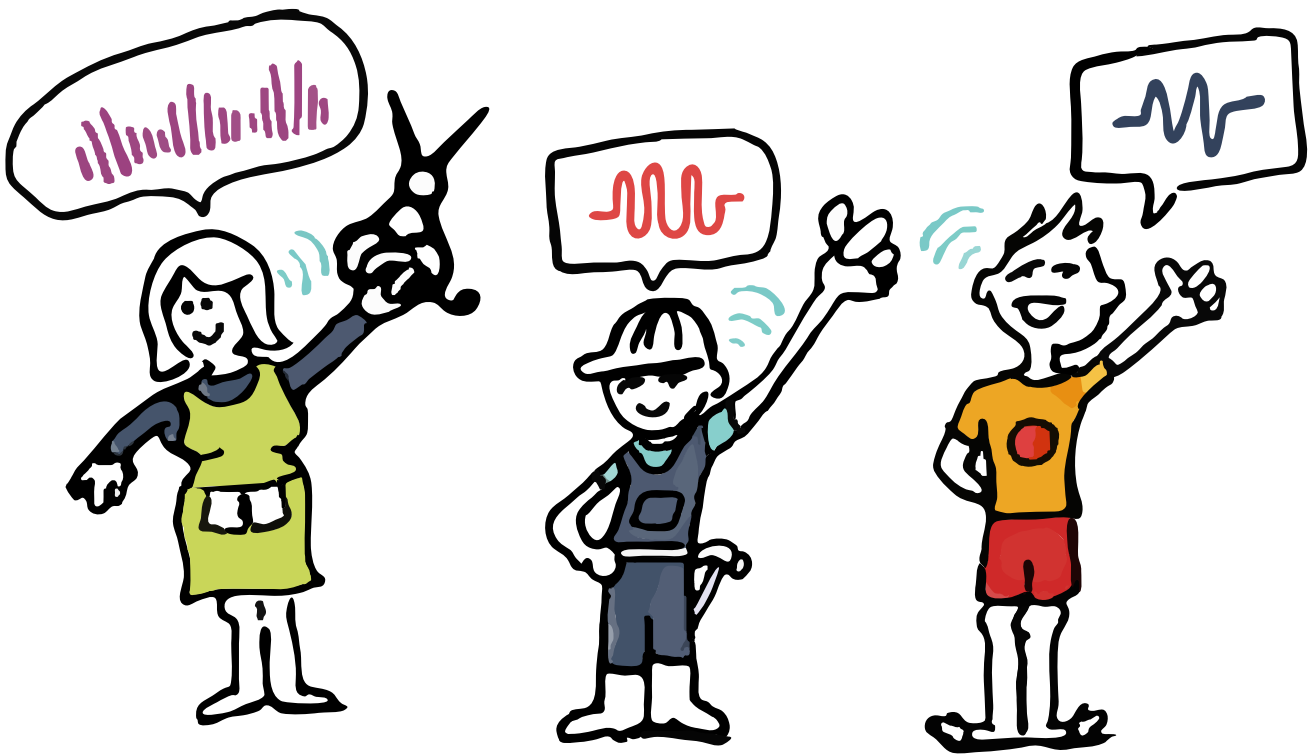




NOISE

PCBU Version

# SUPPORTING GOOD HEARING HEALTH AT WORK





# STRATEGIES for trainers/ Toolbox leaders

|     |   |    |
|-----|---|----|
| 1.0 | Trainer advice  | 3  |
| 2.0 | Engagement  | 8  |
| 3.0 | Bring in ideas  | 10 |
|     | Establish prior knowledge about the causes of hazardous noise and how it can be managed at work | 12 |
|     | Bringing in ideas about hazardous noise and how it is managed at work                           | 14 |
|     | Connecting ideas about how to manage hazardous noise at work                                    | 17 |
|     | Transfer ideas about managing hazardous noise at work   | 20 |
| 4.0 | Describe, explain and reflect   | 22 |
| 5.0 | Self-assessment   | 23 |
| 6.0 | Trainer resource  | 24 |

# TRAINER ADVICE



Persons conducting a business or undertaking (PCBUs) have a legal duty to manage, implement, review and control measures for noise. Workers should be involved in the process and provide feedback, but it is not their legal duty to do so. Therefore, activities to do with managing hazardous noise at work are most relevant for PCBUs.

