## Congenital — Medical Knowledge

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- Understands the embryology of the upper limb
- Recognizes routine congenital hand differences (syndactyly, polydactyly, longitudinal deficiencies)
- Understands the classifications of upper extremity congenital differences (e.g., polydactyly, syndactyly, transverse and longitudinal deficiencies)
- Demonstrates knowledge of associated medical conditions (thrombocytopenia absent radius, Fanconi’s anemia, vertebral anomalies, anal atresia, cardiovascular anomalies, tracheoesophageal fistula, renal and/or radial anomalies, limb defects [VACTERAL])
- Understands non-operative treatment for congenital conditions (e.g., splinting for radial longitudinal deficiency or camptodactyly)
- Understands the principles of the surgical treatment of common congenital hand differences
- Develops surgical treatment plan for thumb hypoplasia (e.g., first web space deepening, opponensplasty and ulnar collateral ligament [UCL] reconstruction)
- Develops treatment plan for pollicization, including timing and post-operative management
- Understands adverse surgical sequelae following hand reconstruction (e.g., web creep, joint instability, tendon imbalance, growth arrest)
- Demonstrates understanding of treatment for symbrachydactyly/polysyndactyly (e.g., Poland syndrome)
- Understands the principles of distraction lengthening
- Demonstrates understanding of diagnosis and indications for treatment for complex congenital hand differences (e.g., mirror hand, microvascular toe transfer)
- Publishes research findings on this topic in the literature

### Comments:

The Milestones are a product of the Hand Surgery Milestone Project, a Joint Initiative of the Accreditation Council for Graduate Medical Education, the American Board of Orthopaedic Surgery, and the American Board of Plastic Surgery, Inc.
## Congenital — Patient Care

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|   | • Obtains history and performs basic physical examination  
• Provides basic post-operative management and splinting | • Obtains focused history and performs focused physical examination  
• Interprets imaging studies  
• Recognizes surgical indications  
• Prescribes appropriate non-operative management, splinting  
• Identifies potential post-operative complications  
• Performs congenital trigger thumb release | • Performs excision of polydactylous digit without need for joint reconstruction  
• Performs uncomplicated congenital reconstructions (e.g., simple syndactyly repair with skin flaps and grafts, constriction band release)  
• Develops treatment plans for complex syndactyly, including nail fold and osseous reconstruction | • Designs incision and performs procedures for congenital conditions (e.g., excision and reconstruction of Wassel 2-6 thumb, syndactyly release, 4 flap Z-plasty and reconstruction of ulnar collateral ligament for hypoplastic thumb, osteotomies) | • Performs complex procedures (e.g., pollicization, macrodactyly debulking) |

**Comments:**