(Cardiovascular and Cerebrovascular) Analysis Report Card

Name: Leif Rehnvall Sex: Male Age: 81

Figure: 168cm, 52kg Testing Time: 2026-02-27 20:15

Actual Testing Results

Testing Item	Normal Range	Actual Measurement Value	Testing Result
Blood Viscosity	48.264 - 65.371	70,777	
Cholesterol Crystal	56.749 - 67.522	61,807	
Blood Fat	0.481 - 1.043	1,728	
Vascular Resistance	0.327 - 0.937	0,437	
Vascular Elasticity	1.672 - 1.978	1,724	
Myocardial Blood Demand	0.192 - 0.412	0,403	
Myocardial Blood Perfusion Volume	4.832 - 5.147	5,074	
Myocardial Oxygen Consumption	3.321 - 4.244	4,6	
Stroke Volume	1.338 - 1.672	0,901	
Left Ventricular Ejection Impedance	0.669 - 1.544	2,392	
Left Ventricular Effective Pump Power	1.554 - 1.988	1,899	
Coronary Artery Elasticity	1.553 - 2.187	1,783	
Coronary Perfusion Pressure	11.719 - 18.418	20,016	
Cerebral Blood Vessel Elasticity	0.708 - 1.942	1,702	
Brain Tissue Blood Supply Status	6.138 - 21.396	12,119	

Reference Standard: **Normal(-)** **Mildly Abnormal(+)** **Moderately Abnormal (++)** **Severely Abnormal (+++)**

Blood Viscosity:	48.264-65.371(-)	65.371-69.645(+)
	69.645-73.673(++)	>73.673(+++)
Cholesterol Crystal:	56.749-67.522(-)	67.522-69.447(+)

	69.447-74.927(++)	>74.927 (+++)
Blood Fat:	0.481-1.043(-)	1.043-1.669(+)
	1.669-1.892(++)	>1.892(+++)
Vascular Resistance:	0.327-0.937(-)	0.937-1.543(+)
	1.543-1.857(++)	>1.857(+++)
Vascular Elasticity:	1.672-1.978(-)	1.672-1.511(+)
	1.511-1.047(++)	<1.047(+++)
Myocardial Blood Demand:	0.192-0.412(-)	0.412-0.571(+)
	0.571-0.716(++)	>0.716(+++)
Myocardial Blood Perfusion Volume:	4.832-5.147(-)	4.177-4.832(+)
	4.029-4.177(++)	<4.029(+++)
Myocardial Oxygen Consumption:	3.321-4.244(-)	4.244-5.847(+)
	5.847-6.472(++)	>6.472(+++)
Stroke Volume:	1.338-1.672(-)	0.647-1.338(+)
	0.139-0.647(++)	<0.139(+++)
Left Ventricular Ejection Impedance:	0.669-1.544(-)	1.544-2.037(+)
	2.037-2.417(++)	>2.417(+++)
Left Ventricular Effective Pump Power:	1.554-1.988(-)	1.076-1.554(+)
	0.597-1.076(++)	<0.597(+++)
Coronary Artery Elasticity:	1.553-2.187(-)	1.182-1.553(+)
	0.983-1.182(++)	<0.983(+++)
Coronary Perfusion Pressure:	<8.481(+++)	8.481-11.719(++)
	18.418-21.274(++)	>21.274(+++)
Cerebral Blood Vessel Elasticity:	0.708-1.942(-)	0.431-0.708(+)
	0.109-0.431(++)	<0.109(+++)
Brain Tissue Blood Supply Status:	6.138-21.396(-)	3.219-6.138(+)
	1.214-3.219(++)	<1.214(+++)

Parameter Description
Blood Viscosity(N): The basic indicator of Hemorheology refers to the internal friction among blood molecules. Hyperviscosity state: Namely, the viscosity of blood is high, and blood flow is affected. Therefore, high blood pressure patients with high viscosity are prone to have cerebrovascular accidents, such as stroke and other phenomena; coronary heart disease patients with high viscosity are prone to have myocardial infarction and so on.

The blood flow in the blood vessels is in a laminar flow state, which is stratified flow. The flow velocity close to the vessel wall is slower, and the flow velocity is fastest in the middle. Thus, the larger the shear rate is, the greater the slope is, the greater the shear stress is, the faster the flow velocity is, and the lower the N is. The smaller the shear rate is, the lower the slope is, the smaller the shear stress is, the lower the flow velocity is, and the higher the N is.

Cholesterol Crystal:

(1) Increase is seen in primary high cholesterol blood, the aura of mild atherosclerosis, blood stagnation type chest pain, phlegm congestion type chest pain, etc.

(2) Reduction is seen in decreased immunity, malnutrition, cardiac insufficiency, Qi and Yin deficiency type chest pain, Yang Qi deficiency type chest pain, etc.

