



# CONSTRUCTION TRADES

## **CONSTRUCTION TRADES**

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**BRICKLAYER  
CARPENTER  
ROOFER  
ELECTRICIAN  
PAINTER**

**PLUMBER  
BOILERMAKER  
FRAMER  
CABINETMAKER  
MILLWRIGHT**

### **INTRODUCTION**

The construction trades encompass many professions, each of which carries its own particular set of safety hazards in addition to many common to other fields. The following pages will cover many of those hazards that may be encountered by students as they work in these fields and give safety tips that can help prevent injuries and/or death.

These potential hazards include electric shock from unsafe machinery or conditions while working around electric wiring; falls from ladders, rooftops, or cluttered floors; cuts from saws or other sharp tools; working with hazardous materials such as asbestos; and working with materials that emit dangerous fumes such as paint and/or solvents.

## BRICKLAYER

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### **“I’M A BRICKLAYER...WHAT CAN HURT ME?”**

Bricklayers face many chemicals and other health hazards on the job. These health hazards are often hidden, so you might not know you’re being exposed or affected. Common health hazards you may face are:

- \*Hydrochloric acid in masonry cleaners.
- \*Asbestos added to cements.
- \*Epoxy resins in wall coatings.
- \*Lime dust in cement.
- \*Silica dust in cement.

You can also face other hazards while on the job, including hazards from other work going on around you.

Bricklayers also face many safety hazards on the job. You’re probably familiar with many of the obvious ones, such as:

- Being struck by falling objects.
- Strains from lifting and moving heavy equipment.
- Falls from ladders and platforms.
- Eye injuries.

### **HOW CAN I SPOT THESE HAZARDS?**

One way you can spot possible health hazards on the job is by using your senses of sight, hearing, smell, and touch. Visible clouds of dust, eye, and nose irritation or skin rashes could indicate possible hazards.

### **HOW CAN HAZARDS BE CONTROLLED?**

Once you’ve found hazards, there are three basic ways they can be controlled:

1. The most effective way is to eliminate the hazard through engineering controls. For example, asbestos-free cement should be substituted for asbestos-containing cement.
2. Another way is to modify work practices. For example, wetting down surfaces when cutting concrete blocks will lower exposure to dust.
3. And, finally, you can use personal protective gear when you are exposed to a hazard. For example, chemical goggles and gloves will protect you when working with acids.

While it is always best to eliminate the hazard, personal protective gear is widely used on construction sites. This gear must be used and maintained properly—if not, it won’t protect you.

## **WHAT ARE MY RIGHTS?**

As a construction worker, you have rights to protect your health and safety on the job. Your employer must tell you about the hazards of the cements, acids, and other materials you work with. If necessary, you can file a complaint with the Department of Labor and Industries requesting an inspection into hazards on your job. These are only two of the rights you have under state law. If you belong to a union you may have additional rights.

## **WHAT SHOULD I TELL MY DOCTOR?**

Because the health effects of exposures can take years to show up, you need to keep records of your workplace hazards. For example, lung damage by silica dust can take years to show up. Your work health history is important for your doctor to know. It can also be vital in worker compensation claims, union grievances, and for OSHA complaints.

## **CARPENTER**

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### **“I’M A CARPENTER...WHAT CAN HURT ME?”**

Carpenters face many chemicals and other health hazards on the job. These health hazards are often hidden, so you might not know you’re being exposed or affected.

Common health hazards you may face are:

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|---------------------------------------|--|
| *Wood dust.                           | *Wood preservatives in treated woods.      |
| *Hand-arm vibration from power tools. | *Lead and heavy metals in paints.          |
| *Cold.                                | *Hearing loss from excessive noise levels. |

You can also face other hazards while on the job, including hazards from other work going on around you.

Carpenters also face many safety hazards on the job. You’re probably familiar with many of the obvious ones, such as:

- Being struck by falling objects.
- Strains from lifting and moving heavy equipment.
- Falls from ladders and platforms.
- Eye injuries.

