

The Six Tissue States

The Energetics of Physiomedicalism

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Matthew Wood

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After the demise of Greek medicine in the late seventeenth century, European professional doctors abandoned the humoral model of medicine based on the four qualities (hot, cold, damp and dry). However, they continued to practice along similar lines, using words like *inflammation* or *excitation* to express the idea of excess heat. These descriptive terms go back in the literature to the classical Greek writers.

In the eighteenth century there was an informal twofold differentiation in the medical literature between an overexcited condition requiring sedation (for which the usual method was blood-letting or opium) and understimulation (requiring stimulants, blistering and food). At the end of the century John Brown, a leading allopath, formally taught a doctrine of two basic patterns of disease and two basic therapeutic methods: sedation and stimulation.

The Brownian model continued to influence practical therapeutics throughout the nineteenth century. Dr. John Scudder (1829-1893) the leader of the eclectic school, practiced "according to the classification of *excess*, *defect* and *perversion*." (Scudder JM, 1874, 242). He also used a wide array of different terms to describe different energetic patterns, as did other doctors, including: *irritation*, *congestion*, *hyperemia*, *excitation*, *contraction*, *enseblement*, *depression*, *atony*, *activity*, *want of activity*, etc. (Scudder J1874, 61-73).

Folk healers, left to their own devices, also simplified the Greek humoral model. The two polarities of hot and cold appear in both Latin and English America. The medical system originated by Samuel Thomson (1769-1843), the popularizer of herbalism in early nineteenth century America, is based upon these polarities.

Thomsonian Energetics

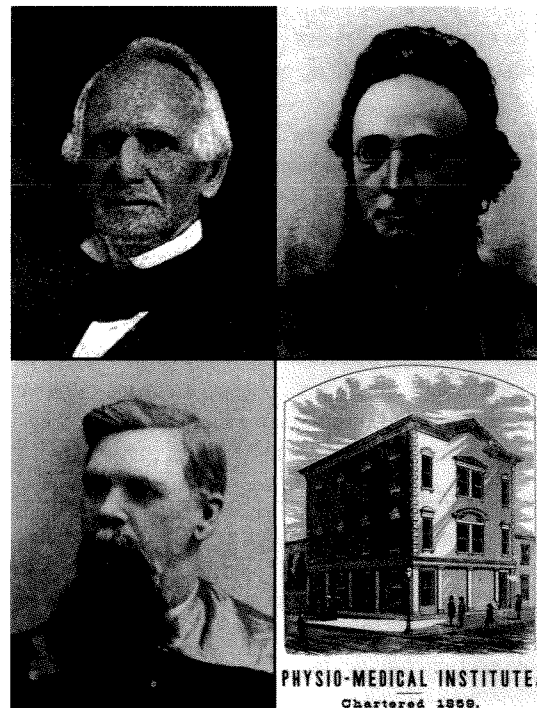
Thomson taught a simple energetic system suitable to American frontiersmen and women. The body was compared to a "fountain" or "stove" from which heat was generated outwardly to warm the room. If the periphery was blocked (the pores of the skin were closed), heat would build up in the interior. If, on the other hand, the fire in the stove started to die down, the fire could not reach the surface and there would be a cold condition in the room or body. Sometimes the heat in the center fought back against the cold coming in from the outside, creating symptoms of heat alternating with chills. (This was a very frequent symptom encountered by American frontier people. It was usually associated with influenza, yellow fever or malaria.) From these simple observations Thomson deduced that there were three basic patterns of imbalance in the organism: hot, cold and alternating hot/cold. His general remedy for all imbalances was a combination of

sweat baths, lobelia, bayberry and cayenne pepper. This opened the pores of the skin (*Lobelia inflata*, lobelia, sweat baths), removed mucus and food in the stomach blocking the fire (lobelia, *Merica cerifera* - bayberry) and stoked up the heat in the interior (*Capsicum spp.* - cayenne) (Thomson S, 1825, 43-5; Wood M, 2000, 88-93).

