

**The Elemental Framework of Unimedicine - As a clinical educator**

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**Abstract**

The elemental framework of Unimedicine, a medical system that views human physiology and pathology through the lens of five fundamental elements - Earth, Water, Fire, Air, and Ether. It conceptualizes these elements scientifically as representing different states of matter and energy that constitute the human body across biological scales. Imbalances in the functional states of these elements are correlated with various disease conditions.

**Keywords:** Framework, Physiology, Cytosol.

**Introduction**

The elemental framework of Unimedicine, a medical system that views human physiology and pathology through the lens of five fundamental elements - Earth, Water, Fire, Air, and Ether. It conceptualizes these elements scientifically as representing different states of matter and energy that constitute the human body across biological scales. Imbalances in the functional states of these elements are correlated with various disease

conditions. A spectrum based on entropy is given for these elements. Diagnosis involves identifying elemental imbalances through clinical assessment and mapping them onto conventional disease classifications. Treatment aims to restore optimal elemental functioning using phytochemicals, medicines and therapeutic modalities. The role of entropy and thermodynamics in physiology is explored. An integrated diagnostic approach combining elemental codes with standardized disease codes is outlined. The framework provides a holistic perspective for understanding the human system and approaching healthcare.

**Concept of Elements**

In Unimedicine, in addition to the anatomy and physiology discovered by modern science, the fundamental constitution of human body is considered to be the 5 elements as mentioned across all ancient literature, but with a scientific twist – we don't consider these 5 elements as any abstract ideas or something out of scientific understanding, but we understand these 5

elements as the “physical states of matter/energy” which is the core of modern science. Let’s understand each of those 5 elements and the 3 complexes (combinations of elements) as per unimedicine:

1. Earth element - represents the solid state of matter (e.g., bones, teeth, nails, connective tissues)
2. Water element - represents the liquid state of matter (e.g., blood, lymph, cytosol, digestive juices)
3. Fire element - represents the transformative state of matter involving chemical reactions and heat (e.g., metabolism, digestion, enzymatic processes)
4. Air element - represents the physical movements and dynamics of matter (e.g., respiration, circulation, muscle contractions)
5. Ether element - represents electricity and electrochemical phenomena (e.g., nervous system function, ionic gradients, and bioelectricity)
6. Earth-water complex - represents the viscous or semi-solid/semi-liquid state (e.g., mucus, synovial fluid, vitreous humor)
7. Fire-water complex - represents reactive liquids (e.g., gastric acid, bile, pancreatic enzymes)
8. Air-ether complex - represents the movement of electrical charges (bioelectricity - nerve impulse transmission)

These elements are qualities of matter present in the human body across all scales from micro to macro. The human body as a whole is constituted of combination of all these elements, each living cell in human body too, and each individual organ as well. Following is a detailed Explanation and Examples for each of the Five Elements and three elemental complexes(combinations) in the Human Body:

Earth Element: At the cellular level, the Earth element manifests as the structural components like the cell membrane, cytoskeleton, and organelles like the nucleus

and mitochondria. In tissues, it represents the extracellular matrix, connective tissues, and the solid structures of organs like bones, cartilages, and teeth. At the system level, the Earth element is represented by the skeletal system, the structure of organs, and the overall form and shape of the body.

Water Element: At the cellular level, the Water element is present in the cytosol, the fluid within organelles, and the extracellular fluid. In tissues, it is found in the interstitial fluid, lymph, and bodily secretions like saliva and mucus. At the organ level, the Water element is represented by the blood, cerebrospinal fluid, and other bodily fluids like digestive juices and synovial fluid. At the system level, it is essential for proper circulation, digestion, and lubrication of joints. Example: Dehydration is a condition where the Water element becomes hypo-functional, leading to electrolyte imbalances, impaired fluid dynamics, and decreased blood volume.

Fire Element: At the cellular level, the Fire element is responsible for metabolic processes, enzymatic reactions, and energy generation within organelles like mitochondria. In tissues, it governs the anabolic and catabolic processes, as well as the heat generated by cellular respiration. At the organ level, the Fire element is involved in digestion, absorption of nutrients, and the generation of body heat. At the system level, it regulates metabolism, thermoregulation, and inflammatory responses.

