

The Vital Substances Part 2

II. BLOOD

1. THE CONCEPT OF BLOOD

Blood is a red liquid that circulates in the vessels and is full of nutrition. It is the fundamental substance in forming the body and maintaining its vital activities, and has a great function in nourishing and moisturizing the human body.

Vessels: These are the passages within which the Blood circulates, also known as 'Blood House'. The Blood outside the vessels: On some occasions the Blood flows out of the vessels, which is bleeding.

2. THE FORMATION OF BLOOD

Blood is formed by Ying Qi/Nutrient Qi and Body Fluids. Ying Qi/Nutrient Qi and Body Fluids are derived from the food and water Essence produced by the Spleen and Stomach (Gu Qi), and therefore the Spleen and Stomach are known as 'the source of Qi and Blood'.

The formation of Blood requires the help of Ying Qi/Nutrient Qi and the Lungs. In addition, the Essence and Blood can be transformed from each other –Essence and Blood share the same source.

Essence and Blood share the same source: Essence is stored in the Kidneys while the Blood is stored in the Liver; **sufficient Essence in the Kidneys can nourish the Liver Blood, and sufficient Blood in the Liver can help the Kidneys to store enough Essence.**

THE FUNCTIONS OF BLOOD

To nourish and moisten the whole body: Under the synthesizing functions of the Heart, Lungs, Spleen and Liver, the Blood circulates inside the vessels all over the body and provides the nourishment for all the Zang Fu organs and tissues; the Body Fluids inside the Blood have a moisturizing function. Dysfunction of any of them may cause low body resistance, sallow complexion or a lustreless face, palpitations, dry skin, numbness of the fingers and toes, inflexible movement and a thin pulse.

The fundamental basis for the mental activities: When there is sufficient Blood, smooth Blood circulation and harmonized Zang Fu functions, energy will be vigorous, the Mind will be clear, and sensations will be sharp.

However, if the Blood is not sufficient, there will be mental symptoms such as low spirits, being easily frightened, insomnia, dream- disturbed sleep, and poor memory; if Heat enters into the Blood and disturbs the **Heart-Mind, mental disorders** such as irritability or even coma can result.

4. THE CIRCULATION OF BLOOD

The Blood circulates constantly in the vessels through the entire body and nourishes the Zang Fu organs, tissues, body and limbs continuously.

The circulation of Blood: The circulation relies on the **pushing function of the Qi**. Qi is the motivating source for the circulation of Blood, the reasons for this being: the Heart dominates the Blood and vessels; the **Lungs rule the Qi** and assist the Heart moving the Blood and the **Liver in maintaining the free flow of Qi**. If Qi fails to push the Blood, the Blood circulation will **slow down and become stagnant**.

The checking function of the Qi can protect the Blood from flowing out of the vessels. The Spleen controls the Blood, and the Liver stores the Blood and they work together to maintain the normal circulation of the Blood. If the checking function is abnormal, the Blood will flow out of the vessels and lead to bleeding.

III. BODY FLUIDS

1. THE CONCEPT OF BODY FLUIDS

Body Fluids (Jin and Ye): This is a collective term for all the normal fluids of the body. It includes the fluids of the Zang Fu organs and tissues, and their normal secretions, such as stomach fluid, intestinal fluid, nasal discharge, tears and saliva. Body Fluids are the basic substances in forming the body and maintaining the normal vital activities.

The Jin and Ye: Both of these belong to the Body Fluids and are formed from food and drink through the functions of the Spleen and Stomach.

Generally speaking, fluid that is thin and clear in nature flows more freely, and distributes to the body surface, skin, muscles and sense organs, penetrates to the blood vessels and has the moistening function, is considered to be Jin; on the other hand, fluid that is **thick in nature, with a lower tendency to move, flows into the joints, Zang Fu organs, brain and marrow, and has the nourishment function, is considered to be Ye.**

2. THE FORMATION, DISTRIBUTION AND SECRETION OF THE BODY FLUIDS Body Fluids originate from food and drink after digestion and absorption by the Spleen, Stomach, Small Intestine and Large Intestine.

Plain Questions states the concept and formation of the Body Fluids as follows: After food enters the Stomach, the Qi of food Essence and water is transmitted to the Spleen, Spleen spreads it to the Lungs.

The Lungs regulate the water passages and transmits the water to the Bladder below. The Qi and Water then spread in four directions and travel along the meridians of the five Zang organs.