Blood Fat: Blood fat abnormity is divided into primary abnormity and secondary abnormity.
1. Primary Hyperlipoproteinemia: refers to hyperlipoproteinemia caused by the possibility of unknown cause related to certain environmental factors (including diet, nutrition, drugs, etc.), or gene mutations.
2. Secondary Hyperlipoproteinemia: refers to hyperlipidemia caused by certain systemic diseases or drugs, such as hyperlipidemia caused by diabetes, hypothyroidism, nephrotic syndrome, chronic renal failure and acute renal failure and so on.

(1) Increase is seen in idiopathic hyperlipidemia, atherosclerosis, blood stagnation type chest pain, etc.

(2) Reduction is seen in ferrite decreased immunity, the Qi and Yin deficiency type chest pain, etc.

(3) Decline is seen in decline of cerebral arterial oxygen content and mild ischemic cerebrovascular disease aura.

Vascular Resistance:

Increase is in direct proportion to the length of blood vessels, and is in inverse proportion to the caliber of blood vessels. The increase of vascular resistance is seen in mildly elevated systolic and diastolic blood pressure, mild hypertension, insomnia with deficiency of both heart and spleen, phlegm-heat internal confusion type insomnia, etc.

Decline is seen in mildly declined systolic and diastolic blood pressure, mild hypotension, Yin deficiency and Huo exuberance type insomnia, etc.

Vascular Elasticity:refers to the expansion extent of arterial vascular elasticity during systolic ejection.

Influence Factors: (1) The size of SV. The greater the SV is, the greater the FEK is. (2) Emptying rate. The faster the emptying rate is, the smaller the FEK is. (3) Bad vascular elasticity.

The SV is not low, the emptying rate is not fast, and the FEK is also small, so it is possible to determine the possibility of hardening of blood vessels. It should not determine the possibility by a single parameter. The increase of vascular elasticity is seen in the mildly elevated systolic blood pressure, the mildly reduced diastolic blood pressure, the mildly increased pulse press and slightly higher blood pressure. The decline is seen in mildly atherosclerosis, coronary heart diseases, blood stagnation type chest pain, Yang Qi deficiency type chest pain, etc.

Myocardial Blood Demand: The blood demand per minute of coronary artery perfusion of heart.

Myocardial Blood Perfusion Volume: The actual blood demand per minute of coronary artery perfusion of heart.

Myocardial Oxygen Consumption: The milliliter value of oxygen consumption of heart per minute.

Influence Factors: Three aspects
(1) Heart rate: the heart rate is fast, and the HOV is great.
(2)(2) Myocardial contractility: the cardiac contractility is strong, and the HOV is great.
(3) Myocardial contraction time: the longer the contraction time is, the greater the HOV is.
Thus, low oxygen consumption and high cardiac work are the best state.

Stroke Volume: The blood volume output by the heart in beat each time.

Influence Factors: Five aspects
(1) The effective circulating blood volume (BV): when the blood volume is insufficient, the returned blood volume is little, and the SV is reduced.
(2) The weakening of myocardial contractility: the contractility is low, and the pressure is low, so the ejected blood volume is less.
(3) The extent of ventricular filling: In range of myocardial elasticity, the greater the degree of filling is, the stronger the retraction is, and the SV is increased. The normal heart chamber capacity is 173ml, but not all of the blood is ejected. The blood volume in the left ventricle is about 60% -70% of the total capacity, being about 125ml or so. Usually, the Chinese people's average SV is 80-90ml.
(4) The size of peripheral vascular resistance (PR). The PR is large, and then the SV is reduced; the PR is small, and then the SV is increased.
(5) Ventricle wall movement.

When the ventricle is contracted, the cardiac muscle is in coordinated movement. If the myocardial contraction is not coordinated, the SV is reduced. For instance, some patients with myocardial infarction have part of infarction, so the myocardial contractility is inconsistent and the SV is reduced. However, under normal circumstances, the ventricle wall movement can not be abnormal.

Left Ventricular Ejection Impedance:reflects the indicators of resistance status of the left ventricular outflow channel.

Influence Factors:
(1) The fact whether the outflow channel has lesion. The aortic stenosis and other conditions can make VER increased.
(2) The outflow channel has no lesion, while the emptying rate of aortic blood is slow, so VER is increased.
(3) The entire vascular resistance is large.

Left Ventricular Effective Pump Power:reflects the contraction strength of effective stroke of blood of the left ventricle.

Normally, the people: 1.8 kilograms. Pump power is low, and contraction is not good, so myocardial fibers may have problems. Pump power is high, and contractility is good, so the ejected blood volume is much.

Influence Factors: Four aspects
(1) The extent of ventricular filling: In range of elasticity, the greater the degree of filling is, the stronger the contractility is; the degree of filling and the contractility are in direct proportion. If out of the limit, the myocardial expansion is large, but the contractility is reduced. Thus, the proper degree of filling is a factor influencing the contractility.
(2) The effective circulating blood volume (returned blood volume BV): The returned blood volume is little, the filling is insufficiency, and the contractility is small; the returned blood volume is much, the filling is better, and the contractility is strong.
(3) The functional status of myocardium itself: The fact whether the myocardium has lesion. For instance, myocarditis. Myocardial cells are damaged, and myocardial elasticity is reduced, so the contractility is lowered.
(4) The normal degree of blood and oxygen supply of myocardium itself: The blood and oxygen supply is insufficient, so the contractility is lowered. Myocardial Oxygen Consumption: the milliliter value of oxygen consumption of heart per minute.