Air Element: At the cellular level, the Air element is responsible for the movement of molecules and ions across cell membranes, as well as the contraction of cellular components like cilia and flagella. In tissues, it governs the movement of fluids and gases, as well as the contractility of muscle fibers. At the organ level, the Air element is essential for respiration, circulation, and

peristaltic movements in the digestive tract. At the system level, it regulates breathing, blood flow, and physical movements of the body.

**Ether Element:** At the cellular level, the Ether element is responsible for the electrical potentials across cell membranes and the transmission of signals through ion channels. In tissues, it governs the propagation of action potentials along nerve fibers and muscle fibers. At the organ level, the Ether element is essential for the function of the nervous system, including sensory perception, motor control, and autonomic regulation. At the system level, it regulates the overall bioelectrical activity of the body, including brain function, nerve conduction, and electrochemical gradients.

**Earth-Water Complex:** This complex represents the viscous or semi-solid/semi-liquid state of matter in the body. It is present in bodily fluids like mucus, synovial fluid, and vitreous humor of the eye. The Earth-Water complex plays a crucial role in lubrication, protection, and shock absorption in various bodily systems.

**Fire-Water Complex:** This complex represents reactive liquids in the body, such as gastric acid, bile, and pancreatic enzymes. These reactive liquids are essential for digestion, breaking down food into absorbable nutrients. The Fire-Water complex interacts with the Fire element in metabolic processes and the Water element in the digestive system to facilitate proper nutrient absorption and energy generation.

**Air-Ether Complex:** This complex represents the movement of electrical charges and bioelectricity in the body. It is responsible for the transmission of nerve impulses and the propagation of action potentials along neurons and muscle fibers. The Air-Ether complex interacts with the Air element in physical movements and the Ether element in the nervous system to

coordinate motor functions, sensory perception, and overall neural communication.

In Unimedicine, each of the five elements (excluding complexes, as they are combinations of the five) can be further categorized into three states based on their current condition: hypo-functional (underactive), optimum (balanced), or hyper-functional (overactive). Each element has an optimum state of functioning, and when all elements operate at their respective optimum levels, the condition is referred to as homeostasis or health. This optimum state should align precisely with the anatomical and physiological norms described by modern medical science.

The Earth element in its optimum state corresponds to the normal composition, structure, and density of bones, teeth, nails, and connective tissues. In a hypo-functional state, conditions like osteoporosis (decreased bone density), brittle nails, or lax connective tissues may arise. Conversely, in a hyper-functional state, abnormal calcification or excessive growth, such as bone spurs or calcified arteries, could occur.

### **Role of Entropy**

The Scientific Metastructure Theory provides a unique perspective on the role of human bodies within the broader context of the second law of thermodynamics and the concept of entropy. According to this theory, human bodies are viewed as highly sophisticated agents of entropy, akin to machines created by nature to manifest the second law of thermodynamics by increasing the overall entropy of their environment. The key point made here is that for human bodies to function effectively as agents of entropy, it is imperative to maintain a state of low entropy within the body itself. This low-entropy state is essential for the body to carry out its role of increasing the entropy of the surrounding environment. To maintain this low-entropy state, which

is associated with homeostasis or health, the body engages in various actions that may result in an increase in the entropy of the external world as a byproduct.

In this context, the human body is described as an open system that aims to maintain a state of low entropy or homeostasis within itself. Any increase in entropy within the body is referred to as "inflammation" or disease/disorder in the context of Unimedicine. The core idea is that the human body, as an open system, operates in a manner that maintains its internal low-entropy state (health/homeostasis) by performing actions that inevitably increase the entropy of its external environment. This process is seen as a manifestation of the second law of thermodynamics, with the human body acting as a sophisticated agent facilitating this entropy-increasing process in the broader environment.

In essence, this perspective proposes that the human body has evolved as a highly complex system designed to maintain its internal order (low entropy) by exporting disorder (increasing entropy) to its surroundings, thereby fulfilling its role as an agent of the second law of thermodynamics.

