

Physical basis of pulse processes  
and pulse metabolic diagnosis (PMA)

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During the study of hemodynamics processes Western medicine is using widely accepted model the heart as a pump function. But Harvey himself (*William Harvey*) – the founder of the theory of blood circulation – did not discuss such an image of the heart with his scientific colleagues. This model of heart pump was applied by Harvey at uneducated public and students to promote the only idea of a closed circulation. And in fact, up to present days, despite of all achievements of hydraulics, mathematics, and across-the-boards computing, no acceptable model of the working heart has been established yet.

To evaluate the appropriateness of pump model we can make simple comparison of the pumping capacity of the heart and the hydraulic resistance of all capillaries (more than 100 thousand kilometers in length). Proper pressure to push the blood through these capillaries, if we take into account normal quality of material used in pump manufacturing, will require the mechanism of literally gigantic size.

At present models there are only some specific modes of heart operation are designed. They can not be widely used due to vagueness of the boundaries of application.

Meanwhile, the problem of constructing the hemodynamics schemes can be solved on the base of the special pulse wave model (PWM). Pulse wave accompanies the movement of blood and it is a manifestation of absolutely all biochemical processes and powers at given point and time, where the pulse wave is proceeding. The energy of biochemical processes at locality of the blood vessel, manifested at exactly allotted time, is an important part of power to push the blood alongside the vascular bed. A single impulse of heart in form of parametric sets of electromagnetic, acoustic and other kind of waves at the whole spectrum of vibrations, is only the trigger mechanism with low energy to generate a single running wave (three-dimensional soliton (**1**)). This running wave initiates a cascade of local resonances and sequence of chemical reactions at a very strictly synchronous way.

\*\* Further arguments are based on the physical theory of the Ether - the smallest particles of homogeneous substance which fills all the inter-atomic area and Space itself. Ether has the properties of an ideal gas, great density and elasticity. Propagation of energy through the Ether is going without a loss and at great speed. For neighborhoods of close Space - within the Solar system - the density of Ether provides maximum energy transfer at the speed of light. Any particle of the matter is a structured motion of Ether. These structures are depending on the density of Ether and moving energy waves in Etheric environment – just the same way as the fish has been subjected to the impact of aquatic environment (fish is a sample of a matter particle, but the water manifests the Ether space) (**2**).

Let's now return to the nature of pulse processes:

The structure of the soliton of pulse consists of several sections. Some of sections provide releasing of energy during processes of oxidation and physical movement (catabolic phase). Other sections restore cellular structures and store nutrients and substrates (anabolic phase). These two types of sections must be very accurately balanced to save physical and energy entity of organism.

Each metabolic phase is accompanied by the relevant spectrum of parametric resonances. These resonances are stipulated by certain pressure of Etheric environment as well as by effects of the complex periodic structure of the interfering waves of energy in the space of an organism.

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From basic physics we know that nominal frequencies of the natural oscillations are closely related to the density of environment. High density of the matter is accompanied by the higher frequencies of natural oscillations. High frequencies of oscillations have less amplitude at the same energy level of oscillation

The matter has some specific features - every particle has its own unique spectrum of natural oscillations (this peculiarity lies in the base of spectral analysis - the method that allows to detect presence of a substance or chemical **element**) (3). At a certain density of the medium only appropriate particles, atoms and molecules can be excited by vibrations and it depends on the natural oscillations of given matter parts. As far as the density of the environment is changing, frequencies of natural vibration of medium are changing too. Following these changes, the oscillation energy will move from one substance to another. Excited resonances are always corresponding to the current density of the Ether. This is the way how the energy moves in the space and **it is the sole cause of blood and energy movement by mean of pulse wave alongside the bloodstream.**

The density variation of the all-pervasive Ether on the surface of the Earth has cosmic cause and changes have specific profile. This profile is reflected in form of the pulse wave.