Coronary Artery Elasticity:

The source of power of life is the heart, and the blood nourishing the body constantly flows under her impetus. However, she also demands the nourishing of blood. Coronary artery, namely three blood vessels respectively located in the heart, can supply blood and oxygen to her. The coronary artery is the artery special for supplying blood to the heart. If cholesterol and other substances are accumulated in the blood vessels, the vascular cavity will be narrower or be blocked and the blood flow will be smooth and then be blocked to cause cardiac ischemia and a series of symptoms which are coronary heart disease, namely coronary atherosclerosis. Coronary heart disease is also called as coronary atherosclerotic heart disease. The excessive fat deposition results in atherosclerosis and weakened elasticity. The mortality of human on cardiovascular and

cerebrovascular diseases induced on the arterial vessel wall has exceeded 1 / 2 of the total mortality of population.

Dangerous factors making the elasticity of coronary artery weakened: high blood fat, smoking, diabetes, obesity, high blood pressure, lack of physical activity, Psychological overstrain, family history of coronary heart disease, oral contraceptive, etc.

Coronary Perfusion Pressure:the pressure of coronary artery of heart in blood supply is influenced by diastolic blood pressure and left atria pressure.

Part of myocardial ischemia, insufficient myocardial blood supply and entire myocardial ischemia can lead to myocardial infarction.

Cerebral Blood Vessel Elasticity:

The brain artery or the neck artery controlling the brain has lesion, which leads to disorder of intracranial blood circulation and damage of brain tissue. The elasticity of hardened brain blood vessels is weakened, and the vessel cavity is narrowed, so it is easy to form cerebral thrombosis. After the patients with cerebral arteriosclerosis excessively drink, the blood pressure will be suddenly elevated, the blood vessels will ruptured, so it is prone to form cerebral hemorrhage. After load drinking of alcohol, the concentration of alcohol in blood can reach its peak in a half hour. The alcohol can not only directly stimulate the blood vessel wall to make it lose its elasticity but also stimulate the liver to promote the synthesis of cholesterol and triglyceride,thus leading to atherosclerosis and cerebral atherosclerosis. Cerebrovascular disease can be divided into acute cerebrovascular disease and chronic cerebrovascular disease according to their process. The acute cerebrovascular disease includes trans ient ischemic attack, cerebral thrombosis,cerebral embolism, hypertensive encephalopathy, cerebral hemorrhage, subarachnoid hemorrhage, etc. The chronic cerebrovascular disease includes cerebral arteriosclerosis, cerebrovascular dementia, cerebral artery steal syndrome, Parkinson's disease, etc. The cerebrovascular disease which is known generally refers to the acute cerebrovascular disease. It often endangers the human life due to acute incidence, so it is easy to cause the attention. The chronic cerebrovascular disease is easy to be ignored by people due to its long course.

Brain Tissue Blood Supply Status:

Brain tissue blood supply mainly depends on the brain artery or the neck artery controlling the brain. Cerebrovascular diseases can be divided into two categories according to their nature, one is the ischemic cerebrovascular disease and the other one is the hemorrhagic cerebrovascular disease. There are many cases about the ischemic cerebrovascular disease in clinic, the patients account for 70% ~ 80% of all patients with cerebrovascular disease. Due to cerebral arteriosclerosis and other reasons, the vessel cavity of brain artery is narrowed, the blood flow is reduced or completely blocked, the brain blood circulation is disordered, and the brain tissue is damaged,so a series of symptoms occur. The hemorrhagic cerebrovascular disease is mainly caused by long-term high blood pressure, congenital cerebral vascular malformation and other factors.Due to blood vessel rupturing, blood spilling, oppression on brain tissue and blocked blood circulation, the patients often show increased intracranial pressure, disorientation and other symptoms. Thus, the patients account for about 20% ~ 30% of all patients with cerebrovascular disease.

The test results for reference only and not as a diagnostic conclusion.