PCBUs protect workers from hazardous noise through the hierarchy of controls. The source-path-receiver model will be useful in deciding the best approach.

Monitoring of hazardous noise is done by a competent person (expert) and by the PCBU.

# BIG IDEAS

1

If we act together,  
we can manage the  
effects of hazardous  
noise on hearing

2

Hearing loss  
is preventable

5

Hearing loss is  
often irreversible



4

Workplace noise  
can be hazardous  
to hearing

3

Good hearing  
is part of good  
worker health

# OUTLINE



## Find out what you know already.

These activities find out the participants' prior knowledge about hazardous noise at work.



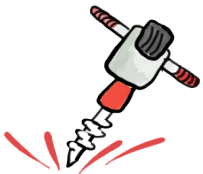
## Learn about hazardous noise.

These activities bring in ideas about hazardous noise at work.



## Learn about managing hazardous noise.

These activities connect ideas about hazardous noise and noise-induced hearing loss at work.



## Apply what we now know and understand about hazardous noise at work.

These activities help participants create actions that manage hazardous noise at work.



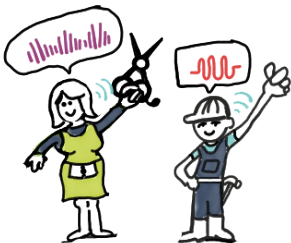
## Reflect on how well you can manage noise at work.

# COMMENTS AND IDEAS TO SUPPORT TRAINERS WORKING WITH PCBUS

These activities support PCBUS learning about hazardous noise and how to control hazardous noise at work.

USEFUL  
EXAMPLES

Trainers are encouraged to select one or more of the different learning activities outlined in each section. For example:

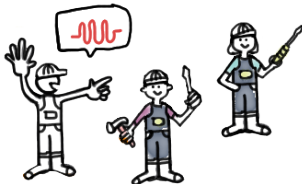


**Use discussion, questions and surveys to make a connection between PCBUS' experience and the learning you wish to share.**



**Use a variety of learning experiences to help PCBUS to:**

- bring in their own ideas about what hazardous noise is and how to control it
- learn new ideas about what hazardous noise is and how to control it
- apply this learning in their work environment.



**Encourage PCBUS to talk about how we can eliminate if not then minimise exposure to hazardous noise.**

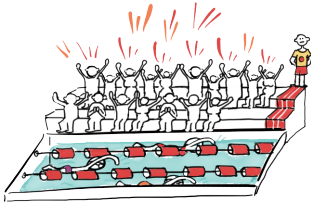
- When have they worked in a place that eliminated hazardous noise?
- What is a simple action they could suggest to reduce exposure to hazardous noise at work?

# COMMENTS AND IDEAS TO SUPPORT TRAINERS WORKING WITH PCBUs

These activities support PCBUs learning about hazardous noise and how to control hazardous noise at work.

USEFUL  
EXAMPLES

Trainers are encouraged to select one or more of the different learning activities outlined in each section.



## Ask PCBU participants to:

- Find examples of the five different ways PCBUs can protect workers from hazardous noise. Provide information, training, instruction, supervision and equipment.



## At the end of every workshop session, PCBU participants can respond to the following reflective prompts:

- three things that stick with you
- two things that you realise or find interesting
- one question you still have.

## Find out prior knowledge and experience of hazardous noise at work and how to control it.

It is important to give participants the opportunity to bring their prior knowledge, skills, attitudes and behaviours to the session, as well as to introduce them to the need to work collaboratively to manage hazardous noise at work.



Use strategies to help participants engage with new learning about hazardous noise and how to control it at work.

### Encourage PCBU participants to:

- **use surveys** to determine what participants know already. Adjust your content delivery to recognise prior knowledge of the groups you work with
- **use storytelling**, images questions, statistics or an event – to capture interest and curiosity about noise-induced hearing loss (NIHL) at work. Include stories that describe people working together to manage hazardous noise levels at work
- **share NIHL-related facts** with participants
- **use question prompts** to encourage participants to think deeply about and share their NIHL-related experiences and knowledge with the group.

