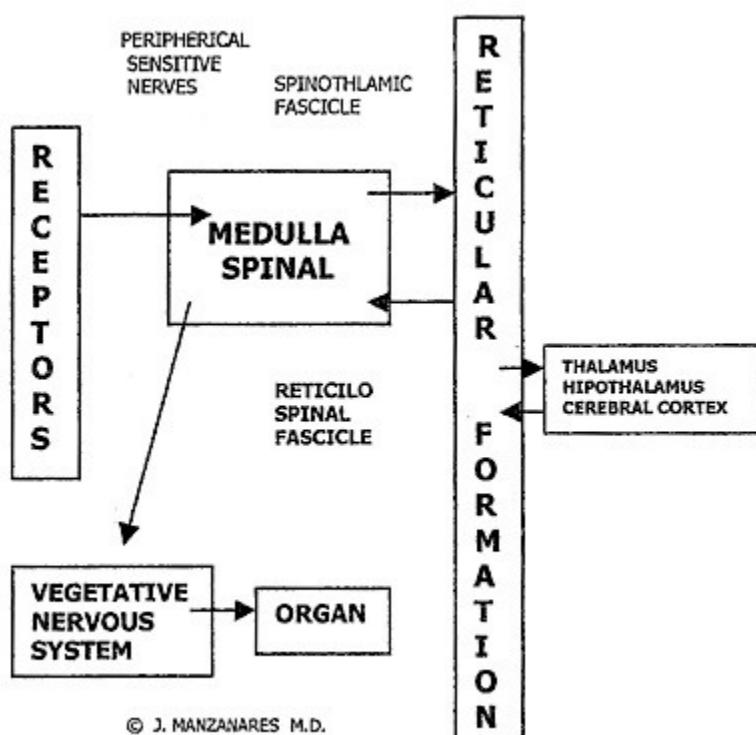


“Reflexology can be defined as a reflex technique that is based on the neurobiochemical action produced by stimulating a specific area of the foot that results in a general or partial repercussion in the body. This is possible because of the somatotopic representation (mapping) of the human body on the foot, where every organ and parts of the body are reflected”.

Jesus Manzanares, MD

NeuroPhysiological Basis for Reflexology

The diagram below represents the different structures involved in a *reflex arc* - the neural pathway that mediates a reflex action. The implicated anatomic structures and the mechanisms that cause the beginning of the stimulus include:



Receptors or nerve

- *endings*
- *Receptors or sensory nerves*
- *Spinal cord - spinothalamic tract*
- *Reticular formation of the brain*
- *Thalamus, hypothalamus, cerebral cortex*
- *Spinal Cord - reticulum, spinal fasciculi*
- *Autonomic Nervous System*

These structures make up the neurological circuit that explains the conduction and response pathways for the reflexology stimulus and helps us to better understand the neurophysiological basis for reflexology.

The reticular formation is the part of the brain that is essential for governing some of the basic functions of higher organisms. Its varied functions include: somatic motor control; cardiovascular control; pain modulation; sleep; consciousness and habituation (response to stimulus).

The reticular formation can be considered the neurological center for reflexology or the *core of the reflexology circuit*. It is here in the reticular formation of the brain, composed of multiple nuclei, where there is a somatotopic representation of the body (human body map).

Dr. Manzanares' investigations performed during the application of reflexology locate the area of maximum bio electric activity to be in the reticular formation. This explains the functional importance of the central nervous system as a whole.

The fibers that conduct the impulse produced in the foot are connected in a strict order. Once there is a contact, an impulse is sent to organs and body parts that correspond to the relative reflex areas that are stimulated.

The finality of the reflex arc is the harmonizing of the organ or structure we are treating at the time. This 'back-to-normal' effect is produced by a rebalance of the nervous system (sympathetic and parasympathetic).

A comprehensive understanding of these anatomical and physiological mechanisms involved in reflexology requires an in-depth study of the structures and how they influence the reflex response. Further study is available through the Manzanares Method™ of Reflexology courses and books: *Principles of Reflexology (Revised)*; *Reflexology Notebook of Research*; *Deposit Analysis & Special Locations*. To learn more about Dr. Manzanares, his research and course details, visit www.ManzanaresMethod.com

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