### **HOW CAN I SPOT THESE HAZARDS?**

One way you can spot possible health hazards on the job is by using your senses of sight, hearing, smell, and touch. Visible clouds of dust, eye, and nose irritation or skin rashes could indicate possible hazards.

### **HOW CAN HAZARDS BE CONTROLLED?**

Once you’ve found hazards, there are three basic ways they can be controlled:

1. The most effective way is to eliminate the hazard through engineering controls. For example, asbestos-free cement should be substituted for asbestos-containing cement.
2. Another way is to modify work practices. For example, wetting down surfaces when cutting concrete blocks will lower exposure to dust.
3. And, finally, you can use personal protective gear when you are exposed to a hazard. For example, chemical goggles and gloves will protect you when working with acids.

While it is always best to eliminate the hazard, personal protective gear is widely used on construction sites. This gear must be used and maintained properly—if not, it won’t protect you.

## **WHAT ARE MY RIGHTS?**

As a construction worker, you have rights to protect your health and safety on the job. Your employer must tell you about the hazards of the wood dust, wood preservatives, and other materials you work with. If necessary, you can file a complaint with the Department of Labor and Industries requesting an inspection into hazards on your job. These are only two of the rights you have under state law. If you belong to a union you may have additional rights.

## **WHAT SHOULD I TELL MY DOCTOR?**

Because the health effects of exposures can take years to show up, you need to keep records of your workplace hazards. For example, lung damage by wood dust can take years to show up. Your work health history is important for your doctor to know. It can also be vital in worker compensation claims, union grievances, and for OSHA complaints.

## **ELECTRICAL WORKER**

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### **“I’M AN ELECTRICAL WORKER...WHAT CAN HURT ME?”**

Electrical workers face many chemicals and other health hazards on the job. These health hazards are often hidden, so you might not know you’re being exposed or affected. Common health hazards you may face are:

- \*Epoxy resins from cable coatings.
- \*Solvents, such as ethylene chloride.
- \*Fumes from soldering.
- \*PCBs in older transformers.
- \*Isocyanides from wire covering.

You can also face other hazards while on the job, including hazards from other work going on around you.

Electrical workers also face many safety hazards on the job. You’re probably familiar with many of the obvious ones, such as:

- Being struck by falling objects.
- Strains from lifting and moving heavy equipment.
- Falls from ladders and platforms.
- Eye injuries.

### **HOW CAN I SPOT THESE HAZARDS?**

One way you can spot possible health hazards on the job is by using your senses of sight, hearing, smell, and touch. Visible clouds of dust, eye and nose irritation, or skin rashes could indicate possible hazards.

### **HOW CAN HAZARDS BE CONTROLLED?**

Once you’ve found hazards, there are three basic ways they can be controlled:

1. The most effective way is to eliminate the hazard through engineering controls. For example, substitute a cadmium-free solder for one containing cadmium. Avoid using very toxic solvents such as benzene or toluene.
2. Another way is through work practices, like washing your hands before eating or smoking or leaving work to remove metal fume contamination.
3. And finally, you can use personal protective gear when you are exposed to a hazard. For example, you should wear the proper gloves when working around equipment leaking PCBs or the proper respirator when soldering in a confined area.

While it is always best to eliminate the hazard, personal protective gear is widely used on construction sites. This gear must be used and maintained properly—if not, it won’t protect you.

## **WHAT ARE MY RIGHTS?**

As a construction worker, you have rights to protect your health and safety on the job. Your employer must tell you about the hazards of the solvents, solders, fluxes, and other materials you work with. If necessary, you can file a complaint with the Department of Labor and Industries requesting an inspection into hazards on your job. These are only two of the rights you have under state law. If you belong to a union you may have additional rights.

