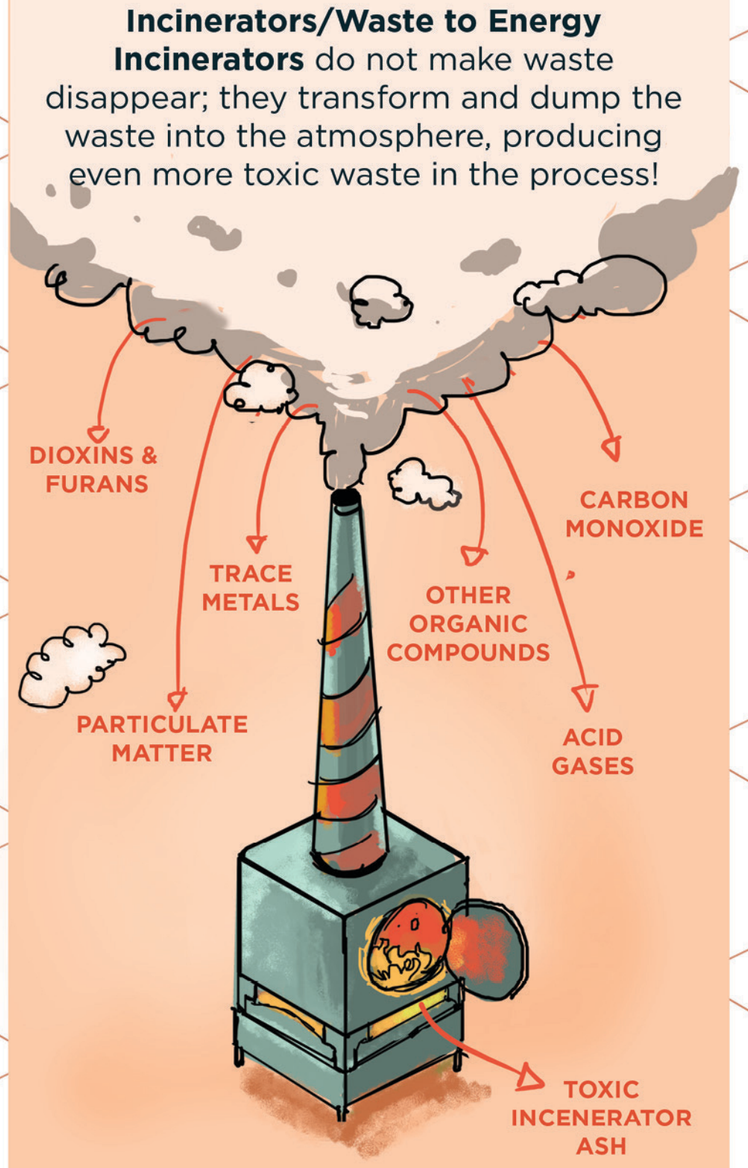
DEALING WITH INFECTIOUS WASTE

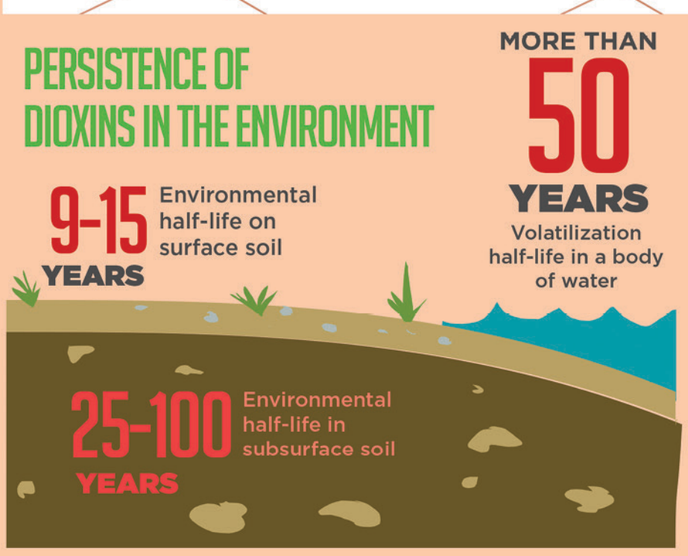
BURN NOT

Incinerators/Waste to Energy
Incinerators do not make waste disappear; they transform and dump the waste into the atmosphere, producing even more toxic waste in the process!



