

Hot Safety Tips for Welding, Cutting and Grinding

When you weld, cut or grind, the potential for accidents is significant. Eyes and skin can be burned, hearing can be damaged and an electric shock can kill you. Among the hot metal, sparks and flying chips, are compressed gases stored in high-pressure cylinders. Even the fumes and gases produced during the welding process can damage your respiratory system or cause asphyxiation.

It's crucial to be cautious. Wear your personal protective equipment (PPE), maintain a safe workplace and follow safety rules.

Your PPE should include:

- Eye protection to shield against sparks, molten metal and welder's flash
- Hearing protection
- Clothing made of heat-resistant materials, such as an apron made of leather
- Safety boots
- Gloves made of leather or other flameproof fabric
- Respiratory protection to protect against toxic chemicals and gases. Before you use a respirator, get proper training and have it properly fitted.

Wearing the right PPE is just the first step. You must also keep your work area safe and follow these safety rules:

- Try to weld only in well-ventilated areas.
- Work in confined spaces only if they've been atmosphere-tested. Follow all other confined space procedures.
- Do not weld, cut or grind near flammable or combustible materials, liquids, vapors and dusts.
- Have the appropriate fire extinguisher close by.

- Use only approved equipment in good condition and follow the manufacturer's instructions.
- Inspect equipment for loose connections, bare wires or cables before operating. Make sure the machinery is properly grounded.
- Handle compressed gas cylinders safely, following proper use and storage procedures.
- Keep aisles and stairways clear of cables and equipment.
- Keep other people a safe distance from welding and cutting operations.
- Learn first aid techniques for burns, poison inhalation, shock and eye injuries.
- Know where the safety showers and eyewash stations are and how to use them.

You should also watch for symptoms of metal fume fever, caused by breathing fumes formed while welding. Symptoms may include a metallic taste in the mouth, dry nose and throat, weakness, fatigue, joint and muscle pain, fever, chills and nausea. Notify your supervisor immediately if you experience any of these symptoms.

Take responsibility for your own safety when you weld, cut and grind. Wear the right PPE, maintain a safe workplace and follow the safety rules that apply to your job.

QUIZ

1. Fumes and gases produced during welding can cause asphyxiation.
 - ☐ True
 - ☐ False
2. Eye protection will shield you from sparks, molten metal and _____.
3. Leather is one good heat-resistant material, useful for aprons or gloves.
 - ☐ True
 - ☐ False
4. Before using a respirator, you should receive proper training and have the respirator properly _____.
5. Confined spaces should be atmosphere-tested before you work in them.
 - ☐ True
 - ☐ False
6. Welding, cutting or grinding near dust is not dangerous.
 - ☐ True
 - ☐ False
7. What should equipment be inspected for before operating?
 - a. loose connections
 - b. bare wires or cables
 - c. proper grounding
 - d. all of the above
8. Cables and equipment can be stored on stairways, but only temporarily.
 - ☐ True
 - ☐ False
9. Which of these are symptoms of metal fume fever?
 - a. metallic taste in the mouth
 - b. joint and muscle pain
 - c. chills and nausea
 - d. any of the above
10. Taking responsibility for your safety includes wearing the right PPE, maintaining a safe work area and following _____.

BEFORE THE TALK - TIPS

Refer to the "Tips For Safety Talks!" for ideas on planning this safety meeting. Read through the article ahead of time to help you with your presentation. Add further questions to those we have provided at the end of this talk.

- Are your workers required to weld in confined spaces? If so, review at your meeting your company's confined space entry procedures.
- Tour your worksite and note flammable and combustible materials. Discuss the safe distances between these materials and welding, cutting or grinding operations.
- Lead a training session on how to use and wear respirators.
- List any points you want to cover at this safety meeting:

AFTER THE TALK- CHECKLIST

PROVIDED FOLLOW-UP TO WORKERS THAT DID

POORLY ON THE QUIZ

NAME: _____

DATE: _____

OBSERVED WORKERS

TASK(S): _____

DATE: _____

REFRESHER TRAINING

TOPIC(S): _____

DATE: _____

OTHER (DESCRIBE): _____

MEETING DATE: _____

LOCATION: _____

NOTES

This image shows a single sheet of white paper with horizontal blue or grey ruling lines. The lines are evenly spaced and run across the width of the page. There are no margins, text, or other markings on the paper.

ANSWERS:

1. True
2. welder's flash
3. True
4. fitted
5. True
6. False
7. d
8. False
9. d
10. safety rules

ATTENDANCE

[illegible]

INSTRUCTOR: _____ **DATE:** _____

SAFETY TALK: _____