Let's try to find the law of the pulse wave formation. Up to opinion of Author, highly-developed ancient civilizations had left proper information, designed in form of Traditional Chinese Medicine (TCM) postulates.

For example, TCM postulates the theory of the Five Elements. The Author supposed that term "Element" indicates some state of the Ether as a definite parameter of its density. Consequently, certain Element corresponds to the fact of activation of proper resonances of specific chemical elements of the matter. Thereby, given density ensures the reactivity precedence of only **certain** atoms and molecules of chemical elements in accordance with the unique properties of each element.

It is also worth to note the basic property of chemical reactivity - the dependence of chemical reactions processes on the density of the Ether. It governs degree of saturation of electrons in the space. Electrons are the most light (relatively all other matter particles with the lowest energy), stable elements of the substance. Without participation of electrons no chemical reaction can flow because electron is the sole bargaining chip to establish an energy balance of chemical elements during their interaction.

At high-density of the Ether, electrons are driven into atoms of chemical elements (the ability of atoms to absorption of electrons increases). Alkali elements of the periodic table become more active, intermolecular and interatomic connections decrease, alkali free radicals are activating. The processes of decomposition (destruction) and the oxidation of biological substrates have a place, the catabolic phase in the cycle of cell activity prevail over anabolism. There is excessive heat production, the amplitude of natural oscillations grows to compensate increasing frequency of vibration of the surrounding Ether.

When there is the time of low density of the Ether, electrons leave atoms (this is a compensatory response to the lowering of the Ether pressure in the space). As a result the interaction between atoms increases in order to maintain its own stability. The deficit of electrons in the molecules and atoms is compensated by the sharing of the remaining electrons among several atoms. The process of creating of long chains of molecular and biological structures starts, the environment becomes acidic due to the loss by molecular protons their electrons. Free protons actively

participate in biochemical reactions of anabolism. The processes of synthesis of long molecular chains goes with a heat absorption, free vibrations of the reacting atoms tend to decrease in amplitude to compensates increasing of amplitude of natural oscillations due to low density of the surrounding Ether.

TCM offers the following hierarchy of energies of the Five Elements (4):

|   |  |   |   |   |  |
|---|--|---|---|---|--|
| <b><u>Tai Yang</u></b><br><b>(Greater Yang)</b> | <b><u>Jue Yin</u></b><br><b>(Terminal Yin)</b> | <b><u>Shao Yin</u></b><br><b>(Lesser Yin)</b> | <b>Shao Yang</b><br><b>(Lesser Yang )</b> | <b><u>Tai Yin</u></b><br><b>(Greater Yin)</b> | <b>Yang Ming</b><br><b>(Bright Yang)</b> |
| <b>3 Yang</b>                                   | <b>1 Yin</b>                                   | <b>2 Yin</b>                                  | <b>1 Yang</b>                             | <b>3 Yin</b>                                  | <b>2 Yang</b>                            |
| <b>Water</b>                                    | <b>Wood</b>                                    | <b>Fire</b>                                   | <b>Fire-Minister</b>                      | <b>Earth</b>                                  | <b>Metal</b>                             |

At the same time in the Traditional Chinese Medicine the source called the "Shang Han Lun" is well known (Sometimes this source can be loosely translated as "On Cold Damage"). It was written by Zhang Zhong Jing in the late Han Dynasty, at 20-200 A.D.

The original text was then divided into two texts, one being the "Shan Han Lun" which focused on external conditions, and the other being the "Jin Kui Yao Lue" which focuses on internal conditions.

In accordance with above mentioned internal conditions, if the patient is not getting proper treatment, the body passes six stages (after the last sixth stage the death usually follows):

- 1) Defeat of Tai Yang - protective Wei-Qi is trying to localize the pathogen on the surface of the body;
- 2) Defeat of Shao Yang - the pathogen has already left the surface of the body, but had not yet penetrated into the internal organs;
- 3) Defeat of Yang Ming – Wei Qi is trying to neutralize the pathogen in the depths of the body;
- 4) Defeat of Tai Yin - initial signs of depletion of the Qi;
- 5) Defeat of Shao Yin - the average degree of Qi depletion;
- 6) Defeat of Jue Yin - extreme depletion of Qi, leading to the death.

