SOUTHPAW®

WHY USE VIBRO-ACOUSTIC AS PART OF YOUR MSE TREATMENT

First, Vibro-acoustics is a process using two sensory systems in the body; the auditory and the touch system. The response to the music through the auditory system is pleasurable based on the individual's tastes and preferences in music or that which is meaningful to them. But it is the touch system that plays a major role in response to the vibration and the one that will be discussed here. Think about it, the skin is really the largest organ in the body with more receptors than any other sensory system. Skin is the boundary between "Me" and "Not Me" and the "container" for all function, whether that be our organs or skeletal system. It provides our physical connection to the world and serves to keep us comfortable and safe.

One postage stamp size piece of skin contains: 9' of blood vessels, 30 hairs, 300 sweat glands, 4 oil glands, 13 yards of nerves, 9,000 nerve endings, 6 cold sensors, 36 heat sensors, 75 pressure sensors and 600 pain sensors*1…WOW!

One of the sensory receptors is the Pacinian Corpuscles which is a type of mechanoreceptor. It is located in connective tissue of bone, body wall and body cavity. Depending on its location it can be cutaneous (skin), proprioceptive (pressure & movement) or visceral (organs). It is sensitive to vibration and pressure; it transmits vibration to the brain to allow perception of distant events and is also part of tactile discrimination for feeling smoothness and textures. It is considered "rapid adapting" meaning its firing potential is generated when force is first applied, and then becomes unresponsive to steady pressure.

Why is this important to know? Well, when using it to affect change of the human reaction to stimuli, we need to be cognizant of keeping variation or novelty occurring to keep the receptor firing. When vibro-acoustic equipment is utilized the music provides the

novelty and variation to promote the firing of the receptor. And when the person moves, for example taps their foot to the beat, they receive more input. We know that when two sensory inputs are simultaneously combined the brain gets more than the summation of the two inputs. It also gets secondary and tertiary areas of the brain involved. “Voila” as the French say, we are getting more potential synapses and possible neuroplasticity and this of course, is what we want. It also feels good to most people. So why incorporate Vibro-acoustic equipment into your MSE? Using Vibro-acoustic equipment increases the potential for changing the Brain and as a result, our behavior or response.

Studies have also shown that Vibro-acoustics contributes to:

- Reduce stress
- Facilitate the Relaxation Response
- Decrease pain
- Relax muscular hyper-tonicity
- Increase communication potential
- Increase social engagement
- Promote muscle tone
- Increase range of motion

As with any form of new experience it should always be voluntary. With individuals who cannot verbalize their likes or dislikes, it is imperative to keenly observe their response. In my experience a facial expression in less than 3 seconds will tell you they don’t like it or it is too much. This has occurred only a very few times but, the aim here is to promote joy and fun and this equipment certainly does that.

Some precautionary information:
Always know your client; some contraindications include individuals with pacemakers, thrombus, active bleeding disorders, extreme low blood pressure, severe PDST or psychotic episodes. When in doubt, always consult a physician.

1* Credited to Patricia Wilbarger, M.Ed, OTR, FAOTA
References: Music and Spatial-Temporal Relationships, Rausher, FH, et al., Neurological Research, 19, 2-8
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