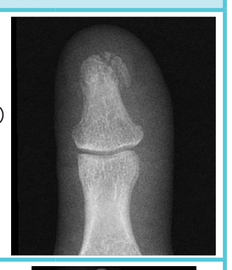
Basic Fracture Treatment - Quick Reference

All open injuries and / or injuries with neurovascular compromise need discussion with appropriate team (Ortho or Plastics)

Finger / Hand

TIP OF DISTAL PHALANX

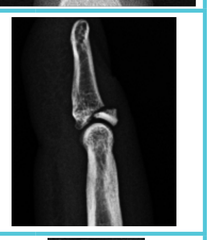


Splint: Aluminium splint (U shaped finger in extension)

Follow up: Select / Type

Enter Text Here

MALLET FINGER (avulsion fracture may be present)



Splint: Stax splint/dorsal aluminium splint (DIP slight hyperextension)

Follow up: Select / Type

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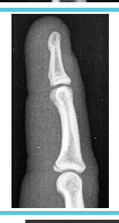
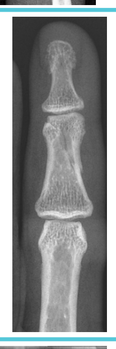
VOLAR PLATE AVULSION FRACTURE



Splint: Buddy tape or splint. Early hand therapy to prevent PIPJ contractures.

Follow up: Select / Type

UNCOMPLICATED PHALANGEAL FRACTURES – DISTAL AND MIDDLE PHALANX

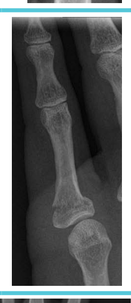


No rotational, articular surface, displacement, angulation, spiral/oblique

Splint (4 weeks): Volar slab for all - ensure that the joint is splinted above and below.

Follow up: Select / Type

UNCOMPLICATED PROX PHALANX FRACTURE

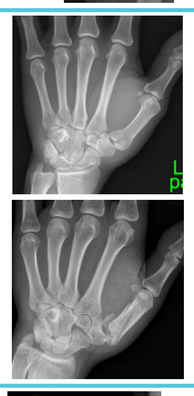


No rotational, articular surface, displacement, angulation, spiral/oblique

Splint (4 weeks): volar slab for all - ensure that the joint is splinted above and below

Follow up: Select / Type

BENNET'S & ROLANDO'S FRACTURES



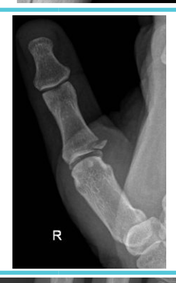
Intra-articular two-part fracture of the base of the first metacarpal with CMJ involvement = Bennett's whereas a three-part T- or Y-shaped base of first metacarpal fractures =a Rolando fracture.

Splint: Thumb spica

Follow up: Select / Type

Enter Text Here

UCL + / - AVULSION

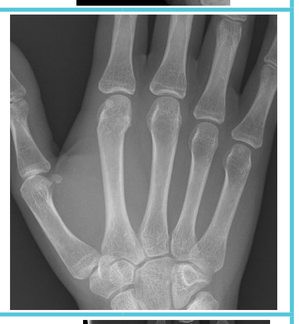


Splint: Thumb spica

Follow up: Select / Type

Enter Text Here

META-CARPAL HEAD FRACTURE



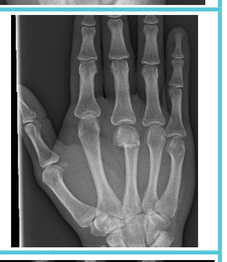
Splint: Volar slab + wrist 30° extension. MCPs 70 to 90°.

Follow up:

Select / Type

Enter Text Here

METACARPAL NECK #S



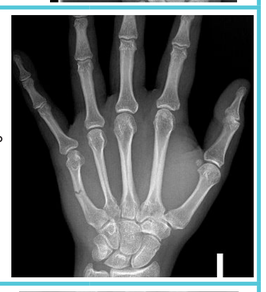
Splint: Volar, Wrist 30° ext, MCP 70 to 90° PIP or DIP 10°

Angles allowed: D1 10°, D2, 3 20°, D4 30°, D5 50°

Follow up: Select / Type

Enter Text Here

METACARPAL SHAFT



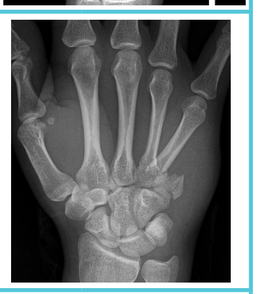
Check for scissoring

Angles allowed: D1 10°, D2, 3, 4 20°, D5 30°

Follow up: Select / Type

Enter Text Here

BASE OF METACARPAL FRACTURE

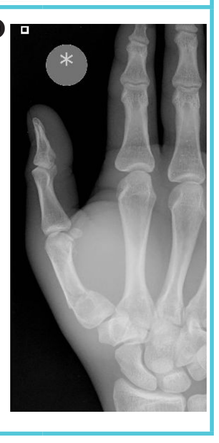


Splint: Dorsal and volar splints, wrist 30° ext and MCP free.

