS 4024.1302:2014

(EN 626-1:1994 inc A1:2008, IDT)

Australian/New Zealand Standard

Safety of machinery

Part 1302: Risk assessment—Reduction of risks to health from hazardous substances emitted by machinery—Principles and specifications for machinery manufacturers

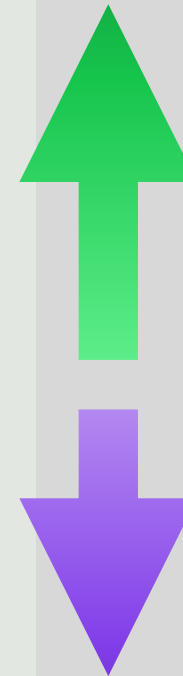
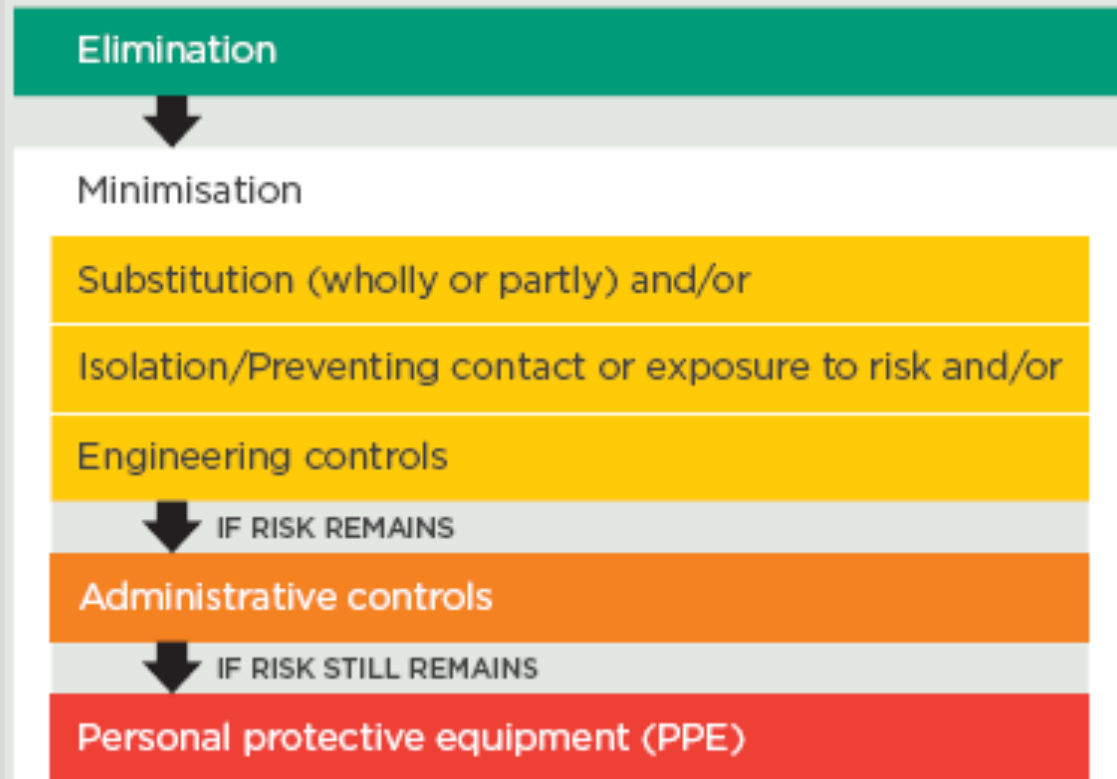
Hierarchy of Controls



Health and Safety at Work (General Risk and Workplace Management) Regulations 2016

(LI 2016/13)

