Help workers stay safe with the right personal protective equipment.

According to the U.S. Bureau of Labor Statistics, more than 2.8 million nonfatal workplace injuries occurred in 2017, including nearly 883,000 involving days away from work. Many of these injuries—such as cuts, objects in the eye and inhalation of hazardous material—could have been prevented with proper personal protective equipment, or PPE. Such items include gloves, safety glasses, goggles, masks, steel-toed boots, earplugs/earmuffs, hard hats, respirators and full body suits.

Before PPE is considered, however, you should first explore other methods of minimizing employees’ exposure to workplace hazards. See p. 4 for a discussion of several options available to you.

Conduct a PPE hazard assessment.

The first step in developing a PPE program is to identify hazards in the workplace, a process known as PPE hazard assessment. Potential hazards are often physical, such as moving objects, fluctuating temperatures, high intensity lighting, rolling or pinching objects, electrical connections and sharp edges. You should also consider health hazards such as overexposure to harmful dusts, chemicals or radiation.

Using a checklist such as the one featured in the box to the left, begin the assessment with a review of OSHA 300 logs, insurance loss runs, first aid logs and similar documents, as these may indicate hazards that have caused previous injuries and merit extra attention. Following the historical injury review, conduct a walkthrough survey to identify and assess potential hazards. When conducting the walkthrough, consider unseen tasks that are non-routine or infrequent, but that require PPE when performed. The following sources can also help point to the need for PPE:

- Safety data sheets (SDS) describe chemical hazards and suggested PPE.
- Equipment and operator manuals describe manufacturer’s recommendations for PPE.
- Supervisors and employees performing the job every day often have a wealth of information about hazards, especially for non-routine tasks that can’t be directly observed during the walkthrough.
- Job hazard analyses, which document all hazards of a job, often identify PPE needs as part of the analysis.

Select proper PPE to match identified hazards.

Following the identification of hazards that require PPE, the next step is to select and document PPE that will protect workers. Often, this is accomplished by documenting decisions in a table like the example in Exhibit 1. Here are some guidelines to follow when selecting PPE:

- **Consider fit and comfort.** PPE that fits well will encourage employee use. Take care to select the proper size for each employee. If several types of PPE are worn together, make sure they are compatible. If PPE doesn’t fit properly, it can make the difference between being protected or dangerously exposed.

- **Obtain safety data sheets (SDS),** which provide specific PPE recommendations for chemical hazards. For example, an SDS is likely to specify gloves of a specific material for chemical hazards or a certain respiratory protection factor for breathing hazards.

- **Review OSHA Publication 3151, Personal Protective Equipment.** This includes several tables that assist with PPE selection such as the minimum protective shade of welding filter lenses based on the type of welding being performed and the thickness of the metal.

- **Meet industry standards defined by the American National Standards Institute (ANSI).** All PPE — whether employer-supplied or employee-owned — must meet the ANSI standards in the categories below:
  - Eye and face protection — ANSI Z87.1
  - Head protection — ANSI Z89.1
  - Foot protection — ANSI Z41.1


Once PPE has been selected, documentation is required to complete the PPE hazard assessment. You should keep this assessment on file to be presented at the request of OSHA or other hazard inspectors. Your assessment must include the following:

- Workplace evaluated
- Person certifying that the evaluation has been performed
- Date of the hazard assessment

Who should pay for personal protective equipment?

