Generators are a great way to power your <u>whole home</u> and office, but they can also pose a severe risk to your safety if you don't follow the proper safety precautions. This is especially true if you don't know what you're doing.

Were you aware that generators accounted for 81% of fatalities associated with engine-driven tools, as reported by cpsc.gov? If you want to understand the correct usage of gasoline and diesel generators, especially in emergencies, it can be a crucial factor between life and death in as little as a few minutes.



So, Portable Generator Safety Checklist (12) Points

Using an <u>open-frame or closed-frame</u> generator can be incredibly useful during power outages or when electricity is not available. However, they can be hazardous if not handled properly, so it's essential to handle them with care to ensure safety for yourself and others.

Safety Requirements (12) Inspection Checklist

- Outdoor Use Only
- Use Dry Location

- Proper Grounding
- Don't refuel it when running
- Use Secure Power Cords
- Use Transfer Switch
- Use Generator Outlets Properly
- Don't Overload
- Turn On Before Disconnecting
- Use Fire Extinguisher
- Cool Down Before Storage
- Keep Children and Pets Away

Before using a generator, it's important to read and understand the user manual provided by the manufacturer. The manual contains essential <u>safety</u> rules, operational guidelines, maintenance tips, and specific information about your generator model.

1. Outdoor Use Only

All generators should only be used outdoors, never indoors or in enclosed spaces like garages, basements, or sheds. Operating a generator indoors can lead to a buildup of toxic carbon monoxide (CO) gas, which is odorless and deadly. Maintain the generator in a space that has adequate airflow and ventilation.

It's silent and odorless, making it difficult to detect. Its effects might not become apparent until it is too late. Carbon monoxide (CO) buildup can be lethal within minutes. In 2020, more lives were <u>claimed</u> by CO poisoning from generators in Louisiana and Texas.

Avoid the risk of CO poisoning

Install <u>carbon monoxide</u> (CO) alarms in your home. On the other hand, opt for a generator with an automatic CO shut-off feature. or any model mentioned on this list.

Brand	Model	Watt
Generac	7676	4000-watt
Generac	8011	7500 watts
WEN	56400iX	4000-watt
DuroMax	XP5500HX	5500-watt
Champion	100416	8000-watts
Champion	201085	5500-watts
Honda	EU2200iTAn	2200-watt
Westinghouse	WGen7500c	7500-watts

However, if you experience dizziness, fatigue, or nausea while the generator is running, promptly move to an open area with fresh air and dial (your local emergency number).

For additional details regarding the hazards of carbon monoxide, please visit.

2. Use a Dry Location

Place the generator on a dry, level surface to prevent water from getting into the electrical components. Moisture can damage the generator and create an electrical hazard. Avoid operating the generator in wet conditions to prevent electrical shorts or malfunctioning.

3. Proper Grounding

Properly ground the generator according to the manufacturer's instructions.

<u>Grounding</u> helps protect against electric shocks and reduces the risk of electrical fires. If the generator is not grounded correctly, there's a higher chance of electrical accidents, especially during wet conditions.

Avoid using generators in wet, damp, or muddy conditions. Ideally, position your generator on a level surface under a canopy. Check that no lakes are taking around the generator. If a <u>cover or canopy</u> is unavailable, avoid operating the generator in rainy or snowy weather.

4. Don't Refuel It When Running

Always <u>shut off</u> the generator and let it cool down before refueling. Refuel in a well-ventilated area, away from open flames, sparks, or other ignition sources.

Use the type of fuel the manufacturer recommends (usually gasoline) and avoid using old or stale fuel. Be sure not to overfill the fuel tank.

5. Use Secure Power Cords

Avoid plugging devices directly into the generator, use heavy-duty <u>extension</u> <u>cords</u> that are <u>UL-listed</u> and have three prongs. Ensure that the extension cord is appropriately sized (wire gauge) to travel the electrical load it will bear. Remember, a hot cord indicates overload.