Follow up: Select / Typ

Enter Text Here

UNCOMPLICATED THUMB AND / OR 1ST METACARPAL FRACTURE



- No rotational deformity
- Not involving articular surface
- No displacement or angulation

Splint: Thumb spica cast, wrist 30° ext IPJ free

Follow up: Select / Type

Enter Text Here

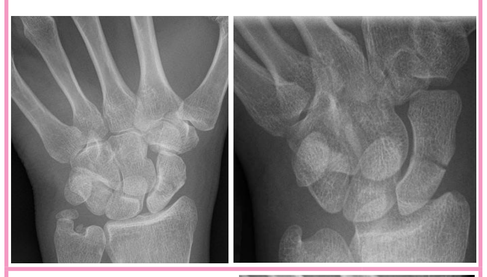
Wrist

SCAPHOID FRACTURE (SUSPECTED OR CONFIRMED)

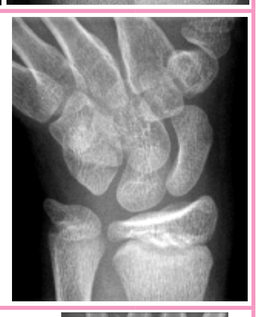
Splint: Short arm thumb spica, slight wrist ext.

Follow up: Select / Type

If any displacement beyond hairline fracture order a CT



SCAPHOID FRACTURE CHILD < 10 YEARS



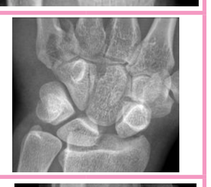
Splint: Short arm thumb spica, slight wrist ext.

Follow up:

Select / Type

Scaphoid fractures are extremely unlikely in this age group

SCAPHOLUNATE DISLOCATION

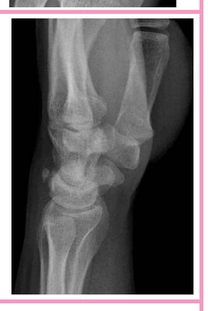


(> 4 mm separation)

Splint: Volar + wrist slight ext

Follow up: Select / Type

TRIQUETRAL FRACTURE



Splint:
Volar + wrist slight ext

Follow up: Select / Type

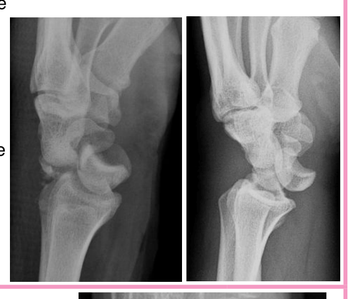
Enter Text Here

PERILUNATE (left) AND LUNATE (right) DISLOCATION

Perilunate closed reduction: Place in finger traps, elbow at 90° and add 5-10 lb in weight. Place pressure on lunate with thumb to prevent dislocation. First extend wrist and then flex (all under traction).

Splint: Volar splint **Follow up:** Select / Type

Enter Text Here



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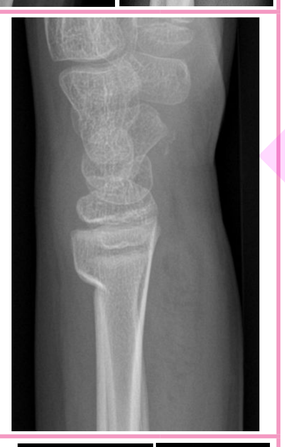
SIMPLE DORSAL BUCKLE FRACTURE



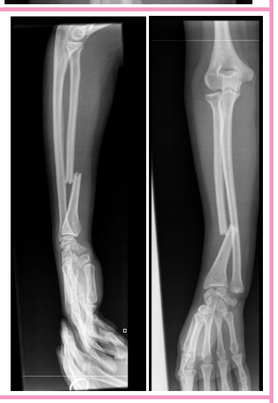
Dorsal angulation (< 15°).
No cortical breach.
Distal 3rd of radius.
Can have associated ulnarbuckle fracture

Splint: Buckle splint/volar fiberglass Slab. For 3-4 weeks.

