Dr. Chris Wood
BSc, DVM (Dist), MS | DACVS (Small Animal)

Referral essentials

Ottawa Animal Emergency & Specialty Hospital (OAESH)

Urgent or same-day transfer: call the receiving hospital. Confirm transfer and surgeon availability. Do not delay urgent care for a form or tests.

Send with the referral

- Patient name and brief reason for referral.
- Medical record, medicines and doses, results, reports and original images.

For routine referrals, request Dr. Chris Wood.

Start here

Routine referrals - 13 | Urgent transfer - 14 | Fractures - 17
Radiograph positions - 18-25 | TPLO referral checklist - 2 | BRisk - 15 | HeLP - 16

Find a condition checklist

TPLO / cruciate	2	Toe / nail-bed mass	9
MPL / kneecap	13	Anal sac mass	10
Hip dysplasia	13	Perineal mass	11
BOAS / airway	3	GI foreign body	12
Mast cell tumour	5	Abdominal bleeding	14
Soft-tissue sarcoma	6	GDV	12
Lipoma	7	Pyometra	14
Mammary mass	8	Septic abdomen / bowel leak	12

Node mapping with tumour surgery - 4

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TPLO referral checklist

Clinical checklist and planning radiographs for TPLO referrals.

Surgical planning

For both knees, discuss combined versus staged surgery, hospital stay and home support.

Surgery and follow-up

- ☐ Surgery with muscle sparing approach
- ☐ TPLO plate and screws
- ☐ Post-operative radiographs through confirmed healing
- ☐ Routine and additional recheck examinations as recovery progresses.
- ☐ Coordinate pre-op bloodwork and planning views with the surgical team.

Discuss implant follow-up with the surgical team.

Send / coordinate before surgery

- ☐ Existing records, original images and available sedated/anesthetized drawer and tibial-thrust findings.
- ☐ Coordinate local planning views with us.

- ☐ Calibration ball + left/right marker on EVERY radiograph.

True lateral view

- ☐ Stifle and hock near 90 degrees; hock included. Beam centered on the stifle/proximal tibia.
- ☐ Femoral condyles/fabellae superimposed as well as possible.

Orthogonal CrCd/AP view

- ☐ Limb straight; patella centered.
- ☐ Fabellae bisected; hock/calcaneus aligned. Include stifle, tibia and hock.

Positioning + radiograph examples - sheet 18

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BOAS referral checklist

Send existing results. Coordinate further tests and elective GI preparation with us.

Respiratory compromise needs stabilization and emergency assessment.

Send with referral

- ☐ BRisk score or provisional range, with completed inputs, if available - calculator and vet guide.
- ☐ Breed, weight and BCS with scale.
- ☐ Breathing, sleep, heat/exercise tolerance; crises and any oxygen, sedation or intubation. Videos if available.
- ☐ Regurgitation/vomiting, dysphagia or cough with meals; aspiration pneumonia history.
- ☐ Previous airway surgery/complications; current medicines, doses, response and adverse effects.
- ☐ Any other procedure planned under the same anaesthetic.
- ☐ Pre-anaesthetic CBC/chemistry can be done at your clinic; send results.
- ☐ Existing original chest images and reports; VFSS/endoscopy reports if performed.

Coordinate with us

We arrange a laryngeal exam under anaesthesia and chest radiographs for tracheal diameter/lung assessment.

Coordinate swallowing/hiatal-hernia testing with us for recurrent aspiration or severe dysphagia.

Elective GI preparation

Start 7 days before surgery: metoclopramide 0.5 mg/kg PO q8-12h and omeprazole 1 mg/kg PO q24h.

Post-op: omeprazole for 30 days.

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Node mapping during tumour surgery

Sentinel-node mapping is part of the tumour surgical plan, predominantly for mast cell, mammary and toe or nail-bed tumours. Refer for the tumour and use its checklist for staging and records.

Records used to plan mapping

Include these with the tumour referral when available:

- ☐ Mass FNA cytology/pathology report; any biopsy/excision report.
- ☐ Exact mass site, size and photos; mark any scar.
- ☐ Previous surgery: operative report and margin results.
- ☐ Existing node cytology, original images and reports; identify each sampled node and side.

Coordinate with us

Contact us before definitive excision so the tumour operation, mapping and node sampling or removal can be planned together. Do not delay the tumour referral to obtain mapping.

Samples: label each node separately by site and side.

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Mast cell tumour: referral checklist

Before referral

- ☐ Mass FNA - include cytology/pathology report
- ☐ CBC / biochemistry
- ☐ Site, size (3 dimensions), depth/mobility, lymph-node findings and photos
- ☐ Growth, ulceration, recurrence/prior surgery, medications and systemic/GI signs
- ☐ Chest imaging: not routine for low-risk cutaneous MCT. Consider for systemic signs, thoracic concerns or facial/oral/perineal/preputial tumours if results would change management.

Send: blood results, any histopathology and original imaging/reports.

Coordinate with us

- ☐ Sentinel-node mapping / sampling as part of tumour surgery
- ☐ Abdominal US ± liver/spleen aspirates, if indicated
- ☐ Local imaging or biopsy, if indicated

Do not delay the tumour referral for mapping. Discuss feline or visceral MCT.

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Soft-tissue sarcoma: referral checklist

Before referral

- ☐ Mass FNA - include cytology/pathology report
- ☐ 3-view thoracic radiographs or thoracic CT - originals and report
- ☐ Site, size (3 dimensions), depth, mobility/fixation and photos
- ☐ Growth, pain, recurrence; previous excision and scar/biopsy-tract location

Send: any histopathology, operative notes and existing blood results.

Coordinate with us

- ☐ Core/incisional biopsy if diagnosis changes planning; avoid unplanned excision
- ☐ Local CT/MRI/US: >5 cm, deep/fixed, recurrent or anatomically constrained mass
- ☐ Abdominal imaging only for systemic signs, abdominal location or subtype-specific concerns

Discuss suspected feline injection-site sarcoma before biopsy or excision.