1. What is NIHL? Do you know anyone who suffers from NIHL?
2. Tell us more... What happened? What is their hearing like now? When or where have you experienced hazardous noise?
3. Who is responsible for managing hazardous noise levels at work?
4. Why does NIHL matter? Why should we care about NIHL?
5. Why is NIHL dangerous?
6. When have you worked in a place that eliminated hazardous noise?

### TO WRITE A DEFINITION OF NIHL:

- **brainstorm** everything you know about NIHL (a given topic presented as a focus question)
- **record** each idea or thought on a separate piece of paper or Post-it note, by writing text or drawing images
- **group the notes**
- **make a generalisation** about NIHL.



## Find out prior knowledge and experience of hazardous noise at work and how to control it.

It is important to give participants opportunities to bring their prior knowledge, skills, attitudes and behaviours to the session, as well as to introduce them to the need to work collaboratively to manage hazardous noise at work.



### Participants (PCBUs) can:



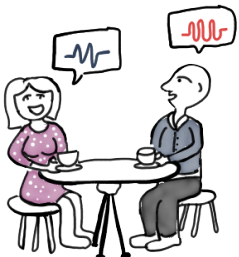
#### Listen

to stories about NIHL from the trainer and/or colleagues



#### Contribute

their stories and experiences about NIHL



#### Respond

to trainer question.

1. What is NIHL? Do you know anyone who suffers from NIHL?
2. Tell us more... What happened? What is their hearing like now? When or where have you experienced hazardous noise?
3. Who is responsible for monitoring hazardous noise levels at work?
4. Why does NIHL matter? Why should we care about NIHL?

### REFLECTION ON THE WORKSHOP

Record:

- three things that stick with you
- two things that you realise or find interesting
- one question you still have
- your new understanding about hazardous noise - visual or text.

Bring in, connect and extend ideas about what people know already about hazardous noise at work and how to manage it.

---

PCBUs, workers and contractors are able to identify the causes of hazardous noise at work.

---

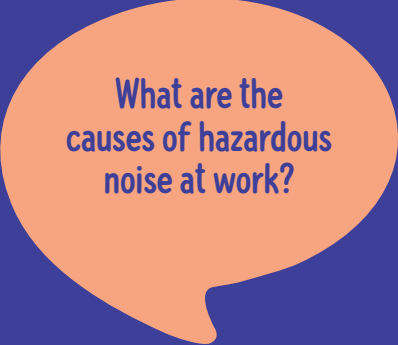
PCBUs are able to explain how to manage (eliminate if not then minimise) the causes of hazardous noise at work.

---

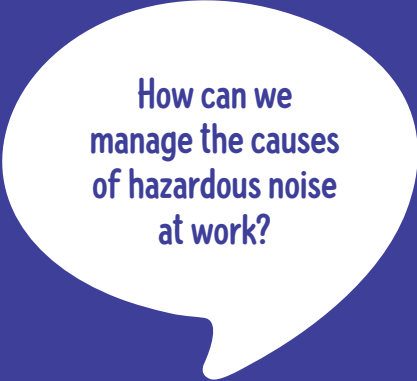
PCBUs are able to make a generalisation about managing hazardous noise at work.

---

## QUESTIONS FOR PCBUs



What are the causes of hazardous noise at work?



How can we manage the causes of hazardous noise at work?

---

## LEARNING OUTCOMES FOR PCBUs

1

To identify and describe the causes of hazardous noise at work.  
(What is hazardous noise? What is it like?)

2

To explain how to manage the causes of hazardous noise at work.

3

To generalise about how to manage the causes of hazardous noise at work.

## Differentiated success criteria

**We will know we have achieved the learning outcomes because PCBU's will...**

... have many ideas about the causes of hazardous noise at work.

... have many ideas about managing hazardous noise at work.

**and they will...**

... explain why these events are causes related to noise-induced hearing loss

... explain why these ideas will help manage hazardous noise at work.

**and they will...**

... make a generalisation about the causes of hazardous noise at work

... make a generalisation about managing the levels of hazardous noise at work.

## Constructive alignment of the learning task

**Acquire and consolidate surface understanding**

What is hazardous noise?  
Who is at risk of noise-induced hearing loss?  
Can noise-induced hearing loss be repaired?  
What is one way of managing hazardous noise?  
Who is responsible for managing hazardous noise at work?

**Acquire and consolidate deep understanding**

What causes noise-induced hearing loss?  
How can noise-induced hearing loss be prevented?  
How can noise-induced hearing loss be managed or prevented at work?