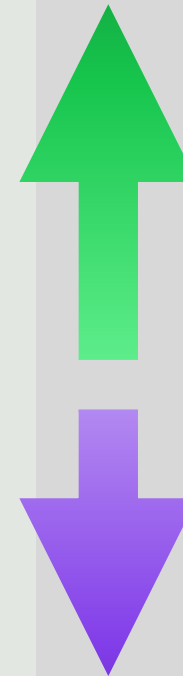
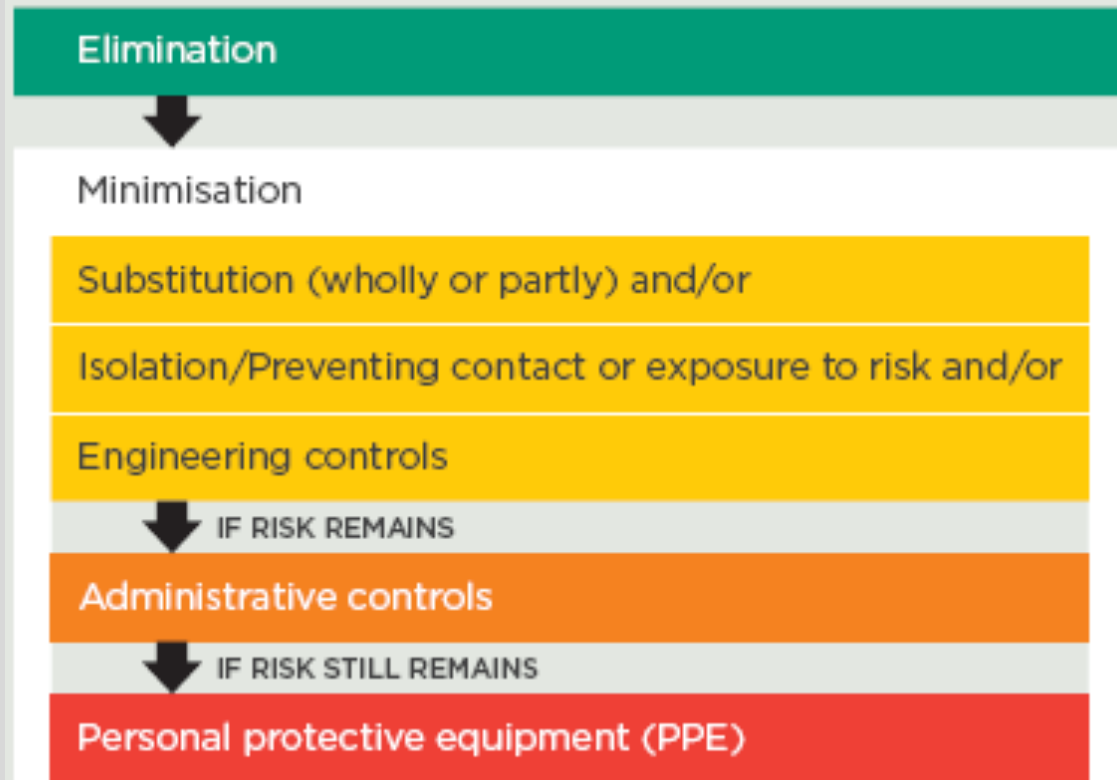
Hierarchy of Controls



**Control hazard
(Prevent/Respond
/Recover).**

**Influence human
behaviour.**

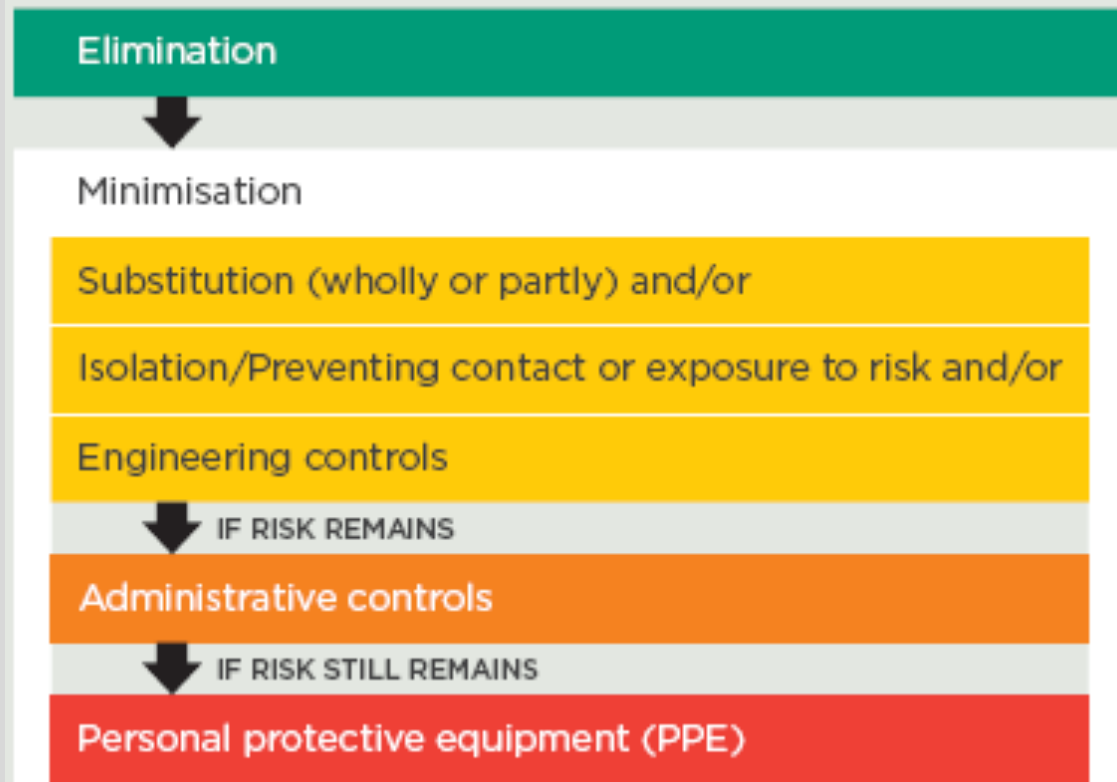
Hierarchy of Controls



Allows machine/people to fail and fail safely.