2.1 The formation of the Body Fluids:(T&T) (D&D) & (AI)

The food and drink that are digested and absorbed by the Stomach will be continuously separated by the Small Intestine into the clear part and the turbid part, then transported to the Spleen. The distribution and secretion of Body Fluids mainly takes place through the transformation and transportation function of the Spleen, dispersing and descending function of the Lungs, the activities of the Kidneys (filtration- re-absorption and secretion) and the irrigation (distribution) function of the Triple Burner.

2.2 The distribution and secretion of Body Fluids

The distribution of the Body Fluids by the Spleen is described by Plain Questions as: 'Spleen moves the Body Fluids for the Stomach.'
Through the meridians, the Spleen and Stomach can send out and spread the Body Fluids everywhere in the body; Body Fluids are sent up to the Lungs through the function of the Spleen in spreading the Essence.

The distribution and secretion of the Body Fluids by the Lungs:

This is the function of the Lungs in regulating the passage of water. Body Fluids are sent to the whole body surface and nourish the whole body through the dispersing function of the Lungs.

Body Fluids will be discharged out of the body in the form of **sweat**.

The Body Fluids are descended by the Lungs, and sent down to the Kidneys and Bladder, then discharged out of the body in the form of **urine**.

In addition, a large amount of the fluids will go out of the body through **exhalation**.

The Kidneys are the predominant organ in the distribution of Body Fluids:

The water that is used by the Zang Fu organs will be sent down to the Kidneys; with the evaporation function of the Kidney Yang (re-absorption functions of the renal tubules), the clear part of the fluids is sent upward to the Spleen and Lungs, and distributed to the entire body again.

The **turbid part** of the fluids change into the urine and go into the Bladder(**secretion function of the kidneys**). In order to promote the distribution of Body Fluids, **Kidney Yang** is the motivating force for the 1- Stomach to digest and absorb the food Essence, 2- for the Spleen to distribute the food essence, and for the 3- Lungs to regulate the Water passage.

3. THE FUNCTION OF THE BODY FLUIDS

Body Fluids can nourish and moisten the body, and transform into the Blood. The fluid that goes to the body surface can moisten the skin and body hairs; the fluid that flows into the body cavities can moisten and protect the eyes, nose, and mouth; the fluid that penetrates to the blood vessels can nourish and smoothen the vessels and form the Blood; the fluid that enters the internal organs and tissues can nourish and moisten the Zang Fu organs and tissues; the fluid that penetrates the bone can nourish and moisten the bone marrow, spinal cord and the brain.

IV. THE RELATIONSHIPS AMONG QI, BLOOD AND BODY

FLUIDS Qi, Blood, Body Fluids are the fundamental substances in forming the human body and maintaining the vital activities. They cannot exist without the water and food Essence that are transported and transformed by the Spleen and Stomach. They rely on each other, restrain and assist each other, and their pathological changes also affect each other.

1. THE RELATIONSHIP BETWEEN QI AND BLOOD

Qi pertains to Yang while the Blood pertains to Yin. Qi is considered to be the governor (command) of Blood, and **Blood is the mother of Qi.**

1. Qi produces Blood The formation and production of Blood cannot occur without Qi and Qi activities.

- **Ying Qi/Nutrient Qi** is directly involved in the formation of Blood, and this **is the main part of the Blood.**

-The activities of Qi are the motivating force for producing the Blood. It is very important in the whole process through which the body takes in food and water, changing them into Essence, and transforming them into the Ying Qi/Nutrient Qi, Body Fluids and Blood.

1.2 Qi moves the Blood

Blood pertains to Yin and is considered a quiet substance.

Blood cannot move without the pushing of Qi.

Qi moves Blood, and disturbance of Qi movement will lead to the stagnation of Blood.

The **circulation of Blood** needs the **pushing (pumping) of Heart-Qi**, dispersing of Lung-Qi, and **free flowing of Liver-Qi**.

Therefore, a deficiency of Qi may cause a reduction in the pushing function of Qi; **stagnation of Qi may cause the Blood to flow slowly, even to stagnate**; a disorder of the movement of Qi may lead the Blood to flow in the wrong direction: there will be symptoms such as a **red face and eyes, headache, and vomiting of Blood if the Blood goes up with the Qi moving upward**;
if the Blood flows down while the Qi is sinking epigastric and abdominal distention, vaginal bleeding and dysfunctional uterine bleeding.

1.3 Qi controls the Blood

Qi can control the Blood so that it circulates within the vessels instead of going out of the vessels. In fact, this refers specifically to the function of Spleen-Qi in controlling the Blood. The above mentioned three aspects can be summarized as '**Qi is the governor (command) of the Blood**'.