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Lipoma / fatty lump: referral checklist

Before referral

- ☐ Mass FNA - include cytology/pathology report
- ☐ Site, size (3 dimensions), depth, mobility/fixation and photos
- ☐ Growth, pain, altered movement/neurologic signs, prior surgery or recurrence
- ☐ No routine chest/abdominal staging for simple or infiltrative lipoma. Suspected liposarcoma/STS: thoracic staging before referral.

Send: any histopathology, operative notes, blood results and original imaging/reports.

Coordinate with us

- ☐ Local CT/MRI/US: deep, fixed, infiltrative, recurrent or function-limiting mass
- ☐ Biopsy for atypical mass or discordant examination/cytology

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Mammary / breast lump: referral checklist

Before referral

- ☐ CBC / chemistry
- ☐ 3-view chest radiographs
- ☐ Mammary map: gland, size of each mass, fixation/ulceration, nodes and photos
- ☐ Growth, spay/hormone history, prior surgery and systemic signs
- ☐ Mass FNA if diagnosis unclear - include cytology/pathology report

Send: blood results, histopathology, original chest images/reports and previous op notes.

Coordinate with us

- ☐ Biopsy if it changes surgery, especially in cats or atypical masses
- ☐ Dr Wood plans node removal / sentinel-node mapping with mammary tumour surgery; no routine node FNA
- ☐ Feline abdominal US: case by case after referral. CT/abdominal staging for advanced disease or abnormal findings

Diffuse painful inflammation, rapid progression or systemic illness: urgent assessment and medical/oncology discussion.

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Toe or nail-bed lesion: referral checklist

Before referral

- ☐ Lesion FNA if feasible - include cytology/pathology report
- ☐ CBC / chemistry
- ☐ Orthogonal digit/foot radiographs
- ☐ 3-view chest radiographs for digit/nail-bed masses; cats: check for pulmonary primary
- ☐ Digit(s), size, nail changes, pain/lameness, discharge, treatment response, nodes and photos

Send: blood results, biopsy reports, original foot/chest images and reports.

Coordinate with us

- ☐ Biopsy / planned digit amputation if FNA non-diagnostic
- ☐ MCT/STS of digit/web: tumour-specific staging
- ☐ Node assessment / sentinel-node mapping as part of toe / nail-bed tumour surgery; thoracic CT for high metastatic concern or abnormal films; local CT for proximal extension

Avoid unplanned excision if margins may be needed.

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Anal sac mass: referral checklist

Before referral

- ☐ Mass FNA if feasible - include cytology/pathology report. Do not delay classic anal sac mass referral for FNA.
- ☐ CBC / chemistry, renal values and ionized calcium.
- ☐ 3-view chest radiographs.
- ☐ Rectal exam: both sacs, side, size, fixation and pelvic mass effect.
- ☐ Stool/urinary signs, PU/PD, pain, weight loss and prior treatment.

Send: histopathology, blood results, original images/reports and clinical notes.

Coordinate with us

- ☐ Abdominal/pelvic staging; CT case by case after referral, considering mass >2.5 cm or clinical/nodal concerns.
- ☐ Node assessment / sampling; sentinel-node mapping by the surgical service; hypercalcaemia treatment if indicated.

If ionized calcium is unavailable, we can arrange it. Assess regional disease even with a small primary. Feline cases: discuss separately.

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Lump around the anus: referral checklist

Before referral

- ☐ Mass FNA if diagnosis unclear - include cytology/pathology report.
- ☐ Rectal exam: both anal sacs; mass site, number, size, fixation, ulceration and photos.
- ☐ Neuter status, growth, recurrence/prior surgery and stool/urinary signs.
- ☐ CBC / chemistry and calcium if malignancy suspected.
- ☐ Chest imaging: if malignancy suspected; not routine for classic benign adenoma.

Send: histopathology, blood results and original images/reports.

Coordinate with us

- ☐ Biopsy if malignancy possible; plan site before excision.
- ☐ Abdominal/pelvic staging and CT for invasive, fixed, recurrent or obstructive disease.

Suspected hepatoid adenocarcinoma >5 cm: additional CT planning flag.

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Urgent abdominal referrals

Call the receiving hospital first. Confirm transfer and surgeon availability.

Do not delay stabilization or urgent care to finish a checklist or referral form.

Send available records, original images/reports; medicines, fluids/blood products, times and response.

Suspected foreign body

- ☐ Suspected object, ingestion time and onset/duration of signs; emesis/endoscopy attempts.
- ☐ Perfusion findings.
- ☐ CBC/chemistry/electrolytes; lactate, blood gas and abdominal-fluid results if done.
- ☐ Flag linear material, free fluid/gas, suspected perforation or worsening obstruction.

GDV: send available records

- ☐ Onset/time first seen; mentation and ability to walk.
- ☐ Perfusion, BP and current support.
- ☐ Decompression and times.
- ☐ Available CBC/chemistry/electrolytes, blood gas and ECG.
- ☐ Lactate values and sample times; treatment before each sample.

Septic abdomen / deterioration after bowel surgery

- ☐ Examination findings and timeline.
- ☐ Available blood results and abdominal-fluid cytology/culture.
- ☐ After bowel surgery: operative report and timing of deterioration.

Pyometra / abdominal bleeding: quick chart, sheet 14. Urine culture is taken during pyometra surgery.

Routine referrals

Send with every referral: history and exam; medicines, doses and response; existing results, reports and original images. For masses: site, size, photos and prior pathology / surgery.

Before surgery: CBC/chemistry at your clinic or arranged at OAESH. Exceptions are noted below. "Existing" means already available.

