In a 2009 interview with Dr. Jesus Manzanares, M.D., I asked him about the long-standing term in reflexology that refers to 'crystals' in the feet. Following is his answer and a synopsis of the foot tissue biopsy studies from his reflexology research. The biopsy studies were to scientifically validate the composition of deposits, the term Dr. Manzanares refers to as areas in the feet that, when palpatated, are hypersensitive and feel abnormal.

The term 'deposit' is used to refer to the imbalance in organic tissue revealed in the biopsies. According to Dr. Manzanares, the abnormal tissue in the feet corresponds to imbalances in the body and a direct result of nervous system involvement. His research eliminates controversy and confusion from theories about the existence of inorganic elements in the tissue of the feet. Invalid theories have existed to explain the abnormal 'felt sense' palpated in the feet. A natural phenomenon in nervous tissue became a mystery and was thought to be everything from toxicity, calcium, congestion, waste matter to crystallization or crystals.

Until now, there was no science to validate to the theologians what exactly was being palpated by reflexologists. Gaining this information is revolutionary to help practitioners understand the physiological implications of not only the application but the outcomes that can be expected.

In his science-based reflexology course, The Manzanares Method of Reflexology, Dr. Manzanares shares images of his biopsy research and teaches why deposits form, where they are located and how they vary in size, consistency and sensitivity due to acute or chronic pathology. Practitioners can use this information to assess and develop protocols based on the effective amount of pressure, duration and frequency.

**Linda:** "Dr., so what about the notion of past decades that those tender areas we find in the feet are reflexologists, are some sort of ‘calcification’ and somehow began to be called crystals. What exactly has your research shown and why is it important that we know?"

**Dr. Manzanares:** ‘There is no such thing as crystals in the tissue of the feet, or in what you refer to as reflex areas. Biopsies taken from the tissue of live patients’ feet reveal that the composition of what I call deposits is totally organic tissue. Other theories of inorganic waste matter, toxins or calcium deposits are inaccurate and misinform. This causes confusion and prevents understanding the mechanism of action for reflexology. It is the through the validation of organic nervous fibers, vascular elements and connective tissue that we know the nervous system is involved in the application of reflexology. This is fundamental for every reflexologist to have a science-based explanation and for reflexology educators and authors to pass on this knowledge.

View this research and more: [http://www.reflexology-usa.org](http://www.reflexology-usa.org) and [http://ManzanaresMethod.com](http://ManzanaresMethod.com)

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**Reflexology Research: Biopsies Reveal Organic Composition and Mechanism of Action for Reflexology**

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**Purpose:** To study biopsies of deposits taken from human foot tissue. Deposits can be located throughout the feet in reflex areas that correspond to specific organs, glands and body parts. The purpose is to determine anatomical characteristics and tissue composition of the deposits to understand their relation to pathologic conditions in the body and to demonstrate the role of the nervous system in reflexology.

**Method:** Areas for biopsy were chosen from three specific cases. Biopsy was performed on tissue taken from the feet of three (3) adult patients. This task was a difficult one over a period of years, finding patients to give permission for biopsies without personal benefit and for the advancement of reflexology. Biopsies were taken from: (1) stomach reflex of a patient with gastro duodenal ulcer; (2) L5-S1 reflex area of a patient with a disk hernia; (3) from the thymus reflex for a patient with asthma.

**Conclusion:** The anatomical-pathologic study revealed that deposits are formed by a net of hypodermic connective tissue with abundant neurovascular elements. There is not one characteristic structure that represents a reflex area that contains a deposit but rather it is a mixture of different tissues. A fundamental difference in the amount of nervous fibers is found in a deposit compared to the low number of nervous fibers found in a non-deposit biopsy. The presence of abundant nervous fibers in deposit tissue supports the relationship between reflexology and the neurological system.