

Interpretation of anabolic-catabolic balance  
of functional systems in organism at  
spectral pulse analysis

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## 1. Purpose of the Manual

This guide is intended to help to study the practical application of the model of the action potential of cells, that was described in the article "Metabolic sense of the six Qi of the Chinese Medicine»:

<http://pulse-academy.org/files/ActionPotentialEN.pdf>

## 2. Abbreviations

The model of meridian's activity developed by the Academy Pulse (<http://pulse-academy.org/files/LifeMechanicsEN.pdf>), has following diagram in daily cycle, in association with the resonance frequencies of the visible spectrum, and six major ions (Fig. 1):

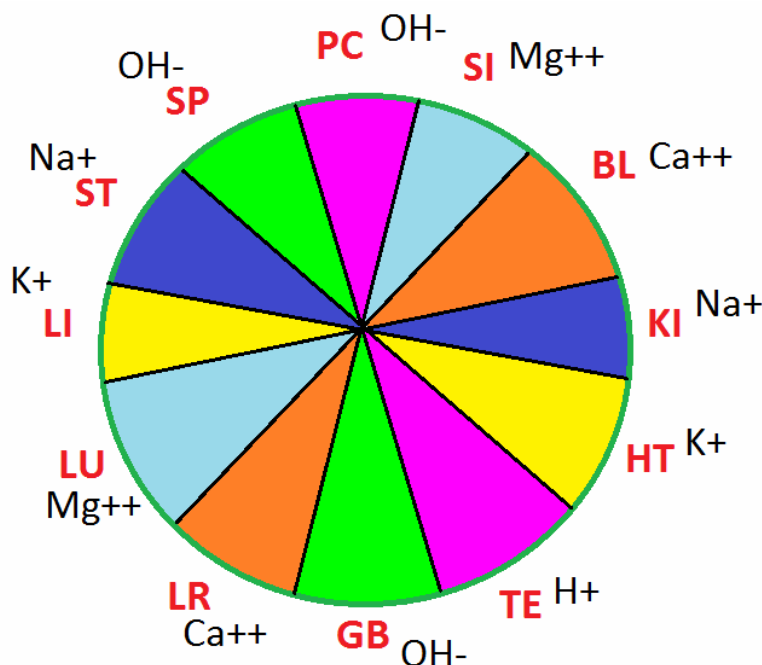


Fig. 1

Where:

GB (Yang) – Gall Bladder (maximal activity from 23.00 to 01.00);

LR (Yin) – Liver (maximal activity from 01.00 to 03.00);

LU (Yin) – Lungs (maximal activity from 03.00 to 05.00);

LI (Yang) – Large Intestine (maximal activity from 05.00 to 07.00);

ST (Yang) – Stomach (maximal activity from 07.00 to 09.00);

SP (Yin) – Spleen (maximal activity from 09.00 to 11.00);

PC (Yin) – Pericardium (maximal activity from 11.00 to 13.00);

SI (Yang) – Small Intestine (maximal activity from 13.00 to 15.00);

BL (Yang) – Urinary Bladder (maximal activity from 15.00 to 17.00);

KI (Yin) – Kidneys (maximal activity from 17.00 to 19.00);

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HT (Yin) – Heart (maximal activity from 19.00 до 21.00);  
TE (Yang) – triple energizer (blood) (maximal activity from 21.00 to 23.00);

### 3. Anabolism and catabolism of functional systems during the day

As it was discussed in the article "Metabolic sense of the six Qi of the Chinese Medicine»: <http://pulse-academy.org/files/ActionPotentialEN.pdf>, all 12 functional systems (meridians) of the body that are mentioned in the clause 2 of this manual, are divided into 4 groups, where systems have the same synchronous flow of metabolic processes:

- a. Yang Group of odd system of meridians: GB, ST, BL;
- b. Yin Group of odd system of meridians: LU, PC, HT;

Graphically activity of systems is as follows at Fig. 2 :

