"The Technique of Maintained Pressure"

The Anxiety Wrap puts in an unchanging, quieting stimulus that causes the receptors to adapt and modify their thresholds in a cumulative manner."

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Based on an interview and demonstration by Shereen D. Farber, Ph.D, OTR, FAOTA, and author of Neurorehabilitation A Multisensory Approach. WB Saunders Co. Philadelphia, 1982

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She tells us that The Anxiety Wrap uses maintained pressure, which is a technique that has been used in humans for many years. To understand how it works in mammals, one needs to know that we all have various types of sensory receptors in our skin, muscles, and organs and throughout our bodies. The purpose of the various sensory receptors is to report the status of the world, both external and internal (from the muscles, joints, connective tissue, organs, etc) to the brain. The brain then sends down messages to activate the body's systems with the idea of taking the body to make the appropriate response according to its feedback. There is a constant feedback system to the brain and correction system from the brain to the body. Touch input appears to enhance awareness or consciousness so every effort is made to normalize touch responses.

Many factors can influence how easily the sensory receptors fire sending their messages to the brain. Besides brain or Central Nervous System (CNS), there is also an Autonomic Nervous System (ANS) whose purpose is to maintain all the body's vital functions. It has two divisions, the sympathetic nervous system (the energy production and expenditure system) and the parasympathetic nervous system (the energy restoration system). If an animal is highly stressed, the autonomic nervous system's (ANS), the sympathetic division sends neural messages to the receptors to lower the amount of sensation required to activate the receptors. This action allows the animal to flee or fight when needed. Unfortunately many animals have had trauma to the CNS or the nerves and associated structures that communicate with the brain and body (the peripheral nervous system). Animals can also sustain stress, illnesses, pain, all of which lower the threshold of sensation needed to fire the sensory receptors. Consider trying to cut the nails of a dog who has been abused, is in chronic pain, or who is a product of sustained stress. Even holding that dog's paw produces an aversive response in the dog. In theory, maintained pressure, as supplied by the hands of the handler or therapist, acts to calm the sensory receptors and raise the amount of sensation needed to fire those receptors to reporting to the brain. Remember that a chronically stressed dog also perceives potential injury when there may be none. Hence his

"guard is up" so to speak. As we apply the therapeutic band or our hands, both acting as therapeutic agents to calm the animal, we slowly sink into the tissue and quiet the active firing of those receptors resulting in a calmer dog. The advantage of using the therapeutic bands is that the dog may struggle at first; expending energy all the while, input is being provided to his nervous system that is even, rhythmic and repetitive, producing a calming of mind and body. The animal quickly settles into a more pliable state and his guard is lowered.

Because of injury, some animals are not aware of the injured body part. They may not bear weight on that part or use it effectively. Maintained pressure appears to assist with awareness and use of such extremities demonstrating body part disregard. When pressure is continuously applied, there is a decline in the sensitivity at the receptors; however, the adaptation may vary with the intensity of the stimulus and the area of the body being stimulated. Some areas are far more sensitive than others. The feet and area around the mouth are more sensitive areas with lots of receptors per unit space.

References: Sinclair D: Cutaneous Sensation. London, Oxford University Press, 1967. Lassen NA et al: Brain function and blood flow. Scientific American 239:62-71, 1978. Geldard FA: The Human Senses, 2nd ed. New York, John Wiley and Sons,
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