(Gastrointestinal Function) Analysis Report Card

Name: Leif Rehnvall Sex: Male Age: 81

Figure: 168cm, 52kg Testing Time: 2026-02-27 20:15

Actual Testing Results

Testing Item	Normal Range	Actual Measurement Value	Testing Result
Pepsin Secretion Coefficient	59.847 - 65.234	62,622	
Gastric Peristalsis Function Coefficient	58.425 - 61.213	55,113	
Gastric Absorption Function Coefficient	34.367 - 35.642	33,066	
Small Intestine Peristalsis Function Coefficient	133.437 - 140.476	127,583	
Small Intestine Absorption Function Coefficient	3.572 - 6.483	2,562	

Reference Standard:	Normal(-) / Moderately Abnormal(++)	Mildly Abnormal(+) / Severely Abnormal (+++)
Pepsin Secretion Coefficient:	59.847-65.234(-) 55.347-58.236(++)	58.236-59.847(+) <55.347(+++)
Gastric Peristalsis Function Coefficient:	58.425-61.213(-) 53.103-56.729(++)	56.729-58.425(+) <53.103(+++)
Gastric Absorption Function Coefficient:	34.367-35.642(-) 28.203-31.467(++)	31.467-34.367(+) <28.203(+++)
Small Intestine Peristalsis Function Coefficient:	133.437-140.476(-) 124.321-126.749(++)	126.749-133.437(+) <124.321(+++)
Small Intestine Absorption Function Coefficient:	3.572-6.483(-) 2.203-3.109(++)	3.109-3.572(+) <2.203(+++)

Parameter Description
Pepsin Secretion Coefficient: The stomach has two kinds of duct glands, wherein one is gastric gland which mainly secretes digestive juice and the other is cardiac gland which mainly secretes mucus to protect the mucosa of the cardia. The gastric gland is consist of three kinds of cells: mucous neck cells, chief cells and

parietal cells, wherein the mucous neck cells secrete mucus and are located on the surface and below the cortex; the chief cells secrete digestive juice and are located in the middle of the glands and below the neck mucous cells, and the digestive juice mainly includes pepsin; the parietal cells secrete hydrochloric acid, namely the so-called gastric acid, and they are located at the bottom of stomach closing to the cardia, containing many small ducts communicated with the glandular cavity.

Gastric Peristalsis Function Coefficient:

There are oblique, circular and longitudinal smooth muscles on the gastric wall, and their contraction and relaxation make the stomach have the capability of peristalsis. Gastric peristalsis grinds the food for further processing as well as the role of gastric juice to make food into a gruel kind of chyme, and then the chime are ejected in the small intestines in batches through the pylorus. The time of processing food in the stomach is different. The processing time of carbohydrate foods is shorter than that of protein foods, and the processing time of fat and oil foods is longest, so we are not easy to hunger after eating meat and oily foods. The food is preliminarily digested by the gastric motion (peristalsis) and gastric juice (mucus, gastric acid, protease, etc.) secreted by the stomach to form a paste (chyme), and then enters the small intestines (including: duodenum, jejunum and ileum) after eating about 3-4 hours.

Gastric Absorption Function Coefficient:

The gastric gland in gastric mucosa secretes a kind of colorless and transparent acidic gastric juice, and the gastric gland of an adult can secrete 1.5-2.5 liters of gastric juice each day. Gastric juice contains three main components, namely, pepsin, hydrochloric acid and mucus. The pepsin can decompose proteins in food into proteose and protease with smaller molecules. Hydrochloric acid is gastric acid. Gastric acid can change protease with no activity into active pepsin and create a suitable acidic environment for pepsin, having the function for killing bacteria entering into the stomach with food. Gastric acid can stimulate the secretion of pancreatic juice, bile and small intestinal fluid after entering into the small intestines.The acidic environment caused by the gastric acid can help the small intestines absorb iron and calcium. With the role of lubrication, gastric mucus can reduce the damage of food for gastric mucosa and can also reduce the erosion of gastric acid and pepsin for gastric mucosa, having a protective effect for stomach.

Small Intestine Peristalsis Function Coefficient:

Small intestine peristalsis is in a unique movement style, being an alternating motion of rhythmic contraction and relaxation with circular muscle as the main.
Function: it promotes chyme and digestive juice to be fully mixed for chemical digestion; it makes chyme close to the intestine wall to promote absorption; it squeezes the intestine wall to promote reflux of blood and lymph.

Small Intestine Absorption Function Coefficient:

(1) The absorption of sugar: the sugar is generally decomposed into simple sugar to be absorbed, and only a small amount of biose is absorbed.
(2) The absorption of protein: 50-100 grams of amino acids and a small amount of dipeptides and tripeptides are absorbed each day.
(3) The absorption of fat: mixed small micelles are transported to arrive in microvilli, bile salts remain in the intestine, and fat digestion products (fatty acids, monoglyceride, cholesterol and lysolecithin) are diffused into the cells. The middle and short-chain fatty acids (<10-12C) do not need to be esterified, and can be directly diffused into the capillaries of villi. Other fat digestion products are esterified in smooth endoplasmic reticulum to form triglycerides (long-chain fatty acids + glyceride), cholesterol ester and lecithin to combine with the apoprotein / apolipoprotein (synthesized by intestinal epithelial cells) into chylomicrons; the chylomicrons are packaged into secretory granules in the GC for exocytosis to enter into the thoracic duct, then are absorbed by the lymphatic vessel and finally enter the blood circulation.
(4) The absorption of water: the water is passively absorbed by osmotic pressure gradient formed by the absorption of nutrients and electrolytes in the intestine (osmosis).