## **WHAT SHOULD I TELL MY DOCTOR?**

Because the health effects of exposures can take years to show up, you need to keep records of your workplace hazards. For example, exposure to solvents may cause liver damage many years later. Your work health history is important for your doctor to know. It can also be vital in worker compensation claims, union grievances, and for OSHA complaints.

## **PAINTER**

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### **“I’M A PAINTER.....WHAT CAN HURT ME?”**

Painters face many chemicals and other health hazards on the job. These health hazards are often hidden, so you might not know you’re being exposed or affected.

Common health hazards you may face are:

- \*Solvents.
- \*Epoxy resins in paint.
- \*Metals in paint pigments, such as lead or chromate.
- \*Confined work spaces.
- \*Isocyanine paints.

You can also face other hazards while on the job, including hazards from other work going on around you.

Painters also may face many safety hazards on the job. You’re probably familiar with many of the obvious ones, such as:

- Being struck by falling objects.
- Strains from lifting and moving heavy equipment.
- Falls from ladders and platforms.
- Eye injuries.
- Inhalation of toxic materials and solvents.

### **HOW CAN I SPOT THESE HAZARDS?**

One way you can spot possible health hazards on the job is by using your senses of sight, hearing, smell, and touch. Visible clouds of dust, eye and nose irritation, or skin rashes could indicate possible hazards.

### **HOW CAN HAZARDS BE CONTROLLED?**

Once you’ve found hazards, there are three basic ways they can be controlled:

1. The most effective way is to eliminate the hazard through engineering controls. For example, paints without lead or chromate pigments should be substituted for paints with these pigments. Be sure that confined workspaces are well ventilated.
2. Another way is through work practices, like washing your hands before eating or smoking or leaving work to remove metal pigment contamination.
3. And finally, you can use personal protective gear when you are exposed to toxic fumes. Follow directions for application, ventilation, and handling procedures (see containers and MSDS).

While it is always best to eliminate the hazard, personal protective gear is widely used on construction sites. This gear must be used and maintained properly—if not, it won’t protect you.

## **WHAT ARE MY RIGHTS?**

As a construction worker, you have rights to protect your health and safety on the job. Your employer must tell you about the hazards of the solvents, pigments, and other materials you work with. If necessary, you can file a complaint with the Department of Labor and Industries requesting an inspection into hazards on your job. These are only two of the rights you have under state law. If you belong to a union you may have additional rights.

## **WHAT SHOULD I TELL MY DOCTOR?**

Because the health effects of exposures can take years to show up, you need to keep records of your workplace hazards. For example, exposure to solvents may cause damage to your nervous system that doesn't appear until many years later. Your work health history is important for your doctor to know. It can also be vital in worker compensation claims, union grievances, and for OSHA complaints.

## PLUMBER

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### **“I’M A PLUMBER...WHAT CAN HURT ME?”**

Plumbers and boilermakers face many chemicals and other health hazards on the job. These health hazards are often hidden, so you might not know you’re being exposed or affected. Common health hazards you may face are:

- \*Metal dust from cutting pipes.
- \*Asbestos from lagging around pipes.
- \*Fumes from welding and soldering.
- \*Confined work spaces.
- \*Eye injuries.

You can also face other hazards while on the job, including hazards from other work going on around you.

Plumbers and boilermakers also face many safety hazards on the job. You’re probably familiar with many of the obvious ones, such as:

- Being struck by falling objects.
- Strains from lifting and moving heavy equipment.
- Falls from ladders and platforms.
- Eye injuries.

### **HOW CAN I SPOT THESE HAZARDS?**

One way you can spot possible health hazards on the job is by using your senses of sight, hearing, smell, and touch. Visible clouds of dust, eye and nose irritation, or solvent odors can indicate possible hazards.