DIOXINS

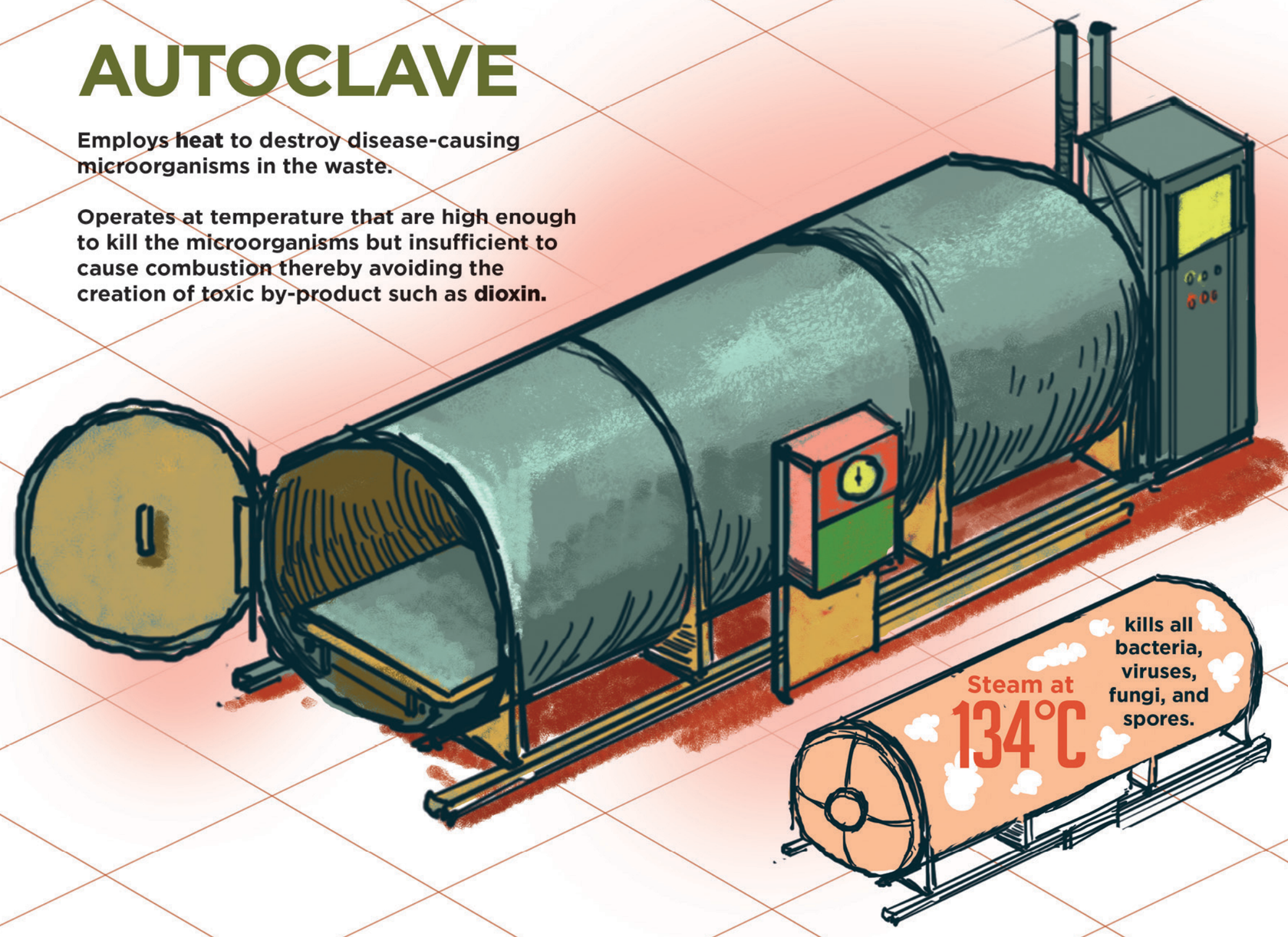
- Classified as a known human carcinogen by International Agency for Research on Cancer in 1997.
- Among the most toxic compounds known to humans.
- Dioxins are known to retain toxicity even at extremely low concentrations.
- Cancers linked to dioxins:
  -Chronic lymphocytic leukemia (CLL)
  -Soft-tissue sarcoma
  -Non-Hodgkin's lymphoma
  -Respiratory cancer (of lung and bronchus, larynx, and trachea)
  -Prostate cancer
- In the United States, a study by the Environmental Protection Agency found that medical waste incinerators produced 40% of the country's air dioxins.
- Medical waste often contains PVC and chlorine - vital ingredients in dioxins. The World Health Organization (WHO) has already pointed out that PVC should not be burned.
- The Stockholm Convention, which has been signed by over 150 countries, requires that best environmental practices, and best available technologies, be used to reduce the amount of dioxins from incineration.