**Transfer to a new context (eg apply in workplace)**

Find noise sources and noise risks in your workplace.  
Manage noise sources and noise risks in your workplace.  
Monitor noise sources and noise risks at work - role of PCBU and competent person (expert).

## Establish prior knowledge about the causes of hazardous noise and how it can be managed at work.

It is important to provide opportunities for determining what prior knowledge, skills, attitudes and behaviours PCBUs bring to the session. Another important step is to introduce them to the need to work collaboratively to manage hazardous noise at work.



Use strategies to link with prior knowledge and help engage PCBUs in learning about the causes and management of hazardous noise at work.

### Encourage PCBU participants to:

Use **storytelling**, images, questions, statistics, a video and/or an event - to capture interest and curiosity about the causes of hazardous noise, and how to manage (eliminate if not then minimise) hazardous noise at work.

Emphasise that the responsibility for monitoring noise levels at work must be carried out by an expert (competent person), not by the PCBU.

Use 'inside voices' rule and rotate workers

## Establish prior knowledge about the causes of hazardous noise and how it can be managed at work.

It is important to provide opportunities for determining what prior knowledge, skills, attitudes and behaviours PCBUs bring to the session. Another step is to introduce the need to work collaboratively to manage hazardous noise at work.

### TRAINEE ACTIVITIES

- **Listen to or view** the stories about what causes and how to manage NIHL. Respond to the ideas presented.
- **Read or view WorkSafe NIHL resources** (written, visual, animations, video) and respond to the ideas presented in the resources.
- **Respond to** the following questions.
  1. What causes hazardous noise?
  2. When have you experienced hazardous noise?
  3. What causes hazardous noise at work?
  4. What causes hazardous noise in your work?
  5. How can we eliminate hazardous noise at work?
  6. What strategies does your workplace use to manage hazardous noise?

### REFLECTION ON THE WORKSHOP

Record:

- three things that stick with you
- two things that you realise or find interesting
- one question you still have.



## Bringing in ideas about hazardous noise and how it is managed at work.



### Use one or two of these strategies. Encourage PCBU's to:

---

Create a visual or written resource of the technical language used to describe hazardous noise and manage the causes of noise-induced hearing loss at work.

---

Make notes (mind maps/drawings) summarising the new learning.

---

Find examples of the five different ways PCBU's can protect workers from hazardous noise at work using the hierarchy of controls diagram.

---

Practise identifying noise sources in your work – from the description or image or video walk-through of a workplace, or from walking around an actual work environment.

---

Practise identifying noise controls at work – workplace layout or procedures – from the description or image of a work environment, or from walking around an actual work environment.

---

## Connecting ideas about how to manage hazardous noise at work.



### **Use strategies that help PCBUs acquire and consolidate deep learning. Encourage PCBUs to work in pairs or groups of three to:**

Seek help from others in identifying and managing the causes of exposure to hazardous noise at work. For example, in small groups, talk about:

- five ways we can protect workers from experiencing hazardous noise at work
- strengths and weaknesses of our present use of noise controls at work
  - approaches to identifying and managing the causes of hazardous noise at work
- barriers that prevent workers from complying with hearing protection requirements at work.

Evaluate the effectiveness of current workplace practices regarding noise control – identifying and managing the causes of workplace noise.

Connecting ideas about how to manage hazardous noise at work.



PCBUs can work in pairs or groups of three to:

Identify five ways we can protect workers from experiencing hazardous noise at work.

Complete a SWOT analysis on identifying and managing hazardous noise at work. Using the hierarchy of controls share your analysis with the wider group.





## Connecting ideas about how to manage hazardous noise at work.



PCBUs can work in pairs or groups of three to:



**Think-pair-share.** Just how effective is your current workplace in its noise control practice for managing (eliminating or minimising) hazardous noise levels? What would improve the ways it controls (manages) noise?

**Self-reflection.** Do you make a difference to workplace noise levels? How much do your noise control actions influence the actions of others at work? How much do your actions to monitor and manage eliminate if not then minimise noise levels influence the actions of others?

### REFLECTION ON THE WORKSHOP

Record:

- three things that stick with you
- two things that you realise or find interesting
- one question you still have.

