New Treatment Option Improves Canine Mobility

Sophia, an 8-year-old Italian greyhound/Chihuahua mix, is able to play with other dogs in the park again thanks to her braces. A degeneration in the ligaments of her front legs broke down the ability of her “wrist” joints to function properly, causing them to fold under her weight. Now with orthotics provided by the veterinary hospital’s Integrative Medicine Service, she can walk more easily and comfortably, without the need for further surgery.

Thanks to this innovative approach, there is new hope for dogs stricken with permanent joint damage or pain from arthritis and other debilitating injuries or diseases. Over the past year, Jamie Peyton, chief of the Integrative Medicine Service, has fit about a dozen dogs with orthotics—braces custom made to each dog’s exact leg and paw dimensions.

The clinical application of orthotics is twofold. They are used as a treatment for pain management, as well as a means for better mobility. For dogs with joint breakdown, the orthotic holds the joint steady and allows them to have proper function of that joint again. Orthotics also provide joint support for dogs that have endured traumatic damage to their joints or are born with congenital abnormalities.

Evaluation of dogs as candidates for orthotics includes a physical examination, as well as capturing and studying video of the dog’s physical limitations. If the dog is deemed a candidate, a fiberglass impression is made of the dog’s lower leg and paw. This impression is sent to an orthotic fabricator who uses 3D printing to recreate the exact dimensions of the impression into a custom-fit orthotic.

Once fit, dogs must go through a 10-week rehabilitation course in order to learn to use the brace. Recheck examinations are also required at two weeks, two months, six months, and one year after the fitting. Initially, dogs only wear the orthotic a few hours a day and then gradually increase their use as they get more familiar with it and realize how it helps them.

The service anticipates an increase in the use of orthotics as more veterinarians begin to utilize them as either an alternative option to surgery or as a tool to assist in the recovery from surgery. In cases where dogs are not candidates for surgery due to age or underlying diseases, orthotics may give them and their owners new hope for a better quality of life.