MAGNETIC RESONANCE EVALUATION OF THE TEMPOROMANDIBULAR JOINT DISC SHAPE

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The temporomandibular joint (TMJ) is the critical load-bearing joint in the human body, with articular disc acting as a stress absorber during everyday orofacial activity. The TMJ disc increases the contact area between opposing articulating surfaces and, thus, distributes lower magnitude stress to a larger surface area in the joint. Normal shape of the TMJ articular disc of is biconcave and has a bow-tie configuration. (Figure 1.)

According to these characteristicisc, Murakami divided the shape of articular disc into biconcave (normal), biconvex (Figure 2.), boplanar (Figure 3.), hemiconvex (Figure 4.), and folded (Figure 5.). Biconcave disc has concave both upper and lower surfaces; biconvex disc has convex both upper and lower surfaces and folded disc is folded at the centre.

CONCLUSION: Without ionizing radiation and invasion, MRI is considered suitable and internationally recognized standard for analyzing the TMJ disc position, morphology and mobility as well as surrounding anatomical structures in normal and pathological conditions.