Life Alaska Donor Services   
Birth Tissue White Paper

Medical Waste, or the Gift of Healing?

The placenta and umbilical cord serve as a baby’s lifeline while in utero, providing nutrients and oxygen until birth. Once born, the umbilical cord and placenta serve no further biological purpose for the baby, and these tissues are typically discarded as medical waste.

After delivery, the placenta and umbilical cord are still rich in matrix proteins (e.g., collagen) and growth factors (e.g., cytokines). These properties make birth tissue an ideal therapeutic tool primarily for wound care, but also among other surgical treatments. Application of birth tissue to acute and chronic wounds can expedite healing, reduce pain for recipients, and diminish scar formation. Because it is a natural, biological membrane, it serves as a scaffolding and signals the recipient’s own cells to proliferate, migrate and populate the area. And because birth tissues are non-immunogenic (i.e, the recipient’s body will not ‘reject’ the birth tissue graft), the donor and recipient do not need to be matched. Amniotic fluid and cord blood also have applications in regenerative medicine, as they are rich in mesenchymal stem cells. These stem cells (distinctly different from controversial embryonic stem cells) can be found throughout the body in bone marrow, fat cells, and birth tissues.

Birth tissue is acquired in a manner which does not interfere with the delivery of the baby. To donate birth tissue, expectant mothers can contact Life Alaska Donor Services to complete a telephonic questionnaire. We will coordinate with the mother’s physician to arrange for a blood draw and physical exam information. Life Alaska performs infectious disease testing and uses the questionnaire to screen for any social or medical criteria that may impact tissue quality or recipient health. After the baby is born, the delivered placenta and umbilical cord will be placed in a sterile container, rather than into the medical waste receptacle.

Since inception in 1991, Life Alaska Donor Services, a non-profit organization, has facilitated post-mortem anatomical donation in Alaska, providing thousands of tissues for transplantation to Alaskan patients and throughout the world. We provide tissue distribution to local surgeons, manage the Alaska Donor Registry, and to educate the community about tissue donation. Life Alaska also provides ongoing compassionate support to families who have lost a loved one through our Family Services program. Life Alaska is accredited by The American Association of Tissue Banks (AATB); this accreditation ensures that Life Alaska's tissue-banking activities are performed in a professional manner, in compliance with established standards. Federal laws prohibit buying or selling human tissues. Donors are not compensated for their anatomical gifts and donors are not subject to any expenses associated with the donation.

In keeping with our commitment to supporting Alaskan families while striving to meet the transplant needs for all patients, Life Alaska began acquiring birth tissue in 2017. As the need for transplantable tissue continues to increase, we are indebted to the generosity of our Alaskan neighbors and are pleased to embark on this new endeavor.