## Impaired Oral Function and Stress Beyond OSA By Arthur M. Strauss, DDS

People with sleep apnea demonstrated several alterations in craniofacial form (Jaw-Tongue-Throat Relationship) that reduces the upper airway dimensions and room for the tongue. This impairs upper airway (Throat) stability and thus oral functions of the tongue in its functions of swallowing, speaking and breathing.

Because these structures are always present and less stabile in maintaining a clear throat for optimal function, this condition is ever-present and impacts the body while awake as well as when asleep. The most life threatening impact is impeding airflow or ease of breathing. It is most life threatening, from a time perspective, and, therefore, considered first priority in managing survival, as in cardio-pulmonary-resuscitation (CPR). Management of this comes before breathing as it controls airflow and breath.

Consequently it is the most immediate threat to life and controller of the stress response, which medicine refers to as "stress". I believe that all sensations we refer to as stress are physical sensations of our increased heart rate from the stress response. Antonyms of stress sensations are "peace, calm, feelings of well being", etc. are likely the only times we have no level of excess stress hormone in circulation triggering this "stress response", which is characterized by:

- Increased rapidity and shallowness of breathing
- Increased blood pressure and
- Increased heart rate.

I also believe that the rhythm and tempo of the heart rate characterize the sensations of different medical descriptions or diagnosis ranging from manic to depressed levels.

In prior articles I have described the body posture compensations that help create more room for breathing by increasing the space for airflow behind the tongue where it becomes close to the spinal column. Because of many varying structures associated with the jaw-tongue and throat and the rest of the body reaching all the way to the bottom of the feet, any upset in equilibrium, namely sudden impact to any or all of our five senses, including those induced by thoughts, instantaneously impacts this body posture, keeping our throats opened for airflow, triggering a stress response until the body rebalances.

So thoughts indirectly trigger stress by distracting the body from the delicate equilibrium it is maintaining posturally to manage airflow, causing concurrent sensations we attribute to feeling "stressed". This validates the saying; "Sticks and stones can break my bones but names can never harm me." Our body "knows" that choking and suffocation can! Perhaps, mental health experts can benefit by focusing on anatomy books and consider functional anatomy and emergency medicine, and the mechanics of meditation (minimizing thoughts) and deep breathing to include this perspective.

Given the impact of "stress" on all chronic disease, one can see how anatomy and impaired oral function is likely the root cause of it all. And this is best managed by understanding and improving our anatomy to facilitate oral function and "ease of breathing", which definitely involves the territory of the dental profession.