













population, with girls demonstrating a higher prevalence (0.066–0.094%) and incidence (84.8 per 100 000 person-years) than boys (0.060–0.075% and 70.7, respectively).

21. Carvalho M, Barreto MI, Alves C, Soldado F. Trigger thumb, trigger finger and clasped thumb. *Children (Basel)* 2024; 11:294.
22. Bauer AS, Bae DS. Pediatric trigger digits. *J Hand Surg Am* 2015; 40: 2304–2309.
23. Wolfe SW, Pederson WC, Kozin SH, Cohen MS. Green's operative hand surgery: 2 volume set: Elsevier Health Sciences; 2021.
24. Lin JS, Pettit R, Rosenbaum JA, *et al*. The development of trigger thumb in the contralateral thumb in pediatric patients presenting initially with unilateral involvement. *Hand (N Y)* 2021; 16:316–320.
25. Kim SY, Lee H, Yoo HN, *et al*. Association of trigger thumb with congenital malformations and developmental milestones among children in a nationwide birth cohort. *Sci Rep* 2025; 915:16952.
26. Jin S, Shen K, Xu Y. Pediatric trigger thumb with metacarpal joint hyperextension or instability. *Med Sci Monit* 2020; 26:e922757.
27. Shim VC, Admire AA, Heidenreich RA, Samimi KJ. Autosomal dominant inheritance pattern for trigger thumb. *Plast Reconstr Surg* 2002; 109: 240–241.
28. Vyas BK, Sarwahi V. Bilateral congenital trigger thumb: role of heredity. *Indian J Pediatr* 1999; 66:949–951.
29. Thomas SR, Dodds RD. Bilateral trigger thumbs in identical twins. *J Pediatr Orthop B* 1999; 8:59–60.
30. Weber PC. Trigger thumb in successive generations of a family. A case report. *Clin Orthop Relat Res* 1979; 143:167.
31. Wang ED, Xu X, Dagum AB. Mirror-image trigger thumb in dichorionic identical twins. *Orthopedics* 2012; 35:e981–e983.
32. Venkatadass K, Bhardwaj P, Sabapathy SR. Pediatric trigger thumb: congenital or developmental? A unique case report. *J Hand Microsurg* 2020; 12 (Suppl 1):S75–S77.
33. Tonogai I, Hamada Y, Henmi T, Yasui N. Trigger thumb of the dominant hand in identical twins. *J Pediatr Orthop B* 2011; 20:56.
34. Kim J, Gong HS, Seok HS, *et al*. Quantitative measurements of the cross-sectional configuration of the flexor pollicis longus tendon using ultrasonography in patients with pediatric trigger thumb. *J Hand Surg Am* 2018; 43:284.e1–284.e7.
35. Verma M, Craig CL, DiPietro MA, *et al*. Serial ultrasound evaluation of pediatric trigger thumb. *J Pediatr Orthop* 2013; 33:309–313.
36. Ok CH, Shin YH, Kim HY, Kim JK. Changes in flexor pollicis longus tendon cross-sectional dimensions after A1 pulley release for paediatric trigger thumb. *J Hand Surg Eur Vol* 2023; 48:1136–1143.
37. Buchman MT, Gibson TW, McCallum D, *et al*. Transmission electron microscopic pathoanatomy of congenital trigger thumb. *J Pediatr Orthop* 1999; 19: 411–412.
38. Shen K, Han B, Xu Y. Characterization of pediatric extension trigger thumb: an insight into a rare manifestation from a single-center retrospective cohort analysis. *J Hand Surg Am* 2021; 46:926.e1–926.e8.
39. Baek GH, Lee HJ. The natural history of pediatric trigger thumb: a study with a minimum of five years follow-up. *Clin Orthop Surg* 2011; 3:157–159.
40. Jung HJ, Lee JS, Song KS, Yang JJ. Conservative treatment of pediatric trigger thumb: follow-up for over 4 years. *J Hand Surg Eur Vol* 2012; 37:220–224.
41. Tang Q, Miao X, Zhao K, *et al*. The prevalence of spontaneous resolution among pediatric trigger thumb: a systematic review and meta-analysis. *J Orthop Surg Res* 2024; 19:461.

