

## Short Communication on Tissue Banking

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### INTRODUCTION

A repository of cadaveric tissues destined for transplantation; banked tissues include arteries, BM, cartilage, cornea, dura mater, fascia, heart valves, pericardium, semen, skin, tendons, and veins.

The first bone transplant was done in 1682. In 1949 the first tissue bank was established.

Not-for-profit and for-profit tissue banks work together through strategic alliances and partnerships:

- To benefit of all those involved in the tissue transplantation process, including transplant recipients, donors, donor families, physicians and hospitals.
- To obtain funding or expertise for research and development.
- Utilize their marketing capabilities and representative forces to increase exposure to the end user (i.e., hospital, physician).
- And/or to offer some financial stability for the near future over the term of such a contractual relationship.

### Common tissues found & excluded in tissue banks:

The tissue banking sources include both live donors and deceased donors. The following are the common tissues which are found in the tissue banks:

- Bones
- Ligaments
- Tendons
- Heart valves
- Skin
- Veins
- Cartilage
- Dura mater
- Hematopoietic progenitor cells
- Corneas or eye

The tissues excluded in the tissue banks are as follows:

- Vascularized organs
- Autologous tissue
- Blood vessels recovered with organs
- Minimally manipulated bone marrow
- Tissue intended for education or non-clinical research
- Xenografts \ Blood components and blood products
- Secreted or extracted products

### The following are responsible for the oversight of a tissue bank:

- Physician-appointed medical director
- Development of a tissue committee
- Quality assurance coordinator or compliance officer
- Hospital tissue coordinator

### Tissue recovery:

- All tissue is collected aseptically using standard surgical preparations
- Skin prep must occur within 15 hours of asystole if donor's body not cooled / refrigerated
- If donor body cooled / refrigerated within 12 hours, skin prep for recovery must occur within 24 hours of asystole

### Tissue preservation & packaging:

- Deep freezing at -40°C or colder
- Lyophilization
- Vitrification/Cryopreservation
- Refrigeration

### How tissues are stored in a tissue bank?

- Same tissues can have different temperature and duration requirements.
- It requires continuous monitoring.
- It also requires an alarm system.

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