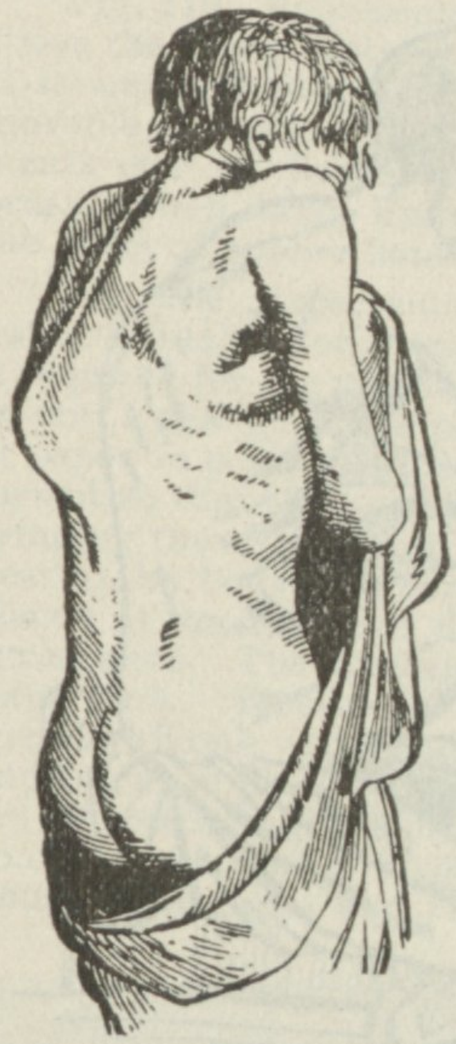
ORTHOPÆDIC APPARATUS.

SPINAL DISEASES AND DEFORMITIES.

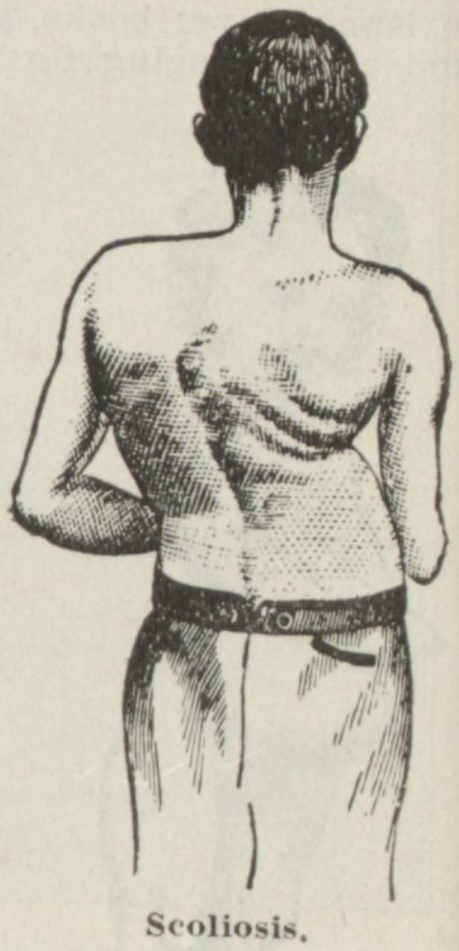


Angular Curvature of the Spine.

Angular Curvature, or Pott's Disease. Angular curvature, or Pott's disease, is caused by inflammation of the bodies of the vertebrae and of the intervertebral substance, usually commencing in the latter. It is often accompanied with tubercle, and some hold that it is essentially a scrofulous disease. The immediate cause of the curvature is caries, and it most commonly shows during the period of bodily development, usually attacking the lower dorsal region. Recovery sometimes takes place without pus making its appearance, but spinal abscess is a common accompaniment, the pus pointing in the groin and finding its way from the dorsal region beneath the facia of the psoas muscle, under Poupart's ligament, forming what is known as psoas abscess. The pus sometimes burrows beneath the muscles and involves the whole thigh. The abscess sometimes appears above Poupart's ligament and sometimes in the loin, forming in the latter case lumbar abscess. When the cervical vertebrae are affected, the abscess appears in the pharynx. Angular curvature is not difficult of diagnosis, as the ill-health, suppuration and deformity are highly indicative. The initiatory symptoms are also not obscure, the principal being the persistent local pain and difficulty in bending the back, accompanied by great general disturbance and hectic fever. After curvature has taken place recovery is always accompanied by anchylosis, from union of newly formed bony tissue.

Scoliosis, Lateral Curvature. In lateral curvature, the scoliosis of the older authors, the deviation of the spine is to one side, and is essentially due to irregular muscular contraction, acting upon weakened bones, fibro-cartilages and ligaments, and dragging them out of their natural position in such a manner as to induce more or less deformity. The side most commonly affected is the right, for the reason, probably, that most persons use the right arm much more than the left. Of five hundred and sixty-nine cases of lateral curvature treated at the Royal Orthopedic Hospital of London, four hundred and seventy were in this situation.

The causes which give rise to this irregular action on the part of the muscles may be conveniently arranged under the following heads: 1. Affections of the muscles, as hypertrophy, atrophy, inflammation and spasmodic contraction. 2. Debility, either general or local. 3. Obliquity of the pelvis from injury, disease, or malformation of the inferior extremities. 4. Altered capacity of one side of the chest, causing increased action of the muscles of the opposite side. 5. Rachitic softening of the bones. 6. Defective development of the vertebrae.



Scoliosis.

Lateral curvature, in its more aggravated states, is always attended with marked rotation of the bodies of the vertebrae, through which the spinous processes are directed towards the concavity of the curvature; the vertebral column is diminished in length in a degree proportionate to the lateral deviation, and the chest is materially altered in its figure—the ribs being flattened, elongated and twisted, and the sternum and costal cartilages tilted prominently forwards and depressed towards the pelvis. The scapula on the side corresponding to the convexity of the thoracic curve is unnaturally full and elevated; its upper border is directed forwards and inwards while the inferior angle is carried outwards, and hangs off in a very unseemly manner from the side of the chest, in consequence either of the elongation of the latissimus muscle, or on account of the bone from beneath its surface.