

Dangers of Backyard Burning



Besides increasing the likelihood of wildfires, burning household trash can cause harmful health effects due to the release of potentially dangerous compounds found in backyard fires.

It is difficult to tell exactly what compounds are released from an individual burn barrel. What comes out depends on the types of trash that went in, the temperature of the fire and the availability of oxygen.

**Why
Trash
Should
Never Be
Burned
in the
Backyard**

The burning of synthetic compounds like plastics causes the release of dioxins and other potential carcinogens. Burn barrels usually have fires that burn at lower temperatures than large industrial incinerators. The lower temperature and smoldering fires often found in burn barrels result in harmful fumes released into the air and hazardous materials remaining in the ash.

Some of the toxic chemicals released by burning household trash can include:

- benzene
- toluene diisocyanate
- nitrogen oxides
- nitrile compounds
- ash and particulate matter
- carbon monoxide
- carbon dioxide
- dioxins and formaldehyde
- volatile organic compounds (VOC's)
- furans
- sulfur dioxide
- hydrochloric acid and sulfuric acid
- hydrogen cyanide
- polycyclic aromatic hydrocarbons
- heavy metals such as lead, barium, chromium, cadmium, arsenic and mercury

Potential Health Effects of Burning Trash:

**Cancer / Leukemia
Asthma / Lung Damage
Metabolic Poisoning
Nervous System Damage
Kidney / Liver Damage
Reproductive / Developmental
Disorders**

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People should never burn the following items for ANY reason: plastic, foam cushions, furniture, rugs, floor coverings, appliances, rubber, tires, metals, glass, tree stumps, roots, leaves, asphalt shingles, any roofing materials, drywall, insulation, or any painted or treated wood (including deck lumber, railroad ties, and telephone poles treated with chromated copper arsenate, creosote or pentachlorophenol).



Pound for pound, household trash burned in a burn barrel gives off twice as many furans, 17 times as much dioxin, and 40 times as much ash as a permitted incinerator. A 1997 EPA study shows that a small number of households burning trash (between 2 and 40 households, depending on how much plastic and paper are in the trash) can produce as much dioxin as a 200 ton/day municipal incinerator.

Past generations burned their household trash, but that practice is now obsolete. Curbside collection of trash and recyclables is found throughout Butler County—available to everyone. Household trash back then didn't contain plastics, foils, batteries, paper (which is bleached with chlorine) and other materials found today. Even burning paper today can release dioxins into the air. Burning household trash, whether in an open pit, burn barrel or a wood stove is unhealthy, un-neighborly and unnecessary (and illegal in SOME communities). It is time to let burn barrels become obsolete!

What Can I Do To Help?

- **"Precycle"** - Look for items with less packaging. Buy items in packaging that can be reused or recycled.
- **Reuse** - If possible, reuse waste such as old paper printed on one side or cans. When cleaning out attics or other storage places on your property, determine whether any item can be salvaged and/or given to someone else to use. Give old clothes to a charity organization or thrift store that can give or sell them to someone in need. Reuse plastic bags at grocery stores. Carry a coffee mug with you instead of using disposable cups.
- **Reduce** - Learn how to reduce the amount of waste you produce by buying in bulk or economy sizes. Reduce the amount of junk mail you receive by signing up on "do not mail" lists. (Call your recycling coordinator for more information.)
- **Recycle** what trash you can. For example, certain types of plastic, glass, aluminum cans, cardboard, and paper are all items that can be recycled. Check with your waste hauler to see what they accept for curbside recycling in Butler County. Find



alternative ways to dispose of yard waste. Instead of burning food scraps, leaves, and other yard waste, develop a compost pile that can turn yard waste into mulch. Consider chipping brush to make mulch or decorative landscape material. Dispose of allowable waste materials at a licensed landfill.

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