The test results for reference only and not as a diagnostic conclusion.

(Large Intestine Function) Analysis Report Card

Name: Leif Rehnvall Sex: Male Age: 81

Figure: 168cm, 52kg Testing Time: 2026-02-27 20:15

Actual Testing Results

Testing Item	Normal Range	Actual Measurement Value	Testing Result
Large intestine peristalsis function coefficient	4.572 - 6.483	4,848	
Colonic absorption coefficient	2.946 - 3.815	2,325	
Intestinal bacteria coefficient	1.734 - 2.621	0,717	
Intraluminal pressure coefficient	1.173 - 2.297	1,948	

Reference Standard:	Normal(-)	Mildly Abnormal(+)
	Moderately Abnormal (++)	Severely Abnormal (+++)
Large intestine peristalsis function coefficient:	4.572-6.483(-)	3.249-4.572(+)
	2.031-3.249(++)	<2.031(+++)
Colonic absorption coefficient:	2.946-3.815(-)	1.775-2.946(+)
	0.803-1.775(++)	<0.803(+++)
Intestinal bacteria coefficient:	1.734-2.621(-)	1.046-1.734(+)
	0.237-1.046(++)	<0.237(+++)
Intraluminal pressure coefficient:	1.173-2.297(-)	2.297-3.341(+)
	3.341-4.519(++)	>4.519(+++)

Parameter Description
Large intestine peristalsis function coefficient: Large intestine has similar segmental motion and peristalsis with the small intestine, but its frequency is slower, this adapts the large intestine is mainly a function of absorbing water and temporary storage of manure. If the intestinal peristalsis speed is too slow, fecal moisture is excessive absorption and will cause constipation, its main performance is: reduction in stool frequency, stool weight reduction, dry stool, defecation exertion.
Colonic absorption coefficient: The absorption function of the colon is the absorption of water and electrolytes, and can adjust the electrolyte concentration. Some of the fat hydrolysis products can also be colon, especially the absorption cell of the ascending colon, the formation of chylomicrons in cells, release to the lamina propria. Each part of colon absorption ability is of different sizes, right (L) the maximum

absorption capacity of colon, transverse colon, descending colon. Pathological factors such as colitis, will reduce the absorption of water and sodium ion of colon.

Intestinal bacteria coefficient:

Intestinal bacteria can cause acidic environment intestinal, conducive to the growth of their own, at the same time control the growth of harmful bacteria, keep beneficial intestinal health. In normal human body beneficial and harmful bacteria can balance, once out of balance, the disease will be waiting in the wings. In the cold, diarrhea, constipation, peptic ulcer, cirrhosis patients, the phenomenon that the intestinal bacteria reduced and harmful bacteria is relatively increased can be found.

Intraluminal pressure coefficient:

Intestinal flatulence can be caused by the followings: 1) food fermentation under normal circumstances, there is a large number of bacteria exist in the lower ileum and colon, if the chyme in the intestine, for some reason, long time of residence, under the action of bacteria, can cause the chyme fermentation, produce large amounts of gas, cause abdominal distension. 2) inhaled air 3) intestinal gas absorption barrier , under normal circumstances, most of the gas within the abdominal cavity, the intestinal vascular absorption, the lungs in vitro. Some diseases, intestinal blood circulation disorder, effect of intraluminal gas absorption, causing bloating. 4) intestinal gas exhaust obstacle for some reason, intestinal peristalsis weaken or disappear, so the gas from the intestinal lumen row not in vitro, thus cause abdominal distension.

The test results for reference only and not as a diagnostic conclusion.

(Liver Function) Analysis Report Card

Name: Leif Rehnvall | Sex: Male | Age: 81

Figure: 168cm, 52kg | Testing Time: 2026-02-27 20:15

Actual Testing Results

Testing Item	Normal Range	Actual Measurement Value	Testing Result
Protein Metabolism	116.34 - 220.621	100,736	
Energy Production Function	0.713 - 0.992	0,726	
Detoxification Function	0.202 - 0.991	0,777	
Bile Secretion Function	0.432 - 0.826	0,77	
Liver Fat Content	0.097 - 0.419	0,207	

Reference Standard:	**Normal(-)** / **Moderately Abnormal (++)**	**Mildly Abnormal(+)** / **Severely Abnormal (+++)**
Protein Metabolism:	116.34-220.621(-) 60.23-90.36(++)	90.36-116.34(+) <60.23(+++)
Energy Production Function:	0.713-0.992(-) 0.381-0.475(++)	0.475-0.713(+) <0.381(+++)
Detoxification Function:	0.202-0.991(-) 0.043-0.094(++)	0.094-0.202(+) <0.043(+++)
Bile Secretion Function:	0.432-0.826(-) 0.132-0.358(++)	0.358-0.432(+) <0.132(+++)
Liver Fat Content:	0.097-0.419(-) 0.582-0.692(++)	0.419-0.582(+) >0.692(+++)

Parameter Description
Protein Metabolism: Protein in food is digested and absorbed by the intestinal tract to be sent to the liver for conversion and reorganization, different types of amino acids are metabolized to manufacture a variety of proteins for the need of cells according to the body's need. In addition, the liver will decompose the useless protein into amino acids, and then the amino acids are further changed into urea to be excreted by the kidney or intestinal tract.
Energy Production Function: After carbohydrates are digested, the liver will carry out powdered sugar metabolism to produce energy for the need of cells and then convert overmuch powdered sugar into glycogen for storage. After fatty foods are digested, the liver will further convert fat into energy.