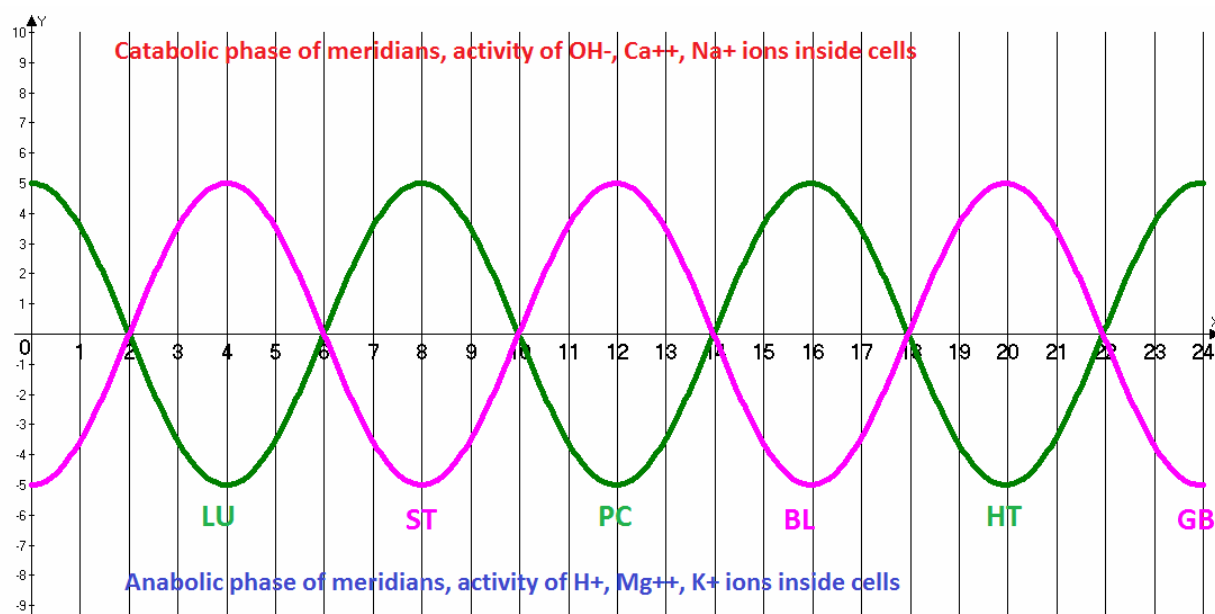


Fig. 2

- a. Yang group of even systems of meridians: TE, LI, BL;
- b. Yin group of even systems of meridians: LR, SP, KI (Fig. 3):

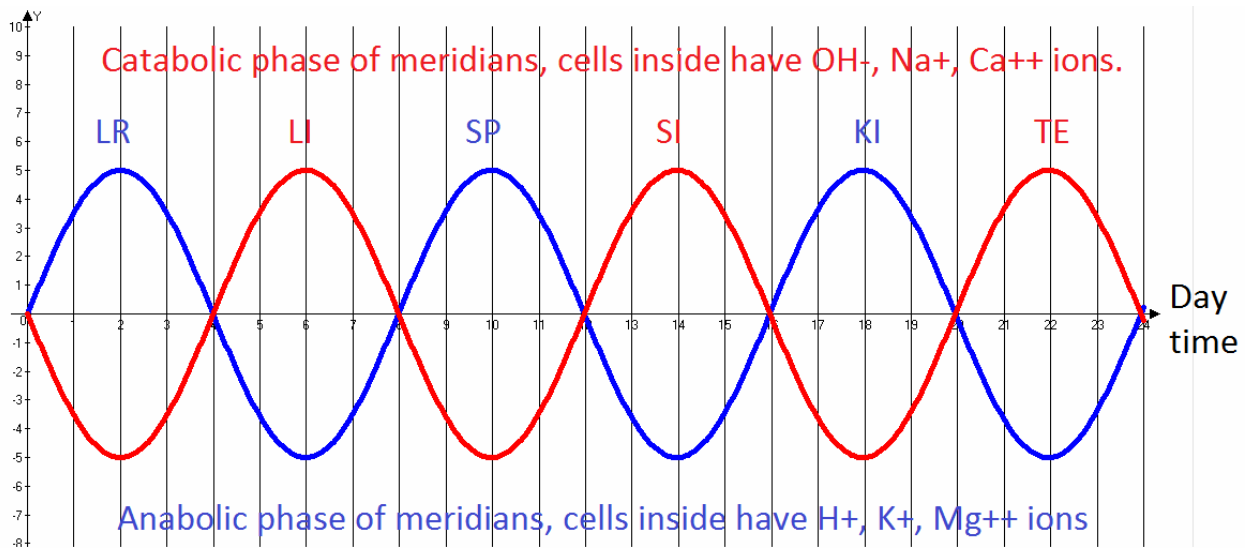


Fig. 3

Positive inclinations in graphs show the periods of catabolic activity of systems, and negative inclinations indicate the anabolic phase. The three systems in each of 4 groups during the day have synchronized metabolic phases.