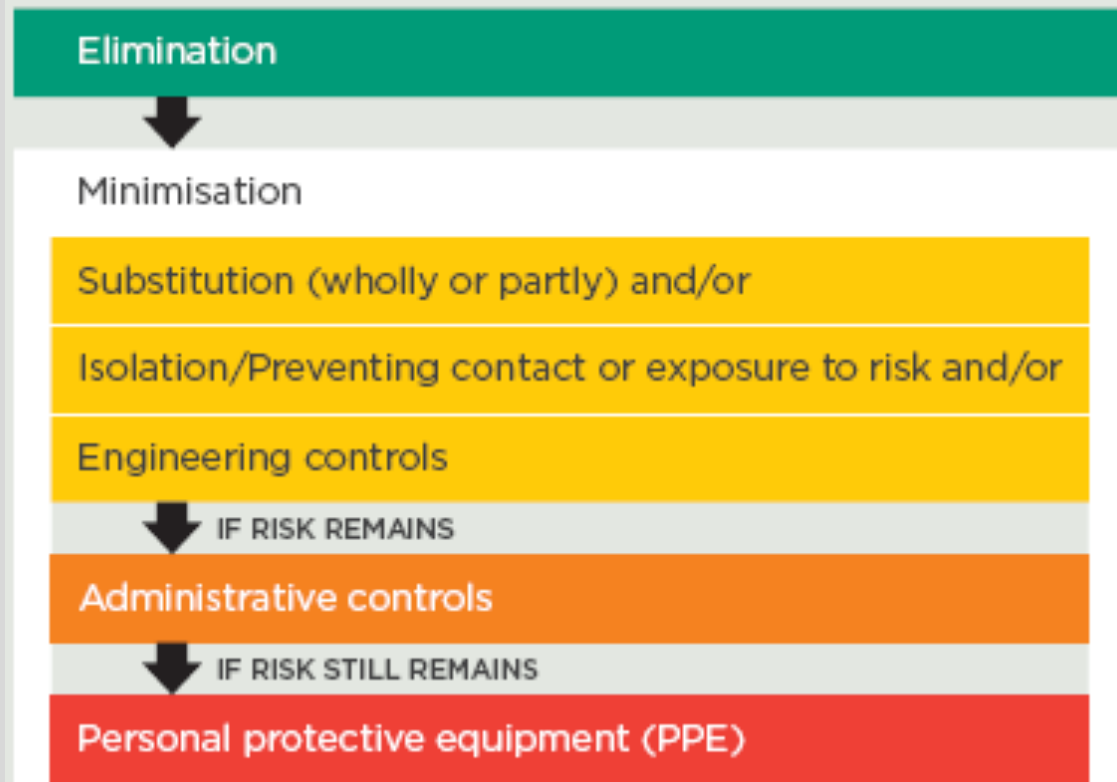
Reliant on human capability and capacity.

Managing Noise Hazards



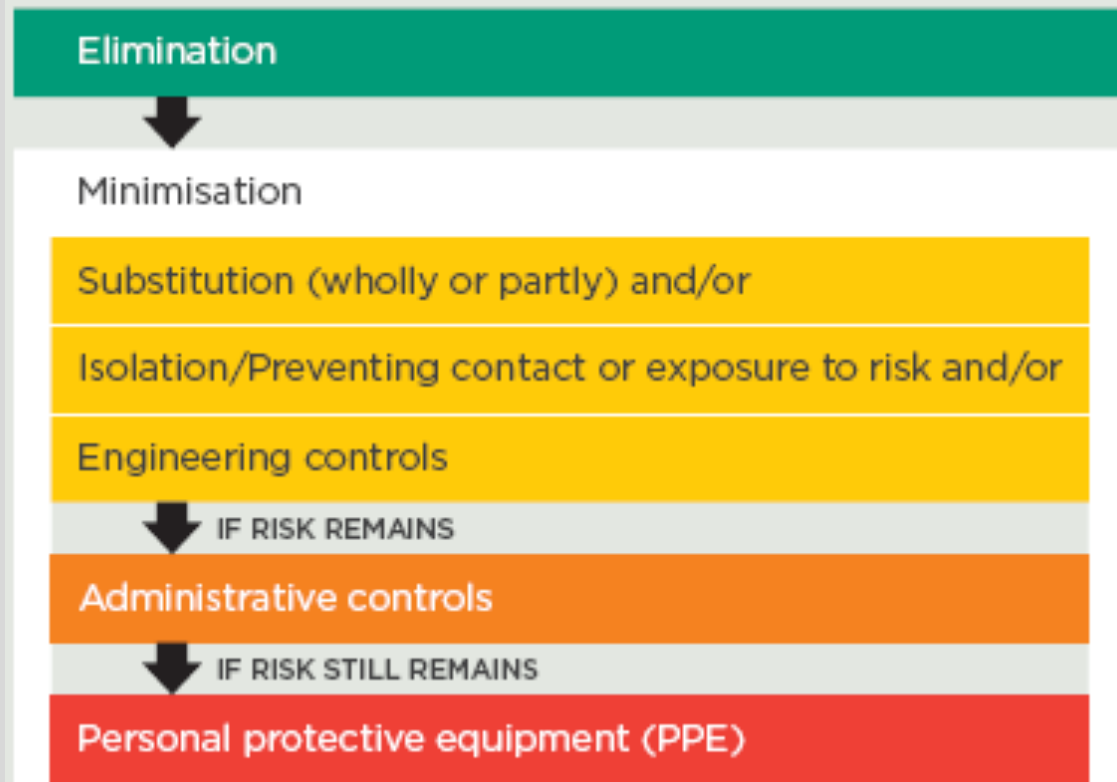
- Quieter equipment
- Moving people/equipment away
- Silencers/Enclosures
- Maintenance
- Hearing protection