Follow up: Select / Ty

Enter Text Here

DISTAL RADIUS FRACTURE



Splint: Below elbow cast, wrist in slight flexion and ulnar deviation

Follow up:

Select / Type

Enter Text Here

NON-DISPLACED ULNAR FRACTURE

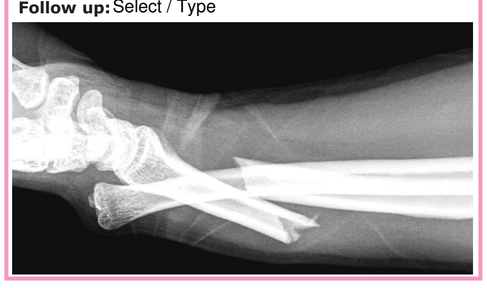
Splint: Short arm if distal otherwise an above elbow cast

Follow up: Select / Type

GALEAZZI FRACTURE (distal one third of the radius with distal radioulnar dislocation)

Splint: Post reduction apply a below elbow resting slab.

Follow up: Select / Type



Elbow

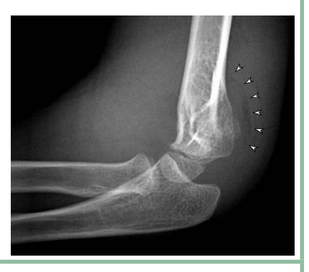
POSITIVE FAT PAD, NO FRACTURE SEEN

Splint: Sling, elbow at 90°

Follow up:

Select / Type

Enter Text Here



SUPRACONDYLAR FRACTURE (UNDISPLACED) GARTLAND TYPE 1

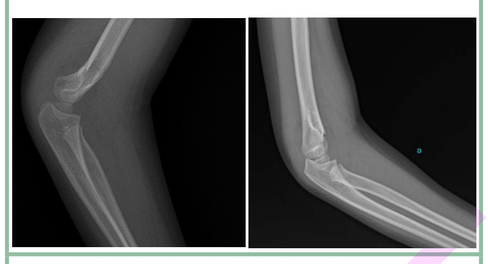
Splint: Above elbow cast, elbow at 90°

Follow up: Select / Type

SUPRACONDYLAR FRACTURE (DISPLACED) POSTERIOR CORTEX INTACT GARTLAND TYPE 2

Splint: Above elbow splint, elbow at 90° after dicussion with orthopaedics. **Follow up:** Select / Type

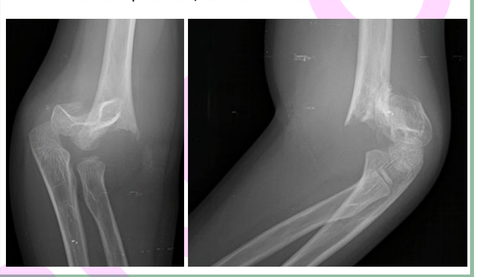
Enter Text Here



SUPRACONDYLAR FRACTURE (OFF ENDED) GARTLAND TYPE 3

Contact: Select / Type (High risk of N/V compromise)

Other: Needs resting slab if theatre is delayed. Plaster arm in current position, **DO NOT** flex elbow

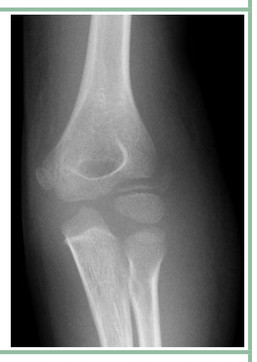


LATERAL CONDYLE FRACTURE (ALL FRACTURES)

Splint: Above elbow splint at 90°

Follow up: Select / Type

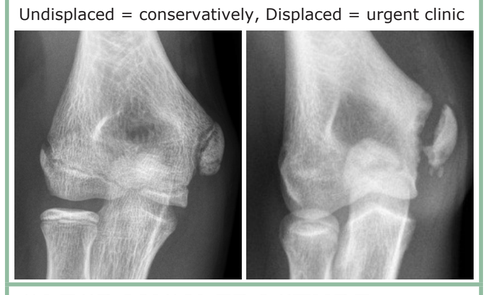
Enter Text Here



MEDIAL CONDYLE FRACTURES

Splint: Above elbow splint at 90° **Follow up:** Select / Typ

Undisplaced = conservatively, Displaced = urgent clinic

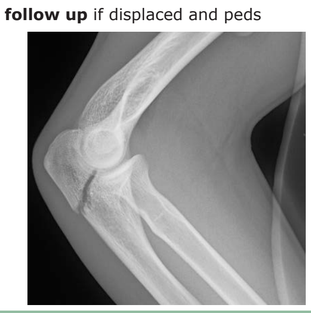


OLECRANON FRACTURE

Splint: Long arm posterior splint with elbow at 90° flexion.

