**Module descriptor series V**

**Functional Neurology : Back to the Basics – Sat. 28-09-2019**

This module will provide functional neurologic applications in the diagnosis and treatment of disturbances of brain function, using manual techniques and neurological rehabilitation strategies. The functional neurologic components will be covered in an easy and understandable way while exploring the neuroanatomy and physiology of the lobes of the brain.  We will divide the left and right half of the brain and analyze the functions of the frontal, temporal, parietal, and occipital lobe. What are the implications of under- or over activity?  How do the lobes communicate with one another and what is the blood supply?  We will give a condensed review highlighting the most important aspects.  Topics include:

* Neuron theory
* Neuroplasticity
* Hemisphericity concept
* Optokinetic testing
* Cortical stimulation/inhibition
* Autonomic controls
* Blind spot mapping

**Headaches: Fine Tuning Your Approach – Sat. 09-11-2019**

In this session of the module we will elaborate on the functional neurological triggers involved in headaches. Most of the time, these involve imbalance of brain stem centers of the vestibular system, which lead to neurovascular consequences and autonomic imbalance. In this session we will therefore review various regions in the brain stem, vestibular system, cerebrum, and cerebellum and show how the neurologic integration is linked. In the practical aspect we will cover diagnostic testing to discover any imbalance in the system, and present various ways in which these may be resolved using a variety of functional neurologic applications. Amongst topics covered:

* Head and face pain-understanding cortical integration and descending inhibition
* Central sensitization
* Migraine, tension, and other types of headaches/classifications
* Diagnostic testing, cranial nerve screening
* Testing autonomic concomitants
* Treatment strategies
* Nutritional advice

**Functional Neurological Impact of your Adjustment – Sat. 11-01-2020**

The chiropractic adjustment is the claim to fame for the profession. Whereas in the past, it was speculated as to how the adjustment affects the nervous system- now these mechanisms are better understood. We will explain the functional neurological influences by analyzing anatomical, physiological, and clinical features of the nerve supply of the joint systems in various parts of the body. This module is a real eye opener for the chiropractor who wants to clearly explain how chiropractic effects the nervous system. Everything you didn’t learn in school- but so important in the understanding of the neurophysiology of spinal manipulation. Among topics covered are:

* Function of the articular receptor systems
* Arthrokinetic reflexes
* Coupled spinal motion and manipulation
* Mechanoreceptor effects on muscle tone
* Descending inhibitory controls and the modulatory effects on the neuraxis
* Adjusting techniques

**Functional Neurology for Better Performing Athletes – Sat. 07-03-2020**

In order to function properly, your brain needs 3 primary things: oxygen, fuel, and activation. This last aspect is primarily accomplished through movement. We will explain how sporting activities as well as spinal manipulative treatment effects the brain. The latest research in this area will be presented. We will demonstrate how sports activities and movement in general affect other aspects of health such as concentration, sleeping, moods and emotional state of mind. You will receive plenty of practical tips on how to train the body most efficiently for various sports activities. Topics include:

* Strategies to optimize speed and endurance
* Neurological applications for strengthening and stretching muscles
* Electronic muscle stimulation
* Kinesiotaping
* How to train the brain for optimal performance
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**Eye movements and rehabilitation – Sat. 16-05-2020**

The eyes play an important role in the integrity of the nervous system.  For chiropractors, the connection between the eyes, the inner ear and the spine should be clearly understood since the spinal intrinsic musculature is controlled by this very system.  In this module you will learn how to assess aberrant eye movements and deficiencies in visual integration. We will also show you specific eye exercises to address these issues.  Last but not least we will explain how spectacles can create phoric changes in visual fields, and how this can lead to disturbances in eye movements secondarily effecting the autonomic nervous system.

* Neuronal control of fixation
* How the eye muscles are linked to the spine, therefore important to analyze
* Pursuits and saccadic eye movement in diagnosis and treatment
* Optokinetic strips in diagnosis and rehabilitation
* How glasses can affect eye movements thru the prism effect
* How to treat mild forms of strabismus
* The vestibulo-ocular reflex to stabilize images on the retina
* Neural integration relating to eye activity and visual processing
* We will also give you the latest Apps you can use in practice for diagnosis and treatment
* Demonstrate a revolutionary new program to map eye movements