Within one day, there are fluctuations in the pH of the blood that are associated with physical activity of the body: at moderate physical activity (typically daytime) the pH of arterial blood is shifted to the alkaline side (respiratory alkalosis), and pH of the venous blood - to the acid side. During the rest (usually at night) mutual pH balance of arterial and venous blood is inverted with respect to periods of physical activity. Therefore, the diagram of metabolic activity of meridians takes the form as it is shown at Fig. 4:

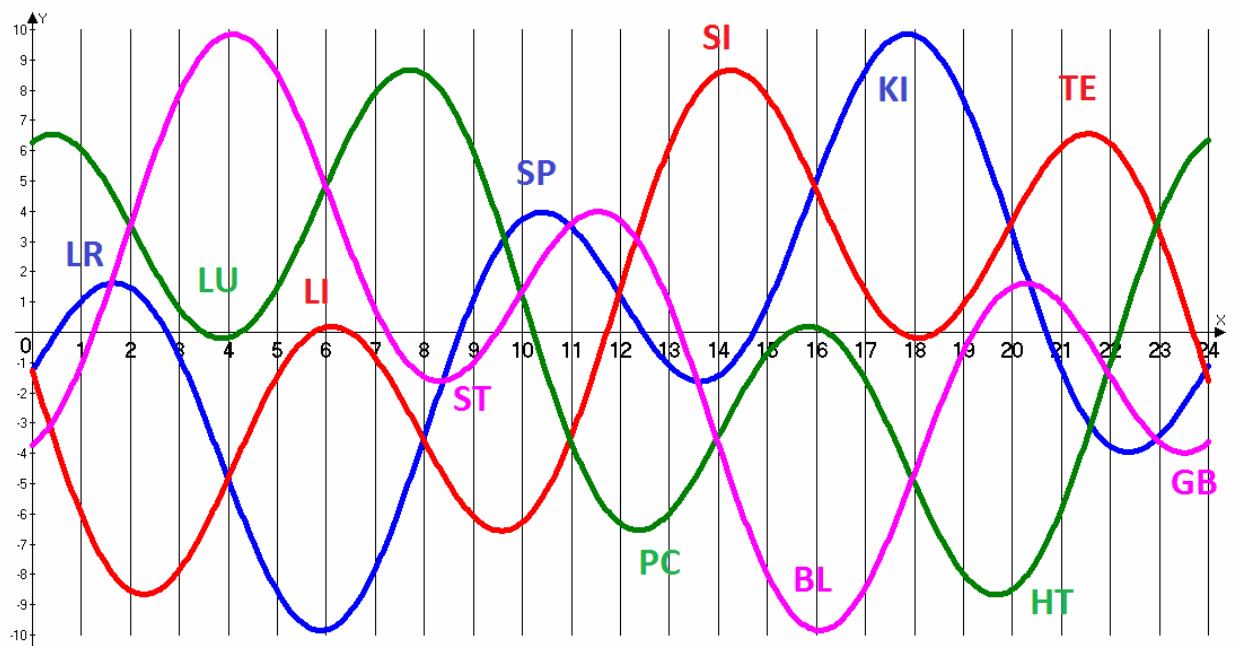


Fig. 4

#### 4. New form of pulse analysis data representation of metabolic phases

For the convenience of the pulse data consideration from the viewpoint of anabolic-catabolic balance, we upgraded the form of graphical representation.

Now for a quick assessment of the metabolic balance conditions of organism it is required to use the following examples which show the perfect condition of the body for the day and night parts of the day:

- Day profile (11.00 - 23.00):

