

# What is EtO? What are the Risks?



## What is EtO?

Ethylene oxide (EtO) is a colorless, odorless gas. Occasionally, people call this EO as well so if you see EtO, EO or Ethylene Oxide, it is all taking about the exact same chemical.

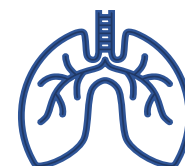


## What is EtO used for?

EtO is used in making a range of products. EtO is also used to kill bacteria and other germs. Specifically, it is used to sterilize medical equipment and dried herbs and spices that cannot be sterilized by steam. EPA is concerned about pollution from EtO used to sterilize things at specialized facilities and has proposed actions to reduce this pollution.

## How can you be exposed to EtO?

EtO can cause health risk when people who live, work or play near sterilization facilities breathe it in from the air. We have no information to suggest that there are health risks associated with EtO in soil or in the water near any sterilization facilities. There is also no indication of risk for people who use products that have been sterilized with EtO.



## Does EtO pose a health risk?

EtO can cause breast and lymph or blood cancers when people are exposed over long periods of time. By long periods, we mean when people who live near one of these facilities breathe EtO every single day from birth until age 70 or when someone who works in one of these facilities breathes in EtO every single work-day over the course of a 35-year career.



## How to understand individual risk?

In order to understand potential health risks for an individual, it is important to consider how much EtO a person breathes in over the course of a lifetime both in the amount of time they might spend near the facility each day but also the number of years they have spent in their neighborhood or at their job using EtO. The amount of EtO in the air decreases as you move away from the source of EtO. Wind and other weather factors can impact how much EtO is in the air near a facility. To inform our actions to reduce risk, EPA calculates risk for a large population, not for an individual. For more information about EtO and health, scan the QR code to the right, or go to [www.epa.gov/eto](http://www.epa.gov/eto).

Scan below for more information about EtO & your health:



SCAN ME

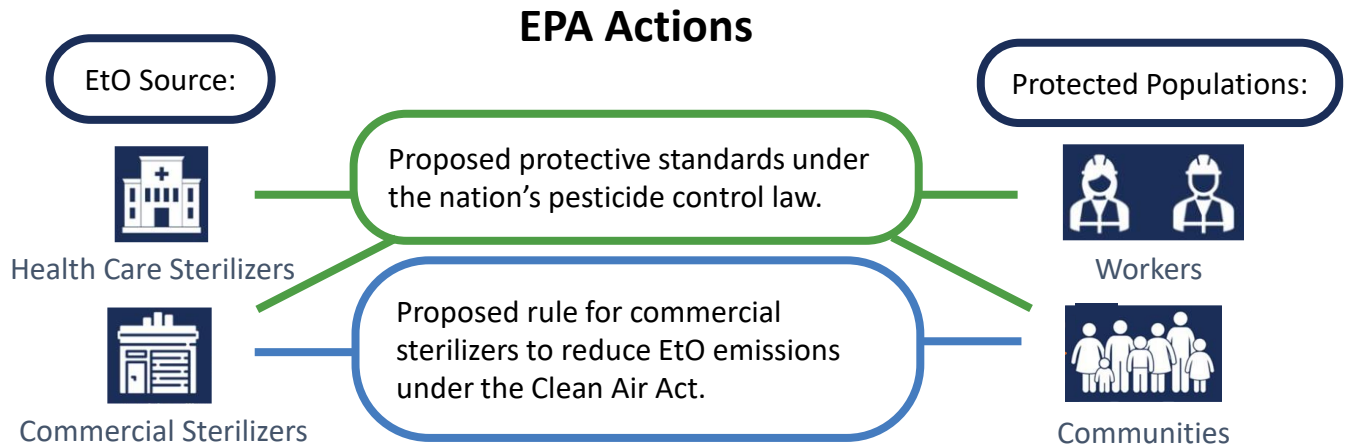


Turn the page to find out what EPA is doing about EtO

# What is EPA doing about EtO Risk?



EPA is proposing two new sets of health protections under existing laws to reduce exposure to EtO in and near sterilization facilities:



## Clean Air Act

Under the Clean Air Act, EPA has proposed actions that will increase protection for communities near commercial sterilizers:

- 1. Reduce the amount of EtO that comes out of these facilities by 80%.** This includes new rules for a certain type of EtO emissions (fugitive emissions, or emissions that escape from the facility without going through the control system AND making the requirements for these control systems stricter.
- 2. Increase monitoring requirements at these facilities.** To ensure that the emissions really are reduced, this proposal includes continuous monitoring of control systems.

## Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA)

Under FIFRA, EPA has proposed actions to increase protection for communities near commercial sterilizers and workers who work in them:

- 1. Reduce the amount of EtO used to sterilize things.**
- 2. Reduce the amount of time that workers spend in areas where EtO is at higher levels.** This includes proposed changes in process and increased use of engineering controls.
- 3. Increase monitoring requirements inside these facilities** and require workers wear **personal protective equipment** if EtO levels go above the lowest level that current technology is able to measure reliably in real time.



Go to [www.epa.gov/eto](http://www.epa.gov/eto) or scan the QR code to the right to learn more.



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