THE TMJ LINK

TMJ stands for temporomandibular joint and according to the AAOMS[1] "is a small joint in front of the ear where the skull and the lower jaw meet. This joint allows the lower jaw (mandible) to move and function, and is the most constantly used joint in the body." In other words this little, yet resilient joint really gets a workout mostly during normal everyday events, such as eating, yawning, singing, shouting and talking. Further AAOMS states "the teeth themselves are also important for proper TMJ functioning, because if they don't fit together properly, stresses can be generated that can displace the condyle and damage the disc, ligaments and muscles." There are many studies, websites and books[2,3,4,5,6,7] which link dysfunction of the TMJ, known as TMJ dysfunction or TMD or craniocervical mandibular disorders [CMD] to multiple symptoms, including but not limited to tinnitus, Meniere's disease, decreased hearing, aural fullness, headaches, dizziness, difficulty balancing, difficulty swallowing, neck and shoulder soreness, cracking & clicking sounds in the jaw joints, limited mouth opening, visual disturbances and in some cases neurological diseases. Many of these sources also cite cervical spine dysfunction [CSD] as being a contributing and correlating factor in TMD. My own experiences and those of others support the relationship between cervical spine problems and TMD. The issue to be investigated being, is TMD a result of CSD or vice versa? The answer is probably both, in that faults in the TMJ system can induce problems in the cervical spine, and CSD does create problems with the TMJ. There are people of course, who have no cervical spine symptoms and exhibit TMD, however I think that these people are rare. For me the connection is fairly obvious when viewing radiological images of people with atlas subluxations it becomes patently obvious that the jaw mandible and hence the TMJ are out of alignment. The crooked or tilted head (X-ray opposite) sitting atop the cervical spine results in non-alignment or disarticulation of the TMJ in the cranial fossa (recess). The joints do not work properly, with the disc being captured during opening and/or closing, and the neck and shoulder muscles going into painful spasm during the normal process of eating. There are some 163 or thereabouts muscles and ligaments in the head and neck area which are used in the process of eating. There are interrelationships and interconnections, which you or I couldn't even dream about. There is a ligament known as the stylomandibular (SM) ligament, which may play a role, however I am only speculating as to its involvement. The SM attaches from the styloid process on the skull to the outside of the mandible (lower jaw). It seems to me that a tilted head will result on this ligament pulling on the mandible and causing a misalignment of the TMJ.

For me the most painful part of eating was nothing to do with my joints themselves, but due to muscular spasm in the right trapezius and right lower scalenes. The pain was excruciating and the symptoms which occurred during and after eating bizarre to say the least. However, in researching TMD and CSD, the symptoms experienced no longer seem bizarre, but make a lot of sense and certainly could be the result of a crooked head sitting off centre on top of my neck. Again, as mentioned elsewhere, the neck, which I consider as the conduit to and from the body, is rich in many nerves and blood vessels. Compression of these will cause problems and further the scalenes lay near the brachial plexus of nerves at the base of the neck, which when compressed are implicated in Cerebral Thoracic Outlet Syndrome [CTOS]. For me CTOS is nothing more than an upper cervical (C1 to C0) subluxation for the symptoms of CTOS caused by the coiling and kinking of various arteries appear suspiciously like those as a consequence of atlas subluxations.

The close relationship of TMD to CSD warrants close scrutiny and certainly collaboration between both chiropractors experienced in upper cervical analysis and adjustment and dentists experienced in TMD. That is why I suggest both these steps are included in any therapy to correct both apparent problems. The longer a person has had both problems the more damage is done to both mechanisms. Long-term positive corrections can only be maintained with professionals, UpC chiropractors and TMJ dentists working in harmony.

As always these are my views and opinions, but I think you will find, if you study this further that I'm pretty close to the mark. It only takes Governments, medical bodies and research organizations allocating appropriate funding to this area of research.

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[1] American Association of Oral and Maxillofacial Surgeons; Rosemount, Illinois 1994

[2] TMJ: Its many faces; Shankland II, Wesley E.; D.D.S., M.S.; Anadem Publishing, Ohio; 1996

[3] Symptoms of the cervical spine in temporomandibular cervical spine disorders; De Wijer, A; Steenks, M.H.; De Leeuw, J.R.J. ; Bosman, F ; Journal of Oral Rehabilitation 1996 **23**; 742-750

[4] The Relationship of Tinnitus to Craniocervical Mandibular Disorders; Gelb, Harold B.S., D.M.D. ; Gelb, Michael L. D.D.S., M.S. ; Wagner, Melinda L. B.A., M.D. ; www.northlaw.com

[5] Prevalence of signs and symptoms of craniomandibular disorders in Tinnitus Patients; Rubenstein, Barbara D.D.S. ; Axelsson, Alf M.D., PhD ; Carlsson, Gunnar E. D.D.S., Odont Dr. ; Journal of Craniomandibular Disorders: Facial & Oral Pain ; 1990 Summer; 4(3): 186-92

[6] Cervical signs and symptoms in patients with Meniere's Disease: A controlled study; Bjorne A, Berven A, Agerberg G; Clinic of Periodontology, Lasarettet, Ystad, Sweden; *Cranio* 1998 Jul: 16(3):194-202

[7] Craniomandibular disorders in patients with Meniere's disease: A controlled study; Bjorne A, Agerberg A; *Journal of Oral & Facial Pain*; 1996 Winter; 10(1):28-37