Condition	Send with referral	Timing / exceptions
TPLO / cruciate	Existing knee radiographs.	CBC/chemistry and planning views at OAESH.
MPL / kneecap	No radiographs needed before referral.	Alignment views at OAESH.
Hip dysplasia	Existing pelvic radiographs.	PennHIP at OAESH; refer puppies early.
BOAS / airway	Existing chest radiographs.	BRisk worksheet, if available.
Mast cell tumour	Mass FNA.	No routine chest staging for low-risk cutaneous disease.
Soft-tissue sarcoma	Mass FNA; 3-view chest radiographs or thoracic CT.	Local imaging at OAESH.
Lipoma	Mass FNA.	If liposarcoma / sarcoma suspected, use sarcoma staging.
Mammary mass	3-view chest radiographs; FNA if diagnosis unclear.	
Toe / nail-bed mass	Foot and 3-view chest radiographs; FNA if feasible.	
Anal sac mass	3-view chest radiographs; FNA if feasible.	Add ionized calcium. Do not delay a classic mass referral for FNA.
Perineal mass	FNA if diagnosis unclear. Chest radiographs if malignancy suspected.	If malignancy suspected: CBC/chemistry/calcium; coordinate biopsy.

For routine referrals, request Dr. Chris Wood.

FNA = fine-needle aspirate. Checklists: smallanimalsurgeon.com/referral-centre

Contents / sheet 1

Urgent transfer

1 Call the receiving hospital

Confirm transfer and surgeon availability. Continue stabilization.
Do not delay transfer for tests, scoring or paperwork.

2 Send what you already have

History and exam with times; medicines/doses, fluids or blood products and response; available results, reports and original images.

3 Highlight the key handoff details

Condition	Tell the receiving team
GI foreign body	Object and timing; attempts to treat and response; free gas or fluid if seen.
Abdominal bleeding	Perfusion / blood pressure; fluids or blood products and response; available FAST / fluid findings. Do not delay for mass FNA or staging.
GDV	Decompression and times; ECG findings; lactate results with sample times and treatments given before each sample. Do not delay for repeat lactate.
Pyometra	Last heat and duration; hydration, temperature and urine output; rupture / sepsis concern. Urine culture is collected at surgery; not required before transfer.
Septic abdomen / bowel leak	Timeline, perfusion and deterioration; operation report if relevant; available fluid cytology / culture.

BOAS surgery: BRisk worksheet

For brachycephalic dogs having BOAS surgery. Leave unknowns blank.

Patient: _____ Breed: _____ Recorded by: _____ Date: _____

1 CIRCLE ONE ANSWER IN EACH BOX

1 Breed	Points
○ English or French Bulldog	0.5
○ Other brachycephalic breed	0

2 Previous airway surgery?	Points
○ No	0
○ Yes	1.5

3 Other surgery in the same anaesthetic?	Points
○ No	0
○ Yes - a non-airway procedure	1.5

4 Body condition score (BCS)	Points
○ 2.5 or below /5 OR 4 or below /9	1
○ Above 2.5 to 3.5 /5 OR above 4 to 6 /9	0
○ Above 3.5 /5 OR above 6 /9	1

5 Airway at admission	Points
○ No snoring noise (stertor), or only with exercise	0
○ Snoring noise (stertor) at rest	1.5
○ Oxygen AND sedation required	2
○ Intubated; cannot extubate before surgery	4

Oxygen only or sedation only: record support; leave airway points unconfirmed.

6 First admission rectal temperature	Points
○ 37.7°C or below | 100°F or below	1.5
○ 37.8-38.3°C | above 100 to 101°F	1
○ 38.4-39.4°C | above 101 to 103°F	0.5
○ 39.5°C or above | above 103°F	0

°C bands: readings recorded to 0.1°C. Finer reading? Use the online guide for exact °F conversion.

2 ALL SIX ANSWERED? ADD THE POINTS

TOTAL: _____ / 10

Major complications during hospitalization: circle the group

0-3: LOWER complication group | Above 3: HIGHER

Anything unknown? Mark INCOMPLETE; send what you have. Use the online calculator for a range; a blank is not zero.

3 SEND THIS SHEET + records, medicines/doses, existing CBC/chemistry and chest images/reports.

BCS: ____ /5 or /9 Temp: ____ °C / °F (circle scale/unit) Taken (date/time): _____ Clinic: _____

Airway support / drugs / doses / time: _____

There is no validated medium category. Lower does not mean safe.
Provisional; OAESH confirms admission findings. Not a personal risk %. Less reliable in French Bulldogs. Guide: smallanimalsurgeon.com/brisk-score.

Breathing distress? Seek emergency care now. Do not delay to complete this sheet.

Board contents

Abdominal bleeding: HeLP worksheet

Dogs with nontraumatic hemoabdomen; primary coagulopathy excluded.

Urgent case? Call ahead. Do not delay care for scoring or chest X-rays.

Patient: _____ Breed: _____ Recorded by: _____ Date: _____

Eligibility confirmed? Circle YES / NO. If not confirmed, do not calculate.

1 USE ADMISSION FINDINGS. CIRCLE ONE ANSWER PER BOX

1 Body weight (kg)	Points
○ Below 35.1	0
○ 35.1-42.0	12
○ Above 42.0	14

2 Total plasma protein / solids - refractometer	Points
○ Below 53 g/L | below 5.3 g/dL	10
○ 53-58 g/L | 5.3-5.8 g/dL	15
○ 59-62 g/L | 5.9-6.2 g/dL	23
○ Above 62 g/L | above 6.2 g/dL	0

3 Platelets (x 10^9/L = K/µL)	Points
○ Below 60	26
○ 60-114	24
○ 115-134	27
○ Above 134	0

If reported as /µL, divide by 1,000. Example: 120,000/µL = 120 here.

