

Alkaline Hydrolysis: An Environmentally Friendly Choice for End-of-Life Care

This post was written for an upcoming 2025 newsletter of the Funeral Consumers Alliance of Maryland & Environs, a nonprofit consumer advocacy organization.

Alkaline hydrolysis, sometimes called water cremation or aquamation, is an eco-friendly alternative to traditional burial and fire cremation. In this gentle, water-based process, heat, water, and alkali break down the body to its basic building blocks over several hours. What remains are soft bone fragments, which are dried and returned to the family like cremated remains, and a sterile liquid made up of nutrients that can be safely released into the environment.

One major advantage of alkaline hydrolysis is that it's more environmentally responsible than fire cremation or traditional burial. It uses less energy, doesn't burn fossil fuels, and doesn't create greenhouse gases or other air pollutants. The process is also free of toxic chemicals that could contaminate the soil or groundwater.

The chemicals used in alkaline hydrolysis are very common. They are used to make many everyday products, including soap, household cleaners, fertilizers, and certain foods. The most common one is potassium hydroxide (KOH), but the process can also use sodium hydroxide (NaOH). These compounds are strong alkalis, which means they have a high pH level and can break down organic material. In alkaline hydrolysis, they work with water, heat, and pressure to speed up the natural process of returning the body to its basic elements.

Although these compounds are caustic in concentrated form, they are mostly used up in the alkaline hydrolysis process. The liquid left behind is sterile and rich in nutrients. Before this liquid leaves the facility, its pH level is balanced so it's safe for water treatment plants—or in some cases, even used as fertilizer for growing crops.

Although many people are unfamiliar with alkaline hydrolysis, this technology has been used for decades, especially for pet cremation. It is now legal for human use in most states, including Maryland, though it is not yet widely available. FCAME supports expanding access to alkaline hydrolysis as a safe, sustainable alternative for after-death care. We believe families deserve clear, complete information about all their end-of-life options, so they can choose what best reflects their values and priorities.