CONGENITAL HAND DEFORMITIES

Hand deformities are present in about 1% of live births. The most common are poly-dactyly, syndactyly and campto-dactyly. These names are derived from Ancient Greek. **Dactylos** means finger and the prefix describes what is wrong. Some children have complex deformities with more

than one problem. More common examples are sym-brachy-dactyly (fingers are short and joined) and acro-syn-dactyly (fingers are joined and the bones of each are fused at the tip). Many deformities are unique and cannot be given a single name.

Many deformities are isolated problems but occasionally they may be the most obvious manifestation of a generalized syndrome. Most are unexpected and unexplained occurrences (sporadic) but some have a genetic basis and are therefore inherited. Where indicated, genetic counselling will be arranged for the family.

acro- brachy- campto- clino-	topmost short curving sloping
macro- poly-	large many
sym-	joined
syn-	



There are many types of hand deformity, which have been classified as follows:-

I	Failure of formation	Transverse Longitudinal
II	Failure of differentiation	
Ш	Duplication	
IV	Overgrowth	
V	Undergrowth	
VI	Constriction ring syndrome	
VII	Generalized abnormalities	

Most require surgical correction <u>but not all</u>. Some require only splinting (e.g. campto-dactyly). Others can be treated by splinting and surgery later in childhood if still needed (e.g. clino-dactyly). The specific management of some will be covered separately.

Functional requirements are minimal Precedes onset of hand "image"
Precedes social awareness
Lessens family stress
Growth effects
Early
SURGERY
Late
Tissue size
Anaesthetic ease
Associated anomalies
Cooperation with therapy
Personal decision making

When surgery is required, it is often our preference to correct most problems soon after the age of 6 months. This is both to spare children from teasing and to allow for best function of the hands. However, a number of factors have to considered both to ensure the best result as well as safety. The children must be big enough for the anaesthetic to be as safe as possible. Early correction allows for normal development of hand function. It also prevents the development of permanent deformities due to the effects of growth. The children are still young enough not to remember the operation. However, there may be situations when surgery is better deferred.