4 Thoracic radiographs	Points
○ Normal lung pattern	17
○ Abnormal lung pattern, not metastatic	0
○ Metastatic lung pattern	36
○ No thoracic radiographs available	17

No chest films = 17 points. Record NOT DONE; this is not a normal chest result.

2 ALL FOUR ANSWERED? ADD THE SELECTED POINTS, THEN CIRCLE THE GROUP

TOTAL: ____ / 100 **0-40 LOW | 41-55 MEDIUM | 56-100 HIGH**

These groups describe suspicion of hemangiosarcoma (HSA), not surgical risk.

Missing weight, protein or platelets, or between bands? Mark INCOMPLETE + reason. Do not round or guess.

3 SEND THIS SHEET + medical record, reports and original images.

Weight: ____ kg Protein: ____ g/L / g/dL (circle) Platelets: ____ [units: ____] Sample date/time: _____

Chest images: done / NOT DONE (circle) Clinic: _____

Low does not exclude HSA; high does not confirm it. Tissue diagnosis is still needed. Points are not a percentage.
HeLP does not predict stability or survival. Do not base euthanasia or withholding care on the score alone.
Calculator + guide: smallanimalsurgeon.com/help-score

Board contents

Fracture referrals

Positions + radiographs: image sheets 19-25.

Urgent transfer: call the receiving hospital.
Stabilise life-threatening injuries; confirm transfer / surgeon availability. Do not delay urgent care for images or checklists.

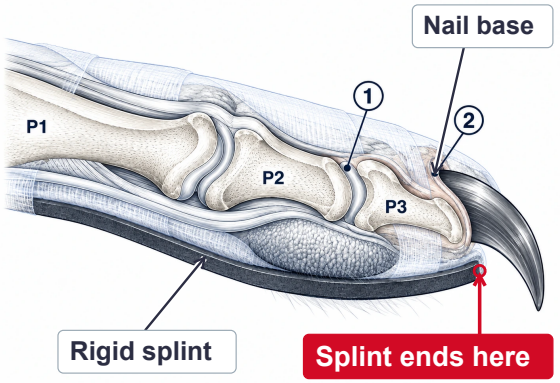
CALIBRATION BALL + SIDE MARKER ON EVERY RADIOGRAPH.

TOES-IN FORELIMB SPLINT

The rigid splint supports the toes. Nail tips can still show.

Splint end: just beyond the nail bases of the two middle toes (D3/D4).

Suitable distal radius-ulna injuries needing transfer support.



One middle toe; not a full bandage or sizing guide.

Region / sheets	1 Imaging Send original orthogonal images	2 Bandage / splint for transfer	3 Planning notes Confirm with receiving team
Radius-ulna Sheet 19	Lateral + craniocaudal. Entire radius/ulna; elbow + carpus.	**Distal injury: padded caudal splint, if appropriate.** TOES-IN: see drawing above.	Flag toy-breed distal radius-ulna cases.
Tibia-fibula Sheet 20	Lateral + frontal (craniocaudal or caudocranial). Entire tibia/fibula; stifle + hock.	**Padded lateral splint, if appropriate.**	
Femur Sheet 21	Lateral + craniocaudal. Entire femur; hip + stifle.	**No routine limb splint.** Confine; minimise movement; coordinate transport / support.	
Humerus Sheet 22	Lateral + frontal. Entire humerus; shoulder + elbow.	**No routine limb splint.** Confine; minimise movement; coordinate transport / support.	
Humeral T-Y Full humerus 22 Elbow detail 23	**Orthogonal full-humerus views:** include shoulder + elbow. Available elbow detail; coordinate CT.	**No routine distal-limb splint.** Minimise movement; coordinate support. Do not force elbow position.	Coordinate planning CT / 3D.
Metacarpal / metatarsal Forepaw 24 Hindpaw 25	Forepaw: lateral + dorsopalmar. Hindpaw: lateral + dorsoplantar or plantarodorsal. Include carpus/tarsus + digits; obliques if overlap hides fracture.	**Padded support, if appropriate.** **Forepaw:** caudal; if rigid, toes-in (see above). **Hindpaw:** lateral; confirm toe plan.	Confirm the affected bones during image review.

If using a splint

Use modified Robert Jones padding; support the joints above and below. Check fit, swelling, distal circulation and nail spacing / marks.

Confirm with the receiving team

For proximal, growth-plate, joint, avulsion or unstable injuries, agree splint length, position and monitoring. Temporary support does not establish reduction or definitive treatment.

Surgical planning

Review the images with the receiving team. Discuss repair and implant follow-up.

TPLO planning radiographs

Two planning views: true lateral + orthogonal CrCd/AP. Include stifle, tibia and hock.

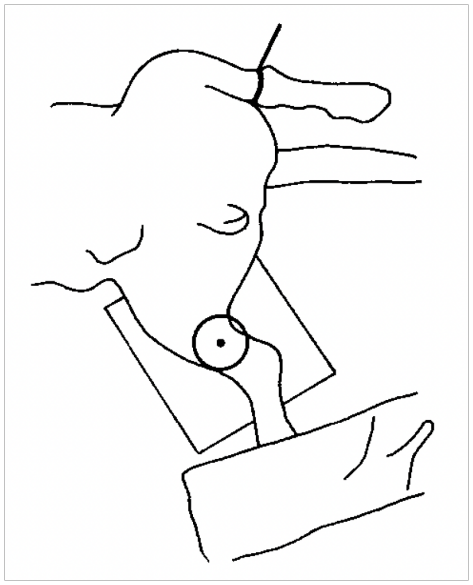
Coordinate new planning images with the surgery team.

CALIBRATION BALL + SIDE MARKER ON EVERY RADIOGRAPH.