AUTOCLAVE

Employs heat to destroy disease-causing microorganisms in the waste.

Operates at temperature that are high enough to kill the microorganisms but insufficient to cause combustion thereby avoiding the creation of toxic by-product such as dioxin.



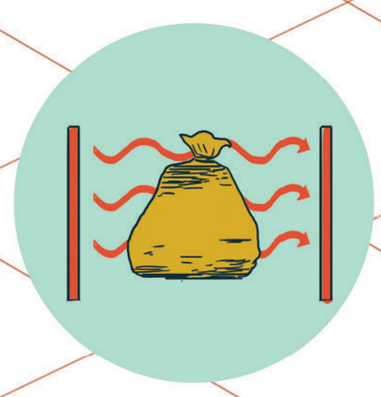
OTHER WASTE TREATMENT TECHNOLOGIES

LOW HEAT THERMAL PROCESSES

Low-heat thermal processes are those that use thermal energy at elevated temperatures high enough to destroy microorganisms but not sufficient to cause combustion or pyrolysis of the waste.

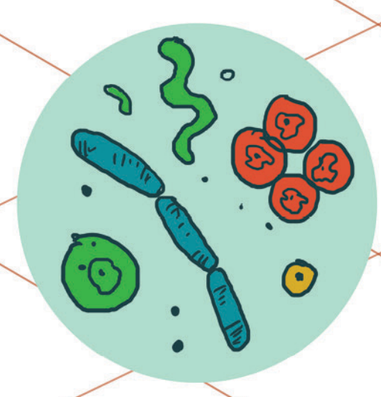
CHEMICAL PROCESSES

Chemical treatment methods use disinfectants such as dissolved chlorine dioxide, bleach (sodium hypochlorite), peracetic acid, lime solution, ozone gas or dry inorganic chemicals (e.g. calcium oxide powder).



IRRADIATIVE PROCESSES

Irradiation treatment uses irradiation from electron beams, cobalt-60 or ultraviolet sources. Electron beams are powerful enough to penetrate waste bags and containers. Germicidal ultraviolet radiation has been used to destroy airborne microorganisms as a supplement to other treatment technologies, but is not able to penetrate closed waste bags.



BIOLOGICAL PROCESSES

These processes are found in natural living organisms but refer specifically to the degradation of organic matter when applied to healthcare waste treatment. Some biological treatment systems use enzymes to speed up the destruction of organic waste containing pathogens (e.g. composting, vermiculture, and burying).

ADDITIONAL TOOLS

The World Health Organization has also developed a Health Care Waste Management Costing Tool to help decision makers working on local and national levels. The tool can be found at:

http://www.who.int/water_sanitation_health/medicalwaste/135to139.pdf

Health Care Without Harm

for more info, visit:
noharm-asia.org

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