### **HOW CAN HAZARDS BE CONTROLLED?**

Once you’ve found hazards, there are three basic ways they can be controlled:

1. The most effective way is to eliminate the hazard through engineering controls. For example, substitute a cadmium-free solder for one containing cadmium.
2. Another way is to limit the amount of time you are exposed to the hazard. Your supervisor may limit the time you spend each day doing work in hot, confined spaces.
3. And finally, you can use personal protective gear when you are exposed to a hazard. For example, you can use the appropriate respirator to protect you from metal dust when you are cutting pipe.

While it is always best to eliminate the hazard, personal protective gear is widely used on construction sites. This gear must be used and maintained properly—if not, it won’t protect you.

## **WHAT ARE MY RIGHTS?**

As a construction worker, you have rights to protect your health and safety on the job. Your employer must tell you about the hazards of the solvents, solders, fluxes, and other materials you work with. If necessary, you can file a complaint with the Department of Labor and Industries requesting an inspection into hazards on your job. These are only two of the rights you have under state law. If you belong to a union you may have additional rights.

## **WHAT SHOULD I TELL MY DOCTOR?**

Because the health effects of exposures can take years to show up, you need to keep records of your workplace hazards. For example, exposure to asbestos dust can cause cancer up to 40 years later. Your work health history is important for your doctor to know. It can also be vital in worker compensation claims, union grievances, and for OSHA complaints.

## ROOFER

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### “I’M A ROOFER...WHAT CAN HURT ME?”

Roofers face many chemicals and other health hazards on the job. These health hazards are often hidden, so you might not know you’re being exposed or affected. Common health hazards you may face are:

- \*Solvents used in new roofing systems and clean up.
- \*Radiation from sunlight (increased sensitivity caused by skin contact with many roofing materials).
- \*Coal, tar, pitch in roofing materials.
- \*Asbestos during removal of old roofing tiles.
- \*Hot asphalt.

You can also face other hazards while on the job, including hazards from other work going on around you.

Roofers also face many safety hazards on the job. You’re probably familiar with many of the obvious ones, such as:

- Being struck by falling objects.
- Strains from lifting and moving heavy equipment.
- Falls from ladders and platforms.
- Eye injuries.
- Injuries from prolonged time spent in kneeling positions.

### HOW CAN I SPOT THESE HAZARDS?

One way you can spot possible health hazards on the job is by using your senses of sight, hearing, smell, and touch. Visible clouds of dust, eye and nose irritation, or skin rashes could indicate possible hazards.

### HOW CAN HAZARDS BE CONTROLLED?

Once you’ve found hazards, there are three basic ways they can be controlled:

1. The most effective way is to eliminate the hazard through engineering controls. For example, less toxic solvents such as acetone or ethanol should be used rather than very toxic solvents such as benzene or gasoline. Exhaust fans can be used to provide good ventilation in confined spaces, if properly used.
2. Another way is to modify your work practices to help avoid the hazard. For example, you should try to work upwind if possible during heat welding.
3. And finally, you can use personal protective gear when you are exposed to a hazard. For example, you should use the appropriate respirator to protect you from the gases and fumes released during application of materials.
4. Use protective devices to protect knees and joints.
5. Utilize safety restraint lines in accordance with OSHA, WISHA, and industry standards to protect injuries sustained from falling.

While it is always best to eliminate the hazard, personal protective gear is widely used on construction sites. This gear must be used and maintained properly—if not, it won't protect you.

### **WHAT ARE MY RIGHTS?**

As a construction worker, you have rights to protect your health and safety on the job. Your employer must tell you about the hazards of the solvents, asphalts, and other materials you work with. If necessary, you can file a complaint with the Department of Labor and Industries requesting an inspection into hazards on your job. These are only two of the rights you have under state law. If you belong to a union you may have additional rights.

### **WHAT SHOULD I TELL MY DOCTOR?**

Because the health effects of exposures can take years to show up, you need to keep records of your workplace hazards. For example, exposure to asbestos dust can cause cancer up to 40 years later. Your work health history is important for your doctor to know. It can also be vital in worker compensation claims, union grievances, and for OSHA complaints.