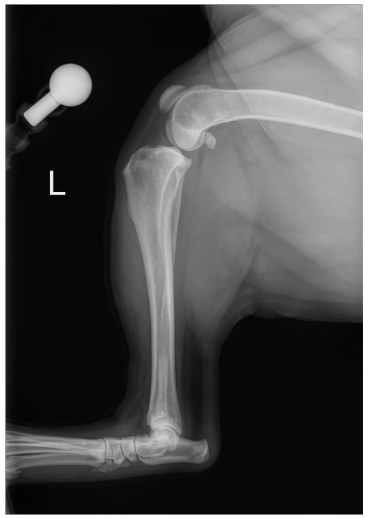
Example planning radiographs, not normal-anatomy standards.
Drawing target = beam centre, not calibration ball. Use positioning aids; keep hands out of the primary beam.

1. True lateral

POSITION



EXAMPLE PLANNING RADIOGRAPH

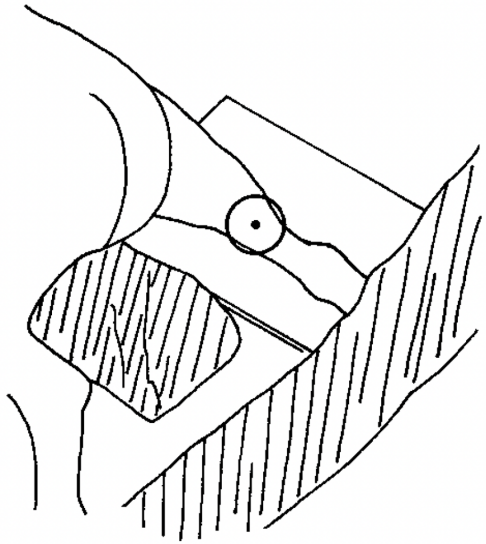


TPLO reference images: Chris Wood.

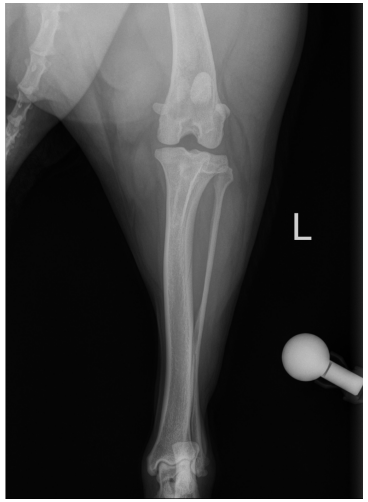
Position: stifle and hock near 90 degrees; include the hock. Beam centred on stifle/proximal tibia.
Check: femoral condyles/fabellae superimposed as well as possible.

2. Orthogonal CrCd/AP

POSITION



EXAMPLE PLANNING RADIOGRAPH



Position: limb straight with patella centred; include stifle, tibia and hock.
Check: fabellae bisected and hock/calcaneus aligned.

Before sending: check patient ID, sharpness and exposure. Send original images.

TPLO checklist / sheet 2

Board contents / sheet 1

Radius / ulna

2 views: mediolateral + craniocaudal. Include whole radius/ulna, elbow and carpus.

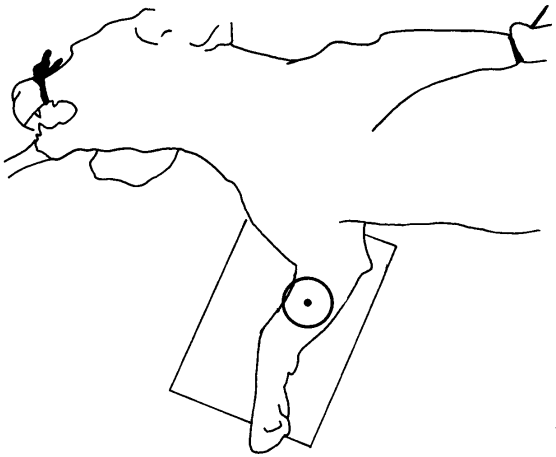
Stabilise and manage pain first. Support the limb; do not force an injured patient into a textbook pose.

CALIBRATION BALL + SIDE MARKER ON EVERY RADIOGRAPH.

Normal dog atlas examples omit balls / side markers; joints may be cropped. Use full coverage above.
Drawing target = beam centre, not calibration ball. Use positioning aids; keep hands out of the primary beam.

1. Lateral (ML)

POSITION



NORMAL RADIOGRAPH

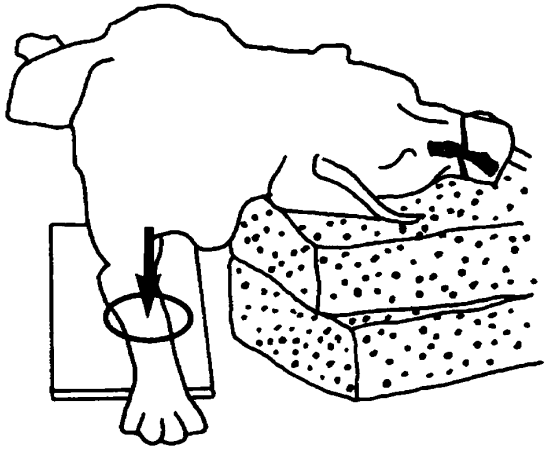


Coulson with Lewis (2002), p. 18: position Fig. 40 / radiograph Fig. 39.

Position: affected side nearest detector; support forearm without twisting the fracture.
Check: include elbow and carpus; keep the opposite forelimb clear.

2. Craniocaudal (CrCd)

POSITION



NORMAL RADIOGRAPH



Coulson with Lewis (2002), p. 20: position Fig. 43 / radiograph Fig. 42.

Position: if tolerated, support forelimb cranially in sternal recumbency; carpus flat.
Check: rotation at elbow and carpus. Coordinate a horizontal-beam alternative if needed.

Before sending: check patient ID, sharpness and exposure. Send original images.

