



Social media trends and orthopaedic trauma: distal radius fracture from the 'Superman Challenge'

Saphalya Pattnaik¹, Gur Aziz Singh Sidhu¹, Jagmeet Bhamra¹

Correspondence: Saphalya Pattnaik, Trauma and Orthopaedics, Lewisham and Greenwich NHS Trust, London, UK, **Email:** saphalya.pattnaik@nhs.net

Abstract

Viral social-media challenges increasingly influence behaviour among children and adolescents, with some trends posing substantial injury risk. The TikTok "Superman Challenge", in which participants leap and adopt a mid-air superhero pose before landing, has been associated with preventable trauma. We report an 11-year-old girl who sustained a Salter-Harris II distal radius fracture while attempting the challenge during a school activity. She fell onto an outstretched hand after being pushed mid-jump, presenting with wrist deformity and swelling but intact neurovascular status. Two closed-reduction attempts under Entonox and intranasal analgesia failed, necessitating manipulation under anaesthesia and stabilisation with a single K-wire. Postoperative imaging confirmed satisfactory alignment, and recovery was uneventful. This case highlights how online trends can manifest as orthopaedic injuries in paediatric populations and underscores the need for targeted education of children, parents, and schools, alongside more effective social-media content moderation to reduce avoidable harm.

¹Trauma and Orthopaedics, Lewisham and Greenwich NHS Trust, London

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Introduction

Social media platforms, particularly TikTok, have given rise to viral challenges, some of which carry significant physical risks¹. The "Superman Challenge" is one such trend, involving participants jumping and mimicking a superhero pose mid-air before landing. Intended as entertainment, the challenge has led to numerous injuries worldwide, including fractures and head trauma².

Case Presentation

An 11-year-old right-hand-dominant girl presented to the paediatric emergency department with a grossly deformed and swollen right wrist following a fall during a school physical education session. The patient explained she was attempting the TikTok "Superman Challenge" with classmates, where she

was pushed backward in mid-air and landed on her outstretched hand. Radiographs confirmed a Salter-Harris type II fracture of the distal radius.



Figure 1: Patient in a backslab after 2x failed reduction attempts showing translation of the epiphysis

On examination, there was significant swelling and obvious deformity of the right wrist, consistent with



a closed fracture. Neurovascular assessment revealed intact radial, median, and ulnar nerve function, with good perfusion and capillary refill time. Wrist and finger movements were restricted due to pain, and the patient reported no other injuries or head trauma. Reduction attempts under Entonox and intranasal diamorphine were unsuccessful after two attempts. The patient was listed for manipulation under anaesthesia and K-wire fixation the following day.

A single 1.6 mm K-wire was passed to stabilise the fracture. Postoperative imaging confirmed satisfactory alignment. The patient's arm was immobilized in a below-elbow backslab with an appropriate dressing. The patient recovered uneventfully and was discharged with a follow-up for wire removal and monitoring of fracture healing in two weeks.



Figure 2: Intraoperative imaging with a single K wire

Discussion

The "Superman Challenge" exemplifies the risks associated with social media trends targeting children and adolescents. This challenge has resulted in numerous injuries globally, including fractures, head trauma, and soft tissue injuries. The impulsivity and peer influence in this demographic make them particularly vulnerable to such activities³.

The case underscores the importance of parental supervision, school education, and regulatory action by social media platforms. While TikTok has reportedly started blocking content related to the challenge, the widespread availability of similar videos on other platforms highlights gaps in digital regulation³.

From a medical perspective, this case demonstrates the management of a common paediatric orthopaedic injury in an uncommon context. Salter-

Harris type II fractures typically have good prognosis when appropriately managed. However, delayed or improper treatment, particularly in high-energy injuries, could lead to complications such as growth plate disturbances or deformity.

This case highlights the intersection of digital media trends and paediatric orthopaedic trauma. While the distal radius fracture was successfully managed, the incident reflects the broader societal issue of unsafe social media practices among youth. Education campaigns targeting parents, schools, and children, coupled with stricter content moderation by social media platforms, are essential to mitigating these preventable injuries.

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