

## The Effects of the Vasovagal “Vagus” Nerve

Kelsey Gustafson  
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Massage is important to all dogs’ young or old. Canines who experience the benefits of massage have their minds and bodies connected resulting in a release of stress and tension. An integral part of dog massage is the vasovagal nerve, also known as the vagus nerve. This nerve is the longest in the dog’s body. During a massage, stimulation of the vagus nerve can help a canine with acute or chronic illness.

The vasovagal nerve starts at the brain and goes all the way to the large intestine. By definition, “the vagus nerve helps regulate the tension in the blood vessels against canine heart beats.” The nerve is also responsible for all regulation of internal organs.

According to the website, Working Dog HQ, “the vagus nerve is the 10th cranial nerve” and “...even plays a role in hearing, vision, and mental functioning.” Activating the vagus nerve, through something like a K-9 massage, activates the rest and digest system and deactivates the flight or fight response. This allows “for full body relaxation” to take place (McMicheal, 2020).

After a massage, a dog performs an integration shake as everything in their body comes connected together. In the experience of being a dog masseuse, this can be a powerful thing to watch as this is the beginning stage of their bodies healing with the help of massage. Since the vagus nerve is the longest in the body, it’s always being worked on if you are working on the neck, chest, and abdomen.

Vasovagal nerve also controls a dog’s ability to digest and the digestion of nutrients in their food. Since the nerve runs through the canine’s esophagus, this can directly affect a dog breathing. Some breeds of dogs such as French bulldogs, pugs, boxers, and Boston Terriers are known as “brachycephalic breeds” and are prone to respiratory issues due to the fact their noses and faces are pushed in causing harder breathing practices. This can affect their vagal tone. Having a higher vagal tone means the body can relax faster after stress and vice versa.

Some dogs are pushed to their limit when their bodies are trying to control their vagal tone, which can result in something called “syncope” or fainting. According to VCA Hospitals, “syncope (or fainting) is defined as a temporary loss of consciousness that occurs when the brain does not receive enough oxygen.” The most common reason for decreased oxygen is an “abnormality in circulation, generally involving how the heart is beating” (Weir, Dowing).

The vagus nerve stimulates certain muscles in the heart that helps slow heart rate. According to Denise Prisk from her article “Anesthesia of the brachycephalic patient,” “brachycephalic breeds have a high resting vagal tone, which results in a slow heart rate” (Prisk, 2019). With their heavier set heads and a tighter airway, these breeds have problems eating, drinking, and performing normal activities, such as going for a walk.

A French bulldog named “Peytia” was a prime example of a brachycephalic breed. Just from walking across a room, Peytia would become winded, so much so her mouth and tongue would turn purple until she could catch her breath. This would also occur when she was introduced to what she considered a stressful situation.

Through multiple massage sessions, and increasing her vagal tone, her breathing evened and made her remaining days more comfortable. Increasing her vagal tone allowed her to relax herself quicker.

In addition to its ability calm a stressed K-9, massages performed on dogs can also reduce joint stiffness and increase mobility. According to the article, “Hands Healing Hounds: The Power of Canine Massage” “canine massage can improve blood flow, alleviate stress reduce pain, relax tight and sore muscles, and help heal sprains and strains!” The article also explains that “many believe it also strengthens the immune system, improves digestion, and lowers blood pressure” (Day, 2019).

In American Bull Stafford mix, “Bear,” he had a shoulder lameness and alignment issues reducing his ability to run and play, which in turn effected his mood. With regular sessions and working the sore muscles, Bear’s mobility increased and improved his overall mood.

From the beginning of a dog massage to the end, the vasovagal nerve is having work done to it. With each client and experience, it will become easier to identify issues and how to properly manage the issues through regular massage sessions as well as identifying the vasovagal (vagus) nerve and each point it connects through in a canine’s anatomy.

#### Works Cited

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