

PRP JOINT INJECTION:

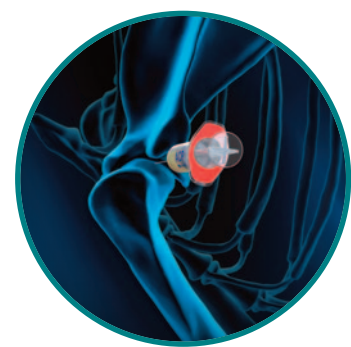
HOW IT'S DONE

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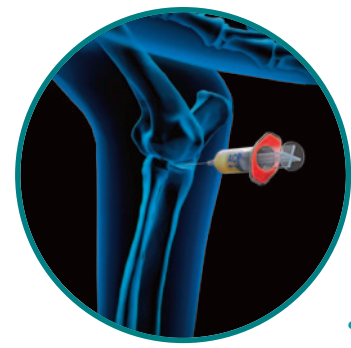
YOUR QUICK REFERENCE GUIDE

This information was developed by veterinary subject matter experts in the use of PRP. The procedure should be administered under deep sedation using aseptic techniques.



SHOULDER

- The patient is placed in lateral recumbency.
- The acromion is the main anatomic landmark utilized to locate the shoulder joint.
- Observing the morphology of the dog's acromion on radiographs prior to injection can be useful.
- The limb is maintained in a neutral position.
- The joint space is distal to the acromion process with the needle perpendicular to the limb or angled slightly proximally.
- In a large breed dog a 1.5" length needle can reach the joint space, though in well-muscled dogs, or obese animals and giant breed dogs a longer spinal needle may be required to reach the joint space.
- Aspirate for (potential) joint fluid to confirm the location prior to injection.



ELBOW

- The dog is placed in lateral recumbency with the limb to be injected down and the opposite limb pulled back and out of the way.
- The medial epicondyle is the landmark used for this approach.
- The joint space is ~1.5-2 cm distal and caudal to the medial epicondyle.
- The needle is directed perpendicular to the limb and slightly cranially and proximally.
- Aspirate for (potential) joint fluid to confirm the location prior to injection.

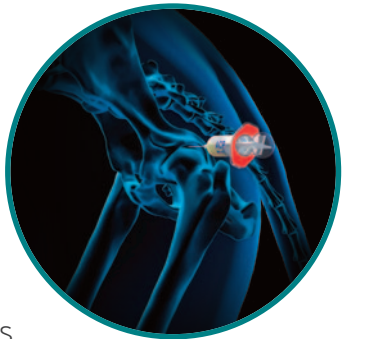


CARPUS

- The patient is placed in lateral recumbency with the affected limb up.
- The radiocarpal joint is most accessible due to its size and is accessed from the dorsal aspect of the limb.
- The carpus can be flexed and extended to locate the joint space. The distal radius can be palpated, holding the joint in some flexion (typically ~45°) to help open the joint space. Requesting an assistant to help proves beneficial.
- Palpate the distal aspect of the radius to find the joint space just distal to it. The joint space is accessed just medial or lateral (most commonly medial) to cephalic vein and the common digital extensor tendon that run across the joint.
- The needle is aimed in a dorsal to palmar direction parallel to the joint surface of the radius.
- Aspirate for (potential) joint fluid to confirm the location prior to injection.

HIP

- The patient is placed in lateral recumbency with the affected limb up.
- The greater trochanter is the primary landmark for this injection.
- The joint space is just cranial and proximal to the greater trochanter.
- The limb is placed in slight abduction with distal traction being applied to help open the joint space.
- The needle is inserted perpendicular to the skin and long axis of the femur just proximal and cranial to the trochanter.
- The joint should not be accessed from caudal to the greater trochanter to avoid iatrogenic damage to the sciatic nerve.
- Aspirate for (potential) joint fluid to confirm the location prior to injection.



STIFLE

- The patient is placed in lateral recumbency with the affected limb up or in dorsal recumbency in a trough.
- The joint is flexed to ~90° angle in lateral recumbency.

This is accomplished by having an assistant flex the stifle and abduct the limb and by placing the foot on the table.

- The needle is inserted parallel to the tibial plateau. This angle will vary based upon the tibial plateau angle and should be assessed on radiographs prior to injection.
- The needle is inserted approximately 1/3 to 1/2 of the distance from the patella to the tibial tuberosity either medial or lateral to the patellar tendon.
- Aspirate for (potential) joint fluid to confirm the location prior to injection.



TARSUS

- The patient is placed in lateral recumbency with the affected limb up or down.
- The joint can be accessed from lateral and medial, both cranially and caudally.
- Flexing and extending the hock helps to identify the joint space.
- The joint is accessed distal to the tibia and proximal to the talus dorsally, either lateral or medial to the saphenous vein and extensor tendons.
- From caudally and medially the joint is accessed distal to the medial malleolus.
- Aspirate for (potential) joint fluid to confirm the location prior to injection.



Needle Size for Average Large Breed Dog

JOINT	NEEDLE SIZE
Shoulder	20 gauge, 1.5" hypodermic needle/2" spinal needle
Elbow	20 gauge, 1.5" hypodermic needle
Carpus	22 gauge, 1" hypodermic needle
Hip	20 gauge, 2-3" spinal needle
Stifle	20 gauge, 1.5" hypodermic needle
Tarsus	22 gauge 1" hypodermic needle

Needle Size for Average Small Breed Dog

JOINT	NEEDLE SIZE
Shoulder	22 gauge, 1.5" hypodermic needle
Elbow	22 gauge, 1" hypodermic needle
Carpus	25 gauge, 1" hypodermic needle
Hip	20 gauge, 1.5" hypodermic needle/2" spinal needle
Stifle	22 gauge, 1" hypodermic needle
Tarsus	25 gauge 0.5" or 1" hypodermic needle

Maximum Allowable Blood Volume Draw for Canines

WEIGHT (LB)	WEIGHT (KG)	MAXIMUM BLOOD DRAW VOLUME (mL)
5	2.3	30
10	4.5	60
15	6.8	90
20	9.1	120
25	11.3	150
30	13.6	180
35	15.9	210
40	18.1	240
45	20.4	270
50	22.7	300
55	24.9	330
60	27.2	360

Maximum Allowable Blood Volume Draw for Felines

WEIGHT (LB)	WEIGHT (KG)	MAXIMUM BLOOD DRAW VOLUME (mL)
2.5	1.1	12
3.0	1.4	18
3.5	1.6	22
4.0	1.8	25
4.5	2.0	28
5.0	2.3	30
5.5	2.5	35
6.0	2.7	38
6.5	2.9	42
7.0	3.2	45
7.5	3.4	48
8.0	3.6	50

"CLINICAL CONCEPTS IN PLATELET RICH PLASMA"



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PRP VOLUMES TO INJECT ≤ ML

	KG	Shoulder	Elbow	Carpus	Hip	Stifle	Tarsus
Toy / Cat	5	0.5	0.25-0.5	0.25	0.5	0.5	0.25
Small	5-10	0.5-1	0.5-1	0.25-0.5	0.5-1	0.5-1	0.25-0.5
Medium	10-20	1-1.5	1-1.5	0.25-1	1-1.5	1-1.5	0.25-1
Large	20-50	1.5-2	1.5-2	0.75-1	1.5-2	1.5-2	0.75-1
Giant	50+	2-3	2-2.25	1	2-3	2-3	1