Fracture guide / sheet 17

Board contents / sheet 1

Tibia / fibula

2 views: mediolateral + frontal (CrCd or CdCr). Include whole tibia/fibula, stifle and hock.

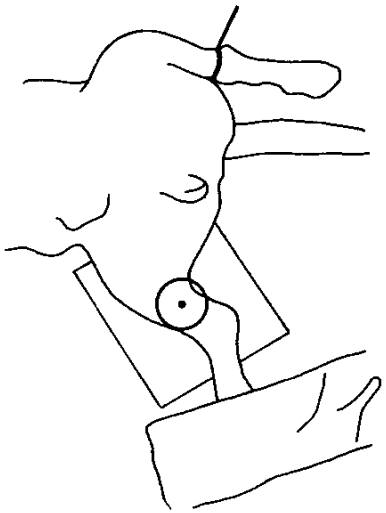
Stabilise and manage pain first. Support the limb; do not force an injured patient into a textbook pose.

CALIBRATION BALL + SIDE MARKER ON EVERY RADIOGRAPH.

Normal dog atlas examples omit balls / side markers; joints may be cropped. Use full coverage above.
Drawing target = beam centre, not calibration ball. Use positioning aids; keep hands out of the primary beam.

1. Lateral (ML)

POSITION



NORMAL RADIOGRAPH

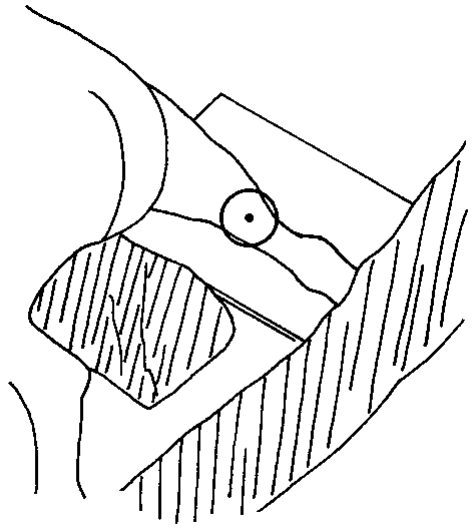


Coulson with Lewis (2002), p. 84: position Fig. 146 / radiograph Fig. 145.

Position: affected side nearest detector; support tibia parallel to detector, opposite hindlimb clear.
Check: stifle and hock included. Do not impose TPLO planning angles on a fracture patient.

2. Caudocranial example

POSITION



NORMAL RADIOGRAPH



Coulson with Lewis (2002), p. 86: position Fig. 149 / radiograph Fig. 148.

Position: choose safely tolerated support for CrCd or CdCr; this example shows CdCr.
Check: align tibia with detector; assess patellar centring where injury permits.

Before sending: check patient ID, sharpness and exposure. Send original images.

Fracture guide / sheet 17

Board contents / sheet 1

Femur

2 views: mediolateral + craniocaudal. Include whole femur, hip and stifle.

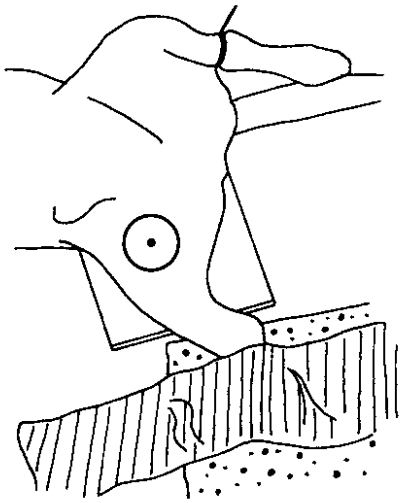
Stabilise and manage pain first. Support the limb; do not force an injured patient into a textbook pose.

CALIBRATION BALL + SIDE MARKER ON EVERY RADIOGRAPH.

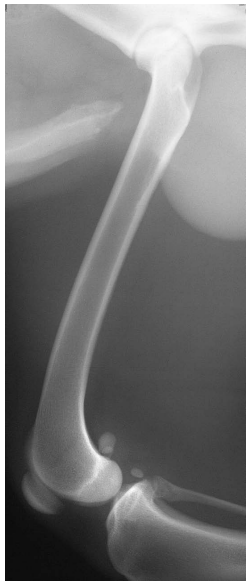
Normal dog atlas examples omit balls / side markers; joints may be cropped. Use full coverage above.
Drawing target = beam centre, not calibration ball. Use positioning aids; keep hands out of the primary beam.

1. Lateral (ML)

POSITION



NORMAL RADIOGRAPH

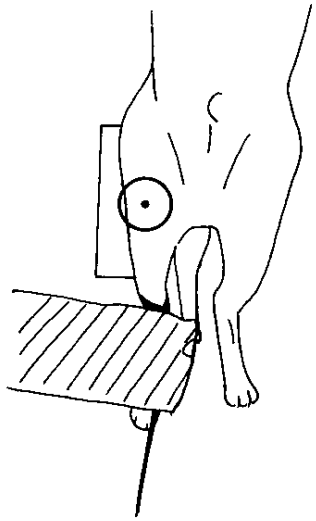


Coulson with Lewis (2002), p. 74: position Fig. 125 / radiograph Fig. 124.

Position: affected side toward detector; opposite hindlimb clear. Support without traction.
Check: head/neck and both bone ends included; assess condylar superimposition.

2. Craniocaudal (CrCd)

POSITION



NORMAL RADIOGRAPH



Coulson with Lewis (2002), p. 76: position Fig. 128 / radiograph Fig. 127.

Position: supported dorsal/slightly oblique body position; do not force full extension.
Check: hip and stifle included; avoid foreshortening and opposite-limb overlap.

Before sending: check patient ID, sharpness and exposure. Send original images.

Fracture guide / sheet 17

Board contents / sheet 1

Humerus

2 views: mediolateral + frontal (CrCd or CdCr). Include whole humerus, shoulder and elbow.