Detoxification Function: Food will produce some toxins in the digestive process and the metabolism process. The liver as well as detoxifying enzymes carry out detoxification to decompose the hazardous substances (alcohol and ammonia) into harmless substances (such as urea, water and carbon dioxide) to be excreted out of the body.
Bile Secretion Function: Bile is the end product of metabolism in the liver, which has the role of fat digestion and promotes the body to absorb fat-soluble vitamins A, D, E and K. The overmuch bile will be sent to gallbladder for standby.
Liver Fat Content: If the liver fat content is more than 5% of wet weight or over 1 / 3 liver cells of per unit area on liver biopsy have lipid droplets under a microscope, the liver is called as a fatty liver. The fatty liver is also known as liver fatty degeneration which refers to fat accumulation in liver cells due to a variety of causes. When a healthy person takes in meals with reasonable ingredients, the liver fat content accounts for 5% of the weight of liver. B-US can detect the fatty liver with over 30% of liver fat content. The fatty liver is divided into obese fatty liver, alcoholic fatty liver, diabetes fatty liver which are the three common causes of fatty liver. In addition, there are nutritional disorder fatty liver, drug-induced fatty liver, acute fatty liver of pregnancy and so on. What are the symptoms of fatty liver? The person with mild fatty liver can have no any discomfort. The patients with moderate or severe fatty liver can have loss of appetite, fatigue, nausea, vomiting, abdominal distension, diarrhea, liver pain, left shoulder and back pain and swollen and other symptoms. The hepatomegaly can be found by a medical examination, and a few livers have mild jaundice and spider angioma. Abnormal liver function, triglycerides and cholesterol increase can be found by a laboratory test. Early diagnosis and prompt treatment can effectively control the further development of fatty liver, so fat deposition in the liver can fade.

The test results for reference only and not as a diagnostic conclusion.

(Gallbladder Function) Analysis Report Card

Name: Leif Rehnvall Sex: Male Age: 81
Figure: 168cm, 52kg Testing Time: 2026-02-27 20:15

Actual Testing Results

Testing Item	Normal Range	Actual Measurement Value	Testing Result
Serum Globulin (A/G)	126 - 159	149,008	
Total Bilirubin (TBIL)	0.232 - 0.686	0,408	
Alkaline Phosphatase (ALP)	0.082 - 0.342	0,265	
Serum Total Bile Acid (TBA)	0.317 - 0.695	0,352	
Bilirubin (DBIL)	0.218 - 0.549	0,282	

Testing Parameter Description:

I. Serum Globulin: A/G Health Scope: (126~159)

1. >159, serum globulin is increased
Seen in immune hyperactivity of body, cirrhosis, hepatitis, liver qi stagnation type hypochondriac pain, liver and gallbladder damp-heat type hypochondriac pain.

2. <126, serum globulin is reduced.
Seen in mild liver and gallbladder discomfort and liver yin insufficiency type.

II. Total Bilirubin: TBIL Health Scope: (0.232~0.686)

1. >0.686, total bilirubin in serum is elevated.
Seen in hemolytic jaundice, TG wet-type jaundice, etc.

2. <0.2332, total bilirubin in serum is reduced.
Seen in low immunity and potential liver and gallbladder diseases.

III. Alkaline Phosphatase: ALP Health Scope: (0.082~0.342)

1. >0.342, increase.
Seen in intrahepatic and extrahepatic obstructive jaundice, mild or moderate hepatitis, liver and gallbladder damp-heat hypochondriac pain, wet weight hot-type jaundice, etc.

2. <0.082, reduction.
Seen in mild hepatitis hidden danger, sub-health status and low immunity.

IV. Serum Total Bile Acid: TBA Health Scope: (0.317~0.695)

1. >0.695, increase.
Seen in mild hepatitis, mild obstructive jaundice, liver and gallbladder warm type, etc.

2. <0.317, reduction.
Seen in mild hidden danger of liver and gallbladder diseases and sub-health status.

V. Bilirubin: DBIL Health Scope: (0.218~0.549)

1. >0.549, positive.
Seen in obstructive jaundice, liver cell jaundice, TG wet-type jaundice, etc.

2. <0.218, negative.
Seen in hemolytic jaundice, yin jaundice, etc.

The test results for reference only and not as a diagnostic conclusion.