Utilize a Ground <u>Fault Circuit Interrupter</u> (GFCI). Keep all extension cords safely secured or taped down to prevent tripping hazards. Never route extension cords beneath carpeting or other flammable materials, as heat accumulation in such areas may pose a fire hazard.

Ensure the cables are free from cuts, abrasions, or other damage that may compromise their safety.

6. Use Transfer Switch

Always use a transfer switch, <u>automatic or manual</u>, when connecting your generator to your home circuit, avoid plugging it directly into a <u>power socket</u> to prevent back feeding.

If you wish for a permanent connection between your generator and your home wiring, it is advisable to engage an electrician for the installation of a power transfer switch.

Ensure that the installation complies with the National Electrical Code (NEC) provided by the National Fire Protection <u>Association</u>, along with adhering to all relevant state and local electrical codes.

7. Use Generator Outlets Properly

Follow the correct procedures for connecting appliances to the generator's outlets. Avoid loose connections that can lead to electrical sparks or shorts. Use appropriate plugs and adapters to match the generator's outlets with the appliances' power cords.

8. Don't Overload

Overloading the generator can damage the appliances and the generator itself. Use a power strip to connect multiple appliances safely.

Make sure the total power requirements of the appliances you plan to connect to the generator are met. Do not exceed the generator's rated wattage capacity.

Ensure accurate load calculations by utilizing our complimentary **wattage calculator**. If you find it challenging to assess or understand your power requirements, it's advisable to seek assistance from an electrician.

9. Turn On Before Disconnecting

Before plugging in or unplugging any appliances, it is imperative to have the generator in the 'ON' state. This means starting the generator and ensuring that it is running. Additionally, it is crucial to perform these operations without any electrical load connected to the generator.

Starting the generator without a load means initiating its operation without any devices or appliances <u>drawing power</u> from it. This is done to ensure a smooth and stable start-up process. Similarly, stopping the generator without a load connected helps prevent any potential issues that might arise from abrupt disconnection.

10. Use Fire Extinguisher

Have a fire extinguisher close by in case there are any possible fire threats. Make sure you understand how to use it properly, and routinely check the **expiration** date. However, avoid using a water-based fire extinguisher or water alone on your portable generator.

11. Cool Down Before Storage

If using it temporarily, before **storing the generator**, allow it to cool down completely. Keeping a hot generator can be a **fire hazard** and may also cause fuel or **oil** spills. Use storage covers to save on your investment.

12. Keep Children and Pets Away

Generators are not toys and should be treated as potentially hazardous equipment. Keep children and pets away from the <u>generator area</u> to avoid accidents. Warn them about the dangers of touching or playing near the generator.

Regular Maintenance is Key

Perform regular maintenance tasks as recommended by the manufacturer. This includes an <u>oil change</u>, <u>air filter cleaning</u> and replacement, and <u>spark plug</u> checks. Servicing maintains the generator operating at full capacity and avoids the possibility of unexpected failures.

Conclusion

Generators are not dangerous if they are used correctly. However, there are many things that people do that can cause serious injuries or death. To avoid these risks, follow a simple safety checklist before starting your generator. This checklist will ensure that you don't cause any harm to yourself or others.

It's important to be aware of the potential hazards of using traditional generators. If they are not used well, they can be dangerous. You must follow the safety guidelines that we have outlined in this post.

See <u>OSHA.gov</u> safety standards for portable gas generators for additional information on the organization's regulations on generator safety.

FAQs

Can I Run portable Generator Indoors?

No, running a portable generator indoors can lead to carbon monoxide poisoning. Always operate it in well-ventilated outdoor spaces

Can I Connect Generator Directly to Home Electrical System?

It's recommended to use a transfer switch installed by a professional to connect a portable generator to your home's electrical system safely.

How Far Should I Place Generator From Home?

Position your generator at least 20 feet away from your home to ensure proper ventilation and minimize the risk of carbon monoxide exposure.

Is It Essential to Keep a Fire Extinguisher Nearby While Using a Generator?

Yes, having a fire extinguisher rated for electrical fires is highly recommended when operating a generator. It should be easily accessible and known to all users.