



**Office of Environment and
Conservation**

BE SMART

**DO NOT BURN BUSHES
DO NOT BURN RUBBISH
DO NOT BURN PLASTICS**



**and SAVE our
ENVIRONMENT and
the PLANET**

**Proudly sponsored by the
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Let's keep a cleaner AIR for a brighter FUTURE



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**An Initiative of the Office of Environment and
Conservation**

Did you know that burning rubbish/litter or bushes in your backyard or in public places can be harmful to you and the people exposed or breathing the smoke and fumes from the fires?

BURNING OF PLASTICS AND OTHER MATERIALS CAN AFFECT YOU AND THOSE AROUND YOU.

Rubbish in a heap looks unsightly but, does burning solve this problem?



No. Burning rubbish only shifts the problem from one form to another. When you put a match to a heap of rubbish, what happens is that, the flames burn the rubbish, thus giving of carbon dioxide (a gas that can

contribute to climate change) as well as other toxic gases and by-products of incomplete burning (combustion), including particulate matter. So even if you see the rubbish disappear in front of you, what has happened is that the wastes have been transferred to the air. The result is air pollution. The wastes will not remain in the air forever, at some stage the toxins in the air will return to the ground either through rain or wind and contaminate the soil and drinking water.

The solid residue or ash from the burning also contains nutrients which are necessary for plant growth. If the heap of rubbish was from organic matter alone, this would be ideal for backyard gardening. However, this is not the case with most rubbish heaps

in the backyard, and public places such as roadsides and markets. Hence, using ash from such fires for food gardens is not advisable.

In most rubbish heaps, plastics and other materials are also present, which means that the ash also contains some mixtures of toxic or poisonous substances. The solid residues left as ash contain chemicals including toxins that are in highly soluble forms and can be easily washed into the environment causing pollution.

Some of the rubbish such as plastics and materials for clothing are manufactured from chemicals (e.g. colour pigments, hydrocarbons) that are very toxic in nature.

Breathing in fumes/smoke from fires burning from such materials can be just as damaging to your health as cigarette smoking.

For example, burning of rubbish in the presence of a chemical element called Chlorine can cause the formation of unwanted chemical by - products called dioxins, polychlorinated biphenyls (PCBs) and hexa chlorobenzene (HCB) which are given off in the fumes/smoke and are present in ash which may contaminate the soil. The problem is more so when PVC plastics are burned either alone or in the presence of other materials. PVC has been found to be a major source of dioxins.

The three substances are carbon-based and have been found to possess a number of characteristics, resulting in their inclusion among twelve chemicals for international action under the most recently signed Stockholm Convention on Persistent Organic Pollutants. These chemicals are very stable and persist in the environment which means they do not break down easily; are transported easily from point of

release in wind, water and migratory animals and birds; can cause cancer or other problems in humans and animals; and build up in amounts or concentrations in animals with every exposure as time goes on, and increase in concentration as they find their way up the food chain.

Smoke from fires also contains incompletely burnt solid materials that are very fine, called particulate matter or soot. These materials can enter the lungs of people and animals when breathed in through the respiratory tract. Some of these fine particulate matter (soot) can contain toxic chemicals/materials if plastics and other manmade materials are present. Different people respond differently to these fumes. While some people such as asthmatic patients can react immediately or some time after breathing such smoke, in many cases with healthy people, the smoke can enter the lung and the solid matter gets deposited there, building up over time as the person is subjected to further exposures. Such persons will eventually show signs of respiratory diseases such as asthma or chronic bronchitis.

What should I do with Rubbish?

If it is in the home, try separating (segregating) your rubbish into organic matter (vegetable peelings, food scraps, etc.), recyclable cans/metals, plastics and other non-reusable wastes.

The organic materials can be made into compost and used to improve the soil for backyard vegetable or flower gardens or applied on the surface as mulch. The recyclable materials can be placed separately either for sale or for pickup by the town authorities at time of garbage collection. All other materials must be packed together for pickup by the city/town authorities for disposal at the designated landfills.

If you are on a picnic or outing, try to collect all your rubbish and take them home for garbage pickup or place them in the nearest public rubbish drum.

If you are in the village try to bury all your rubbish such as plastics, bottles, and empty food cans. Vegetable peelings and other organic matter can be useful for your gardens.

STOP YOUR BURNING ATTITUDE

BURNING OF PLASTICS AND
OTHER MATERIALS CAN AFFECT
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SMOKE FROM FIRES CAN
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HEALTH AND
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AND WELL
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CHILDREN AND
LOVED ONES