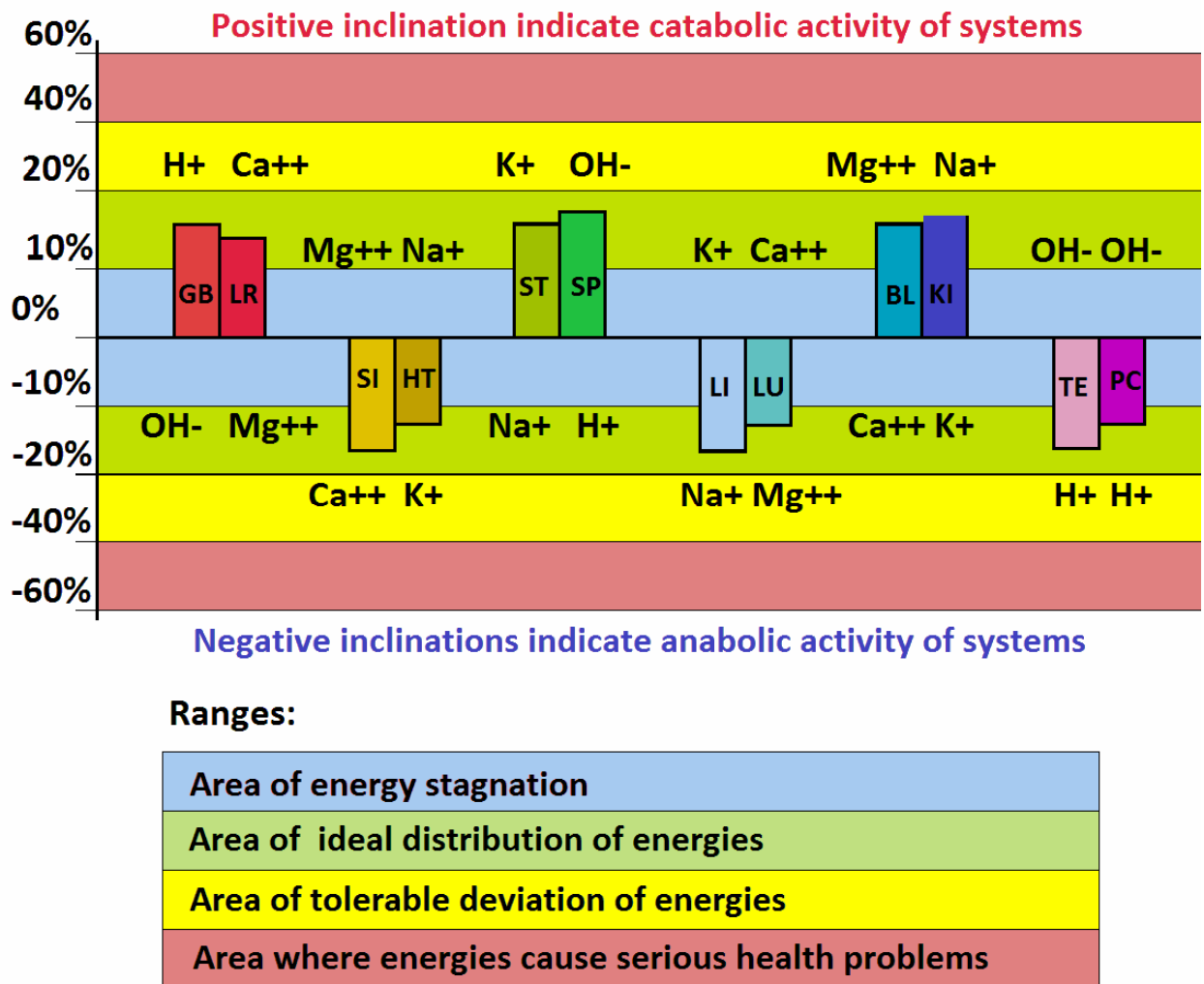


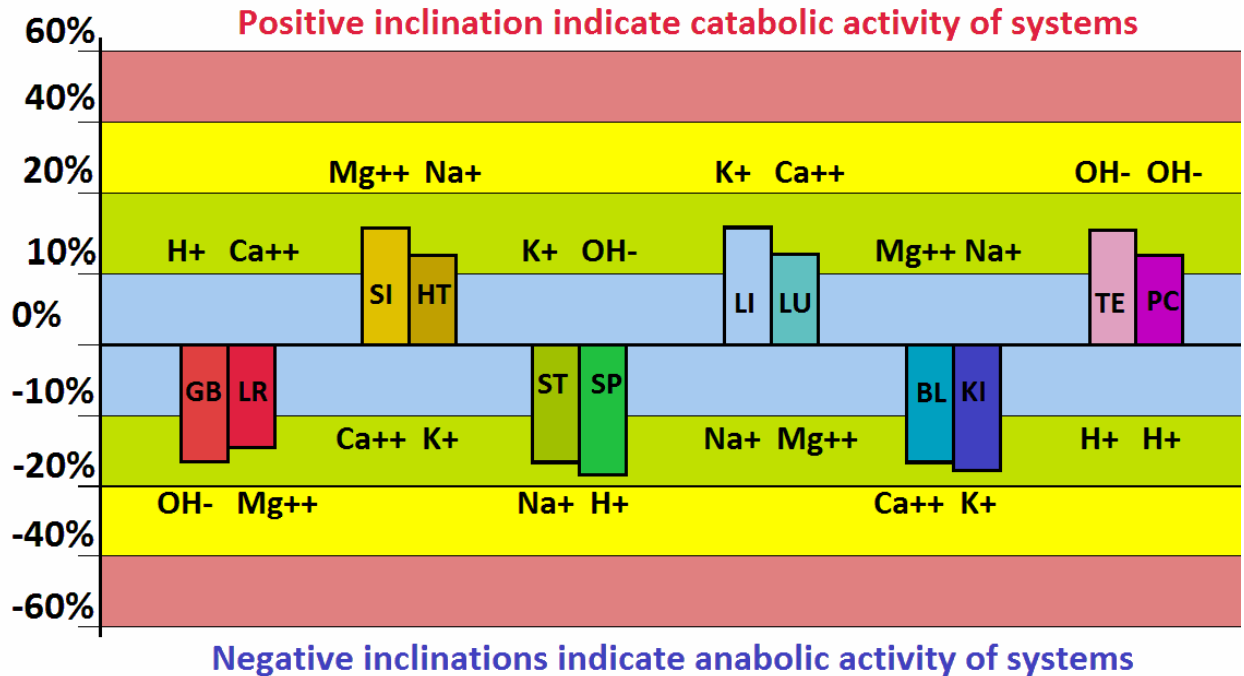
Fig. 5

Fig. 5 corresponds to the principal ions disposition at each system and it is shown in the following order:

- Systems for Yin - intracellular location,
- Systems for the Yang - extracellular location.

If the system changes the metabolic phase, then there is a change of active ion into resonant paired one (resonant pairs are as follow: potassium - sodium; magnesium - calcium, hydrogen ion - hydroxyl ion).

- Night profile (23.00 - 11.00):



**Ranges:**

Area of energy stagnation
Area of ideal distribution of energies
Area of tolerable deviation of energies
Area where energies cause serious health problems

**Fig. 6**

Thus, the activity profile of the night has the opposite values to the daily profile.

### **Special Notes:**

a. Meridian TE (Triple Energizer), up to our view, indicates the acidic or alkaline shift (relatively to the middle of homeostatic regulations) in venous blood, which plays a role in creating the charge of membrane potential for cells of GB, LR, ST, SP, BL, KI systems. Positive values (shift to the alkaline side) stimulate anabolic

state of systems GB, LR, ST, SP, BL, KI. Negative values of TE stimulate the catabolic activity of the mentioned systems.

b. Meridian PC (Pericardium), up to our view, indicates the acidic or alkaline shift inside the cells of structures associated with arterial blood - SI, HT, LI, LU, TE, PC (positive deviations means a shift to the alkaline (catabolic) side, but negative one shows a shift to the acid (anabolic) side). The state of the arterial blood automatically stimulates metabolic state in SI, HT, LI, LU, TE, PC systems.

c. It become clear the division of meridians into groups as follow: one group consists of meridians on hands (SI, HT, LI, LU, TE, PC), but the other one belongs to the meridians on legs (GB, LR, ST, SP, BL, KI). These two groups have coordinated rotation of anabolic and catabolic phases and this fact indicates on the existence of some natural cyclic compression - extension process of environment (at the same time it provides the changes of frequencies of oscillations in the medium - these oscillations stipulate metabolic processes in the body).

