**Medical waste management**

Medical waste is any waste matter produced from hospitals, laboratory, dentist and any other health related practice. Medical waste can come from both human and animal bio-product. Such waste needs to be properly discarded, as it is typically hazardous to humans. If you do come into contact with medical waste, it is important to terminate contact and be thoroughly cleansed as soon as possible. Regular testing to ensure that you have not been infected by any possible contaminants in the waste is vital.

Exposure to chemical compounds that are present in some medical waste can lead to the deterioration of the immune system. If used syringes are not properly disposed of, and pierce the skin, it could potentially lead to the pierced individual contracting an infection, such as HIV. In all workplaces where medical procedures are undertaken, it is important to have clearly marked waste disposal units. This waste includes, but is not limited to needles, discarded blood products, used bandages and any bodily fluids used for testing purposes.

**Step 1: Biomedical waste collection and segregation**

As is the case for all waste, the best practices for managing it start at the point of generation, when waste is produced. In order to collect waste, one must first be familiar with what to collect exactly, since there each category of medical waste needs to be separated from the other types. In practice, this means using the right containers. These are usually color coded to help biomedical waste segregation.

* Red containers: sharps waste collection (e.g. needles, blades, razors).
* Red containers with a biohazard symbol: infectious waste collection (e.g. blood, contaminated equipment, IV tubing).
* Yellow containers: trace chemotherapy waste collection (e.g., empty vials, gloves, gowns).
* Black containers: hazardous waste collection (e.g., hazardous meds, P-listed drugs, bulk chemo)
* Blue containers: pharmaceutical waste collection (e.g. pills, injectables, antibiotics).
* Yellow, shielded containers with a radioactive symbol: radioactive waste collection (e.g. lab research liquids, anything contaminated by radiotherapy).

**Step 2: Biomedical waste storage and transportation**

If you are in contact with a medical waste disposal company, it will handle safe storage and transportation for you. In any case, clinical waste needs to be stored in a secure facility that is off-limits to the general public, and well separated from any areas that might be used for food or drink consumption. Storage is essential until medical waste can be disposed of in bulk. As for transportation, most medical waste management companies provide special vehicles equipped with state-of-the-art defensive tools.

**Step 3: Biomedical waste disposal and treatment**

Always remember: until your medical waste is safely disposed of, your company is the one responsible for any fallout it may cause, making it essential to choose a professional waste removal company. Apart from incineration (used for pathological and pharmaceutical waste disposal),there are other biomedical waste disposal methods, like autoclave chambers (sharps and infectious waste disposal),or the use of a medical waste shredder.

Here at Celitron, you can find autoclaves in different sizes. For example [medium-sized autoclaves](https://celitron.com/en/autoclave-dental-clinical-waste-disposal) like the Azteca AC are perfect for dental and veterinary clinics, while [large autoclaves](https://celitron.com/en/autoclave-sterilizer-hospital-waste-disposal) like the Azteca A are better suited for huge hospitals and Central Sterile Supply Departments. Don't worry, there is no difference in performance: it's all about what capacity and size is better suited for your medical facility.

Of course, if you're looking for the best on-site equipment to handle hazardous medical waste disposal (like sharps waste),thanks to an ingenious technology that combines the benefits of steam sterilization and shredding.

**Challenges faced during disposal of medical waste**

## ****1. Health Risks****

Biologically hazardous waste can be a source of infection due to the harmful microorganisms it contains; the most exposed are hospital patients, hospital staff, health workers. However, the situation is potentially harmful for the general public as well. The risks include chemical burns, air pollution, radiation burns and toxic exposure to harmful pharmaceutical products and substances, such as mercury or dioxins, especially during the process of waste incineration.

Other risks can also derive from the incorrect disposal of needles and syringes; worldwide, it is estimated that, every year, about 16 billion infections are administered. Unfortunately, not all needles are safely eliminated, creating risk of infection but also the [possibility of unintentional reuse.](https://www.infectiousdiseaseadvisor.com/hospital-infection-control/waste-management/article/598593/) Even though this risk has decreased in recent years, unsafe infections are still responsible for many new cases of HIV, hepatitis B and hepatitis C.

## ****2. Environmental Impacts****

Incorrect disposal of untreated healthcare waste can contaminate drinking and ground water in landfill, and also release dangerous chemical substances in the environment. Deficient waste incineration can also release hazardous pollutants in the air, and generate dioxins and furans, substances which have been linked to cancer and other adverse health conditions. Heavy metals, if incinerated, can lead to the diffusion of toxic metals in the environment.