(Pancreatic Function) Analysis Report Card

Name: Leif Rehnvall Sex: Male Age: 81
Figure: 168cm, 52kg Testing Time: 2026-02-27 20:15

Actual Testing Results

Testing Item	Normal Range	Actual Measurement Value	Testing Result
Insulin	2.845 - 4.017	3,375	
Pancreatic Polypeptide (PP)	3.210 - 6.854	5,755	
Glucagon	2.412 - 2.974	2,648	

Testing Value Description:

I. Insulin: Health Scope: 2.845~4.017

It is a protein with smaller molecular weight. Its role in the body is very broad, and it mainly reduces blood sugar.

Function: 1. For glucose metabolism, it promotes the liver, muscle and adipose tissue to take up and utilize glucose, promotes the synthesis of glycogen and muscle glycogen, inhibits gluconeogenesis, and promotes glucose to be converted into fatty acids to be stored in adipose tissue; 2. For fat metabolism, it inhibits activity of lipase, thus inhibiting lipolysis; 3. For protein metabolism, it promotes protein synthesis, inhibits protein from decomposing. Once the insulin is in lack or can not exert the functionnormally, diabetes will occur.

II. Pancreatic Polypeptide (PP): Health Scope: 3.210~6.854

1. >6.854, increase.
(1) Diabetic patients;(2) acute pancreas;(3) pancreatic tumor with secretory function; (4) cirrhosis, chronic kidney disease patients; (5) others: such as the pancreatic polypeptide cell hyperplasia, myocardial infarction, severe heart failure, non-cardiogenic shock and duodenal ulcer.

2. <3.210, reduction.
(1) Obesity; (2) Chronic pancreatitis pancreatic polypeptide is obviously lower than that that of healthy people; (3) it can be used as the indicators of the vagus nerve damage, and at this time, pancreatic polypeptide is reduced obviously; (4) when it is used in growth hormone therapy.

III. Glucagon: Health Scope: 2.412~2.974

1. >2.974, increase.
Seen in insulin-insensitive diabetes and pancreatic glucagonoma.

2. <2.412, reduction.
Seen in congenital and cell deficiency.

Parameter Description
Insulin: It is a protein with smaller molecular weight. Its role in the body is very broad, and it mainly reduces blood sugar. Function: 1. For glucose metabolism, it promotes the liver, muscle and adipose tissue to take up and utilize glucose, promotes the synthesis of glycogen and muscle glycogen, inhibits gluconeogenesis, and

promotes glucose to be converted into fatty acids to be stored in adipose tissue; 2. For fat metabolism, it inhibits activity of lipase, thus inhibiting lipolysis; 3. For protein metabolism, it promotes protein synthesis, inhibits protein from decomposing. Once the insulin is in lack or can not exert the functionnormally, diabetes will occur.
Pancreatic Polypeptide: It is a kind of polypeptide with hormonal nature, which synthesized and released by PP cells.
Glucagon: It is synthesized and secreted by pancreatic 5-cells, and the blood sugar concentration is elevated. The function of blood sugar and the function of insulin are antagonistic for each other.

The test results for reference only and not as a diagnostic conclusion.

(Kidney Function) Analysis Report Card

Name: Leif Rehnvall Sex: Male Age: 81

Figure: 168cm, 52kg Testing Time: 2026-02-27 20:15

Actual Testing Results

Testing Item	Normal Range	Actual Measurement Value	Testing Result
Urobilinogen Index	2.762 - 5.424	6,359	
Uric acid Index	1.435 - 1.987	1,902	
Blood urea nitrogen(BUN) Index	4.725 - 8.631	6,564	
Proteinuria Index	1.571 - 4.079	3,966	

Reference Standard:	Normal(-)	Mildly Abnormal(+)
	Moderately Abnormal (++)	Severely Abnormal (+++)
Urobilinogen Index:	2.762-5.424(-)	5.424-6.826(+)
	6.826-8.232(++)	>8.232(+++)
Uric acid Index:	1.435-1.987(-)	1.987-2.544(+)
	2.544-3.281(++)	>3.281(+++)
Blood urea nitrogen(BUN) Index:	4.725-8.631(-)	8.631-10.327(+)
	10.327-12.154(++)	>12.154(+++)
Proteinuria Index:	1.571-4.079(-)	4.079-5.218(+)
	5.218-6.443(++)	>6.443(+++)

Parameter Description
Urobilinogen Index: Urobilinogen is a colourless product of bilirubin reduction. It is formed in the intestines by bacterial action. Some urobilinogen is reabsorbed, taken up into the circulation and excreted by the kidney. Most of urobilinogen will be excreted along with feces, and other part will be absorbed by the liver reback to the intestinal, then from the liver enter into the kidney or the blood and excret out together with the urine. There will form Urobilinogen after exposure to the air.
Uric acid Index: In human blood plasma, the reference range of uric acid is between 3.6 mg/dL (~214 ?mol/L) and 8.3 mg/dL (~494 ?mol/L) (1 mg/dL=59.48 ?mol/L).[This range is considered normal by the American Medical Association Manual of Style. Uric acid concentrations in blood plasma above and below the normal range are known, respectively, as hyperuricemia and hypouricemia. Most uric acid dissolves in blood and travels to the kidneys, where it passes out in urine. Some people develop gout, kidney stones or kidney failure due to high uric acid levels. A high uric acid level may appear prior to the development of high blood pressure, heart disease or chronic kidney disease.