Managing Ergonomic Hazards



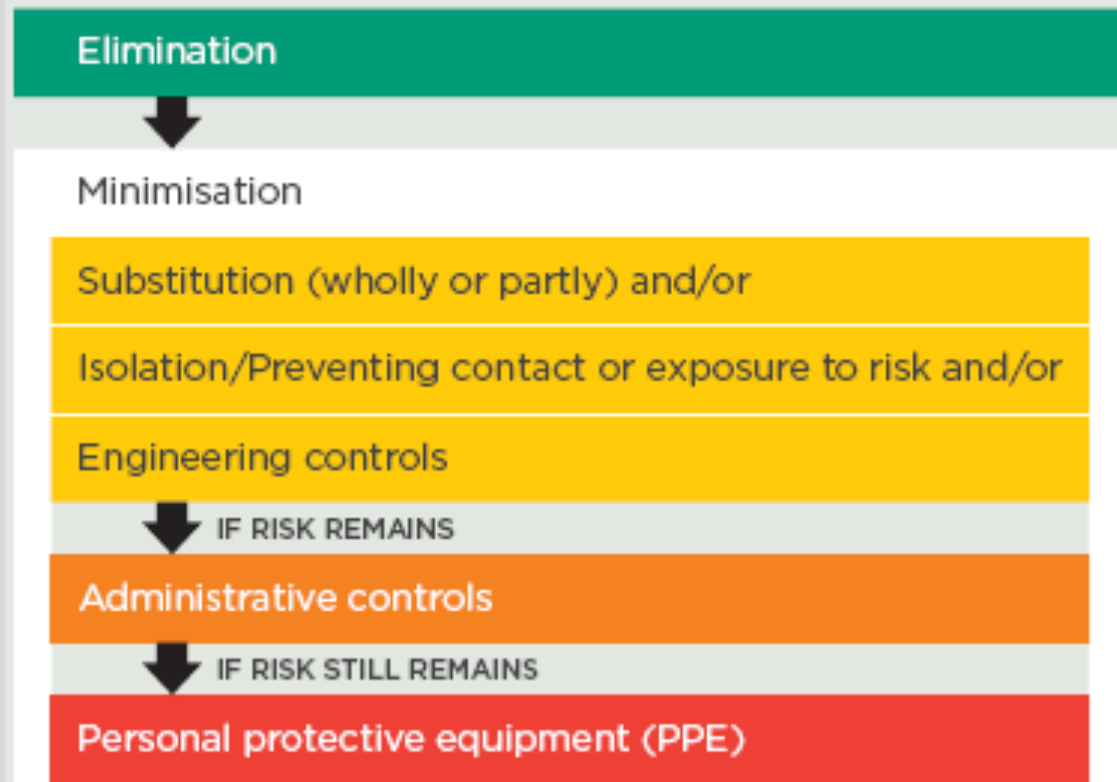
- Automation
- Seating/Standing Positions
- Mechanical assist/restraint devices
- Worker rotation
- Work load limits
- Worker positioning/assist
- Housekeeping

Managing Vibration Hazards



- Remove source
- Less vibration (hydraulic/pneumatic)
- Rubber isolators/fixings/seat design
- Worker design/rotation/limits
- Maintenance
- Anti Vibration Gloves

Managing Hazardous Substances Hazards



- Use alternatives and less harmful
- Storage/Containment
- Access/Extraction/Ventilation

- As per Safety Data Sheet

Next Module (6)

Common types of machinery controls.

QUESTIONS?