Thomson's system was widely accepted by frontier people. It was compatible with the way they thought about the body and medicine. It is inferred in Galenic medicine, where a hot medicine "opens the pores of the skin," cuts "tough humours" and cherishes "heat in the internal parts" to "expel the humours, by strengthening and helping nature" (Culpeper N, 1990, 378).

The same method (without the qualities and degrees) was still being taught in medical school in New England by one of the most prominent teachers at the beginning of the nineteenth century, Dr. Nathan Smith. A student, Dr. Beal P. Downing (Downing BP, 1851, 163), writes:

I received a part of my knowledge of cure and disease of the great Dr. Smith, who lectured and dissected at Dartmouth College, in New Hampshire, forty years ago. He told me that a sweat at the commencement of a fever was better for a patient than all the medicine in



Top left, Alva Curtis; top right, Wm. H. Cook; bottom left, T. M. Lyle; bottom right, Physio-Medical Institute, Cincinnati, Ohio.

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the shops; for, says he, sweat opens the pores. Then give physic [purgatives] and strengthening bitters. It is all that is wanted in the early stages of a fever.

The same basic method was used by the American Indian people with whom Downing studied after leaving Dartmouth:

I was among the Indians in the West [i.e., Midwest] four years, and did not find but one down with a fever; but saw many sweating themselves over a hot stone, by turning water on it, and covered with a blanket. Fever is the same in all countries, and with all classes of the human species, at the commencement; and the same thing will cure all, if taken in season. Some are attacked more violently than others, and then they are alarmed and send for the doctor, but he cannot cure it unless he can open the pores of the skin, and warm the stomach. Bleeding and giving cold minerals runs the patient down.

The second method, “opening the pores” and “warming the stomach,” is slightly different from the first. It is the method taught by Samuel Thomson, though possibly it was earlier an Indian method. Thomson himself learned his basic ideas from the “widow Benton,” a neighbor woman (Thomson S, 1825, 15).

There was an old lady by the name of Benton lived near us, who used to attend our family when there was any sickness. At that time there was no such thing as a Doctor known among us; there not being any within ten miles. The whole of her practice was with roots and herbs, applied to the patient, or given in hot drinks, to produce sweating; which always answered the purpose. When one thing did not produce the desired effect, she would try something else, till they were relieved. By her attention to the family, and the benefits they received from her skill, we became very much attached to her; and when she used to go out to collect roots and herbs, she would take me with her, and learn me their names, with what they were good for; and I used to be very curious in my inquiries, and in tasting every thing I found. The information I thus obtained at this early age, was afterwards of great use to me.

Years later, when Thomson was developing his medical doctrines, he explains how the basic concept he learned from Mrs. Benton inspired the development of his system of medicine (Thomson S, 1825, 43).

I found that all disorders which the human family were afflicted with, however various the symptoms, and different the names by which they are called, arise directly from obstructed perspiration, which is always caused by cold, or want of heat; for if there is a natural heat [from the interior], it is impossible but that there must be a natural perspiration.

The followers of Samuel Thomson refined his ideas but did not change them. Dr. Alva Curtis altered the

name of the school from Thomsonianism to Physiomedicalism to avoid problems with the possessive and litigious founder. He modified Thomson’s tripartite differentiation of disease (hot, cold and hot/cold) by reference to modern science. He noted that biology (then and now) teaches that there are three basic ways in which living tissue or cells react to stimulation: excitation, contraction and relaxation. As a consequence, there are three basic disease states: over-stimulation, over-contraction and over-relaxation. There are also three basic kinds of remedies: “whatever will invariably, promptly, powerfully and permanently relax, contract and stimulate, will remove all obstructions to vital action, and cure all forms of disease.”

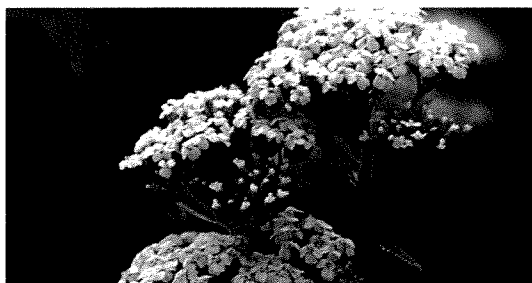
Four imbalances are actually inferred in the Curtis model: over-stimulation, under-stimulation, contraction and relaxation. This fourfold model is utilized by contemporary physiomedicalists A. W. and L. R. Priest in their text *Herbal Medication*. They also recognize the atrophic condition, introduced by Thurston as one of the tissue states. (Priest AW, Priest LR, 1982, 30).

The Six Tissue States

In 1900 Dr. Joseph M. Thurston published an ambitious tome called *The Philosophy of Physiomedicalism*. He realized that the literature of medicine at that time, both conventional and alternative, made frequent references to a number of general physiological conditions. He counted six such primary conditions or “tissue states,” as he called them. Unfortunately, he saddled them with highly obscure names: *vasoexaggeration*, *vasoconstriction*, *vasotrophesy*, *vasodilation*, *vasoatony* and *vasodepression*. It would be more accurate historically, and more informative, to use the terms in general use in the medical literature from which Thurston drew: *irritation*, *constriction*, *atrophy*, *relaxation*, *torpor* and *depression*. I have further substituted the term *stagnation* for *torpor*, because I believe it will be more easily understood by a modern audience.

The six tissue states represent simple excesses or deficiencies in three basic physiological factors. Irritation and depression correspond to wrongs in the *rate* of tissue function – too fast, too slow. Constriction and relaxation represent incorrect tension of the tissues – too tight, too loose. Atrophy and torpor represent change in the *density* of tissue – too hard, too soft.

These tissue states are widely described in the literature, and in order to describe them I have drawn from the literature of the great nineteenth century botanical doctors of all schools. I have quoted from them liberally to illustrate some conceptsⁱⁱ. At other times I have brought them up to date by referring to more contemporary ideas. I have filled out the descriptions and characteristic indications based upon my own experience with this model.



Martin Wall

Achillea millefolium (yarrow)

Irritation. This tissue state results from “exaggeration of the normal function-rate” of the tissues (Thurston JM, 1900, 263). There is an increase in the amount of blood to the area. This results in increased availability of blood sugar and oxygen, which accelerates the cellular metabolism. Scudder writes of this condition, which he calls “*excess*.” “*the condition of the part is one of excitation. The symptoms are very clear – there is swelling, heat, increased sensitiveness, and redness.*” (Scudder JM 1874, 320) These are the classic symptoms of inflammation. In modern terms, irritation would be described as a condition of excess activity in the cells. Cellular functions – metabolic, neurological and endocrinological – are elevated.

Characteristic symptoms include temperature rise, nervous excitement, restlessness, wakefulness, excessive movement, irritability, bright eyes, increased allergic response, heightened sensitivity to pain, tenderness, fever, redness, swelling of the tissues, engorgement of blood, pink-red or carmine tongue and tissue color, an *elongated, flame-shaped, pink-red tongue*, excited vascular movements, capillary fragility, bleeding and a superficial, bounding or rapid pulse.

The principal group of plants which reduce heat or irritation are usually sour plants containing fruit acids and bioflavonoids. This includes many members of the Rosaceae family: *Rosa canina* (rosehip), *Fragaria* (strawberry), *Amygdalus persica* (peach), *Amygdalus amara* (bitter almond), *Crataegus oxyacantha* (hawthorn), *Prunus serotina* (wild cherry). Other sour plants are also sedative: *Rhus typhina* (sumach berry), *Melissa* (lemon balm), *Sambucus spp.* (dried elder flower or berry), *Rheum palmatum* (rhubarb root), *Rumex crispus* (yellow dock root), *Rumex acetosella* (sheep sorrel), *Oxalis spp.* (wood sorrel) and *Hibiscus sabdariffa* (hibiscus). An anomalous remedy for irritation is *Achillea millefolium* (yarrow). It is actually a stimulant that reduces capillary congestion and heat by enhancing venous return. As a group, stimulants treat the opposite tissue state, depression.

Constriction. When nerves are stimulated they contract tissues. If these then remain too long in this condition there is constriction or tension in the organism. This tissue state is the result of “abnormal contraction (clonic spasm) of the neuromuscular system.”

(Thurston J, 1900, 267). This condition may result from psychological or physiological tension. When the body is chilled the hypothalamus signals the sympathetic to start the shivering mechanism in the extremities to warm up the body. It also stands the hairs on end. If these mechanisms get stuck (which is often the case after influenza or malaria), the body will get stuck on the sympathetic side or alternate back and forth between tension and relaxation. Alternating chills and fever are a characteristic symptom of the constrictive tissue state. These were called “intermittent chills” in the old literature.

Characteristic symptoms are neuromuscular tension, spasm, rigidity or convulsion, symptom changes which are sudden, intermittent, irregular or alternating, chills alternating with fever, diarrhea with constipation, pain with freedom from pain and a *pulse wiry, tense, resistant, hard, blocked or obstructed*. There usually is aggravation from getting chilled, drinking cold water or a draft of air. Constriction especially affects the autonomic nervous system, thus the digestion, gall bladder and liver.

Plants with an acrid flavor are used in Chinese herbalism to treat wind and chill, conditions equivalent to constriction. Almost all of the great antispasmodics traditionally used in the Western pharmacopoeia are acrid: *Lobelia inflata* (lobelia), *Symplocarpus foetidus* (skunk cabbage), *Piper methysticum* (kava kava), *Liriodendron tulipifera* (tulip poplar), *Matricaria recutita* (camomile), *Mentha piperita* (peppermint) and *Nepeta cataria* (catnip).

Atrophy. Thurston adopted this word from allopathy, indicating a lack of “trophism” or function (Thurston JM, 1900). In common usage it also describes an underfed, withered, weak condition. Both usages are correct, since undernourished tissues lose functional strength. Atrophy should also be associated with dryness because water and oil are both necessary for cellular nutrition and hormonal influence, both of which contribute to organ trophism.

Characteristic symptoms are a *tongue that is dry*. In advanced cases it may in addition be narrow, thin, withered or cracked, but it will always be dry. It can also be red from heat caused by a lack of fluids, or pale from lack of nutrition. The pulse is usually thin, or weak, enfeebled, low, uneven (scrapes along) and sometimes weakly tense on one side. *Skin is dry and rough*, lacking oil or water or both. Skin conditions (acne, eczema, psoriasis) are very common. There may be oozing or secreting from the skin as it cracks and opens up, but the general condition is one of dryness. The sensation given by dry, atrophic skin is like running one’s finger across the end of a book. Due to weakness of the kidneys there can be edema, but the overall condition is one of dryness.

Thurston defined remedies for the atrophic condition as “tropho-restoratives.” He applied this term to many

plants I would not put in this category, as he included anything with a strong organ affinity. I define the remedies for this category more strictly as agents which build fluids (both water and oil), increase nutrition, hold water and soften hardness. This includes remedies from at least four main categories: mucilaginous, salty, oily and sweet. In addition, bitters sometimes increase secretion, digestion, lubrication and nutrition.

Mucilage is a thick, moist carbohydrate substance which is coating and moistening to the tissues. The most important mucilages in Western herbalism include *Chondrus crispus* (Irish moss), *Symphytum officinale* (comfrey leaf and root), *Althea officinalis* (marshmallow), *Plantago spp.* (psyllium seed, plantain) and *Ulmus rubra* (slippery elm).

Without saltwater has no intelligence or activity. Salt attracts water and causes it to become active in the tissues. Salty plants such as marshmallow, Irish moss and *Eryngium maritimum* (rattlesnake master, sea holly) are traditionally used to break up hard swellings; they allow water to penetrate into the tissues. Herbalist David Winston has noted that there is also a "salty/mineral" taste (think of the "crispness" of spinach or nettle). Here we would place *Verbascum thapsus* (mullein), *Taraxacum officinale* (dandelion leaf), *Arctium lappa* (burdock root), *Medicago sativa* (alfalfa), *Urtica dioica* (nettles), *Avena sativa* (milky oat seed), *Equisetum arvense* (horsetail) and *Agropyron repens* (couchgrass).

The third group of medicinal herbs suited to atrophy contain fixed oils. This group is especially prominent in the modern health food store. The most obvious members of the group are *Linum usitissimum* (flaxseed oil), *Oenothera biennis* (evening primrose oil) and *Sesamum* (sesame seed oil). Less widely used oily plants are *Juglans cinerea* (butternut bark), *Angelica archangelica* (angelica), *Arctium lappa* (burdock), *Salvia officinalis* (garden sage) and *Cannabis spp.* (marijuana seed). These herbs increase digestion and metabolism of fats and oils. They provoke the gall bladder, which releases bile to digest fats and oils and lubricate the colon. They may provide lipids which exercise liver metabolism, cellular membrane nutrition or lipophilic hormones.

The fourth nutritive category is the "sweet tonics." This class was not developed in Western herbalism; we owe this useful concept to Chinese herbalism. Sweet herbs contain sugars and starches which increase carbohydrate digestion and metabolism. The cells and tissues are thus nourished and build up. Nourished tissues are able to retain more water, so sweet herbs reduce dryness (and sometimes even heat or wind). Native or imported herbs used in Western herbalism that are sweet include *Myrrhis odorata* (European sweet cicely), *Osmorrhiza longistylus* (American

sweet cicely), *Panax quinquefolius* (American ginseng), burdock root, dandelion root, couchgrass, *Galium aparine* (cleavers), *Trifolium pratense* (red clover), *Glycyrrhiza glabra* (licorice), *Comptonia* [insert] (sweetfern), *Codonopsis pilulosa* (codonopsis) and *Astragalus membranaceus* (astragalus).

Since digestion is dependent on secretion, bitters can improve digestion to reduce atrophy. Some of the bitters which act especially on atrophy are *Alnus Serrulata* (alder), burdock, *Lycopodium* (cleratum) (wolf's paw club moss), American ginseng and *Berberis aquifolium* (Oregon grape root).

Relaxation. Alva Curtis and William Cook associated this tissue state with relaxation and the need for astringents (Cook W, 1869, 43). Thurston, by contrast, called it "dilation" and gave it an entirely different definition (Thurston JM, 1900, 272). I have retained the definition of the older physiomedicalists and will not digress on Thurston's concept.

The term "relaxation" is frequently used to describe tissue which is saggy, atonic or prolapsed. At the same time it is subject to a continuous loss of fluids. This loss is called "free secretion" in the old literature. There are thin, clear, copious discharges of saliva, mucus, urine, sweat, diarrhea or blood. The blood is thin and dilute, while that of irritation is hot and rich and that of depression is thick, clotted, dark and unhealthy. The mucus of relaxation is thin, dilute, clear or white, while that of stagnation is heavy, thick, yellow, green or catarrhal. (These are the two damp states particularly prone to mucus discharge).

Relaxed tissue not only loses fluids but leeches minerals out of the body. When we are at rest, calcium is moved from the bones to the serum; when we are active it is moved in the other direction – hence the importance of exercise in the prevention of osteoporosis. As a consequence, the relaxed tissue state is associated with demineralization, bone loss and weakness of the bones. The glands are also weakened. Some of these minerals are lost to the body, but many deposit out between the tissues, forming bony growths, swellings, arthritis, gouty deposits, indurated, nodulated glands and even cataracts. The bone marrow may be weakened leading to rickets in children, poor production of white cells and red cells, low immunity, anemia and developmental problems. There may be leaky gut syndrome with diarrhea and malnutrition.

The characteristic symptoms are skin that tends to be pale, cool and moist, *free secretion* of clear, thin mucus, sweat, urine, diarrhea or blood, glands, tonsils and adenoids are swollen or "relaxed," chronic swollen glands, calcifications, weak, decalcified bones, teeth and tendons, poor bone formation, unhealthy bone marrow, low immunity from poor marrow and anemia from poor kidney signaling to the marrow, muscles at first relaxed, but later twitchy due to calcium loss,

tongue moist, usually pale, round, and sometimes coated white, less often yellow, *pulse non-resistant*, in some cases weakly tense from insecurity, excess demands placed upon limited energy resources or sensory overload.

Relaxation is treated primarily by astringents. These strong acids coat the membranes and prevent the loss of fluids. The most prominent are *Rubus spp.* (raspberry, blackberry), *Rhus coriara* (sumac), *Hamamelis virginiana* (witch hazel), *Geranium maculatum* (wild geranium, herb robert), *Quercus spp.* (oak), *Salvia officinalis* (sage), *Tsuga canadensis* (Canadian hemlock) and bayberry bark. The last three are stimulating astringents.

Torpor (Stagnation). The Greeks recognized two types of dampness, one where the fluids were actively running out of the body and one where they were collecting. These are equivalent to relaxation and torpor or stagnation. The old English herbalists referred to the latter condition as a “thickening of the humors.” Fluids thicken to produce “humors,” “catarrh” or “canker.” Membranes associated with such catarrhs are flabby, stagnant and often inflamed.

Nineteenth century authors added an additional concept. Due to poor secretion and excretion, there is poor tissue feeding and elimination. This results in flabby, weak, undernourished tissues and accumulation of waste products or “toxins” (some of which are simply unused foods). Accumulation of toxin was called “bad blood,” “impure blood,” “toxic blood” or “toxemia.” The word “bad blood” comes from American Indian practice while “impure blood” translates a German term. “Toxemia” was introduced by Dr. J. Tilden. The standard remedies for this condition are the “blood purifiers” or “alteratives.”

The old authors were in agreement with the cause of this problem. Scudder associated “bad blood” with lack of secretion and excretion (Scudder J, 1874, 313). Thurston concluded that torpor, or “atonicity” as he called it, was due to lack of secretion and excretion. This was therefore the tissue state that called for the use of “blood purifiers” or “alteratives” (Thurston JM, 1900, 270). Most of these agents are bitters. They



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Eupatorium perfoliatum (boneset)

increase secretion in the digestive tract and liver, promoting tissue activity and nutrition. Excretion from the colon is also improved. Most of the good laxatives and cathartics are also bitter alteratives.

Characteristic symptoms include swollen, flabby, boggy, apathetic and weak tissues. There are often chronic skin eruptions and other signs of difficulty in elimination. The tissues show a “want of expression,” as Scudder remarks. This extends to the face. “The patient is dull and apathetic, the eye dull, the face expressionless, the tongue somewhat full, and the *pulse lacks sharpness in the wave*—oppressed” (Scudder JH, 1874, 303, 314). The leading physical symptom is *a tendency to hang-over conditions and feelings*, because the liver and lymphatics cannot handle heavy or toxic foods and excesses of various kinds, including exercise. There are often swollen lymphatics with low immunity or resistance to disease. The liver is particularly affected when there is a build up of unmetabolized waste products. *Heavy, thick, adhesive mucus* forms and clings to surfaces. The *tongue is usually flabby, apathetic or atonic* with a coating that is thick, turbid and adhesive. The pains of torpor are usually *achy and dull*, like those of influenza, arthritis or over-exertion (a kind of hang-over). Impure “toxins” and “humors” can block heat, resulting in conditions where there is heat, chills or tension.

The main alteratives are bitters, burdock root, dandelion root, *Hydrastis canadensis* (goldenseal), barberry, and Oregon grape root. The bitter laxatives may also be included: *Aloe vera* (aloe), *Rhamnus pershiana* (buckthorn), *Cassia spp.* (senna) and *Phytolacca decandra* (poke root). A number of bitters are better known for relieving congestive chills: *Eupatorium perfoliatum* (boneset) and *Cinchona spp.* (quinine).

There are also some non-bitter alteratives such as *Smilax ornata* (sarsaparilla), red clover and nettle. Most of these plants increase digestion and metabolism because they are sweet nourishers. Yellow dock root is another alterative; it is a sour astringent with a little bit of bitter anthroquinone improve peristalsis. Both stagnation and atrophy respond to bitters and nutritives.

Depression. When tissues are understimulated, or incapable of responding to stimulation, they are in a depressed state. There is a lack of oxidation in the cells (the opposite of irritation). Where cellular life is diminished there will be low function, tissue deterioration, collection of waste materials and unused food products. This represents a golden opportunity for bacteria to feed off superfluous material. These organisms secrete toxins which create an environment where there is additional tissue death and the production of pus. Discharges in depression are thus dirty, yellow, green, brown or black. Circulation is usually depressed so that blood, blood sugar and oxygen have a hard time

getting to the capillaries and from there to the cells. The blood is often thick and coagulated, with a dark, dusky, bluish or purplish complexion. The extremities are usually cold. The great scourges of health – cancer, heart disease, insulin resistance and type II diabetes – are more often found in association with this tissue state. Aberrant tissue growth is more likely when the immune system is depressed.

Characteristic symptoms are cold hands and feet. The cold of depression is deep seated. Because depression gives rise to tissue deterioration and bacterial feeding, there is a tendency to a secondary, septic or putrefactive heat. This is usually low, not high (as in irritation). Although *the skin is inactive, dry and cool in chronic depression, in acute cases there is usually excessive loss of fluids through the skin, such as we see in heart attack or heatstroke.* The pulse is deep, weak or slow unless putrefactive heat sets in, in which case it may become rapid, low, feeble, weak and non-resistant. *The tongue is usually blue, purple or darkish in some (not usually all) areas, with a heavy yellow or yellow/brown coating.* The large intestine (subject to toxic secretion from unhealthy bacteria), the liver (subject to poisoning from toxins), the lymph/immune system (which has to break down pathological cell growths), blood and nerves are especially damaged by tissue depression. Due to poor peripheral circulation rashes recede into the interior, inflicting themselves on the nerves and viscera rather than coming out through the skin. Retrocession of the rash in small pox was a very serious problem for the old doctors. Even today it still occurs in chicken pox and can be fatal. (It also occurs from vaccination, causing terrible havoc in sensitive children). The old treatment was to give stimulants (carthamus) to bring out the rash.

Treatment of depression and putrefaction is usually by warming stimulants: *Capsicum spp.* (cayenne pepper), *Curcuma longa* (turmeric), *Zingibes officinale* (ginger), *Armoracia rusticana* (horseradish), *Allium spp.* (garlic, onion), *Brassica spp.* (cabbage, mustard), *Ocimum spp.* (basil), sage, *Origanum spp.* (oregano), *Thymus vulgaris* (thyme), *Xanthoxylum americanum* (prickly ash), *Commiphora mom mol* (myrrh) and fresh elder flowers. Fragrant bitters and pine oils also act on depression by killing parasites and bacteria.

There are, of course, interactions between the tissue states. Heat arises from excitation, lack of fluids (atrophy) or depression producing infection. Constriction can arise from lack of fluids (atrophy), or it can, through sustained limitation of tissue nutrition, induce atrophy. Both atrophy and torpor respond to bitters, which are nutritive as well as alterative.

The six tissue states comprise a model that is compatible both with modern science and traditional energetic medicine. It is related to the way modern Western people think about their psychological and physical sensations and conditions. It thus forms a bridge between

the traditional and the modern, the practitioner and the patient. Most important of all, it is an eminently practical method for understanding and treating illness. It can be linked with traditional energetic systems with the following basic correspondences:

Irritation	Heat	Relaxation	Damp
Constriction	Wind	Torpor	Damp
Atrophy	Dry	Depression	Cold
Yin Deficiency		Yang Deficiency	

Thurston understood the great power of an energetic system. He wrote: *“If the student can be made to understand the principles of scientific treatment of tissue-states. . . his judgment as to prescribing comes to him as if by intuition, and can scarcely be wrong”* (Thurston J, 1900, 84). This I have found to be absolutely true. The tissue states have helped me to understand what is going on in the body in a far more concrete fashion than any other method of energetics. This is, I believe, because they are not as abstract and metaphysical as the four qualities or the five elements of traditional Chinese medicine.

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Notes

- [i] I do not have any original writings by Curtis. This quotation is from R. Swinburne Clymer (1926, 25). A good discussion of Curtis, system of stimulation, contraction and relaxation is given by William H. Cook (1869, pp43-5).
- [ii] An especially good materia medica, laid out with close attention to the tissue states, though never defining them, is John William Fyfe, *Specific Diagnosis and Specific Medication* (1909). This text is available on Michael Moore's website [http://www.rt66.com/hrbmoore].