This gradation indicates the following mutual disposition of energy in the context of their annual circulation as follow:

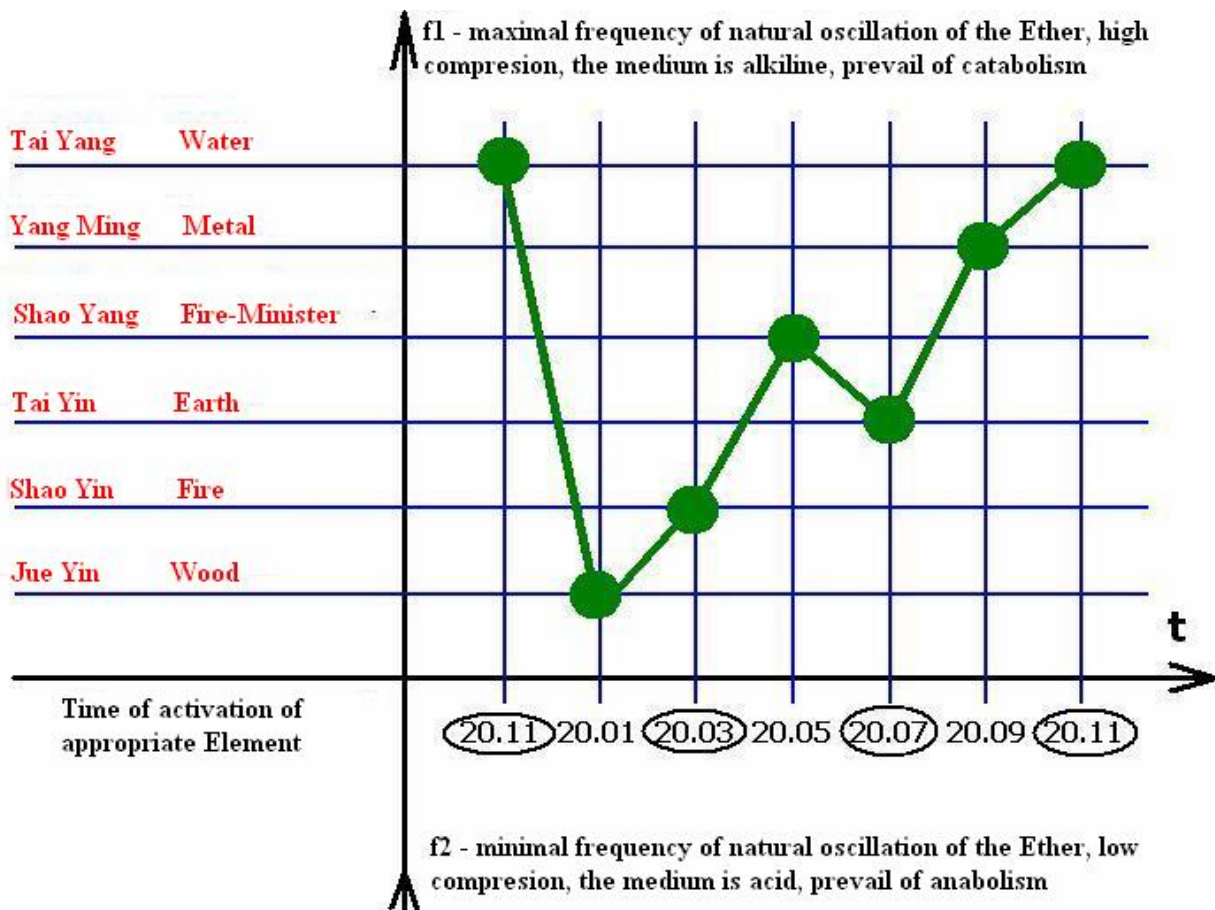


Fig. 1

In the Fig. 1 upper three Elements are Yang type –they are accompanied by higher frequencies and higher density of the Ether. Bottom three Elements are Yin type and their nature has less natural frequencies and the Ether pressure. This density disposition of the Elements indicates the vortex nature of organism – the inner space of the body has less density in comparing with the areas being close to skin. The skin is the boundary where there is interaction of vibrations from the internal structures of organism and from the external environment. To provide stability of borders the spectrum oscillation inside and outside must be a mirror-like.

The amplitude of the pulse is dependent on changes of the Ether density. At high density pulse amplitude tends to decrease. Therefore, to obtain the amplitude picture of oscillations we should invert the diagram at Fig. 1 (Fig. 2):

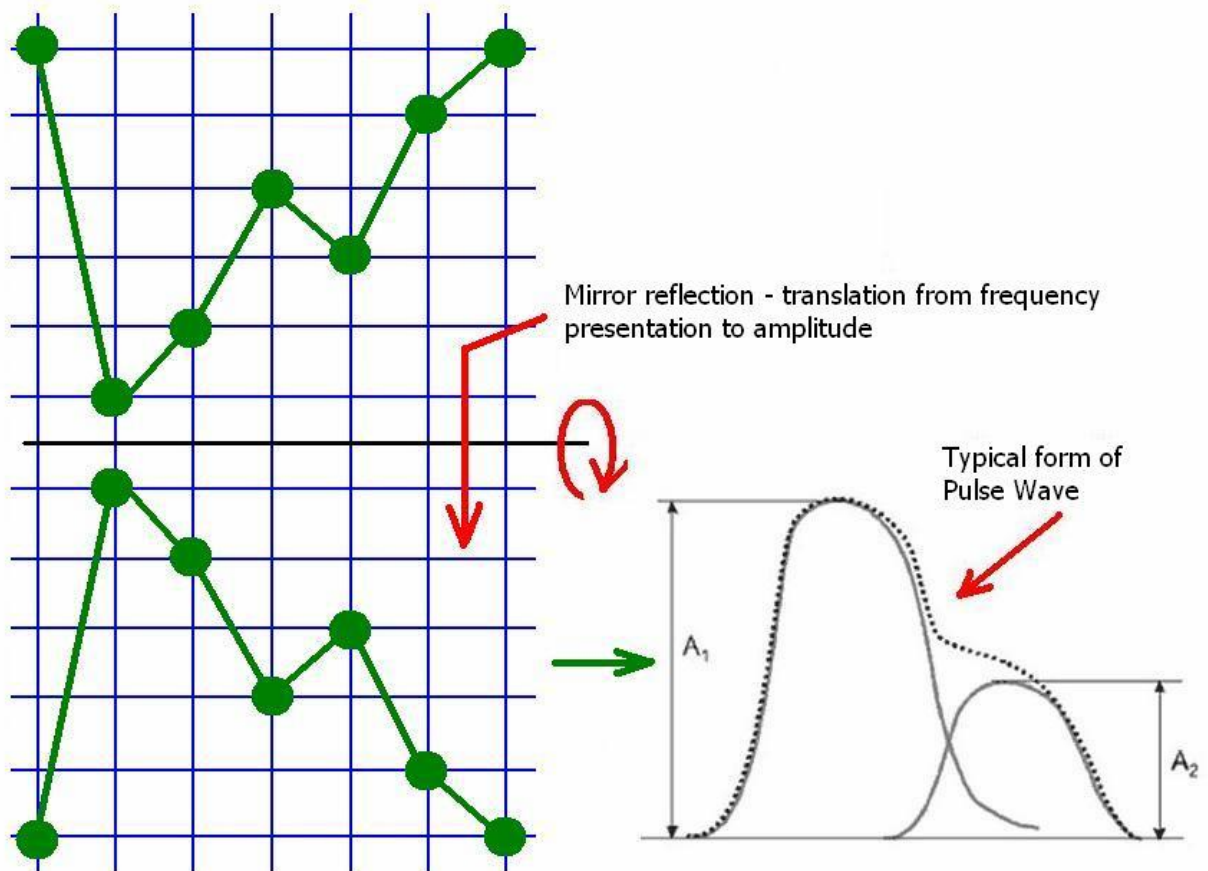


Fig. 2

The typical form of pulse wave at Fig. 2 is well known from the practice of Integral Reography (IRG), reovasography (RVG), Hemodynamics - [www.hemodynamicsociety.org](http://www.hemodynamicsociety.org). The pulse form coincides with the theoretical form, built on the basis of the postulates of Traditional Chinese Medicine.

Theoretical form has a quite physical nature, which can be adequately explained only by the hypothesis of the Ether and vortex gravitation (6). Detailed transcript of the physical nature of such form of pulse, as it is indicated above, is not the goal of this article.

As far as at Fig. 1 and Fig. 2 we have built the Year Pulse, pulses of any living object on the Earth are coordinated with high harmonics of Year Pulse.

The presented hypothesis of pulse wave formation has the following important consequences:

1. Pulse processes at any living organism are **not an independent** – they are strictly determined by dynamics of the Ether changes at scale of time and space. Violation of complete synchronization of living pulses with the Ether vibrations leads to destruction of the correct pulse movements in the body, determines the course of disease and death.

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2. The body has some structural safety factor, which enables to generate the correct pulse wave during the disturbances of cosmic rhythms. These internal structures ensure formation and preservation of the pulse wave. However, this factor is decreasing at a rate depending on the power of chaotic spectrum. Prolonged absence of a synchronizing processes of the Ether movement destroys the structure of the pulse in accelerating temp
3. DNA is a structural base of correct pulse processes and it defines the work program of the organism in the absence of normal vibrations of the Ether. Prolonged absence of external correct vibrations is the cause of intensive restructuring of the DNA (mutation). It is the adaptive reaction of the organism to find a balance between the influences of external and inner metabolic oscillations.
