

NATIONAL HEALTH & SAFETY FUNCTION

INDOOR AIR QUALITY ASSESSMENTS: A QUICK GUIDE

A risk assessment (RA) must be completed to review indoor air quality (IAQ) in all workplaces. The level of competency to complete these assessments will depend on the complexity of the ventilation systems provided in the workplace.

Initial assessment involves identifying potential IAQ issues through a basic walkthrough inspection and gathering relevant information. This includes reviewing complaints, ventilation systems, occupancy levels, and sources of pollutants. The goal is to determine whether further detailed investigation or monitoring is needed.

Simple

Can be completed by a Line Manager and local maintenance

Where?

- Areas are well-ventilated
- There are no obvious signs of contaminants (e.g., odours, chemicals)
- There is no mechanical ventilation
- Work activities are routine, such as offices, waiting rooms and administration buildings

What to do?

- Walkthrough visual inspection of the building/room
- Consult with staff to identify any issues
- An IAQ risk assessment is completed using the generic risk assessment template and findings are documented.

Example:

An administrative building with no IAQ issues.



Scan the QR code for full guidance on the [HSA's Code of Practice for Indoor Air Quality](#).



Intermediate

Assessments completed by the Line Manager with technical input from the Maintenance Manager



Where there is?

- Presence of possible contaminants
- Signs of poor ventilation (stale air, odours)
- Mechanical ventilation present

What to do?

- Use of instruments may be required, e.g. to measure CO₂, temperature, and humidity
- Check basic system, temperatures and HVAC airflow rates
- Review maintenance records of HVACs
- Ensure planned maintenance of filters for systems
- Involve a specialist or occupational hygienist where necessary

Example:

A clinical room with mechanical ventilation

Complex

Completed by Maintenance Manager, with support from technical experts or contractors as appropriate.

Where there is?

- Multiple or complex mechanical ventilation systems in place
- High-risk settings like operating theatres, isolation rooms, or cleanrooms
- Spaces using hazardous substances (e.g. labs, sterilisation units)
- Evidence of poor IAQ (e.g., damp, odours, microbial growth)

What is required?

- Sampling for specific contaminants (e.g. Volatile Organic Compounds, particulates, bio aerosols)
- Validation of pressure differentials, temperatures, HEPA filtration, or airflow patterns
- Testing of local exhaust ventilation systems (LEVs)
- Professional investigation by an occupational hygienist or qualified engineer

Examples:

Operating theatres, laboratory, negative pressure rooms

