General Impression Tips and Instructions for a Custom Carpus Prosthetic

- **How much of the front limb do I need to mold for a Carpus prosthetic?**
  - Begin molding from above the elbow joint, as much of the humerus as possible.
  - End your impression around the bottom of the stump.
    - OrthoPets will need to view the entire surface and contour of the bottom aspect of the residual limb segment. This will ensure a proper fit of the device.

- **Before I apply the 1.5” fiberglass casting material, do I wrap the limb with cast padding, multiple layers of stockinet, or roll of elastic self adhesive bandages to protect the limb?**
  - **NO!** Make sure that you use the Glad brand “Press-n-Seal” plastic wrap between the patient’s limb and the fiberglass material.
    - This is similar to the old Saran wrap. However, the new “Press-N-Seal” plastic wrap has a tacky backing to it.
    - The tacky backing will allow you to compress down the fur to expose bony landmarks.
    - It will also ensure that the plastic wrap stays in place for you during your impression procedure.

- **Do I Bi-Valve the cast to remove it from the limb?**
  - No, because you will only have made your cast with one roll of fiberglass casting material, you can simply cut down the cranial aspect of the limb and slide the cast off.
    - Your well fused fiberglass impression will retain its shape and define bony landmarks better this way than a Bi-Valved mold would otherwise.
  - If you have an OrthoPets fiberglass impression kit, you will place the yellow rubber cut strip down the cranial (Anterior) aspect of the limb. If you don't have an OrthoPets kit, you could substitute the cut strip with a 1/4” surgical tubing or drip line. This will serve the same function and ensure that the limb is protected from your desired cutting tool.
  - As you do not have any cast padding or stockinet, the cut strip or tube will provide a place to cut the impression off the limb without coming into contact with the patient’s skin.

- **Does the patient need to be sedated for the impression?**
  - OrthoPets does not sedate any patients.
  - It will take me approximately 10 minutes to complete the impression process.
Specific Impression Instructions

We have stated several times about the thickness of the impression and method used to make the mold. Those two points are what will make this project successful or not. The quality of the mold OrthoPets receives from you will in part determine the fit and function of the device OrthoPets fabricates. Please call our office (303-953-2545) with any questions before your scheduled impression appointment.

1. Begin by wrapping the limb with “Press-N-Seal” plastic wrap. Present the plastic wrap proximal to the elbow joint to ensure you have the limb protected from the fiberglass.

2. Tape the OrthoPets provided Cut Strip, or your ¼” rubber tube on the cranial aspect of the limb.
   - Ensure the cut strip or rubber tube presents beyond the end of the residual limb and extends proximal above the elbow joint

3. Remove 1.5” fiberglass casting material from pouch, submerse in room temperature water for 5-8 seconds, and gently squeeze material to ensure complete water saturation. Remove roll from water and gently squeeze out excess water.

4. Apply the casting material with a double wrap proximal to the elbow joint.

5. Spiral wrap casting material down the limb being careful to only overlap 1/2 of the previous layer.
   - This will create a thin and intimate impression that will fuse well together and define bony landmarks without getting overly thick and difficult to cut off.
   - Be careful not to wrap too tightly and compress soft tissue

6. Continue wrapping down the limb until the entire stump including the bottom aspect has been included.

7. Cut any excess casting material off and discard.

8. Begin rubbing the layers of casting material together.
   - This will ensure that the layers are bonding together and ensuring the casting material is conforming around any bony landmarks.

9. Spend extra time rubbing the casting material around the distal aspect of the stump to define this region. This is critical to achieve a great initial fit.
   - Define the following bony landmarks in the mold:
     - Accessory Carpal Bone (If Present)
     - Distal tip and bottom of stump
     - Ulnar Styloid
10. Once the casting material has hardened, cut through the fiberglass casting material over the cut strip or rubber tube.
   - If you have an OrthoPets casting kit, you can utilize the hook blade. Start a 1” cut at the proximal end of the mold with bandage scissors. Then simply “pull” the hook blade down the cut strip. The blade will easily and smoothly cut the hardened fiberglass cast.

11. Next, using bandage scissors, cut through the “Press-N-Seal” plastic wrap.

12. Now gently remove the cast from the limb by sliding the cast caudally.

13. Please remove any “Press-N-Sean” plastic wrap and tape from inside the fiberglass cast.

14. Lastly, immediately tape the impression back together to allow the material to completely cure without losing any if the shape.

15. Write on the impression the Patient first and last name, and Left or Right.

It may seem like a difficult process, but you will find that by making a well fused thin cast, the process will only take a few minutes and will turn out great!