

# Riverwind Shiloh Shepherds

## EARLY NEUROLOGICAL STIMULATION

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**Beneficial effects can be achieved via early neurological stimulation.**

**Surprising as it may seem, it isn't capacity that explains** the differences that exist between individuals because most seem to have far more capacity than they will ever use. The differences that exist between individuals seem to be related to something else. The ones who achieve and out perform others seem to have within themselves the ability to use hidden resources. In other words, it's what they are able to do with what they have that makes the difference.

**In many animal breeding programs** the entire process of selection and management is founded on the belief that performance is inherited. It has only been in recent decades that good estimates of heritability of performance have been based on adequate data. Cunningham (1991) in his study of horses found that only by using Timeform data, and measuring groups of half brothers and half sisters could good estimates of performance be determined. His data shows that performance for speed is about 35 o/o heritable. In other words only about 35 o/o of all the variation that is observed in track performance is controlled by heritable factors, the remaining 65 o/o is attributable to other influences, such as [training](#), management and nutrition. Cunningham's work while limited to horses provides a good basis for understanding how much breeders can attribute to the genetics and the pedigrees.

**Researchers have studied** this phenomenon and have looked for new ways to stimulate individuals in order to improve their natural abilities. Some of the methods discovered have produced life long lasting effects. Today, many of the differences between individuals can now be explained by the use of early stimulation methods.

### INTRODUCTION

**Man has tried many methods to improve performance.** Some of the methods have stood the test of time, others have not. We now know that early life is a time when the physical immaturity of an organism is susceptible and responsive to a restricted but important class of stimuli.

**Newborn pups** are uniquely different than adults in several respects. When born their eyes are closed and their digestive system has limited capacity requiring a periodic stimulation by their dam that routinely licks them in order to promote digestion. At this age they are only able to smell, suck, and crawl. Body temperature is maintained by snuggling close to their mother or by crawling into piles with other littermates.

**During these first few weeks** of immobility researchers noted that these immature and under-developed canines are sensitive to a restricted class of stimuli, which includes thermal, and tactile stimulation, motion and locomotion. Studies show that removing them from their nest for three minutes each day during the first five to ten days of life causes body temperatures to fall below normal. This mild form of stress is sufficient to stimulate hormonal, adrenal and pituitary systems. When tested later as adults, these same animals were better able to withstand stress than littermates who were not exposed to the same early stress exercises. As adults, they responded to stress in 'a graded' fashion, while their non-stressed litter mates responded in an 'all or nothing way.' When tested for differences in health and disease, the stressed animals were found to be more resistant to certain forms of cancer and infectious diseases.

**Other studies involving early stimulation exercises** have been successfully performed on both cats and dogs. In these studies it was shown that pups and kittens when given early stimulation exercises mature at faster rates and perform better in certain problem solving tests than non-stimulated littermates. These results show that early stimulation exercises can have positive results but must be used with caution. Too much stress can cause pathological adversities rather than physical or psychological superiority.

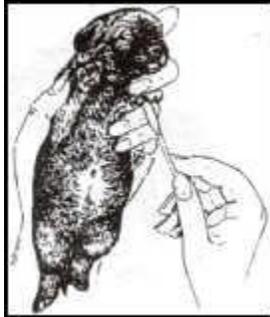
## **METHODS OF STIMULATION**

**The U.S. Military in their canine program** developed a method that still serves as a guide to what works. In an effort to improve the performance of dogs used for military purposes, a program called "Bio Sensor" was developed. Later, it became better known to the public as the "Super Dog" program. Based on years of research, the military learned that early neurological stimulation exercises could have important and lasting effects. Their studies confirmed that there are specific time periods early in life when neurological stimulation has optimum results. The first period involves a window of time that begins at the third day of life and lasts until the sixteenth day. It is believed that because this interval of time is a period of rapid neurological growth and developments, and therefore is of great importance to the individual.

**The "Bio Sensor" program** was also concerned with early neurological stimulation in order to give the dogs a superior advantage. Its development utilized six exercises, which were designed to stimulate the neurological system. Each work-out involved handling puppies once each day. The work-outs required handling them one at a time while performing a series of five exercises. Listed in no order of preference the handler starts with one pup and stimulates it using each of the five exercises. The handler completes the series from beginning to end before starting with the next pup. The handling of each pup once per day involves the following exercises:

1. Tactile stimulation (between toes)
2. Head held erect
3. Head pointed down
4. Supine position
5. Thermal stimulation

### 1. Tactile Stimulation



Holding the pup in one hand, the handler gently stimulates (tickles) the pup between the toes on any one foot

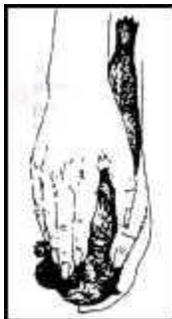
using a Q-tip. It is not necessary to see that the pup is feeling the tickle. Time of stimulation 3-5 seconds.

### 2. Head Held Erect



Using both hands, the pup is held perpendicular to the ground, (straight up), so that it's head is directly above it's tail. This is an upwards position. Time of stimulation 3-5 seconds.

### 3. Head pointed down



Holding the pup firmly with both hands the head is reversed and is pointed downward so that it is pointing toward the ground. Time of stimulation 3-5 seconds.

### 4. Supine position



Hold the pup so that its back is resting in the palm of both hands with its muzzle facing the ceiling. The pup while on its back is allowed to sleep, struggle. Time of stimulation is 3-5 seconds.

## 5. Thermal stimulation



Use a damp towel that has been cooled in a refrigerator for at least five minutes. Place the pup on the towel, feet down. Do not restrain it from moving. Time of stimulation 3-5 seconds.

**These five exercises** will produce *neurological stimulations*, one of which naturally occur during this early period of life. Experience shows that sometimes pups will resist these exercises, others will appear unconcerned. In either case a caution is offered to those who plan to use them. **DO NOT REPEAT THEM MORE THAN ONCE PER DAY** and do not extend the time beyond that recommended for each exercise. Over stimulation of the neurological system can have adverse and detrimental results. These exercises impact the neurological system by kicking it into action earlier than would be normally expected. The result being an increased capacity that later will help to make the difference in its performance. Those who play with their pups and routinely handle them should continue to do so because the neurological exercises are not substitutions for routine handling, play, socialization or bonding.

### **BENEFITS OF STIMULATION**

**Five benefits have observed in *canines*** who were exposed to the Bio Sensor stimulation exercises. The benefits noted were:

- 1. improved cardio vascular performance (heart rate)**
- 2. stronger heart beats**
- 3. stronger adrenal glands**
- 4. more tolerance to stress**
- 5. greater resistance to disease**

**In tests of learning, *stimulated pups*** were found to be more active and were more exploratory than their non-stimulated littermates over which they were dominant in competitive situations.

Secondary effects were also noted regarding test performance. In simple problem solving tests using detours in a maze, the non stimulated pups became extremely aroused, wined a great deal, and made many errors. Their stimulated littermates were less disturbed or upset by test conditions and when comparisons were made, the stimulated litter mates were more calm in the test environment, made fewer errors and gave only an occasional distress signal when stressed.

