

Paediatric Fractures

Samya Lakis

Orthosports

Sydney Children's Hospital, Randwick

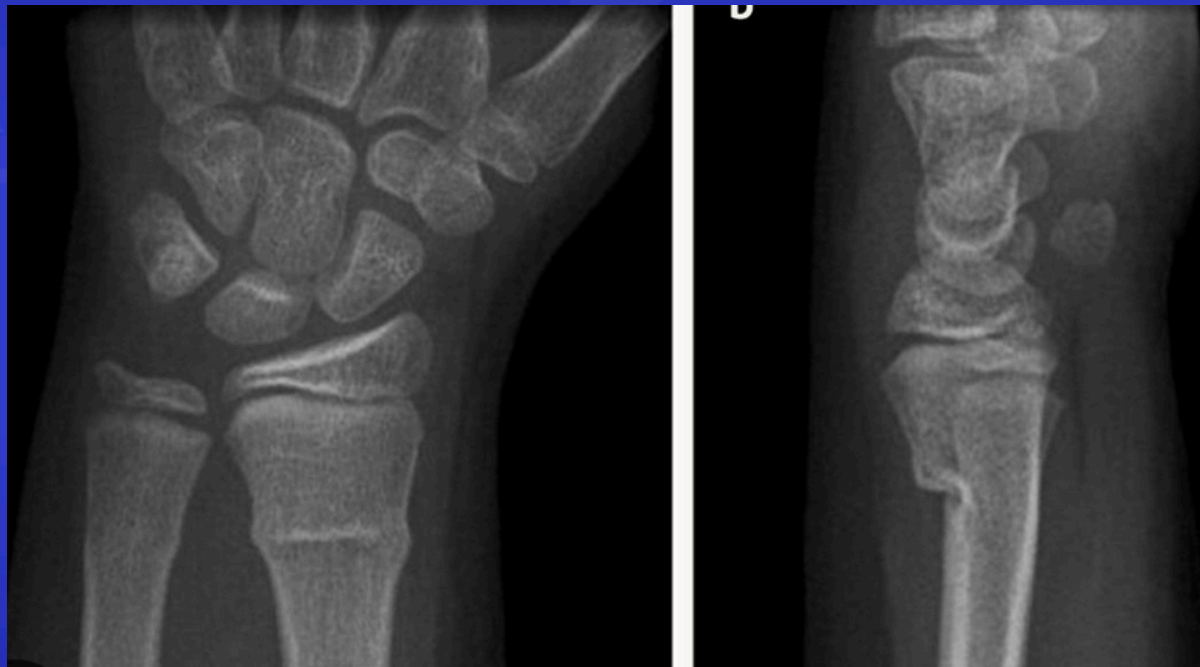


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7yo fall days ago, ongoing pain



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What level of immobilisation is necessary for treatment of torus (buckle) fractures of the distal radius in children?

BMJ 2021 ; 372 doi: <https://doi.org/10.1136/bmj.m4862> (Published 07 January 2021)

Cite this as: *BMJ* 2021;372:m4862

- Author Daniel Perry, Oxford
- Low evidence NICE guidelines
- Recommendations
- Splint immobilization only
- Expect recovery 6 weeks
- Refracture rate low



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7yo fall off bike



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Study Title: A multi-centre prospective randomised non-inferiority trial of surgical reduction versus non-surgical casting for displaced distal radius fractures in children.

CRAFFT – Children’s Radius Acute Fracture Fixation Trial

Ethics Ref: 20/WM/0054

IRAS Project ID: 264593

Date and Version No: V1.0 28Jan2020

Chief Investigator: Mr Dan Perry, Daniel.Perry@ndorms.ox.ac.uk, University of Oxford

Sponsor: University of Oxford



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Trial summary

- RCT 750 patients 4-10yo
- Aim to include 200 with completely offended DR#
- Surgery included cast and wire fixation or ORIF
- Non-op includes casting in good alignment
- POP for 4-6 weeks
- F/up for 3 years including PROMS



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10yo 'rolled ankle' playing soccer



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> J Pediatr Orthop. 2020 Jul;40(6):283-287. doi: 10.1097/BPO.0000000000001438.

Low Energy, Lateral Ankle Injuries in Pediatric and Adolescent Patients: A Systematic Review of Ankle Sprains and Nondisplaced Distal Fibula Fractures

Jennifer J Beck ^{1 2}, Curtis VandenBerg ³, Aristides I Cruz ⁴, Henry B Ellis Jr ^{5 6}

- Systematic RV according to PRISMA guidelines
- 30 articles
- Lateral ankle injuries/ undisplaced fibula fractures/ ligamentous injuries = low velocity injuries
- Poor quality literature
- Combination of undertreatment/ overtreatment
- 4 weeks of rigid immobilization for significant initial injury
- Rehabilitation protocols and injury prevention key



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Article

What Does Provide Better Effects on Balance, Strength, and Lower Extremity Muscle Function in Professional Male Soccer Players with Chronic Ankle Instability? Hopping or a Balance Plus Strength Intervention? A Randomized Control Study

Hadi Mohammadi Nia Samakosh ^{1,*}, João Paulo Brito ^{2,3,4}, Seyed Sadredin Shojaedin ¹, Malihe Hadadnezhad ¹ and Rafael Oliveira ^{2,3,4}

- September 2022
- 36 males w chronic ankle instability
- Randomised to control, hopping, and balance + strength groups
- Assesment with a number of scales, dynamometer, balance (static and dynamic)
- Functional Ax triple hop, figure 8 hop, vertical jump
- All improved with 8 weeks of training
- BSG more significant with hip abd/add and ankle inversion
- HG better with vertical jump and FAAM sport scores



15yo M after tackle



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15yo M after fall from skateboard



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**N. Ng,
J. A. Nicholson,
P. Chen,**

■ **SHOULDER & ELBOW**

Adolescent mid-shaft clavicular fracture displacement does not predict nonunion or inferior functional outcome at long-term follow-up



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Summary

- 2021 Royal Infirmary Edinburgh
- 10year retrospective review
- 677 patients 13-17yo
- Displaced and angulated mid-shaft clavicle fracture
- F/Up mean 6.4y (1.2-11.3y)

- 7% ORIF in displaced fractures

- Outcomes: QuickDASH, EQ-5D, Pa satisfaction Fn/ VAS/ cosmesis
- 1x non-union in non-operative (0.4%)





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ANY QUESTIONS?



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