

HARVARD BRAIN TISSUE RESOURCE CENTER

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[1-800-272-4622] <http://www.brainbank.mclean.org>

AUTISM PATHOLOGY PROTOCOL

IMPORTANT NOTES:

- 1. PLEASE CALL THE BRAIN BANK AT 1-800-272-4622 BEFORE REMOVING THE BRAIN.**
- 2. DO NOT EMBALM THE DECEDENT UNTIL AFTER THE BRAIN HAS BEEN REMOVED.**
- 3. PLEASE PLACE DECEDENT INTO MORTUARY REFRIGERATION AS SOON AS POSSIBLE, BUT WITHIN 6 HOURS AFTER DEATH.**
 - If mortuary refrigeration is not available, the whole fresh brain should be removed immediately and prepared and refrigerated following Fresh Brain Preparation steps as listed below.
- 4. COMPLETE THE BRAIN REMOVAL AS SOON AFTER DEATH AS POSSIBLE, PREFERABLY WITHIN 24 HOURS AFTER DEATH for this protocol.**

WHOLE FRESH BRAIN TISSUE PROTOCOL – Preferred Protocol INSTRUCTIONS FOR TISSUE PREPARATION, PACKAGING, AND SHIPPING

FRESH BRAIN PREPARATION

1. Complete the PATHOLOGIST TIME RECORD SHEET provided.
2. **Brain:** Place whole fresh brain into double plastic bags. **ADD NO SOLUTIONS.** Seal securely each bag.
3. Place double-bagged fresh brain into the gallon plastic pail. Fill pail with cold water.
4. **Pituitary Gland:** After removing the brain, dissect out the intact pituitary gland, place it into a labeled, small plastic bag, seal bag securely, and then place it into the gallon plastic pail.
5. Press lid on firmly to seal pail.
6. Label pail with donor's name.

PACKAGING

7. Keep styrofoam cooler in the plastic bag-lined cardboard shipping box. This shipping box assembly will be used for transporting the brain to the Brain Bank.
8. Seal securely the pail within a plastic bag.
9. Place the bagged-pail into the center of the plastic lined styrofoam shipping cooler.
10. Fill styrofoam cooler with chipped ice or ice cubes (wet ice) so that the pail is completely surrounded by ice.
11. Seal securely the inner plastic bag. Replace lid on cooler box. Seal securely the outer plastic bag.
12. Enclose a copy of the **donor consent, pathology time record sheet,** and any available **medical records** along with the tissue. Tape the cardboard box closed securely for shipping.

SHIPPING

13. **Call the Brain Bank when the tissue is ready for shipping.** To facilitate transportation, we will need your exact location and the time the shipping box will be ready. Courier arrangements will be made to pick-up the box from your facility.

ALTERNATIVE PROTOCOL FOR USE after agreement that fresh preparation is not advisable (usually a PMI or shipping logistics issue)

1/2 Formalin FIXED & 1/2 FROZEN

Tissue preparation

1. Complete the pathologist time record sheet provided.
2. **CSF:** Before removing the brain from the skull, obtain a 5-10 ml sample of CSF from the lateral ventricles. Freeze the sample in one or two labeled plastic sample tubes.
3. **Brain:** Remove the entire brain, including the brain stem and cerebellum and as much of the cervical as possible on initial sectioning
4. Record weight
5. Isolate the PINEAL and PITUITARY GLANDS, label and bag.
6. Bisect brain into right and left halves by cutting in the midsagittal plane through the corpus callosum, midbrain, cerebellum, and brainstem.

LEFT HEMISPHERE

• **Freeze 1/2 Brain** in -70°C freezer, or on crushed dry ice. Cover the brain with plastic wrap and place into a freezer with the flat, **MEDIAL SURFACE SIDE DOWN** on a smooth flat surface.

RIGHT HEMISPHERE

• **Fix 1/2 Brain** in 10% buffered formalin. Place the flat, **MEDIAL SURFACE SIDE DOWN** in a plastic bucket.

Shipping

The Brain Bank will send the proper shipping instruction and materials to your location. Call the brain bank when the tissue is ready for shipping. To facilitate transportation, we will need your exact location and the time the shipping box will be ready. Courier arrangements will be made to pick up the box from your facility

Thank you for carefully following this preparation procedure. Your generous assistance in providing valuable tissue for research is highly valued and very much appreciated.

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BILLING:

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