

The alar ligaments are thick cords of parallel collagen fibers extending horizontally and laterally from ovoid regions on the postero-lateral aspect of the apex of the dens to roughened areas on the medial sides of the occipital condyles. Most individuals also have an antero-inferior band, which attaches to the lateral mass of C1 anterior to the transverse atlantal ligament, with occasionally a few fibers passing from the dens to the anterior arch of C1. The ligaments limit atlanto-axial rotation, however slight upward movement of the axis during rotation helps permit a wider range of movement by reducing tension in the ligaments.