Follow up: Select / Type

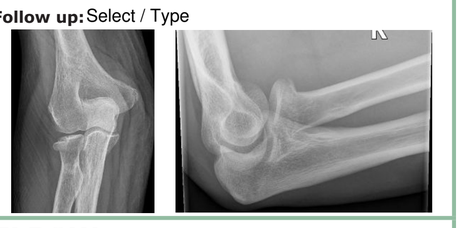
Urgent follow up if displaced and peds



RADIAL HEAD AND NECK FRACTURES (check for an Essex-Lopresti injury – DRUJ + radial head + IOM)

Splint: Sling, elbow at 90° of flexion.

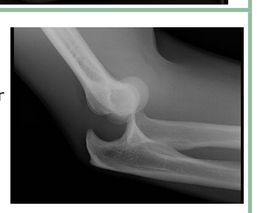
Follow up: Select / Type



ELBOW DISLOCATION

Splint: Long arm posterior splint after reduction or tight fitting immobilizer.
Follow up: Select / Type

Enter Text Here

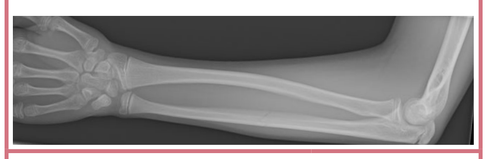


Forearm

UNDISPLACED MID-SHAFT RADIUS / ULNAR FRACTURE

Splint: Above elbow cast, elbow at 90°

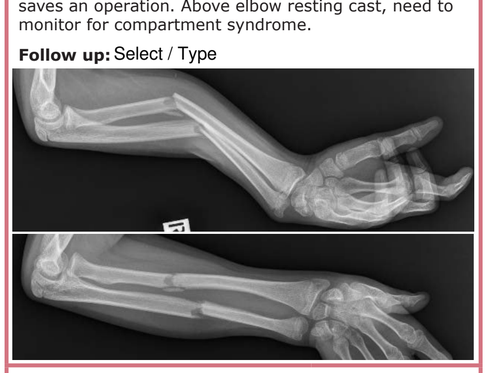
Follow up: Select / Type



MID-SHAFT RADIUS / ULNAR FRACTURE CLINICAL DEFORMITY
> 20° dorsal angulation
> 10° volar angulation

Splint: Please attempt reduction as sometimes this saves an operation. Above elbow resting cast, need to monitor for compartment syndrome.

Follow up: Select / Type



MONTEGGIA FRACTURE DISLOCATION (proximal 1/3 ulna fracture with associated radial head dislocation)

Splint: Above elbow cast, elbow at 90°

Follow up: Select / Type

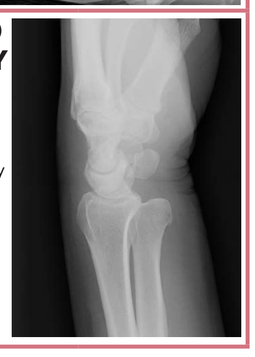
DISTAL RADIO ULNAR INJURY

(check for an Essex-Lopresti injury – DRUJ + radial head # + IOM).

Splint: Immobilise in position of stability (usually supination), above elbow cast.

Follow up: Select / Type

Enter Text Here



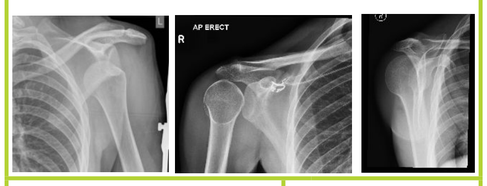
Upper Arm

SHOULDER DISLOCATION

Splint: After reduction place in a sling and swathe.

