

The Aquamation Process

Alkaline Hydrolysis, also known as aqua cremation, bio-cremation, or water cremation, is a relatively eco-friendly and sustainable alternative to traditional cremation and burial for the disposition of human remains. It involves the chemical decomposition of the body using a combination of water, heat, and alkaline chemicals. Here's a breakdown of what Alkaline Hydrolysis means and why it is considered a better choice for final disposition in many cases:

- 1. Process Overview:** Alkaline Hydrolysis takes place in a specially designed vessel, typically resembling a large stainless-steel chamber. The body is placed inside this chamber, and a mixture of water and an alkaline chemical (usually potassium hydroxide or sodium hydroxide) is added. The chamber is then sealed, and heat is applied, typically at a temperature around 160-180 degrees Celsius (320-360 degrees Fahrenheit). The combination of high temperature, pressure, and alkaline chemicals accelerates the natural decomposition process, breaking down organic matter into its basic chemical components.
- 2. Efficiency:** Alkaline Hydrolysis is highly efficient in reducing the body to its fundamental elements. After the process is complete, what remains is a sterile, clear liquid (the "effluent") and bone fragments. The bone fragments can be easily processed into a fine powder, like traditional cremated remains.
- 3. Environmental Benefits:**
 - **Lower Carbon Footprint:** Alkaline Hydrolysis typically has a significantly lower carbon footprint compared to traditional cremation. It consumes less energy and releases fewer greenhouse gases into the atmosphere.
 - **Chemical Safety:** The process uses non-toxic alkaline chemicals, which are entirely consumed during the process and do not pose environmental risks.
 - **Effluent Treatment:** The effluent from Alkaline Hydrolysis is safe and can be discharged into the sewage system or treated further, meeting environmental regulations.
- 4. Preservation of DNA:** Alkaline Hydrolysis is gentler on the body's DNA compared to the high temperatures involved in traditional cremation. This can be important for certain religious or personal reasons, such as genealogical research or preserving genetic material for future use.
- 5. Reduced Emissions:** Unlike traditional cremation, which emits carbon dioxide and other pollutants into the air, Alkaline Hydrolysis does not release harmful emissions into the atmosphere, making it a more environmentally friendly choice.
- 6. Reduced Resource Consumption:** The process uses less energy and does not require the use of caskets or embalming fluids, reducing the demand for natural resources.
- 7. Legal and Ethical Considerations:** Alkaline Hydrolysis is legally accepted in many regions and is considered an ethical choice for those who prioritize environmentally conscious end-of-life options.

It's important to note that the acceptance and availability of Alkaline Hydrolysis may vary by location, and it may not be widely accessible in all areas. However, its growing popularity and environmental advantages make it an appealing choice for those seeking a more sustainable and eco-friendly approach to final disposition.