

Stifle Fiberglass Impression Instructions

Please view our video on creating a stifle impression:

<http://vimeo.com/21624537>

It is 11 minutes long and explains the entire process.

Required Materials

- ✓ Glad “Press N Seal” plastic wrap **CANNOT BE SUBSTITUTED**
- ✓ Cut Strip (can be substituted w/ cut (bi-valved) suction tubing)
- ✓ Hook Blade Utility Knife (can be purchased at a hardware store)
- ✓ Tape
- ✓ Bandage Scissors
- ✓ Measuring Tape
- ✓ Permanent Marker
- ✓ Exam Gloves
- ✓ Bowl of room temperature water
- ✓ Appropriate sized **non-flexible** fiberglass casting tape
- ✓ Measurement Form



***A fiberglass impression kit can be purchased for \$60 + shipping and will include all supplies listed above (except “Glad Press N Seal”) and all necessary paperwork. “Press N Seal” can be purchased for an additional charge ***

YOUR PATIENT SHOULD NOT NEED SEDATION

DO NOT SHAVE THE FUR

YOUR PATIENT SHOULD BE STANDING

Important Anatomical Landmarks to be Included and Defined in Impression

- ✓ Patella
- ✓ Lateral Fibular Head
- ✓ Greater & Lesser Tibial Tuberosities
- ✓ Lateral & Medial Malleoli
- ✓ Calcaneus
- ✓ 2nd and 5th Metatarsal Heads
- ✓ Achilles tendon

Important Anatomical Positioning During Stifle Impression

- The patient should be **STANDING** for this impression procedure. Correct positioning during this procedure is imperative in fabricating a functional and proper fitting device.
- You may need several staff members to help hold the patient in a standing position if they are non-weight bearing.
- Please position the stifle as close to 160 degrees possible.
- Please ensure you have not created a FALSE varus/valgus of the stifle and/or tarsus in your impression.
- Please ensure you have not created a FALSE external or internal rotation of the limb in your impression.
- **Do not anesthetize or sedate your patient for this process**

Step-by-Step Instructions

1. Begin by wrapping the entire limb with “Press-N-Seal” plastic wrap. Present the plastic wrap from **the greater trochanter down to the paw**. This will ensure that you have the limb protected from the fiberglass.

2. Tape the OrthoPets provided cut strip or your bi-valved suction tube on the **lateral aspect of the limb at the stifle between the greater tibial tuberosity and fibular head. It should be positioned cranial at the tarsus.** Your goal is to leave all bony anatomical landmarks unobstructed. Ensure the cut strip or rubber tube presents below (distal) the tarsal joint and extends above (proximal) the level of the groin.

3. Remove fiberglass material from pouch and submerge in room temperature water for approximately 5-8 seconds. Gently squeeze material to ensure complete water saturation. Remove roll from water and gently squeeze out excess water.
4. Apply casting material with a double wrap at the very top (proximal) aspect of the thigh as far into the groin as possible.
5. Spiral wrap casting material down the limb being careful to **only overlap 1/2 of the previous layer.** This will create the 2 layer thick mold that will fuse together well and better define bony landmarks without getting overly thick and difficult to cut off.
6. Continue wrapping down the limb until the paw has been included.
7. Cut any excess fiberglass material off and discard. **Do not wrap back up the leg or your impression will end up being too thick.**



8. Rub the layers of casting material together to ensure the layers are bonding together and that the casting material is conforming around the bony anatomical landmarks.
9. Spend additional time rubbing fiberglass material around the following areas:
 - Press and identify the bony anatomy globally around the stifle including the patella, fibular head, stifle joint center and tibial tuberosities
 - Press and identify the bony anatomy globally around the tarsus including the Achilles complex, calcaneus, malleoli and metatarsal heads if included.
10. As the casting material begins to harden, ensure the positioning of the stifle joint remains extended to ~160 (if possible). **At this time, please use a permanent marker to identify important anatomical landmarks on cast: metatarsal heads, malleoli, calcaneal tuberosity, fibular head, greater and lesser tibial tuberosities, and stifle joint center.**
11. Utilize the hook blade utility knife to remove the impression. Using bandage scissors, start a 1" cut at the top of the mold. Insert the hook blade into the cut and "pull" down the cut strip. Ensure you are following the cut strip. **You should not need a cast saw to remove the impression.**
12. Next, using bandage scissors, cut through the "Press N Seal" plastic wrap.
13. Remove the fiberglass impression from the limb. Then, remove the "Press N Seal" and tape from cast.
14. Lastly, immediately tape the cast back together to allow the material to completely cure without losing any of the shape

Please send or email pictures of the following views:

