

Performance Enhancement through Food Therapy: A Chinese Medicine Perspective

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The standard approach to performance enhancement here in the United States is associated with nutrition rooted in the caloric content of carbohydrates, proteins and fats. This Western perspective identifies the biochemical components of the physiological process of breaking down these macronutrients into the body's fuel source ATP (adenosinetriphosphate). This is achieved through the physiological process of cellular metabolism identified with three phases: glycolysis (cytosol), krebs cycle (mitochondria) and the electron transport chain (mitochondria).

Chinese medicine has a very different perspective of food and its physiological function. It is based within the qualities of the food associated seasons, temperature, color and taste associated with the five elements. The five elements are rooted in the Yin and Yang theory and recognize the dynamic relationship among the elements and are specifically associated with the temperature and tastes of the foods. These qualities are seen as energetic properties that represent the food frequency that one consumes. If the taste or flavors associated with elements are consumed either in excess or deficiency its subtle influences, over time, can either create or counterbalance disease. This concept is known as using food as medicine. Chinese medicine's diagnostic method relates physiological functions within a synergistic model which identifies dynamic relationships between the human and its environment.

Chinese medicine and the philosophy with which it is based, acknowledge using food as medicine through a multi-variable and multi-dimensional approach that describes the different properties of foods and their effects on the body. These effects encompasses the thermal (cooling or warming of food), the ability to calm the mind/spirit, foods that can drain, dry and transform dampness, foods that can strengthen (tonify, nourish etc.), clear heat, release the exterior, expel cold, and/or can warm the interior among many others.

The Five Elements reflects 10 interrelationships between the elements (promotion and inter-promotion cycles) and each element reflects nature through the Five Elements of Correspondence. Food is recognized among these Five Elements from types of food to taste (flavors). This synergistic perspective identifies foods that can be used for performance enhancement - this is an inherent perspective of Chinese medical philosophy. Pathology in this context is when the balance of the body becomes out of balance. Within the biomedical community when Western diagnostic tests are inconclusive, a treatment strategy is difficult because there is nothing supporting the findings to identify there is a problem. This is a huge reason why Chinese medicine is successful in many chronic conditions because the diagnostic method identifies the subtleties of human complexity and its inter-relationship with the environment. Thus, food is extremely important to performance on any level. Foods can be used to improve performance beyond caloric content and biochemical compounds of active ingredients.

TCM Food Therapy for Performance Enhancement

Using food therapy for performance enhancement one must understand that every athlete, individually, has different constitutional body types with different associated imbalances. Therefore, each athlete presents with unique combinations of pathological patterns that requires different types of foods and food combinations in order to counterbalance their condition for performance enhancement. The athlete's constitutional body type, lifestyle and TCM differential diagnosis can be used to identify imbalances that can affect performance and ultimately be a precursor to an injury. Using the five-phase theory associated with the five elements we can identify specific foods and combinations of foods to gravitate towards in order to counterbalance the body, preventing injury as well as other internal pathologies, thus, increasing performance. The quality of foods and the food properties play an important role in performance enhancement, yet, very few strength and conditioning coaches, certified athletic trainers, coaches and nutritionists recognize food therapy for performance enhancement.

First with implementing food therapy we must address the Five Elements which reflects the color, taste, type of food that is associated with a particular element. The taste identifies general tonifying or sedating effects of food within the Zang/Fu organ associated with its element. The color indicates the food associated with the Zang/Fu organ element that can be used for treating the imbalance. The flavors of foods are also identified through temperature (thermal characteristics) that identifies the properties of foods and their effects in the body.

Yin	Taste: bitter, sour, salty Temp: cool, cold
Yang	Taste: sweet, spicy, pungent Temp: warm, hot

The Five Elements

The diagnostic methodology that distinguishes the treatment principle for temperature is within the Theory of the Eight Principles. This is one of many diagnostic methods associated with Chinese Medicine. The Eight Principles identifies different qualities of pathogens as the location of the pathogen being internal/external, the strength of the pathogen being excess/deficiency, the nature of the pathogen hot/cold, and the overall quality of the pathogen yin/yang.

	Color	Taste
Wood	Green, yellowish-green	Sour
Fire	Red	Bitter
Earth	Yellow	Sweet
Metal	White	Pungent/Acrid
Water	Black	Salty

These following tastes associated with the Five Elements and their effects they have on the body:

Sour -	astringent, absorbing, alters blood condition
Bitter -	drying
Sweet -	tonifying, nourishing, soothing

Acrid/Spicy -	dispersing, decongesting, stimulating
Salty -	diuretic, softening, purgative
Bland -	calming, soothing, diuretic

In the following chart I have briefly summarized the elements and its related functions with food:

Element	Wood	Fire	Earth	Metal	Water
Taste	Sour - astringent and contracting (yin) generates fluids and Yin	Bitter - drying (yin) strengthening, clear heat and damp heat, subdues rebellious <i>qi</i> . Warm - dry damp Cool - clears heat and damp heat	Sweet Warm - tonifies <i>qi</i> , Yang, nourishes Yin and Blood Cool - tends to cleanse and moisten	Pungent (spicy, acrid) and aromatic (yang) expels pathogenic factors, disperses and directs <i>qi</i> upwards and out, move Phlegm, invigorates <i>qi</i> and Blood also disperses <i>qi</i> /Blood stagnation	Salty (yin) Softens hardness, diuretic, purgative Moves inward and downward and tends to be cooling and moistening
Eating Too Much	Creates dampness as well as affecting the tendons	Creates SP <i>qi</i> Deficiency damaging the Yin and Blood associated with dryness	Creates accumulation of damp and phlegm affects muscles (tightens) creating deficiency patterns	Creates dryness due to its dissipating <i>qi</i> and Yin in the Lungs and Stomach	Creates an aggravated dampness that can affect body fluids, bones and Blood
Counterbalance using foods with	Pungent taste	Salty taste	Sour taste	Bitter taste	Sweet taste
Example of foods	Black Pepper Cayenne Garlic Onion Fennel Fresh ginger	Millet Miso Barley Seaweed Kelp Crab Ham	Lemon Chicken Tomatoes Hawthorne berry Lemon, lime Pickles Rosehip Sauerkraut Sour apple and plum	Lettuce Endive Turnip Watercress Celery Alfalfa Kale	Beef Chicken Tofu Almond Barley Black Sesame Seeds

It is important to note that the energy (thermal property) of food is inherent energy in spite of how it is prepared. Raw foods tend to be cooler in nature while cooked foods have a greater tendency to be warm.

The Spleen and Stomach Zang Fu organs in TCM are extremely important to the overall healthy state of all the other Zang/Fu organs. Thermal properties of foods play an important role with the SP and ST. So individual foods can have different temperatures for example cooler foods direct *qi* downwards and inward slowing metabolic processes. Whereas, warmer foods stimulates yang creates ascending *qi* and increases metabolic processes. With this said, the role of proteins within this context tends to warm and nourishes *qi*, Blood, Yin and Jing. Carbohydrates are associated with tonifying the Spleen and builds the *qi* with the tendency to be sweet and warm; however, not as warm as the proteins. The vegetables and fruits tend to supplement and are moving in nature that are more clearing. These types of foods tend to be cooler in nature compared to the proteins and carbohydrates. Lipids tend to be greasy in nature and promote dampness and phlegm that aggravates Sp *qi* deficiency impairing the Spleen's ability of transformation and transportation. Most high school, college, some professional athletes focus is on training and sport strategy and not really paying attention to the quality of their nutritional consumption, so many primarily eat fast food diets or diets high in processed foods. These foods, according to TCM, that are consumed, typically in excess, are considered greasy foods contributing to SP *qi* deficiency and damp accumulation.

Digestion and metabolism within Chinese medicine is based within the Spleen and Stomach. The Stomach receives and further separates food into pure (*qi*) through the Spleen *qi* while the ST *qi* has the descending of the turbid (waste) portions. The pure *qi* goes to the Lungs (*qi* of Air) where it is further refined and redistributed other types of *qi* (Wei *qi*, Ying *qi*, Zang/Fu *qi* etc....) which is then taken to associated areas of the body being transported to the rest of the body. The primary function of the Spleen in this context is transportation and transformation. The Liver is another very important organ that is significant with digestion. The liver regulates the movement of *qi* in all directions. The Large and Small Intestines are major players in dealing with the turbid portion of the Stomach with their major function as Fu organs is to drains and eliminate waste. The *San Jiao* is considered an entity without structure and addressed according to three locations. The SJ is in charge of all bodily *qi* and has functional manifestations associated with the *Jing, qi, Shen* (three treasures) and located within the upper, middle and lower regions. The middle *San Jiao* plays an important role in digestions as it also has transforming functions of food and water.

The use of food therapy within Western culture, outside of those trained or educated within Eastern Philosophy, is not really a consideration. Many in the Western academic and clinical arenas have not been exposed to this mind set. Those that may have find it hard to believe, as it is not part of the diagnostic protocol with which is traditionally taught within these professional disciplines. Western medicine uses a diagnostic protocol based upon a reactive perspective, which uses diagnostic testing via lab tests, MRI, CAT scans, Xrays etc. to physically identify abnormalities before a condition can be identified and isolated so treatment strategies (biochemical - pharmacology and/or surgery) can be implemented. The results of these tests form the basis in solving and putting together the pieces of a medical puzzle to guide physicians in their treatment. However, there are other medical philosophies that are more specific to preventing disease and injury that are also very important pieces to the puzzle as well. Therefore, each medical diagnostic philosophy has merit, strengths and weaknesses. Within the synergistic model of Chinese medicine food therapy for performance enhancement is an extremely valuable component to preventing disease and injury prevention for chronic conditions as it keeps the body in balance. When the body becomes out of balance then over time these imbalances manifest with weakness of muscles, tight muscles, spasms, injuries, inflamed tendons, biomechanical compensations, among so many other

precursors to illness and other internal pathological conditions. Food therapy implemented as a treatment strategy is true prevention of chronic conditions and thus increased performance enhancement.

We are what we eat!

References

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