



COMMON SOLUTIONS FOR HEALTH AND SAFETY RISKS

Use the following table to help you identify common risk sources, effects and possible solutions you can implement.

| Risk category | Risk source | Risk effects | Possible solutions |
|---------------|--|---|---|
| Chemical | <ul style="list-style-type: none"> • Workplace chemicals. • Toxic materials/waste. | <ul style="list-style-type: none"> • Allergies. • Lung/throat irritations. • Poisoning. • Asphyxia. • Burns. • Serious illness (cancer etc.). • Fire. • Explosions. | <ul style="list-style-type: none"> • Check material safety data sheets. Evaluate the risk and translate information for workers. • Use alternative chemicals where possible. • Isolate chemical process to separate room/part of factory. • Label all chemicals appropriately and provide important information in local language. • Ensure proper ventilation is provided at source of chemical process. • Provide masks, gloves, safety glasses etc. (as a last resort!). |
| Noise | <ul style="list-style-type: none"> • Factory machines (often not serviced). | <ul style="list-style-type: none"> • Temporary/permanent hearing loss. • Stress. • Fatigue. • Interfere with conversations/warning shouts. | <ul style="list-style-type: none"> • Service machines. • Control noise at source if possible (purchase quieter machines, enclose machine, mount on rubber mats). • Reduce speed of conveyor belts. • Reduce dropping heights of goods/waste being collected. • Place sound absorbing material on walls/floors/ceiling. • Provide ear plugs/ ear muffs. |



COMMON SOLUTIONS FOR HEALTH AND SAFETY RISKS (continued)

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| Lighting | <ul style="list-style-type: none"> • Dirty/broken lights. • Inadequate lighting. • Lack of natural light. • Dirty windows. • Too much light/glare without shades. | <ul style="list-style-type: none"> • Eye strain. • Headaches. • Failing eye sight. • Fatigue. • Accidents. | <ul style="list-style-type: none"> • Regular cleaning/maintenance of lights and windows. • Provide lights directed at fine work (needlepoint etc.). • Provide shades from glare. • Improve overhead lighting (make sure lights are positioned properly). |
| Vibration | <ul style="list-style-type: none"> • Factory machines (often incorrectly mounted, needing servicing). | <ul style="list-style-type: none"> • Nerve and blood vessel damage from long-term exposure. | <ul style="list-style-type: none"> • Service machines. • Secure all bolts, fixtures, mounting. |
| Ventilation | <ul style="list-style-type: none"> • Stale air in factory. • Dust accumulation. | <ul style="list-style-type: none"> • Fatigue. • Respiratory illness from noxious fumes, dust etc. | <ul style="list-style-type: none"> • Open doors and windows. • Maintain/clean all fans. • Ensure air-flow is not blocked. • Install local exhaust ventilation to remove contaminants/heat. |
| Temperature | <ul style="list-style-type: none"> • Factory machines. • Lights. • Lack of ventilation. | <ul style="list-style-type: none"> • Heat cramps. • Exhaustion. • Dehydration. • Stroke. | <ul style="list-style-type: none"> • Open windows when possible. • Install ceiling fans, air conditioning if possible. • Increase number/length of breaks. • Conduct 'hot work' during coolest part of the day. • Provide adequate drinks/water. |



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| Ergonomics | <ul style="list-style-type: none"> • Manual handling heavy loads. • Unsuitable tools/controls. • Poor seating/standing positions. • Poor working methods. | <ul style="list-style-type: none"> • Strain injuries. • Lower back/shoulder/neck problems. • Fatigue. | <ul style="list-style-type: none"> • Provide stools/benches/foot rests/chairs with back rests as appropriate. • Move tools to within easy reach at neutral height. • Provide non-slip mats to stand on. • Enforce maximum loads for lifting. |
| Fire safety | <ul style="list-style-type: none"> • Faulty wiring. • Friction from machines not serviced. • Combustible material incorrectly stored, disposed. • Flammable chemicals. | <ul style="list-style-type: none"> • Burns. • Smoke-inhalation. • Injuries from jumping out of windows. • Trampling • Death. | <ul style="list-style-type: none"> • Identify fire risks. • Maintain good wiring, proper machine maintenance. • Remove waste on a regular basis. • Correctly store combustible materials and flammable chemicals. • Designate smoking areas outside the work premise. • Repair or replace furniture with fire-resistance materials where possible. • Ensure escape routes are clear and well-marked with emergency lights. • Ensure there is a warning system (alarm, bell, warning shouts, smoke detectors etc.). • Install appropriate fire extinguishers. • Conduct fire drills with all workers. |



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| Risk category | Risk source | Risk effects | Possible solutions |
|-------------------|--|---|---|
| Electrical safety | <ul style="list-style-type: none"> • Overloaded sockets. • Exposed/frayed wires. • Improper electrical installations. | <ul style="list-style-type: none"> • Burns. • Electric shock. • Fire. • Death. | <ul style="list-style-type: none"> • Repair damaged wires. • Provide grounded plugs. • Do not overload sockets. • Use trained electrician to check, repair and install all electrical components. • Ensure workers are properly trained in electrical safety (turn off machines first before unplugging etc.). |
| Machine guarding | <ul style="list-style-type: none"> • Factory machines/moving parts without guards. | <ul style="list-style-type: none"> • Accidents. • Injuries from contact with machine (cut fingers, burns etc.). | <ul style="list-style-type: none"> • Install guards to prevent workers' hands/body parts from coming in contact with machine. • Secure guards firmly to the machine. • Protect from falling parts. • Clean and lubricate machines regularly. • Ensure workers wear appropriate clothing and contain hair, jewellery etc. |



In addition, you should also consider the following welfare issues:

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|--|---|---|
| Welfare issues | To reduce: | Provide: |
| Drinking water | <ul style="list-style-type: none"> • Dehydration. • Fatigue. • Water-borne illnesses. | <ul style="list-style-type: none"> • Clean drinking water/hygienic drinks that are: <ul style="list-style-type: none"> • Contained with cover and spout. • Located near workstations. • Accompanied by hygienic glasses/vessels. • Sufficient for all workers. • Replaced daily. |
| Toilets | <ul style="list-style-type: none"> • Infectious and food-borne diseases. | <ul style="list-style-type: none"> • Separate, hygienic toilets for all workers. • Clean towels or electric hand dryers. • Soap and water for washing. • Sanitary napkins for female workers. • Doors that can be closed with a latch from inside. • Good lighting. • Daily cleaning. |
| Eating area | <ul style="list-style-type: none"> • Food-borne illness. • Malnutrition. • Time away from work. | <ul style="list-style-type: none"> • Hygienic preparation, cooking and washing conditions. • Clean cool and airy room. • Free/subsidized healthy meals. |
| First aid | <ul style="list-style-type: none"> • Minor injuries getting infected. • Spreading of illness. • Time away from work (treat immediately). | <ul style="list-style-type: none"> • Trained medical support. • Sterilized/appropriate first-aid equipment for size/type of factory that is easily accessible. |