The concept of entropy also has implications for the aging process. As individuals age, the body's ability to maintain a low-entropy state may become less efficient, leading to an accumulation of disorders and a gradual decline in overall health. From this perspective, aging could be viewed as a manifestation of increasing entropy within the body's systems over time.

In any given system, there exists an inherent tendency towards equilibrium among the elements. When one element within the system experiences a deviation from its optimal state, the other elements will adjust their functionality to restore balance. This process of self-regulation ensures the system's overall stability and functionality. When an element in a system becomes

hyperfunctional or hypofunctional, the other elements compensate for this imbalance to maintain the system's functionality. This compensation may manifest as increased activity or suppression, depending on the nature of the imbalance. Through this mechanism, the system strives to preserve its equilibrium despite internal fluctuations. The elements within a system possess inherent adaptive capabilities to respond to changes in their environment or internal conditions. When faced with stressors or disruptions, the elements adjust their functionality to mitigate the impact and maintain homeostasis. This adaptive capacity is essential for the system's resilience and ability to navigate various challenges effectively.

Each element within a system has a threshold beyond which deviations from its optimal state become significant enough to disrupt the overall functionality of the system. Understanding these thresholds is crucial for identifying early signs of imbalance and implementing timely interventions to prevent further deterioration. By monitoring the elements' activity and recognizing deviations from their respective thresholds, practitioners can proactively address imbalances before they escalate. The elements within a system are interconnected and reliant on each other for optimal functioning. A disruption in one element's activity can have ripple effects throughout the entire system, impacting the functionality of other elements. Therefore, interventions aimed at restoring balance must consider the interconnectedness of the elements and address underlying imbalances comprehensively. A "ripple effect" is produced when a change in functionality state of a given element in system products change in status of other elements, but this latter change also produced consequent effect on status of other elements within that system, often including the primary disruption source,

producing a ripple effect or a cascading chain of reactions in a system with interaction-reaction loops.

### **Diagnostic & classification framework**

In Unimedicine, the elemental framework serves as a complementary lens to understand and approach diseases and disorders within the context of modern medical classifications such as the International Classification of Diseases (ICD). The ICD provides a standardized coding system for diseases, disorders, injuries, and causes of death, enabling consistent communication and data analysis across healthcare systems globally. Unimedicine integrates the ICD codes with the elemental framework, offering an additional perspective on the underlying imbalances and disruptive forces contributing to the manifested conditions. The steps involved in utilizing the elemental framework for diagnosis within the ICD system are as follows:

Identify the primary ICD code(s) associated with the patient's presenting symptoms and clinical findings.

Analyze the ICD code description and etiology to determine the predominant areas/organs & elements involved in the disorder's pathophysiology.

Assess the potential elemental imbalances contributing to the condition based on the elemental framework:

Identify hypo-functional (underactive) or hyper-functional (overactive) elements using various established diagnostic procedures including but not limited to physical examination, history taking, blood tests, Imaging tests such as X-ray, CT or MRI scans, and so on.

Consider the relationships and interactions between elements according to the nature of elements and evaluate the impact of elemental imbalances on various bodily systems and functions.

Append elemental codes to the ICD code to indicate the suspected elemental imbalances:

Use "E+" to denote a hyper-functional Earth element, "E-" for a hypo-functional Earth element.

Similarly, use "W+/W-" for Water, "F+/F-" for Fire, "A+/A-" for Air, and "N+/N-" for Ether (N representing Ether/Nervous system).

Elements which are in optimum state of functioning (homeostasis) need not be mentioned.

Integrate the elemental analysis with the conventional medical diagnosis and treatment plan:

Utilize appropriate diagnostic tests and biomarkers to assess elemental imbalances (as outlined above).

Develop a holistic treatment approach that addresses the elemental imbalances while aligning with evidence-based medical interventions.

Incorporate elemental modalities (phytochemicals, medicines & therapies) to restore optimal elemental functioning alongside conventional treatments.