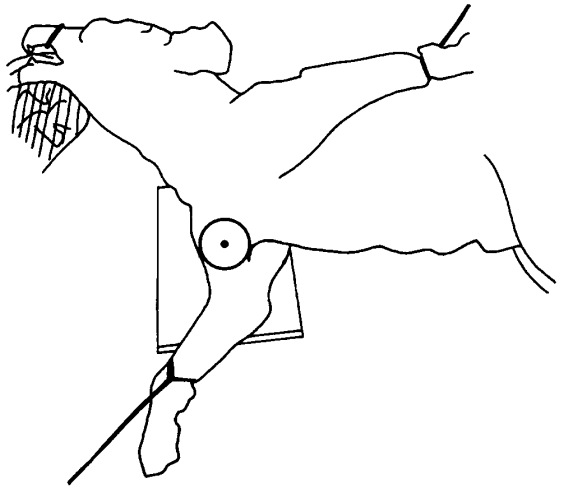
Stabilise and manage pain first. Support the limb; do not force an injured patient into a textbook pose.

CALIBRATION BALL + SIDE MARKER ON EVERY RADIOGRAPH.

Normal dog atlas examples omit balls / side markers; joints may be cropped. Use full coverage above.
Drawing target = beam centre, not calibration ball. Use positioning aids; keep hands out of the primary beam.

1. Lateral (ML)

POSITION



NORMAL RADIOGRAPH

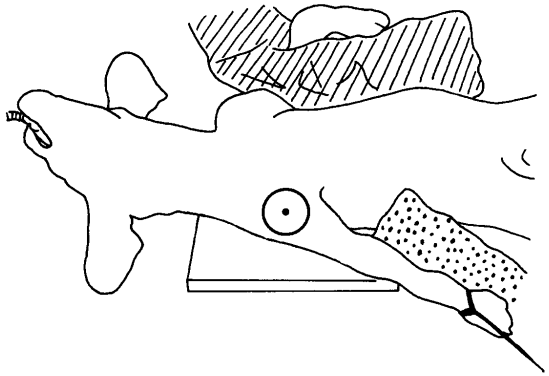


Coulson with Lewis (2002), p. 6: position Fig. 15 / radiograph Fig. 14.

Position: affected side toward detector; support humerus away from thorax as tolerated.
Check: shaft visible; shoulder and elbow included; opposite forelimb and sternum clear.

2. Craniocaudal example

POSITION



NORMAL RADIOGRAPH



Coulson with Lewis (2002), p. 8: position Fig. 18 / radiograph Fig. 17.

Position: use supported frontal setup; CrCd or CdCr as safely tolerated. This example is CrCd.
Check: shoulder and elbow in field; coordinate another setup if thorax obscures the shaft.

Before sending: check patient ID, sharpness and exposure. Send original images.

Fracture guide / sheet 17

Board contents / sheet 1

T-Y distal humerus: elbow detail

Required first: full-humerus orthogonal views (sheet 22), including shoulder and elbow. Focused examples below add joint detail.

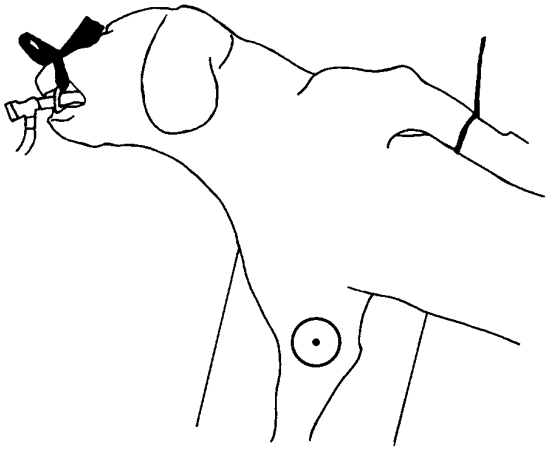
Support the elbow in the position tolerated. Do not force flexion, extension or stress views of a painful unstable elbow.

CALIBRATION BALL + SIDE MARKER ON EVERY RADIOGRAPH.

Normal dog elbow examples omit balls / side markers; not T-Y fracture images or whole-humerus studies.
Drawing target = beam centre, not calibration ball. Use positioning aids; keep hands out of the primary beam.

1. Lateral elbow detail (ML)

POSITION



NORMAL RADIOGRAPH

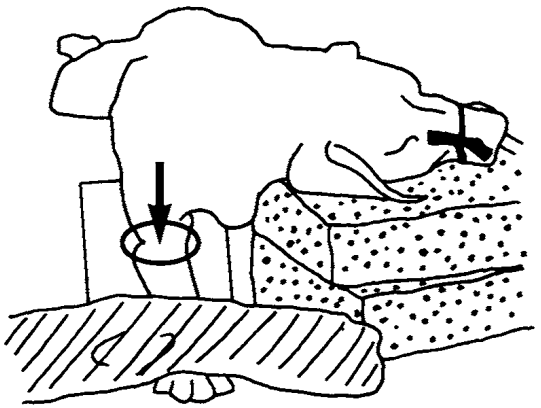


Coulson with Lewis (2002), p. 11: position Fig. 23 / radiograph Fig. 22.

Position: lateral recumbency; affected elbow toward detector.
Example: normal extended elbow. Support as tolerated; do not force extension.
Coverage: distal humeral + proximal radius/ulna thirds and soft tissues.

2. Craniocaudal elbow detail

POSITION



NORMAL RADIOGRAPH



Coulson with Lewis (2002), p. 15: position Fig. 32 / radiograph Fig. 31.

Position: supported sternal setup if safe; use intact anatomy to assess rotation.
Check: complete distal humeral articular region and epicondyles. Coordinate CT/obliques if unclear.

Before sending: check patient ID, sharpness and exposure. Send original images.

