

Biomedical waste

Biomedical waste consists of solids, liquids, sharps, and laboratory waste that are potentially infectious or dangerous. It must be properly managed to protect the general public, specifically healthcare and sanitation workers who are regularly exposed to biomedical waste as an occupational hazard.

Biomedical waste differs from other types of hazardous waste, such as industrial waste, in that it comes from biological sources or is used in the diagnosis, prevention, or treatment of diseases. Common producers of biomedical waste include hospitals, health clinics, nursing homes, medical research laboratories, offices of physicians, dentists, and veterinarians, home health care, and funeral homes.

Components

The following is a list of materials that are generally considered biomedical waste:

Solids

- Catheters and tubes^[1]
- Disposable gowns, masks,^[1] and scrubs
- Disposable tools, such as some scalpels and surgical staplers
- Medical gloves^{[1] [2]}
- Surgical sutures and staples
- Wound dressings^[1]

Liquids

- Blood^{[1] [2]}
- Body fluids and tissues^{[1] [2]}
- Cell, organ,^[1] and tissue^[1] cultures

Sharps

- Blades, such as razor or scalpel blades^{[1] [2]}
- Lancets^{[1] [3]}
- Materials made of glass, such as cuvettes and slides^{[1] [2]}
- Metal stylets
- Needles^{[1] [2]}
- Plastic pipettes and tips^{[1] [2]}
- Syringes^[2]

Laboratory waste

- Animal carcasses^{[1] [2]}
 - Hazardous chemicals with biological components^[2]
 - Media^[2]
 - Medicinal plants
 - Radioactive material with biological components^[2]
 - Supernatants^[2]
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Exceptions

Cadavers, urine, faeces, and cytotoxic drugs are not considered biomedical waste.^[1]

Management

At the site where it is generated, biomedical waste is placed in specially-labelled bags and containers for removal by biomedical waste transporters.^[3] Other forms of waste should not be mixed with biomedical waste as different rules apply to the treatment of different types of waste.^[1] Biomedical waste is treated by any or a combination of the following methods: incineration; discharge through a sewer or septic system; and steam, chemical, or microwave sterilisation.^[1] Any tools or equipment that come into contact with potentially infectious material and are not disposable or designed for single-use are sterilised in an autoclave.^[3]



Household biomedical waste usually consists of needles and syringes from drugs administered at home (such as insulin), soiled wound dressings, disposable gloves, and bedsheets or other cloths that have come into contact with bodily fluids.^[3] Disposing of these materials with regular household garbage puts waste collectors at risk for injury and infection,^[4] especially from sharps as they can easily puncture a standard household garbage bag. Many communities have programs in place for the disposal of household biomedical waste. Some waste treatment facilities also have mail-in disposal programs.^[5]

Biomedical waste treatment facilities are licensed by the local governing body which maintains laws regarding the operation of these facilities. The laws ensure that the general public is protected from contamination of air, soil, groundwater, or municipal water supply.^[1]

See also

- Hazardous waste
- List of waste management topics
- List of waste types
- Medical waste
- Universal precautions

External links

- Mail-Back Sharps Disposal ^[6]
- Medical Waste Disposal ^[7]

References

- [1] Maine Department of Environmental Protection. "Biomedical Waste Management Rules" (http://maine.gov/dep/rwm/rules/pdf/chapter900effectiveaugust_4_2008.pdf). . Retrieved 2008-12-21.
- [2] MIT EHS. "Biomedical Waste" (<http://web.mit.edu/environment/ehs/biomed.html>). . Retrieved 2008-12-21.
- [3] Florida Division of Environmental Health. "Biomedical Waste" (<http://www.doh.state.fl.us/environment/community/biomedical/index.html>). . Retrieved 2008-12-21.
- [4] Maine Department of Environmental Protection. "Household Biomedical Waste" (<http://maine.gov/dep/rwm/biomedical/iphousehold.rtf>). . Retrieved 2008-12-21.
- [5] United States Post Office. "Providers of Mail-In Disposal Services for Needles and Syringes" (<http://www.doh.state.fl.us/environment/community/biomedical/pdfs/providers.pdf>). . Retrieved 2008-12-21.
- [6] <http://www.mailyoursharps.com>

[7] <http://www.biomedicalwastesolutions.com>

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