been noted by the parents a lopping over of one hip or a lateral spinal curvature; wherein no lesion of any kind can be detected, though there is a sensible and marked difference in the length of the two lower limbs.

Upper Extremities.—Muscular atrophy or arthritic changes, leading to arrest of growth, after injury of the upper extremities are not noted so often as in the lower; and when they do occur, as they are not so obvious as in the lower, are apt to be overlooked, as shortening or moderate asymmetry here is functionally, at least, unimportant. With those not engaged in severe manual labor, though various muscular groups may have undergone limited atrophic changes, little impairment in action follows unless the limb is put on a severe strain. In fact, the defect may occasion no serious inconvenience throughout life and wholly escape detection except on a critical examination.

Histological Arrangement in the Normal Neuro-muscular Tissues.—Before we undertake to interpret the significance of post-traumatic mutations in the molecular elements involved, we should have some acquaintance with the morphology and arrangement in the healthy structures.

With a muscle we have a sheath, this divided by septa into fascicules, and these further subdivided in Heiser's tubules invested by sarcolema, all of which, except the muscular fibrillæ, are designated interstitial substances. Within Krause's membrane only do we come on the true muscle elements, the parenchyma.

The neuro-muscular system comprises, according to Raymond, three distinct divisions: (1) The multipolar cellule in the anterior horn of the spinal cord, the medullary ganglion; (2) The nerve-trunk; and (3) The muscle fibre in which the nerve-fibre is lost. Although these three segments possess very different anatomical arrangements, from a functional point of view, they may be classed together under the generic term of the neuro-muscular system. We are further, in many cases of an obscure origin, forced to look beyond the peripheral nerves; when we may find our deductions much simplified if we divide the nervous system into the central, the conductive and terminal.