1.4 Blood is the mother of Qi

Blood is the carrier of Qi, and it provides sufficient nutrition for Qi. Qi must connect with the Blood and Body Fluids in order to stay within the body.

If Qi loses its carrier, it will lose its root and become collapsed.

If Blood is deficient, Qi will become weak easily;

If Blood becomes collapsed, Qi also collapses easily.

In the treatment of severe bleeding, the method of reinforcing Qi in order to control the loss of Blood can be applied.

2. THE RELATIONSHIP BETWEEN QI AND BODY FLUIDS

The formation, distribution and secretion of the Body Fluids rely on the ascending, descending, leaving and entering movements of the Qi, and the Qi activities –the warming, pushing and checking functions of the Qi.

Qi exists inside the body and connects with the Blood and Body Fluids, **and the Body Fluids are the carrier for Qi.**

2.1 Qi produces Body Fluids

The formation of the Body Fluids depends on the function of the Stomach in digesting and absorbing food and water, and the function of the Spleen in transforming and transporting the food and water Essence.

Strong and sufficient Spleen and Stomach-Qi can produce sufficient Body Fluids; weak and deficient Qi can lead to the lack of production of Body Fluids.

2.2 Qi moves the Body Fluids: Qi is the motivating force for the to distribution and secretion of the Body Fluids.

The ascending, descending, leaving and entering movements of Qi can help to distribute the Body Fluids all over the body, and discharge them out of the body as urine and sweat.

Through the transforming and transporting function of the Spleen, the dispersing and descending function of the Lungs, and the evaporation function of the Kidneys, the Body Fluids can be sent to the entire body; through metabolism, the Body Fluids will be discharged as sweat and urine.

If Qi movement is abnormal, the distribution of the Body Fluids will also be affected, the obstruction of the Body Fluids may result, and then the ascending, descending, leaving and entering of the Qi will function abnormally as well.

Qi deficiency or Qi stagnation can lead to the obstruction of fluids (retained water), described as ‘Qi fails in moving the water’; the retention of Body Fluids can lead to the disorder of Qi movement, described as **‘retained water causes Qi stagnation’**. The activities of Qi and Body Fluids are both the causes and consequences of each other’s condition, and the pathological results are the **retention of Water, Phlegm and Dampness, or oedema.**

2.3 Qi checks (controls) Body Fluids, and Body Fluids carry the Qi

The secretion of the Body Fluids relies on the promoting activities of Qi. The checking function of Qi is also important in order to prevent the Body Fluids from flowing away abnormally.

If Qi is deficient or the checking function is reduced, the Body Fluids will be lost abnormally, and pathological changes such as profuse sweating, profuse urination, or enuresis can be seen; on the other hand, Body Fluids are the carriers of Qi: if **large amounts of fluids are lost** through profuse sweating, profuse urination, vomiting and diarrhoea, then diseases such as **Qi collapse**, with the collapse of the Body Fluids, can occur.

3. THE RELATIONSHIP BETWEEN BLOOD AND BODY FLUIDS

Both Blood and Body Fluids are liquids, and have moistening and nourishing functions. They both originate from food and water Essence, and therefore 'They share the same source'. Body Fluids enter the vessels and become a part of the Blood. Blood and Body Fluids not only transform into each other and assist each other, but also pathologically affect each other.

If there is **too much bleeding**, Body Fluids outside the vessels will enter the vessels to reinforce the Blood and then the Body Fluids outside the vessels will become deficient, with symptoms such as thirst, scanty urine, and dry skin; if a large amount of the **Body Fluids is consumed**, the **Body Fluids in the vessels will flow out**, and then there will be problems such as **deficiency of Blood**, shortage of fluids and **Dryness of Blood**. For those reasons, to **treat a bleeding patient**, the '**promoting sweat**' method should be avoided.

In Treatise On Exogenous Febrile Diseases it is stated: ‘The perspiring method should not be used for nasal bleeding patient.’

For the patient who loses a large amount of Body Fluids through sweating, or has a severe deficiency of Body Fluids, a strong herbal formula to break Blood stagnation or remove the stagnant Blood should be carefully used.

As mentioned in Miraculous Pivot :

‘The patient who loses Blood should avoid perspiring while the patient who sweats a lot should avoid losing Blood,’ which is the basis for the application of the theory ‘Body Fluids and Blood share the same source’ in the clinic.