

Congenital Hand Deformities

We treat a large number of congenital hand deformities. These range from simple buds of extra tissue (rudimentary polydactyly) to complex hypoplastic syndromes and clefting deformities. With any case of congenital hand deformity, the child should be carefully evaluated for other types of deformity and associated syndromes. Some of the most common deformities are polydactyly, syndactyly and macrodactyly. In most cases surgical treatment is initiated when the child is between one and five years of age, depending on the functional aspects of the deformity.

Polydactyly

Polydactyly is duplication resulting in one or more extra digits. It may manifest as a rudimentary bud of extra tissue that can be excised easily. In some cases an almost-normal appearing extra digit occurs, having little negative impact on the function of the hand. Excision may still ultimately be indicated to restore normal appearance to the hand. Duplication of deformities may result in a partial-split appearance to the digits and frequently impact function. Repair of these deformities is more complex and may involve combining portions of each duplicate together to construct a more normal digit.

Syndactyly

Syndactyly is a webbing of adjacent fingers or toes. It may involve a single webbed space of skin or a complex joining of the fingers with partially joined bone, nerve or vascular structures. The procedure for reconstruction may include separation of bone and/or deep structures. Skin flaps and skin grafting for separation of the skin and soft tissues are often involved. Especially in cases where function of the hand is impacted, surgery at about one year of age followed by hand therapy is indicated.



Macrodactyly

Macrodactyly is gross enlargement of a digit. The causative etiology is poorly understood, but it can have a profound effect on the function of a digit that can be very disfiguring. In mild cases watchful waiting is often times the treatment of choice. In severe cases a complex reduction of the digit is undertaken, often producing dramatic results. In very severe cases amputation may be indicated. This condition tends to be progressive, so secondary surgeries are usually needed to further reduce a digit that continues to enlarge.

Plastic Surgery Referral

Consultation with a plastic surgeon is indicated whenever a congenital hand deformity is present. Parents generally need reassurance and benefit from discussion and education, even if surgery is not indicated until the child is older.



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A NICARAGUAN CHILD'S *Story*



This child was presented to one of our clinics on a recent Eduplast trip to Nicaragua. He suffered from very advanced macromegaly involving the left thumb, index and middle fingers. The index finger was so enlarged and the joints so involved that it could not be salvaged. He underwent amputation of the index finger and reduction and recontouring of the middle finger, thumb, and first web space area. The result was a much improved functional use of the hand and fingers as well as a greatly improved appearance.