

## MEDICAL WASTE



Medical waste refers to any waste contaminated with human or animal matter such as swabs, bandages, blood samples, syringes, needles, blood and other tissues, and disposable surgical instruments, as well as plate scrapings, used paper products and other materials generated by patients. Most medical waste originates from patient care areas, surgeries, health facilities and any autopsy, surgical, pathological, dental or veterinary procedures. However, medical waste has increased from households, due in part to changed health care policies such as early post-operative discharges and home care of the elderly.

Medical waste can affect humans in three principal ways: biologically (exposure to pathogens), physically (contaminated sharps hazards) and chemically (exposure to liquids and gases). Unless medical waste is properly segregated, handled, transported and disposed of, it can present health and safety risks to people at work, members of the community, and the environment.

The trend in the medical industry to use disposable products has also increased the impact on the environment. For example, latex gloves used in medical examinations are designed for once-only use creating a large amount of waste and impacting heavily on the environment. There are however, many reusable options for medical wastes, such as stainless steel kidney dishes and autoclave needles. These can be placed through a

sterilisation process, making them suitable to be reused and drastically decreasing the amount of waste generated.

Medical wastes are usually incinerated or steam sterilised at high temperatures. The Environment Protection Authority licence requirements state that sterilising temperatures are typically 135oC for 30 minutes (AWS Clinical Waste). Clinical waste demands stricter management than general waste, and this is reflected in higher disposal costs. Up to 50% of waste sent for incineration as clinical waste is actually general waste (The Health Industry report). This leads to unnecessarily high disposal costs (The Health Industry report). Improved separation of waste streams can result in large savings, as general waste is not being disposed of at clinical waste costs. Choosing reusable options over disposable ones will decrease the overall amount of waste and overall disposal costs. There are many case studies available in More Information.

### References:

- The Health Industry: A Report On Medical Wastes, online at <http://altair.et.deakin.edu.au/courses/seb121/final2a.htm>  
AWS Clinical Waste, online at <http://www.awsclinical.com/process.htm>

### WHAT CAN I DO?

- If you have unwanted or expired pharmaceuticals at home, return to any pharmacy in Australia, where they are collected and disposed of at high temperatures. For more information, go to [www.returnmed.com.au](http://www.returnmed.com.au)
- If you use sharps or other medical supplies at home, contact your local council or Area Health Service for advice on disposing of these items correctly keep them out of the general waste stream.

### MORE INFORMATION

- [www.nhmrc.gov.au/publications/synopses/withdrawn/eh11.pdf](http://www.nhmrc.gov.au/publications/synopses/withdrawn/eh11.pdf) - National guidelines for dealing with medical waste.
- [www.defra.gov.uk/environment/waste/topics/clinical.htm](http://www.defra.gov.uk/environment/waste/topics/clinical.htm) - a UK overview of medical waste
- [www.portstephens.local-e.nsw.gov.au/environment/1278/31270.html](http://www.portstephens.local-e.nsw.gov.au/environment/1278/31270.html) - How to dispose of medical sharps properly.
- [www.oztoxics.org/waigani/library/documents/Medical%20Waste%20Treatment.pdf](http://www.oztoxics.org/waigani/library/documents/Medical%20Waste%20Treatment.pdf) - A report on dealing with medical waste.

