Make Your Own DIY Box Fan Filter

During a wildfire event, smoke can cause health problems or exacerbate existing health problems. Portable air cleaners can reduce particulates in your home by up to 95%! Make your home smoke ready with a box fan filter. It's easy and cost effective.

Supplies:

- 20" Box Fan
  - A larger size will work as well, but a 20" fan is easy to find and affordable
- 20"x20" AC Filter
  - Pay attention to the rating. HEPA and MERV are the most common. The higher the rating, the more effective it will be in filtering out particles, but will also be more expensive. A minimum of MERV 9 is recommended.
- A roll of Duct Tape

Step 1

Line the filter up to the back of the fan. There will be an arrow on the side of the filter indicating which way the air flows. Make sure the air flow arrow is pointed toward the fan.

Step 2

Use the duct tape to affix the filter to the back of the fan. Make sure to create a seal around the sides and top of the fan. Do not tape the bottom of the filter to avoid overworking the fan motor.

Step 3

When air filtration is needed during a smoke event, plug in the complete Box Fan Filter and turn it on. Since the air flow is being modified, avoid using the highest setting so the motor will not be overburdened and burn out. If the fan were to burn out, it may pose a fire risk, so make sure to monitor the fan and not use while sleeping.