

WORLD ENVIRONMENT DAY

BEAT THE PLASTIC

India Hosting World Environment Day 2018

Think... Resopond... & Act Now



SAVE EARTH

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History of Plastic



Alexander Parkes (29 December 1813 - 29 June 1890) was a metallurgist and inventor from Birmingham, England. He created Parkesine, the first man-made plastic. He publicly demonstrated it at the 1862 Great International Exhibition in London. The material, called Parkesine, was an organic material derived from cellulose that once heated could be molded and retained its shape when cooled.



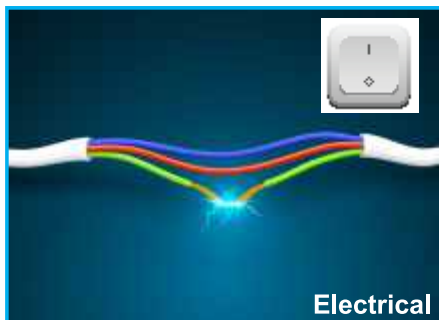
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Plastic in our Daily Lives

Understanding plastics is critical when choosing plastic items for your family and home. Plastics are of many types, some of which are used for industrial and others for commercial applications. While some plastics are meant to be disposed after being used once, others are made to be used for longer periods of time.



Electrical



Sports



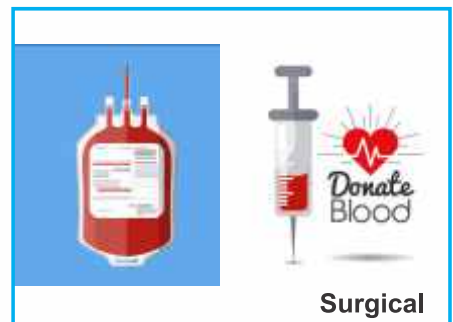
Stationary



Auto Mobile



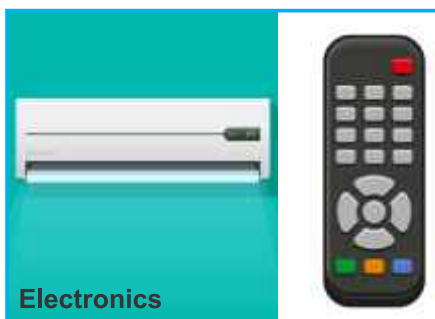
Baby Products



Surgical



Media



Electronics



House Hold



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TYPES OF PLASTIC

| Type of Plastic | Examples of What is Acceptable for Recycling | NOT Acceptable for Recycling | It Gets Made Into... |
|---|--|--|---|
|  PET polyethylene terephthalate <i>It's tough and shatterproof.</i> | Peanut butter jars. Narrow-neck containers, such as for detergents, mouth wash, salad dressing, vitamins, soda and water bottles. | Thin, brittle plastics and "clamshell" packaging—often used to hold items such as strawberries, baked goods such as muffins, or salad bar meal containers. | Bottles, carpeting, tennis balls, insulation for jackets, t-shirts, paint brushes. |
|  HDPE high density polyethylene <i>It's flexible and often translucent.</i> | Milk and water jugs, juice bottles, dairy tubs such as whipped topping or sour cream, liquid detergent bottles, medicine bottles, kitty litter jugs, plastic grocery bags. | Materials made from Tyvek, such as envelopes and protective gear. | Plastic lumber, detergent and bleach bottles, trash cans, buckets, toys, traffic barriers, fly swatters. |
|  PVC polyvinyl chloride <i>It's tough and chemical resistant.</i> | Bottles for shampoo, cooking oil, salad dressing. | PVC pipes, lawn furniture or objects too large to fit in a recycling cart (these items can be brought to the specially designated recycling bin). | Floor mats, mud flaps, pipes, hoses, computer and electric cord wraps. |
|  LDPE low density polyethylene <i>It's flexible and tough.</i> | Food storage containers, dairy container lids, bags newspapers are delivered in, dry cleaning bags. | Bags without a plastic identification number printed on them. | Garbage can liners, freezers, plastic lumber, lawn furniture, toys. |
|  PP polypropylene <i>It's chemical and heat resistant.</i> | Medicine bottles, deli containers, yogurt containers, rigid/reusable plastic cups, nursery plant packs and pots. | Thin, brittle #5 plastics, such as disposable plates and drinking cups. Polypropylene fabrics. | Brooms, lawn mower wheels, ice scrapers, paint buckets, toothbrushes, spun fiber fabrics and filling for coats, sleeping bags and blankets. |
|  PS polystyrene <i>It's brittle and see-through OR soft opaque foam.</i> | Dairy containers, medicine and vitamin bottles, flower pots. | Disposable foam hot/cold beverage cups, carry-out containers, foam egg cartons, disposable plates, packing peanuts, anything styrofoam. | Building insulation, flower pots, CD cases and sleeves, rulers, trash cans, food service trays. |
|  OTHER other plastics | Bottles such as for ketchup, syrup, window cleaner, 5-gallon water coolers. | Objects too large to fit in a recycling cart, and in general, objects without an identification code imprinted on them. | Street signs, pens, concrete supports, ice scrapers. |



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What is Plastic Pollution?



