Research Laboratories Stats and Facts

FACTS

Common Hazards and Risks Of The Modern Laboratory.

1. Chemical Hazards

- Many organic and inorganic chemicals are corrosive to the skin and to the eyes and can be toxic.
- Chemical reactions which generate heat can lead to thermal burns.
- Without full and correct ventilation, a distillation or chemical reaction could lead to an explosion in the lab.
- Inhalation of certain chemicals can be dangerous, with many of the most common solvents proving to be extremely toxic.
- Ingesting chemicals is a huge risk in many laboratories, due to contamination on hands, food, and drink.

2. Electrical Hazards

- Electrical units which are positioned close to liquids, these should be fitted with ground-fault circuit interrupters to break the circuit should any current flow to ground.

3. Biological Hazards

- The use of bacteria, viruses, blood, tissue and/or bodily fluids in the lab can lead to potential biological hazards. These materials can all carry disease or hazardous allergens which could put the lab team at risk.

4. Physical Hazards

- Trip hazards and mishandling mistakes are rife in busy labs.
- Handling is one of the major concerns for all lab managers, with members of the research team susceptible to injury safe handling requirements are not followed.
- Slips, trips and falls are more likely to occur in the laboratory than many other workplaces due to the amount of time researchers spend on their feet and the volume of different materials present.

STATS

- 25-38% of lab personnel surveyed have been involved in an accident or injury in the lab that was not reported to the supervisor or principal investigator.
- 27% of researchers stated that they never conducted any kind of risk assessment before performing laboratory work. Academic researchers were the least likely to

assess risk, followed by industry and government.

- 81% of accidents occurred in teaching labs, 13% in research labs and 2% in fabrication rooms.
- Only 40% of researchers surveyed reported wearing PPE at all times when working.
- 25% of researchers had not been trained in the specific hazard with which they worked.