

Exploring the Wider Role of Dentistry

The Effect of Jaw Problems on the Rest of the Body



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During my years practising as a Specialist Orthodontist, I became increasingly aware that most crooked teeth were associated with functional and orthopaedic problems. As a result, I became a founder member of the British Society for the Study of Cranio-Mandibular Disorders (BSSCMD –www.jawache.com), a group of like-minded practitioners that has been in existence for over 20 years.

Our members include dentists and body therapists such as osteopaths and chiropractors and they recognise that an integrated approach to treatment results in a better outcome for the patient. Over the years, the group has invited speakers from medical and dental disciplines as well as complementary therapists including homeopathy, Alexander technique and acupuncture. While I have now retired from clinical practice, I continue to lecture and I use the opportunity to emphasise the benefit of a collaborative team approach.

Movement Disorders

While many Cranio-Sacral Therapists treat people for Temporo-Mandibular Joint issues, it can be useful to consider wider issues such as breathing problems and sleep disorders in relationship to the jaws. Another issue is movement disorders such as Tourette's and dystonia. There are some interesting cases and research into the link between movement disorders and TMJ dysfunction, some of which can be found at Dr Brendan Stack's website: www.tmjstack.com. What may potentially be of interest to CST practitioners is the possible link between movement disorders such as Tourette's and irritation of the trigeminal cranial nerve (CN V). This nerve has three branches: ophthalmic, maxillary and mandibular. The latter has a motor root as well as a sensory one. The majority of these patients have a disc displacement in the TMJ and this may cause irritation to the auriculotemporal nerve which originates from the posterior part of the mandibular branch of V. There may also be an association with the nucleus of the trigeminal nerve which arises in the pons in close proximity to the cerebellum, the area concerned with muscle co-ordination. The trigeminal nerve has many cross connections to the facial, glossopharyngeal and vagus nerves so the feedback to the spinal trigeminal nucleus are indeed complex. Dr Stack has been the pioneer in this treatment and repositioning the condyle with an intra-oral appliance and cranio-osteopathic adjustments result in a considerable improvement. See: YouTube – A new treatment for dystonia and migraines etc.

Breathing problems, Sleep Disorders and Obstructive Sleep Apnoea.

The airway is essential to life and any obstruction will reduce the oxygenation of the blood. Mouth breathers tend to over-breathe and this, in turn, also reduces oxygenation and puts the patient into a Sympathetic state. In the past, snoring has been regarded as an inconvenient social problem, however it is now recognised as a symptom of a number of health hazards which typically fall under the umbrella of 'sleep disorders'. Obstructive Sleep Apnoea (OSA) can be life threatening and one of the current treatments is to provide a mandibular repositioning appliance. This appliance acts to move the mandible forwards, thereby creating more tongue space and opening up the pharyngeal airway.

A recent interviewer cited that 7 million children in the US suffer from OSA and half of those had ADHD. These disorders are on the increase and although the mandibular repositioning appliance may help the symptoms, it seems to investigate the cause. It is estimated that 80% of children in the UK suffer from malocclusion i.e. crowded teeth. Most of these children have an under-developed upper jaw and this, in turn, causes the lower jaw to be set back. Both these factors affect the airway.

A narrow maxilla impacts in two ways. The space for the tongue is reduced and, because the roof of the mouth also forms the floor of the nose, the nasal airway is also reduced. This in turn promotes mouth-breathing. In addition, a retruded mandible results in a reduced pharyngeal airway. During sleep the tongue drops back into an already compromised pharyngeal airway and snoring, or even sleep apnoea, can result.

Conventional Orthodontists tend to focus on the position of the teeth – often removing healthy teeth before fitting fixed braces for alignment – but mostly pay little attention to function. On the other hand, Functional Orthodontists treat these problems when they become apparent i.e. from seven years of age (or earlier for severe cases), developing the maxilla and then moving the mandible forward.

Functional Orthodontists use a variety of removable plate appliances to carry out palatal development. Now a new pre-orthodontic trainer system called Myobrace is being introduced into the UK. The appliances are similar to a soft mouth guard, and need to be worn for two waking hours per day and then at night. The appliance will correct aberrant muscle function, expand the upper jaw and bring the lower jaw forward. Remaining minor misalignments of permanent teeth can then be treated with a fixed brace; but the advantage is that this treatment will be shorter and the end result will be more stable. In the meantime the patient will benefit from an enhanced airway.

While there are only a handful of practitioners in the UK using the system at present, with it being taught in over 100 countries, that may well change in the future, and it may be a useful early intervention for other therapists to be aware of.

The BSSCMD welcomes new members.

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