## Transfer ideas about managing hazardous noise at work.



TRAINER  
ADVICE

**Use strategies with PCBUs. Encourage PCBU participants to work in pairs or groups of three to:**



Find ways to apply their new learning about managing workplace noise to their own workplace. For example adopt a 'sort it or report it' attitude to hazardous noise at work.



Compare and contrast the way we control noise at work with the way we control other workplace risks. How are they similar? How are they different?



Create a diagram to explore the causes of noise-induced hearing loss at work. For example, use a bowtie diagram.



Reflect on how well they can identify the causes of hazardous noise at work.

## Transfer ideas about managing hazardous noise at work.



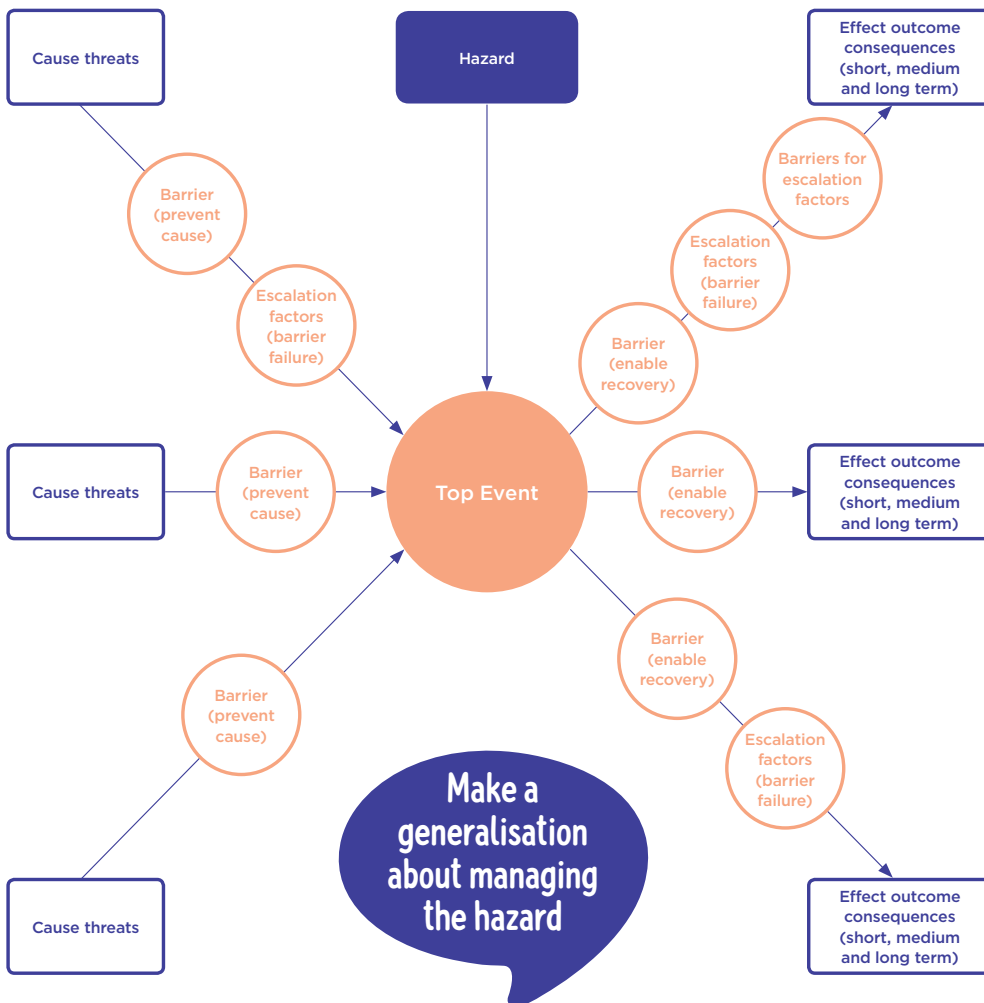
### PCBU participants can work in pairs or groups of three to:

Apply your new learning on managing workplace noise at work.

How can you develop a **'sort it or report it'** culture to hazardous noise at work.

Compare and contrast the ways of controlling workers' exposure to hazardous noise with the ways of controlling exposure to hazardous chemicals at work.

