

WHAT'S WRONG WITH MEDICAL WASTE INCINERATORS?



The Problem: Medical Waste Incineration = Dioxin and Mercury Pollution

The unnecessary incineration of medical waste is a leading source of dioxin and mercury pollution. In fact, in 1994 the U.S. Environmental Protection Agency concluded that incinerators at medical facilities were the number one source of dioxin in the environment. In April 1999, the U.S. Agency of Toxic Substances and Disease Registry identified medical waste incinerators as the number one source of airborne mercury pollution in the U.S.

Dioxin is a known human carcinogen and has been linked to birth defects, decreased fertility, immune system suppression and other hormonal dysfunction. Dioxin bioaccumulates, which means that the body does not break it down, but stores it for a lifetime. This means that there is no safe dose of dioxin.

Mercury can interfere with the development of the fetal brain and is toxic to the central nervous system, kidneys and liver. Mercury also bioaccumulates in the body. These incinerators also emit deadly furans, arsenic, lead and cadmium.

Incineration still produces ash which must be landfilled. Ash from medical waste incinerators is far more toxic than raw trash landfills because it contains more dioxin and heavy metals, such as lead, mercury and cadmium, which do not break down in the environment. These pollutants also leach into groundwater more easily from ash than from a regular landfill.

The Problem: Mountains of Medical Waste

There are several reasons for the poignant irony that medical facilities are a principal source of dioxin.

First, hospitals generate huge volumes of waste. In the U.S. alone, the amount of medical waste generated per hospital patient has more than doubled since 1955, and hospitals routinely burn 75 to 100 percent of their waste.

Second, medical waste contains higher than average amounts of chlorinated plastics, particularly PVC (polyvinyl chloride) plastic, which contribute to the formation of dioxin upon incineration. The unnecessary burning of PVC plastic, paper, batteries, discarded equipment and other noninfectious material leads to emissions of dioxins and mercury as well as heavy metals.

Less than 15% of a typical hospital's waste stream is infectious and needs special treatment. In fact, according to the U.S. Society for Hospital Epidemiology, Household waste contains more microorganisms with pathogenic potential for humans on average than medical waste. The paper, plastic, food, and other hospital waste are similar to the same waste coming from hotels, offices or restaurants, since hospitals serve all of these functions. The medical waste that is potentially infectious can be treated through less-polluting technologies that sterilize waste without burning it.

The Solution: Reduce, Segregate, Reuse and Recycle

Although many governmental agencies and all incinerator companies believe that advanced and expensive pollution control technology is the solution to this problem, we must remember that this problem evolved from technology. There has never been a reason to solve a problem that could be avoided in the first place.

The most effective method for dealing with medical waste is a preventive medicine approach that integrates medical product purchasing and disposal decisions and which emphasize the use of non-toxic, recyclable, and reusable materials. To handle the remaining potentially infectious waste, non-incineration technologies have been developed to render incineration obsolete. These include autoclaves, microwaves and chemical treatment.

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RESOURCES ON MEDICAL WASTE INCINERATION



ORGANIZATIONS AND JOURNALS

Health Care Without Harm
P.O. Box 6806
Falls Church, VA 22040
Email: noharm@iatp.org
www.noharm.org

Publishes a variety of handbooks and factsheets,
including
MAKING MEDICINE MERCURY FREE,
AND RECYCLING PVC MEDICAL
PRODUCTS

Work on Waste
82 Judson Street
Canton, New York 13617 USA
www.workonwaste.org
Publishes 48 times a year: WASTE NOT

Environmental Research Foundation
P.O. Box 5036
Annapolis, MD 21403 USA
Email: erf@rachel.clark.net
www.rachel.org
Publishes: Rachel's Environment & Health
Weekly

Sustainable Hospitals Project
c/o Lowell Center for Sustainable Production
Kitson Hall, Room 200
One University Avenue
Lowell, MA 01854
www.uml.edu/centers/LCSP/hospitals/

Nightingale
Institute for Health and the Environment
www.nihe.org
Works with health care professionals in
promoting environmentally sustainable health
care practices.

SRISHTI
H-2 Jungpura Extension
New Delhi-110 014
India
Email: ravig@unv.ernet.in

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MANAGING MEDICAL WASTE.
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601, Washington, DC 20036], 1993.

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[P.O. Box 6806 Falls Church, VA 22040], 1990.