Plastic, meant for its durability, is used as soda cans or water bottles that are easily disposable. But its accumulation in the environment leads to plastic pollution around the world. As plastic is composed of major toxic chemicals known to cause illness, this non-biodegradable material has the potential to cause great harm to the environment in the form of air, water and land pollution.

Plastic becomes a pollutant when it has gathered in an area and begun to negatively impact not only the natural environment, but also creates problems for plants, wildlife and even human population. This includes killing of plant life and posing dangers to local animals.



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Causes of Plastic Pollution

The plastic causing the pollution ranges in size from big to microscopic. The major contributors to plastic pollution are:

Old Trash

Plastic is everywhere. The milk cartons, water bottles and even the packaged food items are wrapped in plastic packing. Every time one throws away or dumps down plastic in a sink, the toxic pollutants find entry into the environment. The toxins released from the dumped plastic enter the ground and affect wildlife and groundwater for years to come. This harms the whole living world.

Overuse

As plastic is less expensive, it is one of the most widely available substances in our society, which promotes its overuse in the commercial world. When disposed, the plastic does not decompose easily and pollutes the land or air nearby when burned in the open.

Fishing Nets

Commercial fishing is an economic necessity for the world. However, this industry has a major contribution to the problem of plastic pollution in the oceans. The nets used for certain large-scale trolling operations usually are made up of plastic. These nets are allowed to remain submerged in water for long times, releasing toxins at will. Sometimes, the plastic nets often get broken up or lost in the water, and they remain wherever they fall. These help not only kill and harm local wildlife, but also ensure that pollutants enter the water and fish of the area.

Disposal of Plastic

Since plastic is non-biodegradable, it is nearly impossible to break it down into simpler constituent elements over a long period of time. Burning plastic is incredibly toxic. It can lead to harmful atmospheric conditions and deadly illness. Therefore, if plastic is dumped in a landfill site, it will continue releasing toxins in the area. Even recycling doesn't cut down on plastic, as it essentially uses the existing plastic, albeit in a new form. The process of recycling plastic can also lead to plastic irritants being released in a number of ways.



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Effects of Plastic Pollution

The long life of plastic play havoc on natural environments, leading to long-term issues for plants, animals, and human life. Some of the major long-term effects of plastic pollution are:

Affects Food Chain

The micro pollutants of plastic are absorbed by the planktons, and after passing down through the food chain, reach in to large animals and ultimately in to human.

Groundwater Pollution

The world's water is getting polluted with leaking plastics and waste. Groundwater and reservoirs are susceptible to leaking of plastic pollutants as environmental toxins. The oceans are littered and polluted with the plastic waste. This has terrible effect on many marine species, as well as those species which are dependent on the marine fauna, including human.

Land Pollution

When plastic is dumped in landfills, its pollutants(hazardous chemicals) interact with water and reaches down to the water table, thereby degrading the water quality. Wind carries and deposits plastic from one place to another, increasing the land litter. It can also get stuck on poles, traffic lights, trees, fences, tower etc. and animals coming in their contact may suffocate them to death.

Air Pollution

Burning of plastic releases toxic chemicals in the air. This air when inhaled by humans and animals affect their health and can cause respiratory problems.

Kills Animals

Many animals, both wild and domesticated, are killed by ingesting plastic from their immediate environment. Plastic items are still being used and discarded en masse each day, and do a lot of damage to the world's ecosystems.