4. Each smallest part of human body has certain characteristics of the resonant oscillation (for example there are compartments in cells or even protein molecules) which is activated at a very narrow window of time, provides the process of only certain types of chemical reactions. The quantity of bio-resonance energy in these compartments shall conform to the average energy level anywhere in the body despite the difference of their frequencies of natural resonances. Only at this condition the energy will move evenly and without losses (so-called “smooth Qi” in the terminology of TCM).
5. On the base of above mentioned statements the term “Health” is supposed as a peculiarity of isotropy for energy movement at any part of the body. That is why the practice of meditation has great healing effect if it is done correctly – when the person is calm, rest without any thought in mind. In this case isotropy is rebuilding by outer vibrations of the Ether. Inner stress and tension even at mental level are non-desired influence ant they prevent to the process of isotropy renovation.
6. Other methods to restore isotropy in the body are as follow:
  - To impose a resonant vibrations at the places where it should be. The most accurate way is an acupuncture procedure. Recovery of resonances has an ideal effect due to accepting of outer vibrations at true phase, amplitude and frequency;
  - To introduce specific chemical elements into the body. These elements have their natural resonances and they are moved by forces of inner interaction to the places of the organism, as it is defined by the general structure and DNA;
  - To manipulate by heat or cold at certain parts of the body to equalize the balance of anabolism and catabolism. It helps to balance the uniform transfer of energy;
  - To manage the metabolic balance by changing of pH balance at proper parts of organism at proper time.

We have to stress the main treatment (corrective) actions rules: they have a sense only at proper time, synchronized with the phases, frequencies and amplitudes of the pulse oscillations or outer vibrations of the Ether.

Other methods of correction of the Health are considered by Author as headstrong, based on limited knowledge of present common science – our civilization is still at a very beginning of possible level of development.

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