The interstitial tissue of the testis has been studied in some 14 mammalian species and compared with respect to the abundance of Leydig cells and loose connective tissue, the degree of development and location of the interstitial lymphatics and their topographical relationship to the endocrine cells and to the seminiferous tubules.

Marked differences were found among the species studied but in general they could be assigned to one of three patterns of organization: (1) Species with a relatively small volume of Leydig cells and very little connective tissue stroma but provided with extensive peritubular lymphatic sinusoids or lymph spaces which occupy a large part of the intertubular area. (2) Species with clusters of Leydig cells scattered in an abundant, loose, edematous connective tissue which is drained by a lymphatic vessel, centrally or eccentrically placed in each intertubular area. (3) Species having very abundant, closely packed Leydig cells that occupy nearly all the enlarged intertubular areas, but with little connective tissue and very few interstitial lymphatics of small size. The possible physiological implications of these differing patterns of interstitial tissue organization are discussed.