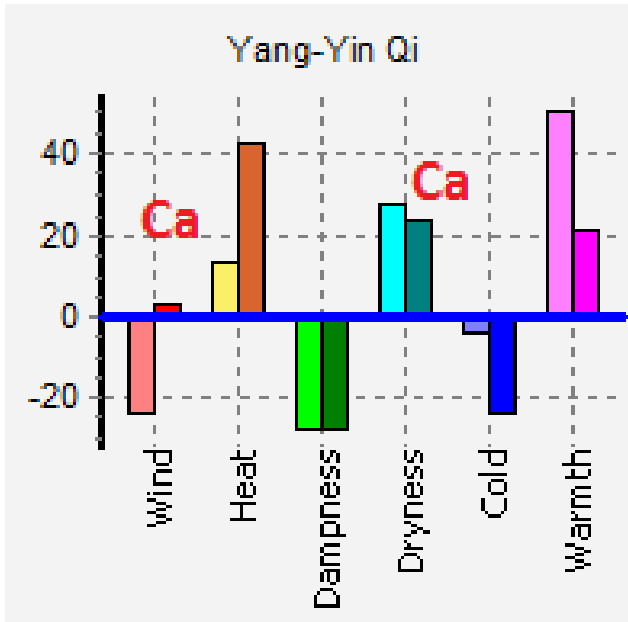
d. there are only 4 possible states:

- Two balanced state, described in profiles at Fig. 5 and 6;
- Two extremes of dangerous imbalances when the Yin and Yang systems have opposed metabolic condition: all Yin system (LR, HT, SP, LU, KI, PC) are in a state of catabolism (above zero line of graph) and Yang system (GB, SI, ST, LI, BL, TE) - are in a state of anabolism. Or - on the contrary, the full catabolism of Yang systems is at the background of full anabolism of Yin systems.

e. For supporting correct mineral balance it is sufficient to monitor the condition of Yin systems. Yin systems are slowly varying structures in the body (it is the same as diabetic condition more correct to monitor on the base of concentration of glycated protein at erythrocytes, but not on the base of glucose level in blood).

## 5. Examples of practical interpretation of imbalances

### 5.1.



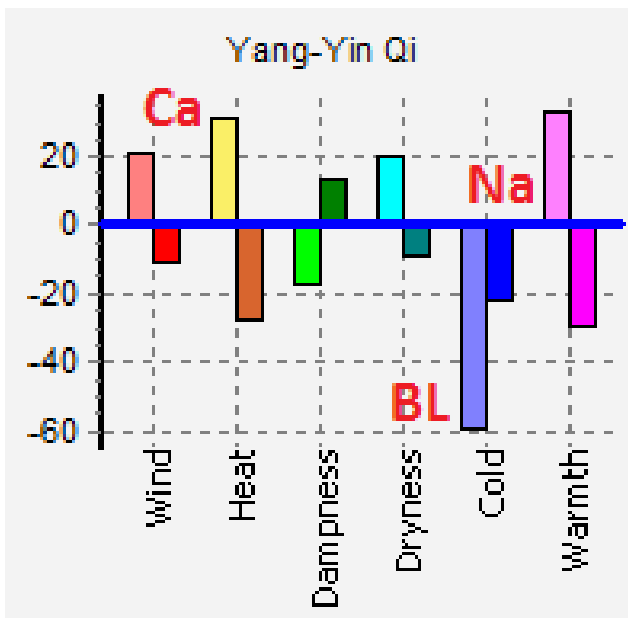
The patient suffers of shortness of breath.

There is excess of calcium (Ca, Yang), deficiency of magnesium (Mg, Yin).

Magnesium - a mineral of Lungs.

There is a night profile at 17:35. This profile is pathological for the moment of pulse taking.

### 5.2.

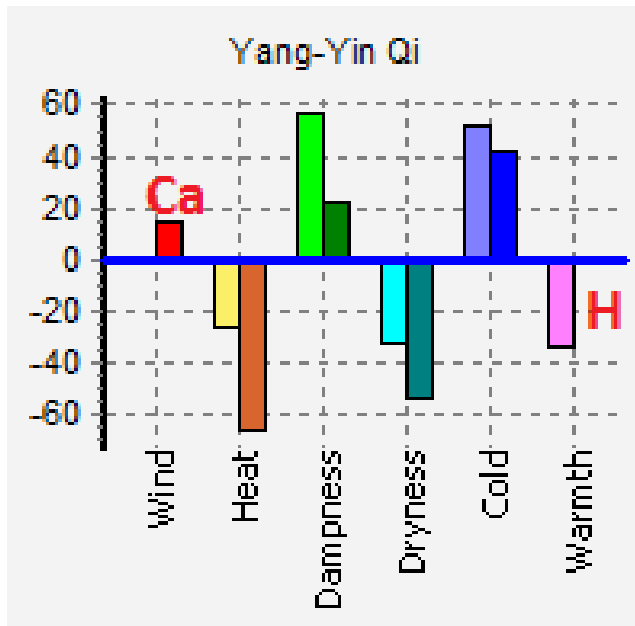


The patient suffers of pain in the abdomen.