Monitor the patient's progress and adjust the treatment plan as needed, considering the dynamic nature of elemental imbalances and their potential cascading effects. By integrating the elemental framework with the ICD system and appending elemental codes, Unimedicine aims to provide a comprehensive understanding of diseases and disorders, taking into account not only the conventional medical perspective but also the underlying elemental imbalances that may contribute to or perpetuate the condition. This approach allows for more targeted and holistic interventions, addressing the root causes of imbalances while aligning with evidence-based medical practices.

### **Treatment methodology**

In Unimedicine, various modalities (medicines and therapies) are utilized to restore the elements to their optimum state of functioning. The primary focus is on using phytochemicals derived from natural sources, as these compounds have been found to exert specific

effects on the various elements. The medical benefits of these phytochemicals have been validated through extensive research and clinical studies. Phytochemicals are categorized based on their ability to influence the functionality of the five elements – Earth, Water, Fire, Air, and Ether. Some phytochemicals may have a predominant effect on a specific element, while others may influence multiple elements simultaneously. The selection of phytochemicals is based on the identified elemental imbalances in an individual, with the goal of restoring the optimal state of each element. For example, certain phytochemicals with anti-inflammatory and antioxidant properties may be used to modulate a hyperfunctional Fire element, thereby reducing excessive inflammation and oxidative stress. Similarly, phytochemicals with diuretic and fluid-regulating effects may be employed to address imbalances in the Water element, promoting proper fluid dynamics and electrolyte balance.

In addition to phytochemicals, Unimedicine may incorporate various therapies and lifestyle interventions that can influence elemental balance. These may include dietary modifications, physical exercises, breathing techniques, meditation, heat therapy, cryotherapy, brainwave modulation, Autonomous Nervous System stabilization, and other modalities. These therapeutic approaches are designed to target specific elements and promote overall homeostasis within the body. Furthermore, Unimedicine recognizes the significant contributions of modern allopathic medicine and aims to integrate its principles with the elemental framework. Allopathic practitioners can categorize conventional medications based on their effects on specific elements, thereby aligning the medical effects of these drugs with the concepts of Unimedicine. This integration allows for a more comprehensive and holistic approach to

treatment, where the elemental framework complements and enhances the existing medical practices. It is important to note that the modalities employed in Unimedicine are not intended to replace conventional medical treatments but rather to complement them. The goal is to address the underlying elemental imbalances while simultaneously adhering to evidence-based medical interventions. By combining the wisdom of traditional systems with modern scientific knowledge, Unimedicine aims to provide a more holistic and personalized approach to healthcare.

Since this paper is about the elemental framework, treatment methodologies are not covered. The topic has been mentioned in detail in the previous papers on unimedicine and shall also be expounded in subsequent papers specifically dedicated to treatment methodologies under unimedicine.

### **Empirical & logical evidence**

Empirical evidence for the elemental framework of unimedicine can be easily obtained by analyzing various medical conditions as follows, where the physiological mechanisms involved in manifestation of those disorders directly correlate with the elemental framework of unimedicine:

Pulmonary infections: Immune system comes under the fire element as it is a chemical reaction, hence the fire element in lungs become hyperfunctional. Hyperfunctional fire element itself manifests as fever. All elements which are of lower-entropy states become hyperfunctional, that water element becomes hyperfunctional observable by excess production of mucus and fluids in lungs and edema (both localized and systemic), and earth-water complex becomes hyperfunctional observable by thickening of mucus, and earth elements becomes hyperfunctional observable by potential calcification or fibrosis in the lungs. All

elements which are of higher-entropy states become hypofunctional, that air element becomes hypofunctional observable by the shortness of breath (reduced air-flow) and loss of appetite, and air-ether complex becomes hypofunctional observable by neuromuscular weakness and chills, and ether element becomes hypofunctional observable by intracellular electrolyte imbalance, headaches, brain-fog and mental fatigue.

**Dehydration:** Dehydration is simply the water element of body becoming hypofunctional. All elements which are of lower-entropy states becomes hypofunctional, that earth element becomes hypofunctional observable by muscle cramps and dry skin. The hypofunctional water element and earth-water complex manifests as thirst and dry mouth. All elements which are of higher-entropy states become hyperfunctional, that fire-water complex becomes hyperfunctional observable in dark concentrated urine, and fire element becomes hyperfunctional observable in fever, and air element becomes hyperfunctional observable in rapid heart rate and rapid breathing (blood pressure does not increase as water element is severely hypoactive), and ether element becomes hyperfunctional observable by dizziness and irritation. The ripple effect of fire element becoming hyperfunctional puts cascading effect on air and ether making them hypofunctional, causing fatigue and weakness after a while of duration post-onset.