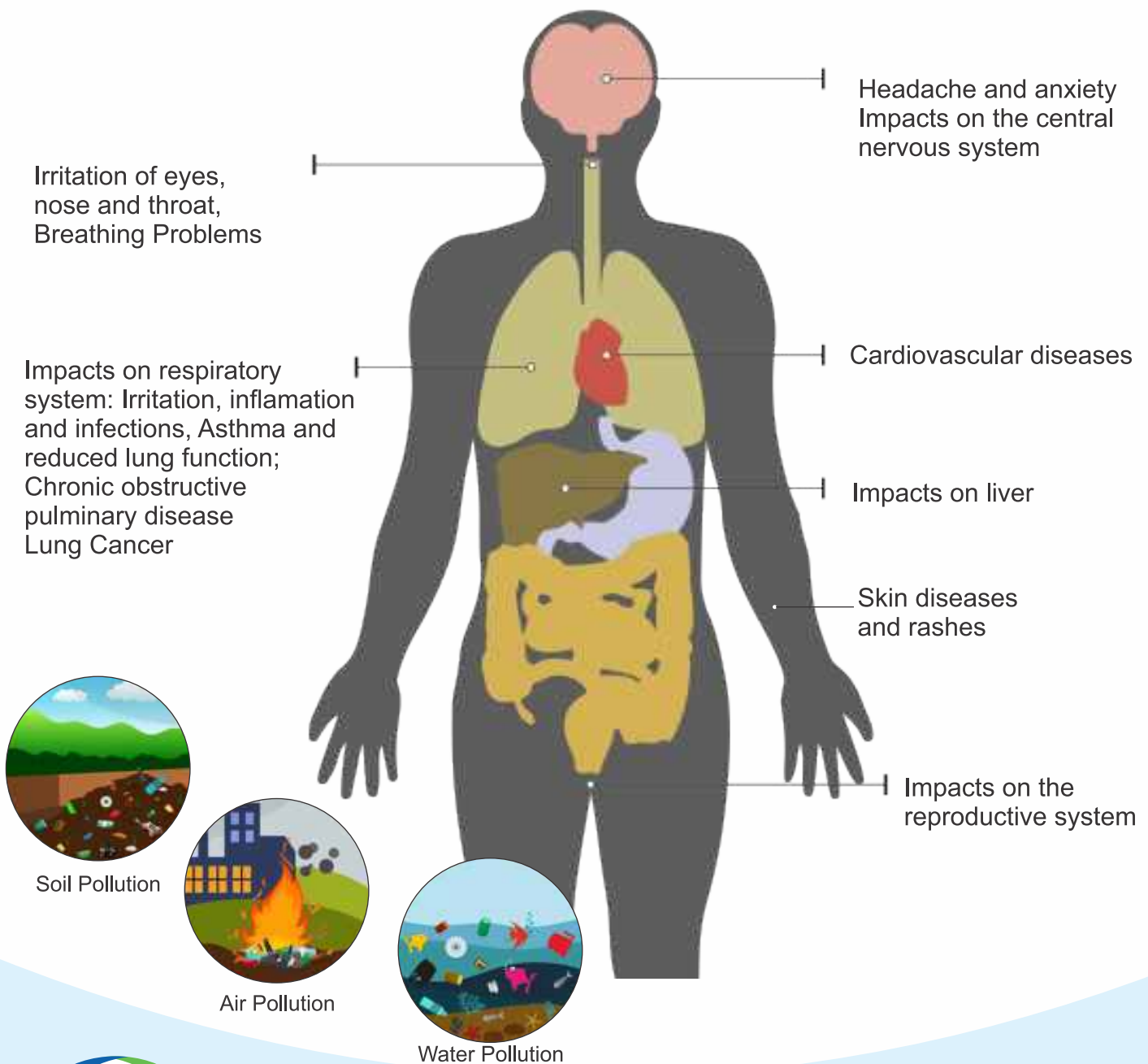


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PLASTIC *Impact on Human Health*



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Plastics & Marine life

By the year 2050, there will be more plastic debris in the world's oceans than fish. Plastics thrown away casually into the oceans is bringing our marine life to a slow and painful end. Plastic waste slowly replaces entire marine ecosystems with toxic waste that accumulates in our seafood, and enters in our bodies making us sick - a self-trap of our own making. Plastics pollute the environment in every way and brings out drastic biological and behavioral changes in fishes.



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How Plastic Bags Affect Wildlife



The real impact of plastic bag litter is felt on wildlife both in the marine environment and in rural areas. Tens of thousands of whales, birds, seals and turtles are killed every year from plastic bag litter in the marine environment as they often mistake plastic bags for food such as jellyfish.

Plastic bags, once ingested, cannot be digested or passed by an animal so it stays in the gut. Plastic in an animal's gut can prevent food digestion and can lead to a very slow and painful death. As plastic bags can take up to 1,000 years to break down, once an animal dies and decays after ingesting plastic, the plastic is then freed back into the marine environment to carry on killing other wildlife.



