



Metacarpal Fracture Conservative Management

Fracture Metacarpal with x-ray prior to review

Review 3-7 days post injury to prevent prolonged immobilisation

Assess

X-ray

- Ulna digits MC head and neck angulation <40°
- Ulna digits MC shaft angulation <20°
- Radial digits angulation <10°

Active ROM

Affected finger(s) cascade for absence of rotational deformity

Point tenderness

Oedema and pain

Splint

MC Neck/head

Hand based ulna gutter splint¹ in MCP flexion 60°-70°, IP's free



MC Shaft

Forearm based ulna gutter² splint wrist 20° extension, MCP 60°-70° flexion, IP's free



MC Base (undisplaced)

Wrist splint 20° extension and buddy strapping affected digit(s)



Exercises

MCP Flexion IP flexion and extension
10 reps each 2 hours
Composite extension and hooking out of splint
10 reps 3x day

Advice

Remove splint for hygiene and to perform hook exercises.

Light pain free use of the hand in splint encouraged. Avoid strong gripping and heavy lifting

Progress

Wean splint for light activities at 4 weeks.

Wear at risk only at 6 weeks. Strengthen if indicated at 8 weeks.

Unrestricted use at 12 weeks

1. If good ROM with minimal pain is present consider buddy strapping alone

2. If good ROM and minimal pain consider hand based fracture brace and buddy strapping

Outcomes

Expect full ROM/grip strength. If fracture is angulated/impacted the deformity will be permanent with a less defined or dropped knuckle.

References

Colditz, J (2011) Functional Fracture bracing. In Skirven et al, Rehabilitation of the Hand and Upper Extremity 6th Ed. Elsevier pp 1625-1627
Belsky, M(2011) Extra-articular Hand Fractures. In Skirven et al, Rehabilitation of the Hand and Upper Extremity 6th Ed. Elsevier pp 377-378