**Osteoporosis:** In the elemental framework, osteoporosis can be attributed as a hypo-functional state of the Earth element, which governs the solid structures of the body, including bones. A hypo-functional Earth element leads to a weakening of the skeletal system. When the Earth element becomes hypo-functional, while higher-entropy elements like Water, Fire, Air, and Ether may become hyper-functional. This hyper-functionality of higher-entropy elements can manifest as symptoms like

increased inflammation (hyper-functional Fire element), excessive fluid retention or edema (hyper-functional Water element), muscle weakness or poor circulation (hyper-functional Air element), and neurological disturbances (hyper-functional Ether element).

**Constipation:** In the elemental framework, constipation can be attributed to a hypo-functional state of the Air element as well as earth-water complex, which governs physical movements and dynamics, including peristalsis in the digestive tract and its contents within. A hypo-functional Air element along with hypo-functional earth-water complex leads to reduced motility and impaired bowel movements. According to the laws of elements, when the Air element becomes hypo-functional, all lower-entropy elements like Earth, and Water may also become hypo-functional, manifesting as hard, dry stools (hypo-functional Earth and Earth-Water complex), and dehydration or reduced fluid intake (hypo-functional Water element). Additionally, higher-entropy elements like Fire, and Ether may become hyper-functional, leading to symptoms like increased inflammation, gastritis or digestive discomfort (hyper-functional Fire element), and potential neurological disturbances and hyperactivity or agitation. (hyper-functional Ether element).

**Hypertension:** Hypertension can be attributed to a hyper-functional state of the Air element, which governs physical movements and dynamics, including circulation. A hyper-functional Air element leads to increased blood pressure and potential strain on the cardiovascular system, including palpitations and fast breathing. According to the first law of elements, when the Air element becomes hyper-functional, all lower-entropy elements like Earth, Earth-Water complex, Water, and Fire may also become hyper-functional, manifesting as potential thickening or hardening of

arterial walls (hyper-functional Earth element), increased fluid retention or edema (hyper-functional Water element), increased metabolic dysfunction, inflammation, or vomiting (hyper-functional Fire element), and altered viscosity of blood or other bodily fluids (hyper-functional Earth-Water and Fire-Water complexes). Additionally, the higher-entropy Ether element may become hypo-functional, leading to potential neurological disturbances or imbalances in the autonomic nervous system as well as central nervous system, physiologically as well as psychologically, commonly as headaches, anxiety and depression.

**Asthma:** This condition can be attributed to a hypo-functional state of the Air element, which governs respiration and physical movements. A hypo-functional Air element leads to constriction of the airways, difficulty in breathing, and reduced oxygen supply to the body. According to the elemental laws, when the Air element becomes hypo-functional, lower-entropy elements like Earth (solid structures) and Water (bodily fluids) may also become hypo-functional, manifesting as dry mucous membranes and decreased production of protective mucus. Conversely, higher-entropy elements like Fire (metabolic processes) and Ether (nervous system function) may become hyper-functional, leading to increased inflammation in the airways and hypersensitivity or airway hyperreactivity.

**Diabetes:** In the elemental framework, diabetes can be attributed to imbalances in the Fire element, which governs metabolic processes and energy transformation. A hyper-functional Fire element can lead to excessive glucose production, insulin resistance, and disruption of glucose homeostasis. According to the elemental laws, when the Fire element becomes hyper-functional, lower-entropy elements like Water (bodily fluids) may also become hyper-functional, manifesting as increased thirst

and frequent urination. Additionally, higher-entropy elements like Air (physical movements) and Ether (nervous system function) may become hypo-functional, leading to potential complications such as poor circulation, numbness, and neuropathy.

