



Hierarchy of Controls Decision Table

The hierarchy of controls in the laboratory is an approach to decision-making regarding waste disposal and handling of hazardous materials. This hierarchy prioritizes elimination of hazards, followed by substitution, engineering controls, administrative controls, and personal protective equipment. The aim is to proactively manage risks and promote a safe laboratory environment.

Most
Effective

If

Then Use This Control

You want to physically remove the hazard using the most effective hierarchy of control.

Elimination

Ex.: Laboratories test specimens with unknown infection types/titers, eliminating highly infectious organisms in laboratory procedures is not a typical option.

You want to replace the hazard with something less hazardous or nonhazardous.

Substitution

Ex.: Similar to elimination, substitution is not a typical option.

You want to isolate people from the hazard or place a barrier between the worker and the hazard.

Engineering Controls


Ex.: A Class II biological safety cabinet creates a barrier to possibly reduce exposure risk by containing highly infectious aerosols and droplets.

You need training, written procedures and policies, immunizations, and practices that change the way individuals work.

Administrative Controls

Ex.: Develop standard operation procedures that outline the safety and training for working with highly infectious organisms.

This job aid is a component of the free, on-demand CDC training course "[Fundamentals of Laboratory Safety](https://reach.cdc.gov/training)." Find the course at <https://reach.cdc.gov/training>.



You need specialized clothing or equipment to minimize exposure to hazards.



PPE

Least
Effective

Ex.: The last line of defense is to wear the appropriate type and fit PPE for procedures involving highly infectious organisms.

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