**Create a diagram** to explore barriers to the causes of noise-induced hearing loss at work.



**REFLECTION ON THE WORKSHOP**

Record:

- three things that stick with you
- two things that you realise or find interesting
- one question you still have
- your new understanding about hazardous noise - visual or text.

# DESCRIBE, EXPLAIN AND REFLECT

Describe, explain and reflect on hearing protection programmes at work.

---

**LEVEL OF UNDERSTANDING**

**QUESTIONS**

**Acquire and consolidate surface understanding**

What is an evidence-based hearing protection programme? **Describe**

What are the hearing conservation practices that make up a hearing protection programme? **Describe**

---

**Transfer to a new context (eg apply in workplace) reflect on effectiveness**

What are the benefits of implementing a hearing protection programme that includes monitoring (health and exposure)? **Monitor outcomes**

How successfully have you used health monitoring and exposure monitoring to engage with evidence-based conservation practices at work? **Reflect**

---

# SELF-ASSESSMENT

How well can you apply your new learning about controlling hazardous noise at work?

## Self-assessment activity

Review procedures, controls and actions that eliminate, if not then minimise hazardous noise at work.

---

Note one important idea that you learnt about actions designed to eliminate hazardous noise at work.

---

What was this idea about?

---

Why do you think this idea is important to a PCBU?

---

How does this idea apply to your life?

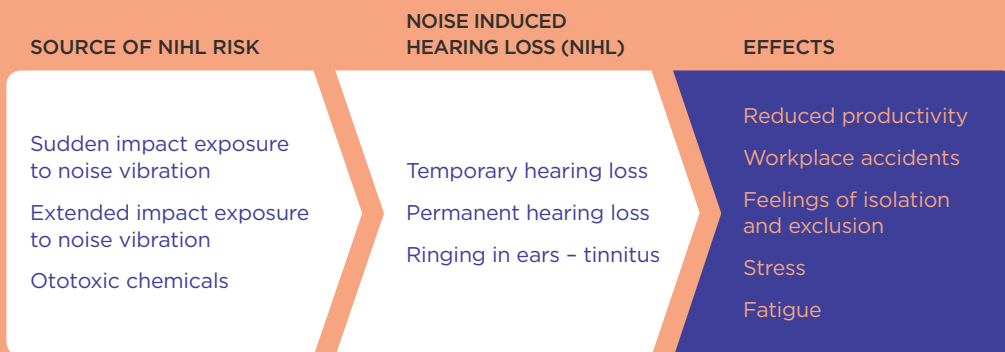
---

# TRAINER RESOURCE



## What is hazardous noise?

Hazardous noise is any sound that is loud enough or lasts long enough to cause damage to hearing or noise-induced hearing loss. It may be caused by vibrations from machinery, high-decibel music or acoustic tones, or a sound caused by a sudden impact, such as an explosion or heavy hammering.



## What causes NIHL?

NIHL is temporary or permanent damage to hearing that occurs when the nerve cells in the inner ear become damaged and eventually stop responding to sound. This can happen at work when workers are exposed either to a sudden loud noise, or to loud noises over a long period.

## Is it possible to repair NIHL?

Noise induced hearing loss affects a person's ability to hear high-frequency sounds and some common consonant and diagraph sounds, such as *t*, *k*, *s*, *sh* and *p*. We cannot repair this type of damage, we can only act to prevent further damage.

## Is it possible to prevent NIHL?

Noise-induced hearing loss is completely preventable. You can protect your hearing if you:

- know how to identify potential noise sources
- understand the risks related to excess noise
- know how to implement hearing conservation techniques.

# TRAINER RESOURCE



## How to apply your new learning in your workplace

Identify noise risks. Use the following checklist to identify if noise is a risk in your workplace. If your workers answer 'yes' to any of the questions, ask an expert to come in and complete a detailed noise assessment.

### Risk identification questions

1. Do you need to raise your voice to communicate with someone who is about one metre away?

---
2. Do you notice a reduction in hearing over the course of the day?

---
3. Do you use noisy power tools or machinery at work?

---
4. Do you experience noises due to impact (such as hammering, or from explosive powered tools)?

---
5. Do you use hearing protectors in your work?

---
6. Do you complain that there is too much noise or that you can't clearly hear instructions or warning signals?

---
7. Do you experience a ringing in your ears or have muffled hearing?

---
8. Do you have to raise your voice to have a normal conversation?

---