most part secondary to copper deficiency. Yet internal kinetics of an intravenous tracer dose of radioactive copper are remarkably similar in each disease: in both there is prolonged whole-body and hepatic retention of the tracer and decreased gastrointestinal excretion. Presumably, the genetic abnormality that determines the disordered physiology of copper in these diseases is present from the time of conception. The chronogenetics, however, of each condition is vastly different. Both genes are "lethal", clinically speaking; In Menkes' disease the condition is manifest at or soon after birth and runs its course to death in a few months to a year or so. In Wilson's disease, however, the phenotypical manifestations are frequently delayed for years. The contrast in chronogenetics of these two diseases emphasizes the necessity of considering factors other than the demonstrable disorder of copper physiology in each condition.

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TIME-DEPENDENT ELECTROLYTIC RATE IN TWINS

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The levels of Na+ and Cl− electrolytes in the human sweat having already been shown, by a previous twin study, to undergo genetic conditioning, the age modifications of the electrolytic rate have now been examined in a sample of 4-20-year-old MZ male twins. A separate analysis has been carried out for the two age groups, 4-10 and 11-20, so as to account for possible effects of puberal processes.

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TWINS: CONCORDANCE FOR CHANGES IN HAIR COLOR AND EYE COLOR DURING EARLY CHILDHOOD

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Hair color and eye color were assessed routinely from 3 months to 6 years for twins participating in a longitudinal study of