



*Hope  
and  
Healing*

# Mayo Clinic

- Founded in 1883 by William Worrell Mayo and his 2 sons, William and Charles
- 1<sup>st</sup> patient registration system in the United States in 1907
- 1<sup>st</sup> to treat Tuberculosis with streptomycin in 1944
- Kendall and Hench discover cortisone and win Nobel prize
- 1<sup>st</sup> total hip replacement in United States in 1969
- 1<sup>st</sup> CT scanner introduced in North America in 1973
- Largest electronic medical record system in the world in 2005
- 1<sup>st</sup> to introduce Alkaline Hydrolysis to humans and return ashes in 2006

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# Stabile Building



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## New Unit



## Installed



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# Why would a health center need a crematory?

- Coordinate Mayo Clinic's Anatomical Bequest Program (whole body donation)
- Responsible to ensure ethical final disposition at study conclusion
- Historic practice was to use local funeral home crematories
- Could we do better?

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## Why did we consider AH?

- Had considered doing our own traditional cremations- problematic staffing, time, and distance
- AH technology was introduced to us by a contact at U of FL Gainesville
- Many calls concerning our cremation sources as a result of Tri-State crematory in Georgia issues Feb 2002
- Toured manufacturers facility in IN and visited Gainesville operation in the fall 2002
- AH--Advertised as green, safe, and proven in neutralizing all known pathogens, on-site use, sterile affluent discharge, attractive and safe bio ashes for return to donor families

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If we were to offer Alkaline Hydrolysis, we felt it was important to have it recognized as a legal means of human disposition.

2003 Introduced legislation with the assistance and support of MDH and Senator Senjem (Revised in 2013)



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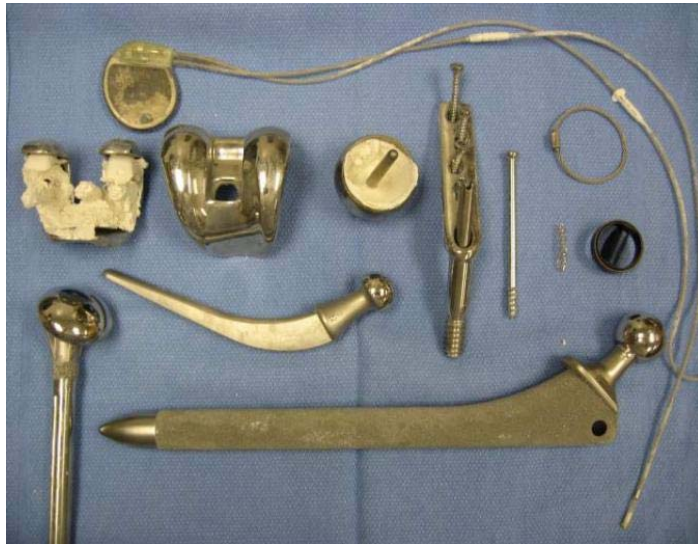
# Next Steps

- Began discussions with the manufacturer to make a unit to our specifications—non animal, dedicated single human use
- Secured internal funding and purchased machine
- Became a MN licensed crematory
- 138 donors in donor program system—positive feedback
- First human cycle was Feb 23, 2006
- Found a way to make it work
- Tested affluent and was it was within acceptable limits
- Developed best practices- removal of amalgam, recycling valuable orthopedic appliances, and returning pacemakers to Medtronic for function data capture

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Bi-products  
Recyclable implants—dental amalgam  
accrued and managed by Safety Dept.



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# Example of typical cycle bone remnants



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# Affluent and processed bone



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## Funeral home vs hospital use

- Very little difference, we return bio-ash to the donor families same as funeral home. Want the same respect and dignity for our valued donors as we would for any family member
- Occasional special dissections
- May in the future need to replace osteology sets
- Could assist with pathology-surgical tissue
- In the event of bio-terrorism have capabilities to assist
- Due to our building, set up, and situation we do not add anything additional to reduce ph in the effluent

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# Assessment of AH

- Internal operations have been favorable
- We continue to monitor systems and discharge
- Positive comments from our donor families
- We are committed to this technology and are seeking to upgrade our vessel this year

Thank you!

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