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Plastic Footprint

A Carbon footprint is the amount of green house gasses our life style contributes to the environment, where as the plastic footprint is the amount of plastic our life style demands.

Once released in the environment the plastic takes nearly 500 years to degrade.



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Decomposition Time of Various Products

| | | | | |
|--|---|--|--|---|
|  PAPER TOWEL 2-4 WEEKS  |  ORANGE PEEL 2-5 WEEKS  |  NEWSPAPER 6 WEEKS  |  APPLE CORE 2 MONTHS  |  TETRA PACK 3 MONTHS  |
|  PLYWOOD 1-3 YEARS  |  WOOL SOCK 1-5 YEARS  |  CIGARETTE FILTER 1-5 YEARS  |  PLASTIC BAG 10-20 YEARS  |  NYLON FABRIC 30-40 YEARS  |
|  LEATHER 50 YEARS  |  TIN CAN 50 YEARS  |  STYROFOAM CUP 50 YEARS  |  RUBBER BOOT SOLE 50-80 YEARS  |  ALUMINIUM CAN 80 YEARS  |
|  DISPOSABLE DIAPER 450 YEARS  |  PLASTIC BOTTLE 450 YEARS  |  FISHING LINE 600 YEARS  |  GLASS BOTTLE NEVER  | |

 Is completely biodegradable - contains no plastic or it's alternative forms

 Contains plastic or it's alternative forms

 Is not at all degradable, but recycling efficiency is 100%

PLASTIC IS NOT GOOD TO HEALTH | IT'S A MENACE | IT KILLS ANIMALS | STOP USING PLASTIC

Anything (including plastic) decomposes and degrades - breaks down into its constituent elements | All products made of natural elements decompose and mix in soil. But plastic only photo-degrades, doesn't biodegrade - even after decomposition it **remains as an inert plastic dust** which remains so forever Plastic degrades faster in water bodies because of it's floating property and exposure to sunlight.



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NINE REASONS TO REFUSE SINGLE - USE PLASTIC

1



Made from fossil fuels

2



Huge carbon footprint

3



Will still be here in
hundreds of years

4



Only a tiny percentage
is recycled

5



Reaches toxins into
food & drinks

6



Causes hormone
disruption & cancers

7



Pollutes our oceans

8



Kills marine animals
and birds

9



Enters our food chain

Removing single use plastic

Trading in single-use plastics for sustainable products is the first step towards reducing our plastic footprint. Here are some quicktips and some great products to replace the most common single-use plastics: Switch to stainless steel, use cloth bags, use glass mug, use a biodegradable toothbrush, choose reusable drink ware.

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Reduce your consumption of plastics



Properly recycle the plastic you use



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Advocate for
single-use plastic tax



Use reusable or degradable
shopping bags made from
starch, corn or potatoes



Buy unpackaged food



Pressure companies
to use less plastic

What can
you do?



Use paper, steel or
bamboo straws



Lobby for plastic
management strategies and
recycling regulation



Invest in reusable
containers and coffee mug



Look for alternative
packaging for
example paper

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Solutions to Plastic Pollution

Plastic pollution can be reduced at individual and corporate levels by implementing practices that reduce waste at every level. Some measure to reduce plastic waste pollution are:

Using Environment Friendly Bags

Use of plastic bags reduced by efficiently replacing them by reusable bags. Carry a reusable bag and reuse them umpteen number of times.

Get Rid of Bottled Water

Plastic bottles, used for potable water are recommended for single use only. Use reusable water bottles only to reduce plastic waste.

Forget to-go Containers

Use metallic or eco –friendly earthen utensils, lids or tumblers for domestic or travelling purpose instead of plastic cups.

Educate Businesses

To minimize use of plastic in packaging educate business people to minimize plastic packaging for their marketable product. Simple eco-friendly packaging can be as beneficial, as the plastic packaging.

Get Involved

Speak to lawmakers and get involved with government in making eco-friendly policies. Spread the awareness. Speak to your legislators about stronger laws against plastic litter. Discuss with your citizen's committee about cleaning up your neighbourhood of plastic.

Recycle Everything

Try and select items that come in non-plastic recycled and recyclable packaging, to do your best to properly handle items that can't be reused. Check everything before you put it in the trash, as more and more items are able to be recycled these days.



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Art from Plastic Trash



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From poisoning and injuring marine life to disrupting human hormones, from littering our beaches and landscapes to clogging our waste streams and landfills, the exponential growth of plastics is now threatening the survival of our planet.

This year's campaign is to

End Plastic Pollution

Stand Up!

Join Up!

Take Action!

BE THE CHANGE

PLANT A SAPLING



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