Fracture guide / sheet 17

Board contents / sheet 1

Forepaw: metacarpals

2 views: mediolateral + dorsopalmar. Include full metacarpals, carpus, toes and soft tissues.

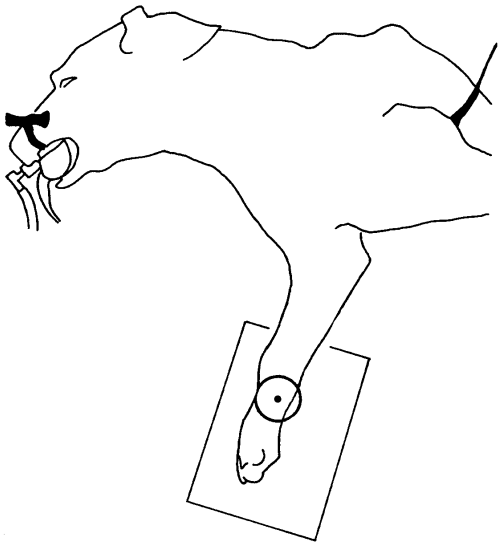
Stabilise and manage pain first. Support the limb; do not force an injured patient into a textbook pose.

CALIBRATION BALL + SIDE MARKER ON EVERY RADIOGRAPH.

Normal dog atlas examples omit balls / side markers; joints may be cropped. Use full coverage above.
Drawing target = beam centre, not calibration ball. Use positioning aids; keep hands out of the primary beam.

1. Lateral forepaw (ML)

POSITION



NORMAL RADIOGRAPH

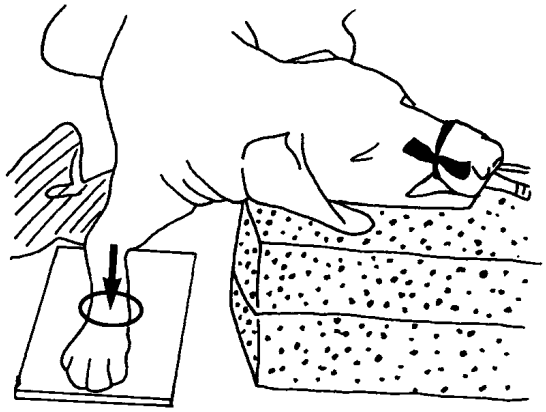


Coulson with Lewis (2002), p. 28: position Fig. 59 / radiograph Fig. 58.

Position: paw on its side, limb supported and opposite limb clear. Do not force digits apart.
Check: overlapping bones can hide fractures; coordinate obliques/focused digit views if needed.

2. Dorsopalmar forepaw (DP)

POSITION



NORMAL RADIOGRAPH



Coulson with Lewis (2002), p. 26: position Fig. 56 / radiograph Fig. 55.

Position: support forepaw flat to detector; centre over affected metacarpal region.
Check: bases, heads and relevant joints visible; identify each injured bone and digit.

Before sending: check patient ID, sharpness and exposure. Send original images.

Fracture guide / sheet 17

Board contents / sheet 1

Hindpaw: metatarsals

2 views: mediolateral + dorsoplantar or plantarodorsal. Include full metatarsals, tarsus and toes.

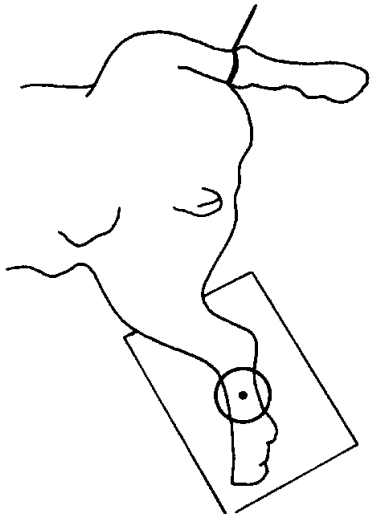
Stabilise and manage pain first. Support the limb; do not force an injured patient into a textbook pose.

CALIBRATION BALL + SIDE MARKER ON EVERY RADIOGRAPH.

Normal dog atlas examples omit balls / side markers; joints may be cropped. Use full coverage above.
Drawing target = beam centre, not calibration ball. Use positioning aids; keep hands out of the primary beam.

1. Lateral hindpaw (ML)

POSITION



NORMAL RADIOGRAPH

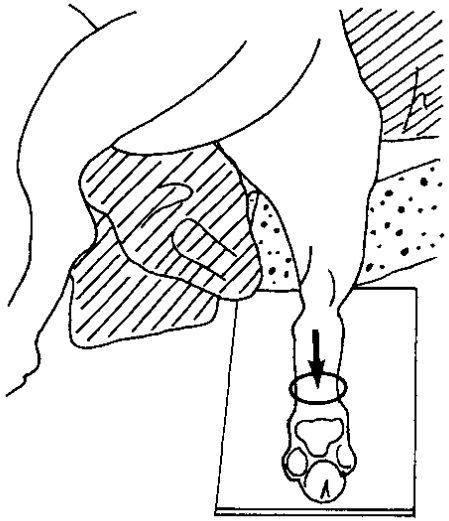


Coulson with Lewis (2002), p. 96: position Fig. 172 / radiograph Fig. 171.

Position: paw on its side and limb supported. Do not force digits apart or straighten the fracture.
Check: overlap may hide fractures; coordinate obliques/focused digit views if needed.

2. Plantarodorsal hindpaw

POSITION



NORMAL RADIOGRAPH



Coulson with Lewis (2002), p. 94: position Fig. 169 / radiograph Fig. 168.

Position: safely supported frontal paw view; this example is plantarodorsal.
Check: bases, heads and relevant joints visible; identify each injured bone and digit.

Before sending: check patient ID, sharpness and exposure. Send original images.

Fracture guide / sheet 17

Board contents / sheet 1