In most cases, all required PPE must be provided by your business at no cost to your employees. There are exceptions, however, so visit [osha.gov](http://osha.gov) and consult *Employers Must Provide and Pay for PPE, Handout #7* to see if any of those apply to your business and its employees.
Exhibit 1—PPE Hazard Assessment Table

<table>
<thead>
<tr>
<th>Location</th>
<th>Work Activity</th>
<th>Hazards</th>
<th>PPE Required</th>
</tr>
</thead>
<tbody>
<tr>
<td>Manufacturing shop</td>
<td>Metal working</td>
<td>Flying metal particles</td>
<td>Safety glasses / face shield</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Noise &gt; 85 dB</td>
<td>Ear plugs or muffs</td>
</tr>
<tr>
<td>Welding</td>
<td></td>
<td>Flash burn to eyes</td>
<td>Weld helmet, lens 5-6</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Burns to hands</td>
<td>Leather gloves</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Noise &gt; 85 dB</td>
<td>Ear plugs or muffs</td>
</tr>
<tr>
<td>Maintenance shop</td>
<td>Lawn care</td>
<td>Flying debris</td>
<td>Safety glasses / face shield</td>
</tr>
<tr>
<td></td>
<td>Floor cleaning</td>
<td>Chemicals</td>
<td>Neoprene gloves</td>
</tr>
</tbody>
</table>

Train your employees on the use of PPE.

With the hazard assessment complete and the necessary PPE available, you’ll want to provide training to each employee who’s required to use PPE on the job. Although your training programs will depend on the identified hazards and PPE selected, each employee needs to know at least the following:

- PPE required in work areas and when it must be worn
- Correct procedures to put on, remove, adjust and wear PPE
- Limitations of PPE, such as that certain gloves will only protect against certain chemicals
- Proper care, maintenance, useful life and disposal of the PPE
- Whom to contact with questions

Each employee should demonstrate an understanding of the training before being allowed to perform work where PPE is required. For example, employees requiring hard hats for non-routine tasks should demonstrate knowledge of when they must wear the hard hat, how to adjust it to their head size, how to inspect it for damage, etc.

Despite the best intentions of businesses to provide and train employees on the importance of PPE, at some point an employee may be seen, for example, without safety glasses in an “eye protection required” area. If this occurs, the employee should be retrained on the proper use and importance of the PPE. You’ll also need to retrain employees if changes in workplace hazards render previous training obsolete or different PPE is being introduced into the work area.

Look to OSHA for additional resources.

To review OSHA guidelines and access additional helpful materials on personal protective equipment, visit osha.gov/SLTC/personalprotectiveequipment, where a variety of fact sheets, training materials and other resources are available, including OSHA’s Personal Protective Equipment booklet.

Questions? Contact Nationwide Loss Control Services: 1-866-808-2101 or LCS@nationwide.com.
Explore other methods before deciding on PPE.

While PPE is often thought of as the first solution to a workplace hazard, it should really be one of the last. That’s because it doesn’t change the hazard source, and it’s dependent on the user to function properly. Employing other methods to control the hazard first will lessen the risk of injury should PPE fail. It may even eliminate the need for PPE.

Consider an example of employees working near a loud air compressor. Many businesses might begin by measuring the noise levels and, if beyond the OSHA action level, immediately outfit all exposed workers with hearing protection devices like earplugs or earmuffs. However, by exploring other options first, the noise exposure can be reduced to safer levels and may avoid the need for hearing protection altogether.

For example, as illustrated in Exhibit 2, you might try three methods of reducing noise at the source before settling on PPE as the best solution:

- **Elimination / substitution** aims to eliminate the hazard or substitute for it with safer alternatives. In the case of the air compressor, elimination or substitution could be possible if air-powered tools were replaced with battery-powered alternatives. However, eliminating one hazard often creates a new hazard, so all downstream effects should be considered.

- **Engineering controls** implement physical changes to the workplace that reduce the hazard. This can involve changes to the process, materials, equipment, etc. One method may be to relocate the air compressor into a separate room or isolate it using sound curtains.

- **Administrative and work practice controls** establish procedures that require employees to do something differently to reduce the hazard. This may involve rotating workers into a noisy area so no one is exposed for the full workday or adjusting schedules to limit the number of hours employees work near the compressor.

For your risk management and safety needs, contact Nationwide Loss Control Services: 1-866-808-2101 or LCS@nationwide.com.