Follow up: Select / Type

Other: Can refer to GP, sports medicine or if recurrent for ortho office. If >40 consider rotator cuff + KBJH ref. Wear sling for 2-3 weeks. Encourage movement of elbow, wrist and hand. Keep hand in view for the first 3 weeks to prevent re-dislocation. Refer to physiotherapy

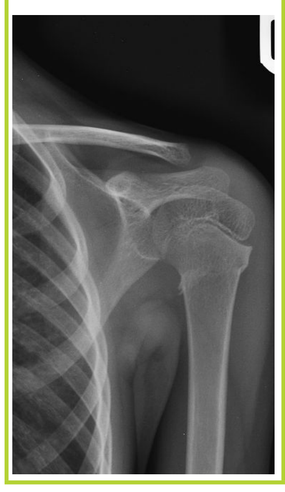


PROXIMAL HUMERUS FRACTURE

Splint: Collar and cuff

Follow up: Select / Type

Enter Text Here

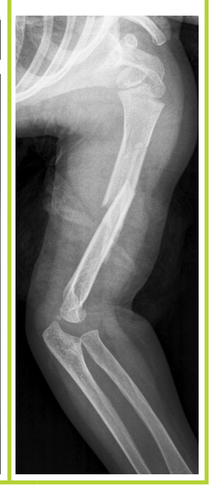


HUMERAL SHAFT FRACTURE

Splint: Coaptation splint with collar and cuff sling

Follow up:

Select / Type



Clavicle / Scapula

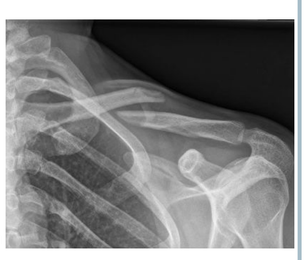
CLAVICLE FRACTURE

Splint: Broad Arm (clavicle sling) for 3 weeks.

Follow up:

Select / Type

Urgent Ortho Consult:
Tenting skin or open fracture.



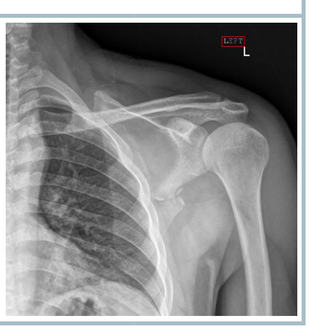
SCAPULA FRACTURE

Splint: Arm sling for comfort.

Imaging: Consider CT as often the result of a high energy impact.

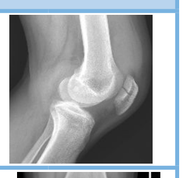
Follow up: Select /

Enter Text Here



Knee / Tibia

PATELLA FRACTURES



Splint: Knee immobilizer, knee in full extension.

Follow up: Select / Type

TIBIAL PLATEAU FRACTURE

Splint: zimmer splint. NWB

Follow up: Select / Type

TIBIAL SHAFT FRACTURE

Splint: Long leg posterior splint. Knee in 10 to 15° of flexion, ankle at 90° (peds reduce and cast) **Follow up:** Select / Type

Enter Text Here

UNDISPLACED TIBIAL SHAFT FRACTURE (TODDLERS FRACTURE)

Splint: Above knee cast in 10-15° flexion at the knee, non-weight bearing

Follow up: Select / Type

FIBULAR FRACTURE

Splint: splint/boot ankle at 90°. Consider a Maisonneuve injury with a twisting mechanism.

Follow up: Select / Type

Ankle

ISOLATED MALLEOLAR AND FIBULAR FRACTURES:

Weber A = below syndesmosis,
B = distal tip at level of syndesmosis,
C = Above syndesmosis

Splint: Lower extremity splint, may use air cast if weber A. All non-weight bearing

Follow up: Select / Type

CALCANEUS / TALUS / NAVICULAR FRACTURES

Splint: Posterior slab, non-weight bearing

Follow up:
Select / Type
Enter Text Here

ACHILLES TENDON RUPTURE

Splint: Posterior + anterior splint in equinus, non-weight bearing.

Follow up: Select / Type

BIMALLEOLAR & TRIMALLEOLAR FRACTURES

Splint: Lower extremity splint

Follow up: Select / Type

Foot

METATARSAL FRACTURE

Splint:
Below knee splint or aircast with ankle at 90°.

Follow up:
Select / Type
Enter Text Here

AVULSION FRACTURE BASE OF 5TH METATARSAL

Splint: Aircast NWB

Follow up: Select / Type

BASE OF 5TH METATARSAL FRACTURE (proximal diaphysis / Jones fracture)

Splint: Aircast non-weight bearing

Follow up: Select / Type

5TH METATARSAL STRESS FRACTURE

Splint:
Aircast non-weight bearing

Follow up:
Select / Type

Enter Text Here

LISFRANC FRACTURE

Splint:
Aircast elevate, non-weight bearing

Follow-up:
Select / Type

Enter Text Here

Toes

UNDISPLACED TOE FRACTURE (excluding big toe)

Splint: Buddy strap +/- aircast pt dependent

Follow up: No follow up needed

BIG TOE FRACTURE

Splint:
Air cast NWB

Follow up:
Select / Type

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