

## Applied kinesiology and its role in occlusion

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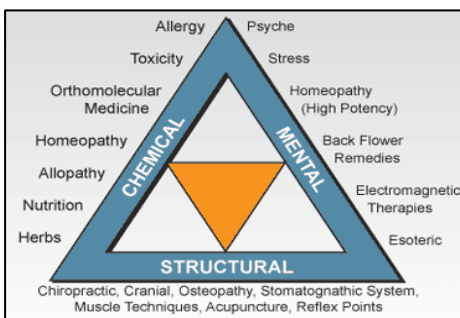
### Abstract:

Applied kinesiology (Applied Kinesiology) concerns the art and science of manual muscle testing, thereby diagnosing an area of dysfunction. These areas can then be tested in relationship to therapeutic reflex points and acupuncture points to identify causal factors. In clinical dentistry, health problems related to musculoskeletal system have become increasingly common worldwide. Therefore, understanding the mechanisms or risk factors of musculoskeletal dysfunctions (MSDs) is a topic of growing importance amongst dental professionals. The aim of this publication is to understand the Primo Vascular system and how Kinesiology may be used to provide a quick, simple, and reproducible method of approaching issues of occlusion both from a preventive and a curative point of view.

### Introduction:

The word kinesiology is derived from the words, "kinesis" meaning movement and from, "logos" meaning to study. Kinesiology in common medical usage is "the study of muscles and muscular movement". In Applied Kinesiology, the response of a particular muscle to resistance applied by a trained professional examiner was first proposed by George Good heart to be a summation of all the excitatory and inhibitory inputs of the anterior horn motor neurons, such that a failure of the muscle in the test could be linked to a dysfunction of the nervous system.

The initial and very basic conceptual model of health in Applied Kinesiology is in the form of an equilateral triangle that is considered as the triad of health given by Good heart. (Fig 1)



**Figure 1:** Triad of Health

These three elements of the triad of health controlling human health are interrelated to each other and are very useful in Applied Kinesiology evaluation.

### Applied kinesiology in dental practice:

Applied kinesiology dentistry is a strong reason for the practice of this medical specialty, as it is able to show substantial effects on the total health owing to minute changes within the oral cavity. In

clinical dentistry, energy testing using muscle testing techniques along with kinesiological testing can be a valuable aid to diagnoses, and a way to understand how dentistry affects other areas of the body or the whole body in general. Stomatognathic system and the rest of the body exist as integral components of our neuromuscular system and can never function without the influence of agonists and antagonists. The use of Applied Kinesiology helps to diagnose a disruptive influence present within the stomatognathic system.

It can be applied in a wide range of problems associated with the oral cavity, including:

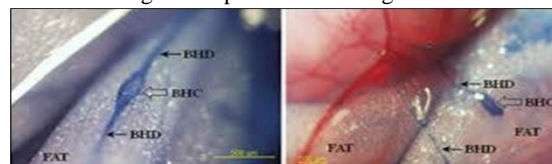
- Orthodontics
- Diseases of bone
- Periodontal Therapy
- Temporomandibular joint Dysfunctions
- Dental Material selection
- Testing for infections
- Tooth muscle interrelationship
- Cranio-mandibular Dysfunctions

### 2. The primo vascular system:

The Primo- Vascular system is a system like the lymphatic system that passes through the acupuncture points and meridians. Meridians are energy channels that connect the entire energy system of the body and allow movement of electrons through them. Two important periods of identification for the new morphological and functional system

#### 2.1 Bong-han kim's Hypothesis:

He described nodes and ducts that corresponded to acupuncture points and meridians, and he called the nodes and ducts after his own name: Bonghan corpuscles and Bonghan ducts.



**Figure 2:** The primo vascular system; BHD- Bonghan Duct; BHC- Bonghan Corpuscles

Kim's findings were accepted only as a hypothesis because of the lack of detailed descriptions of the methods and the scientific protocols that he used for his investigations.

#### 1.2 New hypothesis for the primo vascular integrated system:

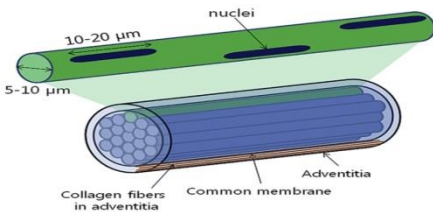
Based on previously obtained data, a new hypothesis for the PVS and make some predictions about its role was proposed.

The PVS consists of PVs and PNs.

The PVs, which have double coats, contain subvessels:

The first coat: is adventitia that contains fibers and amorphous substances serving as supporting tissue.

The second coat: is a common membrane surrounding the subvessels. (Fig 3)



**Figure 3:** Illustration of one isolated subvessel (top) and a bundle of subvessels of the primo vessel

### 3. The primo vascular system and its association with occlusion

Just as the circulatory system provides critical oxygen and nutrition to the cells, the fiber-rich meridians provide critical energy in the form of electrons to the cells.

These electrons help our cells maintain the critical pH needed for the biochemical reactions of life to take place. Without these electrons, the cells will lose their ability to function and fight disease, and eventually die.<sup>4</sup>

It takes only a few seconds to test the effect that the occlusion can have on a patient's stress or tension levels in his or her head, neck, or back.

1. The patient is asked to keep his/her mouth open and any strong muscle is tested (arm, finger, hand)
2. Then have the patient close together firmly and see if there is a drop-in energy (arm goes down with little pressure as compared to earlier).

If the muscle tests weaker, then the bite is causing tension or stressing the patient's neuromuscular system. The more dramatic the weakness is in the test, the greater the impact on other areas of the body.

This test does not test the effect of the bite on the muscles of mastication, rather how the bite causes other muscles to tense, in turn causing imbalances in other parts of the body — especially the spine. The more tension we have in our body, the more the flow of electrons in the energy system is suppressed.



**Figure 4:** Basics of muscle testing

### Conclusion

In clinical dentistry, energy testing using muscle testing techniques along with kinesiological testing can be a valuable aid to diagnosis,

and a way to discover how dentistry affects other areas of the body. Stomatognathic system and the rest of the body exists as an integral component of our neuromuscular system and can never function without the influence of agonists and antagonists. The use of applied kinesiology helps to diagnose a disruptive influence present within the stomatognathic system. Any malocclusion is always associated with altered cervical neuromuscular function and postural mechanics. This results in a tendency for neck problems, such as cervical subluxation or fixation. A cervical fixation arising as a result of stress or injury may alter the occlusion and can even lead to undue stresses on the masticatory system. If the patient's bite is properly corrected, at least close to an ideal jaw relationship, or if there is a properly made occlusal appliance (again with close-to-an-ideal jaw relationship), the muscle test for the patient's bite will be stronger, thus making it a therapeutic, life-energy enhancing, and muscle-relaxing bite for the patient.<sup>5</sup>

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