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Constitutional Disorders of the Skeleton in Dogs and Cats. P. F. Jezyk. *In*: Textbook of Small Animal Orthopaedics, C. D. Newton, D. M. Nunamaker, Eds. (Last Updated: 1-Jan-1985)

### III. DYSOSTOSES WITH PREDOMINANT INVOLVEMENT OF EXTREMITIES

#### I. POLYDACTYLY

The presence of one or more extra digits is termed polydactyly. In humans, preaxial polydactyly involves an additional digit or digits cranial to the anatomical axis of the limb, that is, on the thumb or great toe side. In postaxial polydactyly, the extra digits are adjacent to the fifth finger or toe. Most cases are nongenetic, but several preaxial forms are inherited as simple autosomal dominant traits. Postaxial polydactyly is the more common form in humans. Both autosomal dominant and recessive forms have been reported. Polydactyly is also a feature of several more serious syndromes.

In dogs and cats, preaxial polydactyly is by far the more common form. (25,26,70) In cats, it is inherited as an autosomal dominant trait with variable expressivity. (25) A similar inheritance pattern appears to apply to the occurrence of multiple dewclaws in the dog, as is seen in the Great Pyrenees. Lateral polydactylism occurs less frequently but has been reported in two members of a mixed breed litter. (36) There is no apparent clinical significance to these conditions, other than an increased propensity for traumatic injury of the partial supernumery digits.

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