Profile of deviations is more similar to day time (12:55). There is a lack of calcium (Ca, Liver Yang) and sodium (Na, Kidney Yang). Pain is probably a consequence of the excess Yin at Urinary Bladder (BL) (calcification of intercellular space).



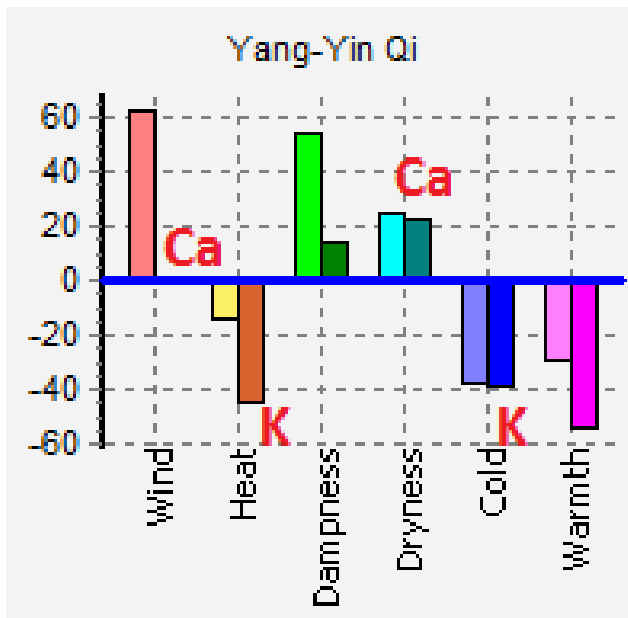
5.3.



The patient suffers of low back pain.

At the time of 15:39 we have a profile that corresponds to the time but the standard of deviations indicates the status of the disease. Against this background, there is a deficiency of calcium (Ca, Liver Yang) and the lack of hydrogen ion (H, Pericardium Yin indicates the shift of arterial blood to the acid side).

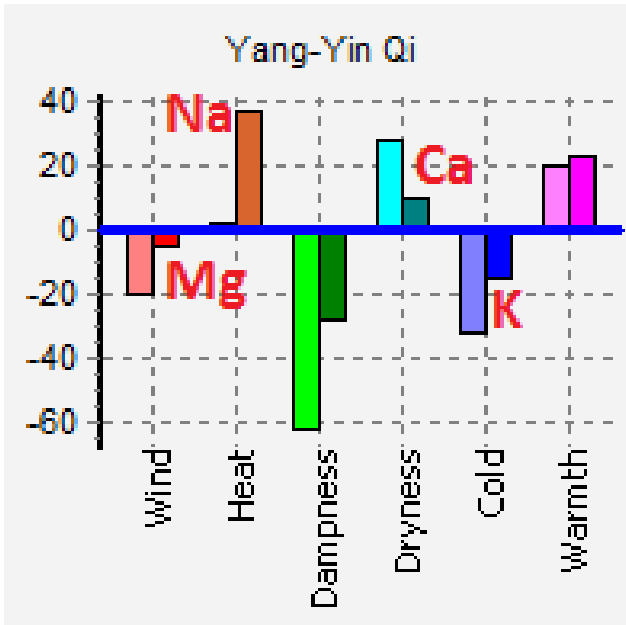
5.4.



The patient suffers of angina.

Deviations in profile substantially corresponds to the day profile at time (11:20). There is an excess of potassium (K, Yin - a pathological excess concentrates in the Kidneys because Kidneys should have Na excess). At the same time there is an excess of calcium (Ca, Yang - the pathological excess of Ca concentrates in the Lungs), excess of calcium corresponds to a magnesium deficiency (Mg, Yin).

5.5.