This study is the first systematic review and meta-analysis to evaluate the rate of spontaneous resolution in pediatric trigger thumbs. It pooled data from 11 Level III studies published between 1974 and 2021, and found that the reported rate of spontaneous resolution increases significantly in thumbs that were followed for more than 2 years (58.9% for those followed >2 years vs. 26.8% for those followed <2 years). This provides further evidence that conservative management with extended observation alone is a valid first-line treatment, and provides evidence-based guidance that can be used when counseling patients on the natural course of this condition.

42. Nemoto K, Nemoto T, Terada N, *et al*. Splint therapy for trigger thumb and finger in children. *J Hand Surg Br* 1996; 21:416–418.
  43. Lee ZL, Chang CH, Yang WY, *et al*. Extension splint for trigger thumb in children. *J Pediatr Orthop* 2006; 26:785–787.
  44. Yano K, Ikeda M, Yoneda M, *et al*. Clinical results of splinting versus observation for pediatric trigger thumb. *J Pediatr Orthop B* 2021; 30:346–350.
  45. Kuo M, Rayan GM. Complete annular and partial oblique pulley release for pediatric locked trigger thumb. *Hand (N Y)* 2010; 5:408–414.
  46. van Loveren M, van der Biezen JJ. The congenital trigger thumb: is release of the first annular pulley alone sufficient to resolve the triggering? *Ann Plast Surg* 2007; 58:335–337.
  47. Farr S, Grill F, Ganger R, Girsch W. Open surgery versus nonoperative treatments for paediatric trigger thumb: a systematic review. *J Hand Surg Eur Vol* 2014; 39:719–726.
  48. Edwards DS, Richards RH. Risk stratification for the recurrence of trigger thumb after surgical release in the paediatric patient. *Eur J Orthop Surg Traumatol* 2016; 26:587–590.
  49. Ruiz-Iban MA, Gonzalez-Herranz P, Mondejar JA. Percutaneous trigger thumb release in children. *J Pediatr Orthop* 2006; 26:67–70.
  50. Sevencan A, Inan U, Köse N, *et al*. Percutaneous release for trigger thumbs in children: improvements of the technique and results of 31 thumbs. *J Pediatr Orthop* 2010; 30:705–709.
  51. Çimen O, Irgit KS, Nami S. Percutaneous release for trigger thumb in children under local anesthesia. *J Pediatr Orthop B* 2023; 32:599–603.
  52. Masquijo JJ, Ferreyra A, Lanfranchi L, *et al*. Percutaneous trigger thumb release in children: neither effective nor safe. *J Pediatr Orthop* 2014; 34: 534–536.
  53. Sirithiantong T, Woratanarat P, Woratanarat T, *et al*. Network meta-analysis of management of trigger thumb in children. *J Pediatr Orthop B* 2021; 30:351–357.
  54. MacConnell AE, Schoenfeldt TL, Bowman CA, *et al*. Treatment trends in pediatric trigger thumb among hand surgeons, pediatric orthopedic surgeons, and pediatric hand surgeons. *Hand (N Y)* 2025; 20:213–217.
- This study is the largest published survey of pediatric trigger thumb treatment practice patterns, including 766 respondents with varying fellowship training backgrounds (444 hands surgery, 167 pediatric orthopedic surgery, and 155 congenital hand surgery). Respondents were presented with case-based scenarios involving 6-month-old, 18-month-old, and 3-year-old patients. They found that hand fellowship-trained surgeons were more likely than pediatric orthopedic fellowship-trained surgeons to offer surgical intervention for 3-year-old patients with flexible trigger thumbs (39 vs. 23%). In comparison to congenital hand surgeons, hand fellowship trained surgeons were also more likely to offer surgical intervention for 3-year-olds with painless limitation in active extension (63 vs. 49%), painful triggering (88 vs. 79%), and locked digits (90 vs. 81%). This study demonstrates that the heterogeneity in treatment strategies for pediatric trigger thumb is influenced by subspecialty training, and highlights the need for further research to create evidence-based guidelines for this patient population.