PRP Joint Injection Rehabilitation Protocol

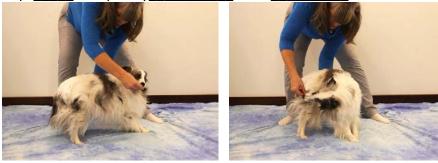
Goals	Protect the treated area
Guais	
	Minimize pain
	Minimize joint stiffness
Precautions	 Activities of daily living (i.e. Out to potty and back in)
	 No play. No off-leash. Controlled use of stairs.
	 Keep bandaging / procedure area clean & dry
	 No NSAIDS. Other pain medications might be prescribed
	 Icing (15 mins / session) for pain management, up to 3x/day.
Therapeutics	 Laser Therapy / Photobiomodulation can be administered
	 TENS for pain management can be utilized
	 Gentle massage (for comfort) can be utilized
	Passive range of motion
Exercise	 Easy weight shifting exercises (see below)
	 Cookie exercises (not moving)
	 Lift a diagonal leg

PHASE 1 (0 to 7 days after PRP Procedure)

() Cookies at the hip

In *standing*, lure your dog to take a treat beside its hip. Go to both directions.

Reps_5_ Frequency_2x/day__ Hold_2-3 sec



() Standing *diagonal* leg lift & balance (front or rear)

Start with your dog standing squarely on all four legs. Slowly lift a diagonal leg off the ground Hold, replace, & repeat. Reps_5_ Frequency_2x/day_ Hold_5-10 sec__



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PHASE 2 (7 to 14 days after PRP Procedure)

Goals	 Expand activities of daily living
	Start to engage in strengthening
Precautions	No NSAIDS. Other pain medications might be prescribed
	• Heat or Ice (15 mins / session) for pain management, up to 3x/day
Therapeutics	Light soft tissue mobilization and joint mobilizations
	Laser Therapy / Photobiomodulation can be administered
	Shockwave can be administered
	Electrical Muscle Stimulation can be utilized
Exercise	 5 – 10 min leash walks, two to three times daily
	 Expand weight bearing exercises (see below)
	Lift opposite leg
	Sit to stands
	Mini push ups

() Leash walks

Keep your dog on leash to go for a short walk.



() Standing <u>opposite</u> leg lift & balance (front or rear)

Reps_2___ Frequency_2x/day__ Hold_10 sec___



() Mini push-ups:

Place your dog's front feet up on a small raised surface. Encourage him/her to bend down to take a treat at the floor. Reps <u>5-10</u> Frequency <u>2x/day</u>



() Mini sit to stands / Assisted sit to stands

Encourage your dog to sit onto a small platform (approximately knee or ankle height), or onto your lap. Lure them forwards to stand. Repeat. Reps__5-10__ Frequency_2x/day______



PHASE 3 (2 to 4 weeks after PRP Procedure)

Goals	Achieve full pain-free range of motion
	 Minimal pain with activities of daily living
Precautions	• DO NOT overstress the joint with high impact activity, bursts of
	speed, or sudden changes in direction
Therapeutics	 Joint and soft tissue mobilizations as needed to restore normal
	range of motion and joint mechanics
	• Laser Therapy / Photobiomodulation can be administered as needed
	 Shockwave can be administered as desired
Exercise	• 10 - 20 min leash walks, two to three times daily. Go up and down
	curbs, and later in stage begin to purposely walk up and down hills
	 Stretching exercises for relevant limb – once a day, 20 -30 sec holds
	Full flexion & Full extension
	Strengthening isometric and concentric exercise progressing to
	eccentric exercise as tolerated
	• Tug of war (gentle)
	Weaves
	Obstacles
	Diagonal leg stands

() Curb walking and hill walking

Walk you dog up and down a hill or ramp. (Start with low grade hills). As well, when walking your dog, encourage him/her to walk up and down the curb along the sidewalk. Reps_5-10__ Frequency_1-2x/day__



() Full forelimb extension & flexion

Hold each stretch for 15 - 30 seconds. 2x/day.



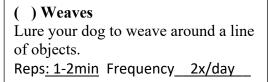
() Full hindlimb extension & flexion

Hold each stretch for 15 - 30 seconds. 2x/day.



