

stretched. At the full forward position, the lamina is dominant, thus rotating the disc posteriorly and preventing dislocation. This condition prevails until the disc-condyle complex has begun its return phase. Then, the shift in dominance of force gradually changes back to that of the muscle, thus ensuring that the disc occupy its most anterior position on the condyle permitted by the articular disc space. This delicate balance depends on precise muscular coordination. Its significance in normal functioning of the joint should be understood and appreciated. In this way, stability of the joint is maintained during the complete translatory cycle by continuous sharp contact of the articulating parts.

During a power stroke, which begins well after the extreme forward point of translation has been reached and the disc-condyle complex is safely on its return phase, a marked change in interarticular pressure occurs, which in turn alters the width of the disc space. On the biting side, the disc space widens perceptibly. If no new force entered the picture at this moment, the posterior traction exerted by the stretched superior retrodiscal lamina would tend to dislocate the articular disc posteriorly (if the disc space widened sufficiently). But, as the elevator muscles contract to execute the power stroke, contraction of the superior lateral pterygoid muscle takes place and exerts strong holding action on the mandibular condyle. The separate attachment of this muscle to the articular disc immediately overcomes the effect of the stretched superior retrodiscal lamina and rotates the articular disc anteriorly, thus bringing it firmly into the widened articular disc space. In this way stability of the joint is maintained by sharp contact of the articulating surfaces.

The contraction of the superior lateral pterygoid muscle continues throughout the remainder of the power stroke. It is especially active when the teeth are firmly brought into maximum intercuspatation. At this time, interarticular pressure is greatest and the articular disc space is thinnest. The articular disc is centered on the condyle, with the thinnest portion interposed between the condyle and articular eminence. With the disc thus firmly wedged between the osseous surfaces and the superior lateral pterygoid muscle strongly contracted, *joint stability is maximal just as occlusion of the teeth takes place.* Then, as the elevator and superior lateral pterygoid muscles relax and the mandible assumes a position of rest, a state of muscular equilibrium represented by muscle tonus prevails.

With the normal relaxation of the elevator and lateral pterygoid muscles following maximum intercuspatation, the resting condition of the joint is re-established. With decrease in interarticular pressure, slight widening of the articular disc space takes place. The superior lateral pterygoid muscle rotates the articular disc anteriorly to fill the slightly widened disc space, as muscle tonus exceeds the traction of the relaxed nonstretched superior