**Arthritis:** This condition can be attributed to imbalances in the Earth element, which governs the solid structures of the body, including bones and connective tissues. A hyper-functional Earth element can lead to abnormal growth or calcification, resulting in bone spurs or joint deformities. Additionally, a hypo-functional Earth-Water complex (viscous fluids) can contribute to reduced lubrication and synovial fluid in the joints. According to the elemental laws, when the Earth element becomes hyper-functional, higher-entropy elements like Fire (inflammation) and Air (physical movements) may become hypo-functional, leading to joint pain, stiffness, and reduced mobility.

**Migraine:** In the elemental framework, migraines can be attributed to imbalances in the Ether element, which governs the nervous system function and bioelectrical phenomena. A hyper-functional Ether element can lead to abnormal electrical activity in the brain, resulting in neurological disturbances and severe headaches. According to the elemental laws, when the Ether element becomes hyper-functional, lower-entropy elements like Air (physical movements) and Fire (metabolic processes) may also become hyper-functional, manifesting as increased sensitivity to light, sound, and smells, as well as nausea and vomiting.

**Depression:** This mental health condition can be attributed to imbalances in the Ether element, which governs the nervous system function and bioelectrical phenomena. A hypo-functional ether element can lead to disruptions in neurotransmitter levels, electrical signaling, and overall brain function, contributing to

symptoms of depression. According to the elemental laws, when the Ether element becomes hypo-functional, higher-entropy elements like Air (physical movements) and Fire (metabolic processes) may also become hypo-functional, manifesting as fatigue, lethargy, and decreased appetite or digestive issues. Conversely, Anxiety is hyper-functioning of ether element.

### **Importance of Unimedicine**

The importance of Unimedicine lies in its holistic approach to understanding human physiology and pathology through the lens of the five fundamental elements – Earth, Water, Fire, Air, and Ether. This elemental framework provides a unique perspective that complements and enhances modern medical practices. Here's how Unimedicine can contribute to medical science:

**Comprehensive Understanding of Health and Disease:** By recognizing the functional states of the elements and their interplay within the human body, Unimedicine offers a more holistic view of health and disease. It acknowledges that imbalances in the elemental states can contribute to or perpetuate various medical conditions. This perspective allows for a deeper understanding of the underlying causes and mechanisms driving disease processes.

**Integration with Conventional Medicine:** Unimedicine does not aim to replace conventional allopathic medicine; instead, it seeks to integrate its principles with existing medical practices. By categorizing conventional medications based on their effects on specific elements, Unimedicine aligns the medical effects of these drugs with the elemental framework, creating a more comprehensive and unified approach to treatment.

**Targeted and Personalized Interventions:** By identifying elemental imbalances through clinical assessment and mapping them onto conventional disease classifications

Unimedicine enables more targeted and personalized interventions. The incorporation of phytochemicals, medicines, and therapies that directly address the identified elemental imbalances can potentially enhance treatment outcomes and promote overall homeostasis within the body.

**Preventive and Supportive Care:** Unimedicine's emphasis on restoring elemental balance through various modalities, such as dietary modifications, physical exercises, breathing techniques, and meditation can contribute to preventive and supportive care measures. These interventions may help maintain optimal elemental functioning, potentially reducing the risk of developing certain conditions or supporting the recovery process alongside conventional treatments.

**Holistic Approach to Healthcare:** By combining the wisdom of traditional systems with modern scientific knowledge Unimedicine offers a more holistic and personalized approach to healthcare. It recognizes the complex interactions between the physical, mental, and energetic aspects of the human system, and its elemental framework provides a unifying concept for understanding these intricate relationships.

**Potential for Integrative Research:** The elemental framework of Unimedicine presents an opportunity for integrative research, exploring the connections between conventional medical knowledge and the principles of elemental balance. Collaborations between Unimedicine practitioners and researchers in various fields, such as biochemistry, physiology, and pharmacology, could lead to new insights and advancements in understanding the mechanisms underlying health and disease.

By embracing the elemental framework of Unimedicine alongside conventional medical practices, the medical community can potentially achieve a more comprehensive understanding of human health and

disease, develop more personalized and effective treatment strategies, and promote a holistic approach to healthcare that considers the intricate interplay of physical, mental, and energetic factors.

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