

# ALCOR LIFE EXTENSION FOUNDATION

**Mission: The Preservation of Individual Lives**

7895 E. Acoma Dr. #110, Scottsdale, AZ 85260-6916

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## Neuropreservation & Whole-Body Preservation Options

Alcor Life Extension Foundation ("Alcor") appreciates that members and prospective members need information when selecting a Neuropreservation ("N") or a Whole-Body ("WB") preservation option. There are pros and cons to each, and a decision as to which option to select can be quite personal. Alcor membership is almost evenly split between the two options. As of calendar year 2020, existing Alcor membership is 51% Neuro and 49% Whole-Body.

This document summarizes some information regarding N and WB options; however, Alcor encourages members and prospective members to avail themselves of the collection of in-depth articles in Alcor's library to make an informed decision. (<https://www.alcor.org/library/#neuro>)

Members selecting the Neuropreservation option make observations such as, but not limited to:

- The nature of cryopreservation injury is such that there is effectively no difference in the technology level that will be required to revive N or WB patients. Both will require repairs at the tissue, cell, and molecular level, and tissue regeneration is implicitly possible with such technology.
- Brain preservation in WB patients may not be as good as N patients in some circumstances. Perfusion for N patients focuses on optimizing brain cryoprotection, including separate monitoring of venous cryoprotectant concentration from left and right brain hemispheres. The cryoprotectant concentration measured for WB patients is an average venous concentration from the whole body. A compromised circulatory system in WB patients may result in poorer perfusion, which can be corrected in bad cases by switching to carotid cannulation at the cost of time.
- The vitrification solution used for N patients is slightly less viscous so, all else being equal, perfusion of N patients can be completed in less time or lessen ice formation in the same perfusion time. N patients also get improved venous drainage due to lower venous pressure, which improves cryoprotectant perfusion.
- Although severing of the spinal cord is a direct loss of nerve connection information and motor memory, fine motor skills are believed to primarily be in the brain (cerebellum, motor cortex, dorsolateral striatum, and left parietal lobe). The brain also contains indirect information about the whole nervous system in the form of what feels familiar. Such memory could theoretically be used algorithmically to test candidate regenerated nervous systems before they are made. Even without such advanced techniques, brains have natural neuroplastic ability to adapt to new nerve connections.
- N patients can be moved across state lines without waiting for a permit, which can save many hours or even days.
- N storage costs are significantly less than WB storage costs. Selecting the N option may enable people to fund above the minimum and allow for funding a trust.
- N allows some cremated remains for memorial services or family members to keep.

**Disclaimer:** Alcor Life Extension Foundation does not make recommendations regarding the choice between Neuropreservation ("Neuro") and Whole-Body preservation ("Whole-Body").

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Members selecting the Whole-Body option make observations such as, but not limited to:

- Although cost and timing cannot be accurately predicted, at some time this century the quality of WB cryopreservation may become advanced enough that WB patients will require a lower level of technology for revival than N patients.
- WB members may view their selection as the most conservative because their nervous system (including spinal cord), organs, endocrine glands, and microbiome will be preserved. WB members tend to believe that one's body is an integral part of who they are, revival may be smoother if one "wakes up" in his or her original body, they may not "feel" like themselves in a regenerated body, motor skills (walking, typing, playing musical instruments, athletics, etc.) will not have to be relearned, and the body may offer clues to assist with repair of the brain.
- The WB cryoprotectant contains an additional agent to reduce edema which may also mitigate cerebral edema in ischemic patients. This agent also produces a slightly stronger vitrification solution.
- The default surgical technique for WB perfusion entails a median sternotomy and cannulation of the heart, a mainstream medical perfusion technique that ensures perfusion of all healthy vessels leading to the head.
- For some WB members the choice of cryopreservation options is not just an individual preference because a controversial cryopreservation affects everyone. The general aversion people feel to physically separating the body from the head produces a response that may make some more prone to object or engage in hostility. Some find it easier to enlist the support and cooperation of their family and friends when selecting WB cryopreservation.
- Some WB members are comforted by the fact that they have a "fall back" position in that WB members can switch to the less expensive N option should they experience an unexpected financial reversal at some point in their lifetime.
- Many WB members believe that practicing and perfecting WB human cryopreservation, contributes to the development of human suspended animation, which has applications beyond personal preservation.

The choice of Neuro or Whole-Body cryopreservation is a personal choice and, therefore, it is Alcor's policy not to make a recommendation to members and prospective members which option to choose. If a member or prospective member would like more in-depth information, Alcor recommends reading more about these cryopreservation options by using the link provided above.

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