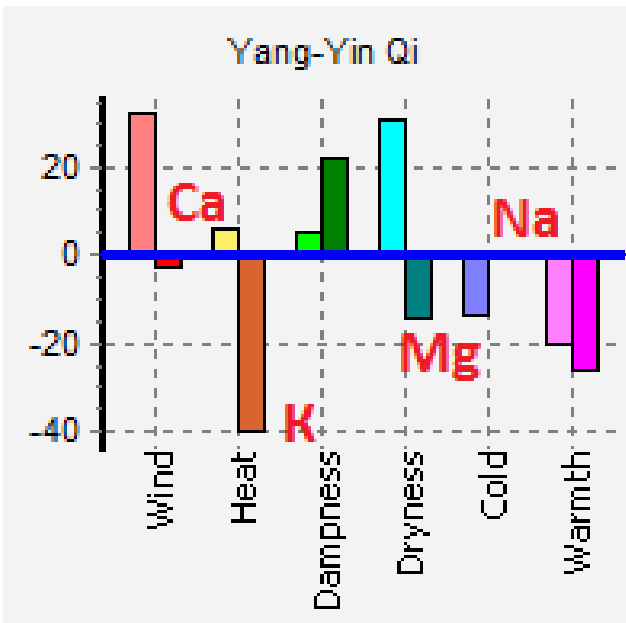


The patient suffers of chronic bronchitis.

The profile has a obvious night view, which is pathological for the time 17:31.

There is relative deficiency of magnesium, calcium and potassium.

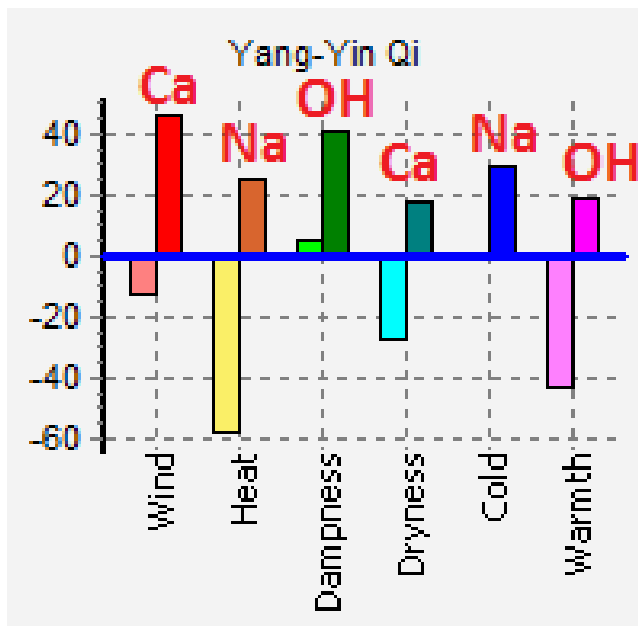
5.6.



Irregular heartbeat

There is day profileat period of 12:51. There is an excess of potassium (K, Yin), and deficiency of calcium (Ca, Liver Yang) and sodium (Na, Kidney Yang)

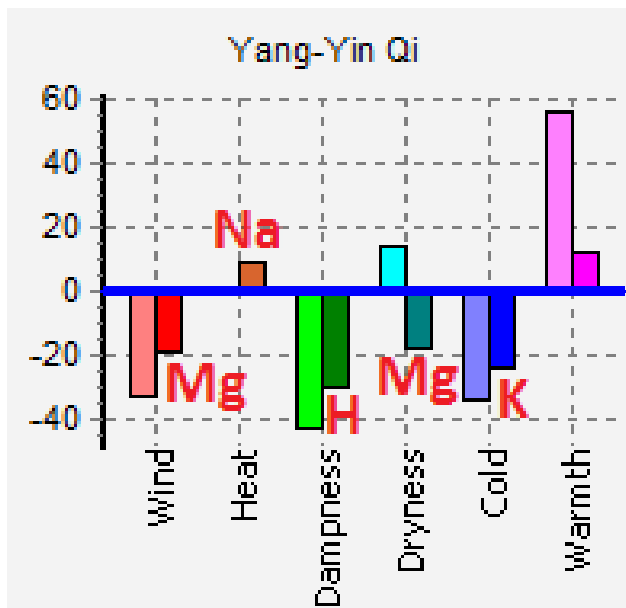
5.7.



The patient has a lot of painful symptoms: shortness of breath, edema, mitral insufficiency, gastritis, pyelonephritis.

The patient is a complete catabolism of Yin systems (large excess of Yang). This is an extreme case of imbalance.

5.8.



The patient experiences severe weakness, lack of appetite.

The patient has the prevalence of anabolism of four Yin systems (large excess of Yin). This is an extreme case of imbalance.