() Gentle tug of war

Encourage your dog to play tug of war. Move the tug-toy only forwards and backwards at a slow speed. Do not allow aggressive, fast movements. Time: $1-2 \min$ Frequency 2x/day







() Obstacles

Lure your dog to step over obstacles in a straight line, circular pattern, or random pattern. Slowly lure your dog over the objects. Reps<u>1-2min</u> Frequency<u>2x/day</u>



() Diagonal leg standing

Start with your dog standing squarely on all four legs. Slowly lift one front leg off the ground, allow your dog to balance. Then lift the opposite rear leg off the ground. <u>Balance for 5 seconds</u>. Replace & repeat. Reps_5x_Frequency_2x/day



PHASE 4 (4 to 6 weeks after PRP Procedure)

Goals	 Progression of isometric strengthening to concentric strengthening and eccentric strengthening as tolerated
	 Begin to incorporate balance and proprioception activities
	Perform all activities of daily living pain free
Precautions	• Avoid high velocity, high amplitude, high intensity (such as running,
	jumping, plyometrics, throwing or heavy lifting)
	Non-impact activities
	Avoid pain post-activity
Therapeutics	 Joint and soft tissue mobilizations as needed to restore normal
-	range of motion and joint mechanics
	 Laser and/or Shockwave at a maintenance level
Exercise	 Leash walks 20 – 30 minutes, two to three times daily, increasing
	speed, and continue with hills (steeper grades allowed)
	 Focus on eccentric strengthening progression
	• Sit to stands - progress to sit to stand with front feet elevated
	 Push-ups with rear feet elevated
	 Walking up and down stairs
	 Incorporation of balance and proprioception exercises
	 Lift opposite leg while standing on unstable surface
	Core strengthening
	Plank between blocks / two elevated surfaces

() Plank

Set your dog up to have front feet on a stool / block and rear feet on a second stool or block. Have blocks placed slightly farther apart than the dog's normal standing distance. Time $1-2 \min$ Frequency 2x/day



() Push-ups with rear feet elevated

With the rear feet elevated on a LOW platform or step, encourage your dog to take a treat down at the floor between his/her front feet. Reps5-10 Frequency2x/day





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() Sit to stands

Ask your dog to sit, and then to stand. Repeat. Reps <u>5-10</u> Frequency <u>2x/day</u>



() Sit to stands with front feet elevated

With your dog facing up a hill, or with front feet elevated, ask your dog for a sit. Then ask for a stand again. Reps 5-10 Frequency 2x/day



() Stairs walking

Walk your dog up and down stairs (slow and controlled – on leash), as an exercise. Reps. 5-10 Frequency 1-2x/day





() Standing *opposite* leg lift & balance on an unstable surface (front or rear) Reps_5-10_ Frequency_2x/day_Hold_10sec__



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Goals	 Improve strength and endurance
	Pain free function
	 Symmetric proprioception of affected limb
Precautions	• Avoid high velocity, high amplitude, high intensity exercise at this
	time (such as running, jumping, or sudden turns)
	Avoid pain post-activity
Therapeutics	 Laser and/or Shockwave at a maintenance level (as needed)
Exercise	• Leash walks 30 - 40 minutes, two to three times daily, increasing
	speed and/or steeper hills
	Strengthening with eccentric exercise focus at a moderate intensity
	Continue most difficult exercises from last phase
	Balance and proprioception exercises
	Opposite leg lifts and diagonal leg lifts on unstable surfaces
	Walking over unstable surfaces
	Continue core strengthening

PHASE 5 (6 to 8 weeks after PRP Procedure)

() Standing opposite leg lift & balance on an unstable surface (front or rear)

Reps_10_ Frequency_2x/day_Hold_10sec_





() Diagonal leg standing on an unstable surface

Place your dog on a wobbly or inflatable object (or two) or lure them on. Lift one leg up (front or rear), and then slowly lift it's diagonal leg.

Reps_10_Freq_2x/day_Hold_10sec_



() Walking forwards or backwards on unstable surfaces

Create an obstacle course of unstable or inflatable objects. First, walk your dog forwards across the obstacle course, then ask him/her to back up and go over the obstacles backwards. Reps: <u>10</u>_Freq:<u>2x/day</u>



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PHASE 6 (8 to 12 weeks after PRP Procedure)

Goals	Return to pain-free sport / activity
Precautions	Avoid post-activity pain
Therapeutics	 Laser and/or Shockwave at a maintenance level (as needed)
Exercise	 Leash walks 40 minutes or more, returning to pre-injection levels, two to three times daily, working towards off leash activity after a 5 – 10 minute warm-up Continue with most difficult exercises from past stage(s) and incorporate sport-specific training Can incorporate pre-plyometric exercise progressing to plyometric exercise as tolerated

() Jumping up onto a platform

Encourage your dog to jump up onto a low platform or raised surface (approximately shoulder height or higher). Reps_5-10_ Frequency_2x/day__





() Directed jumping

Encourage jumping over an object and turning in one direction, then the other immediately after landing. Reps <u>5-10</u> Frequency 2x/day



() Short-distance retrieves

Encourage your dog to retrieve a item thrown or placed a short distance away from you. Ensure the item is not 'bouncy'. Reps <u>5-10</u> Frequency 2x/day





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