

DIAGNOSTIC & TREATMENT UPDATE FOR THE REHABILITATION OF INSECTIVOROUS BATS

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WINGS: AMPUTATION AT THE RADIUS (Forearm)

Life threatening infections, injuries, or necrosis may require emergency amputation of the wing on bats that will remain in permanent captivity. Amputations should be performed by a qualified veterinarian and should only be considered if the bat will be able to maintain a good quality of life. Amputation of a wing at the radius is primarily an option for species that are terrestrially agile. These bats quickly adjust to a terrestrial lifestyle and have little difficulty maneuvering. However, foliage-roosting bats (e.g., red, yellow, Seminole, and hoary bats) are not as terrestrially agile as many of the crevice-roosting species. Amputation is generally not recommended as it would limit these bats to a relatively stationary lifestyle. Caging modifications should also be made for amputees (see *Captive Care and Medical Reference for the Rehabilitation of Insectivorous Bats.*) Crevice-dwelling amputees should be caged with roost-mates for companionship.

Emergency Amputation

1. Prepare the following:

- Warm, flat surface (a heating pad covered with a clean cloth).
- High intensity lamp and magnifying loupe
- Surgical scissors (sterilized with Novalsan® solution)
- Surgical gloves or sterile Nitrile gloves
- Sterile gauze pads
- Absorbable sutures, 5-0 (1.0 metric)
- Vet-Bond® Skin Adhesive or Crazy Glue Gel®

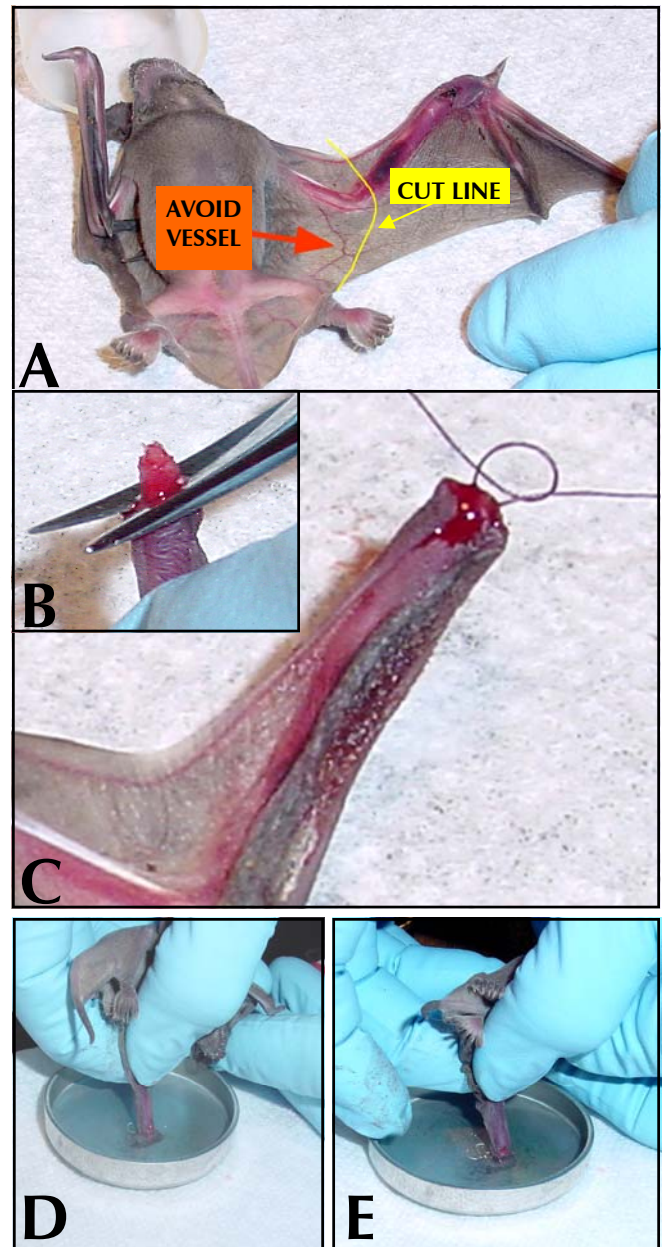
2. Carefully examine the wing to determine the precise amputation site. It's generally best to perform the amputation 3 to 5mm distal (i.e., the end most distant from the torso) to the injury/infection site.

3. Anesthetize the bat as described in Anesthesia (see Section IV). Locate the large vessel in the wing membrane indicated by the red box in photo A. Cut the membrane along the yellow line shown in photo A.

4. After the wing has been amputated, de-glove the radius by gently pulling the skin back from the amputation site. Trim the bone back by an additional two to three mm (see photo B). Control any bleeding by gently applying pressure with a sterile gauze pad at the amputation site. Slip the skin back over the trimmed bone and close it with one to two sutures. Tie the suture securely and trim off the excess. (see photo C).

5. Remove the bat from anesthesia and hold it with the head lower than the rest of the body. Pour a small pool of glue onto a clean, non-absorbable surface. Then, hold the wing securely between your thumb and forefinger and dip the amputation site into the glue (see photo D). Be sure to keep the bat's head lower than the rest of the body, and keep it in this position until the glue dries. After the glue has dried, dip the wing into the glue a second time and again wait for it to dry. This second application of glue will provide a protective layer over the amputation site (see photo E).

6. Administer Baytril® injections once a day for three days. Administer the Baytril®/Clavamox® mixture orally thereafter. Give Buprenex or Metacam® for pain. Wounds from amputations are generally healed within three weeks.



NOTE: Bats with amputations at the radius will continue to use the limb to maneuver. A second layer of glue will protect the amputation site as the limb comes into contact with caging surfaces.