

Intraobserver and Interobserver Reliability of the Oberg-Manske-Tonkin (OMT) Classification: Establishing a Registry on Congenital Upper Limb Differences

Donald S. Bae, Maria F. Canizares, Patricia E. Miller, Summer Roberts, Carley Vuillermin, Lindley B. Wall, Peter M. Waters, and Charles A. Goldfarb

Published: J Pediatr Orthop. 2018

The first research paper from the CoULD Registry showed that hand surgeons from across the country can agree upon the classification of congenital hand differences using this new web-based system.

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Congenital Upper Limb Differences Registry (CoULD): Inception and evolution of a prospective database

Carley Vuillermin, Maria F. Canizares, Andrea S. Bauer, Patricia E. Miller, Donald S. Bae, Peter M. Waters, Lindley B. Wall, Summer Roberts, Charles Goldfarb. Presentation at ASSH 2017

Compared to other studies looking at how common different congenital hand differences are, the CoULD registry includes more conditions that present to a hand surgeon later in life or that do not require surgical treatment. The most common conditions in the CoULD registry are radial polydactyly, osteochondromas, symbrachydactyly, and radioulnar synostosis.

Functional Impact of Congenital Hand Differences: Early Results From the Congenital Upper Limb Differences (CoULD) Registry

Donald S. Bae, Maria F. Canizares, Patricia E. Miller, Peter M. Waters, and Charles A. Goldfarb
Published: J Hand Surg Am. 2018

In this study of almost 600 CoULD patients, children with congenital hand differences had decreased upper limb function but better peer relationships and better emotional well-being compared to the normal population.

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Comparative Analysis of 150 Thumb Polydactylies from the CoULD (Congenital Upper Limb Database) Registry Using the Wassel-Flatt, Rotterdam, and Chung Classifications.

Caroline Hu, Eliza Thompson, Deborah Bohn, Julie Agel, Andrea Bauer, Charles Goldfarb, Amy Moeller, Susan Novotny, Ann Van Heest, CoULD Registry Study Group. Presentations at IFSSH, CHASG Berlin June 2019, and ASSH Sept 2019.

Three classifications systems are used to describe thumb polydactyly: 1) the Wassel-Flatt (WF), 2) the Rotterdam, and 3) the Chung classifications. In this study, it was determined that adding additional description of an underdeveloped thumb to the WF classification would be reliable and would adequately describe over 90% of cases.



RU Synostosis: does forearm position matter?

Donald S. Bae, Jennifer Kallini, David Williams, Lindley B. Wall L, Julie Samora, Mary Claire Manske, Suzanne Steinman, Deborah Bohn, Douglas Hutchinson, Donald S. Bae, and the CoULD Study Group. Presentation at POSNA 2019

Parents report that children with congenital radioulnar synostosis have decreased upper limb function and sports/physical function, but equivalent happiness, compared with the general population. Greatest differences were seen in children with more than 45 – 60 degrees of pronation, which may guide treatment.



Patient Reported Outcomes in Arthrogryposis

Lindley B. Wall, Carley Vuillermin, Donald Bae, Summer Roberts, Charles A. Goldfarb
Presentation at The International Study Group on Arthrogryposis 2018 and ASSH 2019

Arthrogryposis patients have worse upper extremity function, but normal emotional health, compared with the general population. Amyoplasia patients with entire upper limb involvement have lower function than distal arthrogryposis.



Convergent Validity of PODCI and PROMIS domains in Congenital Upper Limb Anomalies

Lindley B. Wall, Carley Vuillermin, Patricia E. Miller, Donald S. Bae, Charles A Goldfarb

For children with congenital hand differences, the PROMIS questionnaire is comparable to the PODCI questionnaire in describing upper limb function, pain, and depression. Because it is shorter, the PROMIS questionnaire may provide similar information while reducing patient/family time and effort.



Social Deprivation and Congenital Hand Anomalies - An Assessment using PROMIS

Lindley B. Wall, Melissa Wright, Suzanne Steinmann, Julie Samora, Donald Bae, Charles A. Goldfarb
Presentations at IFSSH (2019) GERMANY and POSNA (2019) USA

In patients with congenital hand differences, social deprivation is associated with lower PROMIS scores for pain, peer relations, and anxiety. This information may help medical providers identify psychosocial stress and improve outcomes.