

HYPOPHYSECTOMY Parapharyngeal Approach

ORDER CODE: HYPOX

SPECIES: Rat, Mouse

DIET SUPPLEMENT: 5% glucose or sucrose in drinking water

A hypophysectomy is the surgical removal of the pituitary gland. The pituitary gland (or hypophysis) is a small pink oval endocrine organ found at the base of the brain. It is often considered the "master gland" of the endocrine system since it produces several hormones that either directly or indirectly impact most basic body functions, including growth.

Surgical Procedure

The animal is prepared for surgery using pre-operative and anesthetic procedures as described in our *Surgical Capabilities Reference Paper*, Vol. 13, No.1, 2005. A small ventral midline incision is made along the length of the neck up to the point of the mandible using a scalpel. The strap muscles (hyoid) of the neck are bluntly dissected to reveal the base of the cranium. Using a custom trephine (for rats) or a dental drill (for mice), a small hole is made in the cranium to visualize the pituitary gland. The gland is covered with a fine membrane, which is dissected away with a needle to free the gland. The gland is then gently removed by aspirating with a fine suction tip, and the incision is closed.

Reduced weight gain is the primary indicator of a successful surgery. The animals must be allowed to acclimate/rehydrate for 48-72 hours post shipping prior to establishing a baseline weight.

IACUC

Charles River's Institutional Animal Care and Use Committee (IACUC) governs the entire surgical process, including any post-operative holding in CRL facilities prior to shipment. The receiving institution's Animal Care and Use Committee, investigators, and animal care staff are responsible for the well-being of the animal subsequent to its arrival. Justification for use of surgically-modified animals, review of experimental protocols, authorization to order animals that are surgically modified from Charles River, and all aspects concerning the use of surgically-modified animals after they arrive at the institution are the responsibility of the receiving institution's IACUC.

April 2000