

ADVICE FOR REHABILITATION WITH A STIFLE BRACE

Your dog has just been fitted with a stifle brace. These braces are designed to help support the stifle joint and to improve your dog's function. However, to maximize the benefits of the brace it is imperative that you follow a graduated exercise program. Your dog is not bionic, you will still need to be cautious in regards to what you allow your dog to do. Your biggest concern will be protection of the meniscus (the cartilage cushion within the joint). Meniscal damage is directly correlated to earlier and more advanced arthritis.

This protocol will improve your dog's strength, endurance and proprioception and neuromuscular control of the limb. If you have any questions regarding these exercises or modifications of the exercises please contact your therapist.

You should note that you will likely be using the brace for 9 months to a year at minimum.

BEFORE YOU BEGIN:

Your therapist will have shown you how to don the brace. Refer to any notes or pictures you took, as well as manufacturer documentation or videos / pictures online to help guide you. Be sure to pull the brace up high enough that the hinges are lined up with the centre of the stifle (knee) joint. Bend and straighten the stifle in order to find the mid-point of the joint. Tighten the straps of the brace so it is snug, and if any Velcro straps are sticking out past the brace, fold them back upon themselves. Note, tighten the straps from bottom to top.

INITIAL STAGE

- Start with putting the brace on and having the dog simply wear it around the house for 30 minute intervals. Take it off at each interval to check the skin for rubbing, redness, or irritation. Increase the time 'in brace' by doubling this time every day (i.e. 30-minute intervals on day 1; 1-hour intervals on day 2; 2-hour intervals on day 3; 4-hour interval on day 4; and beyond that, your dog will likely tolerate being in the brace all day. Remove at night. If your dog is attempting to chew off the brace, then you may not be able to leave it on when your dog is unattended. If this is the case the he/she may need to be confined when you are not home.
- Walking with brace: Beginning with 15 minutes and gradually progress by adding 5 minutes a day. Always be aware of how the dog is moving and how well he/she is using the leg with the brace. If the dog appears more sore / stiff after a walk then decrease the length of the walk the next day and progress more slowly. Along your walk, periodically check that the brace has not slipped down.
- After the walk, check for rubbing, redness, irritation, or swelling of the foot. If you find these things, please contact your therapist / the clinic to recheck the fit of the brace.

- Weight shifting – gently push the dog from side to side to encourage them to take weight on the braced leg. As this becomes easy try the same exercise with the dog standing on a soft surface such as camping foam. In the clinic, a wobble board is very useful for this exercise and some owners have built one for home use.
- Three-leg stand – slowly lifting the opposite hind leg will encourage weight bearing on the braced leg. Make sure that the dog is not taking weight on your hand during this exercise. Sometimes it is helpful to bend the toes under when you lift the “good” leg to discourage them from weight bearing on that foot. To begin try to have them stand in this position for 5-10 seconds and gradually increase to 30 seconds as their confidence improves. This exercise can also be progressed to more challenging by working on a soft surface.
- NOTE: Do not take your dog to the off-leash park at this stage, or for long hikes. Do not throw the ball or engage in rough play. Do not allow rough-housing with other house-mates.

INTERMEDIATE STAGE

- Continue to progress the walking time / distance as able, always monitoring the dog during the walk, as well as afterwards. At this time, you could also add some very low hills again starting with one low hill during your walk and gradually progress as your dog improves in strength.
- Trotting – some gradual increases in speed could be added now. Trot for short distances during a walk – always monitoring the dog’s movement both during and after this activity.
- Obstacle course – set up a series of low obstacles that you can have the dog step over slowly (no hopping). Vary the spacing and type of obstacles so that the dog has to judge when to step over and not become used to a pattern. This can be done indoors or outdoors. Take advantage of natural obstacles outdoors as long as they are low enough to step over easily.
- Backing up – if your dog already understands this command, it is a very useful exercise to improve proprioception / control of limb movement and placement. If this is new for your dog you can utilize furniture (perhaps a sofa and coffee table) to teach them. (i.e. Have them walk toward you forward through the narrow space and then step toward them and give them a “back-up” command or a “move over” or whatever seems to work for them.) Sometimes a cookie held low down toward their chest as you step toward them will encourage them to back up. If you hold a cookie higher they most likely will sit instead!
- Front feet up – encouraging the dog to place their front feet on a stool or steps will encourage them to place more weight on the hind legs. You can make this even more challenging by lift the “good” hind leg as you did in the earlier stage.
- Pivot / side step – a progression from the previous exercise would see the dog with their front feet on a stool as they step around it with the back feet. A cookie or toy works to encourage them to turn toward you as you gently push against their hind end to get them to step away with the hind feet. Similarly, you can use a plank placed on two

blocks and with the front feet on the plank you can push gently against the hind end to get them to step sideways.

LATE STAGE

- Continue to increase walking time / distance. Add hills to the walks either straight up and down or on diagonals depending on how steep the hill is.
- Back-ups on a hill – if the dog has a good understanding of a “back-up” command you can ask him/her to walk backwards a hill – even if it is only a few steps at a time.
- Step ups – using two cinderblocks or steps / platforms / blocks (set up a normal stance-distance apart) place the dog’s front feet on one block and the braced hind leg on the other block. Then encourage him/her to take the weight off the good hind leg by slowly sliding it off the ground, thus requiring the dog to step up onto the block with the braced leg.
- As your dog’s function improves and his injured leg becomes equal in muscle girth to the non-injured side you can start to include some jogging / loping.
- It is wise to avoid activities such as rough inter-dog play as well as balls, Frisbee, chuck-its and similar toys.

THROUGHOUT

- As your dog is going through the recovery process, your therapist can offer additional therapies or exercise advice, and evaluate your dog’s progress.
- Laser, shockwave, ultrasound, or PEMF can help with joint inflammation, pain mitigation, and cartilage health.
- Electrical muscle stimulation may be offered to help with muscle recruitment.
- Joint mobilizations and massage or myofascial techniques could help with joint or muscle pain and dysfunction.
- Water therapies, such as underwater treadmill or swimming could be recommended to help with strengthening.
- Therapist-led exercises could help identify different or more specific exercises to aid in your dog’s recovery.
- Additionally, your therapist will be happy to answer any questions or concerns you might have throughout your dog’s recovery. Please be sure to consult with him/her before you allow your dog to go entirely brace-free nearer the 9-month mark!