Blood urea nitrogen(BUN) Index:

Blood urea nitrogen (BUN) measures the amount of urea nitrogen, a waste product of protein metabolism, in the blood. Urea is formed by the liver and carried by the blood to the kidneys for excretion.The amino acid deamination produces NH3 and C02, and which synthesis to urea in the liver.Per gram of protein metabolism of urea is 0.3g. The nitrogen have almost half content of 28/26 in the urea. Diseased or damaged kidneys cause an elevated BUN because the kidneys are less able to clear urea from the bloodstream. In conditions in which renal perfusion is decreased, such as hypovolemic shock or congestive heart failure, BUN levels rise.

Proteinuria Index:

There always have a certain amount of essential for human life activeites protein in the blood. A part of proteins will be filtered by sphere in the kidney and enter into the urine, but it may be absorbed in the renal tubules reback to the blood. Therefore, if the function of the kidneys is normal, the protein in the urine just has a little. However, when the kidneys and catherter leakage arises obstacles that will have a large amount of protein become to proteinuria. It's normal that have trace protein in the healthy people urine, and the normal range defined as negative. When the protein in urine up to more than 0.15g/24h, called proteinuria, and this can be as a positive qualitative urine.

The test results for reference only and not as a diagnostic conclusion.

(Lung Function) Analysis Report Card

Name: Leif Rehnvall Sex: Male Age: 81
Figure: 168cm, 52kg Testing Time: 2026-02-27 20:15

Actual Testing Results

Testing Item	Normal Range	Actual Measurement Value	Testing Result
Vital Capacity VC	3348 - 3529	3544,063	
Total Lung Capacity TLC	4301 - 4782	4787,298	
Airway Resistance RAM	1.374 - 1.709	1,679	
Arterial Oxygen Content PaCO2	17.903 - 21.012	15,572	

Testing Parameter Description:

I. Vital Capacity: VC Health Scope: (3348~3529)

1. >3529, vital capacity is increased.
Seen in mild upper respiratory tract infection, mild chronic bronchitis, wind-cold attacking lung-type cough, wind-heat invading lung-type cough, cough of phlegm-dampness accumulation in lungs, etc.

2. <3348, vital capacity is reduced.
Seen in mild chronic bronchitis, chronic obstructive emphysema, lack of lung-yin type cough, etc.

II. Total Lung Capacity: TLC Health Scope: (4301~4782)

1.>4728, mild emphysema.
Shortness of breath, alveolar expansion, Qi deficiency of the lung-spleen type lung inflation, heat-phlegm stagnating lung type lung inflation, etc.

2. <4301, aura of extensive lesions in lung tissue.
chronic bronchitis, mild upper respiratory tract infection, dry heat impairing pulmonary Jin type lung atrophy, lung Qi deficiency cold type lung atrophy, etc.

III. Airway Resistance: RAM Health Scope: (1.374~1.709)

1. >1.709, increase.
Seen in chronic obstructive emphysema, chronic bronchitis, early symptoms of bronchial asthma, lung and kidney qi deficiency type lung inflation, cold-phlegm obstructing lung type lung inflation, etc.

2. <1.374, reduction.
Mild upper respiratory tract infection, mild bronchitis, cough of phlegm-dampness accumulation in lungs, wind-cold attacking lung-type cough, etc.

IV. Arterial Oxygen Content: PaCO2 Health Scope: (17.903~21.012)

1. >21.012, increase.
Seen in body weaker immunity, lung Qi weakness caused by invasion of pathogen, etc.

2. <17.903, reduction.
Seen in poor airway, aura of chronic obstructive emphysema, early symptoms of bronchial asthma, cold wheezing, hot wheezing and wind-cold attacking lung type asthma syndrome, cold surface damp-heat type asthma syndrome, heat-phlegm stagnating lung type asthma syndrome,

turbid-phlegm obstructing lung type lung inflation, lung and kidney qi deficiency type lung inflation, etc.

The test results for reference only and not as a diagnostic conclusion.

(Brain Nerve) Analysis Report Card

Name: Leif Rehnvall Sex: Male Age: 81
Figure: 168cm, 52kg Testing Time: 2026-02-27 20:15

Actual Testing Results

Testing Item	Normal Range	Actual Measurement Value	Testing Result
Status of Brain Tissue Blood Supply	143.37 - 210.81	178,921	
Cerebral Arteriosclerosis	0.103 - 0.642	0,549	
Functional Status of Cranial Nerve	0.253 - 0.659	0,322	
Sentiment Index	0.109 - 0.351	0,408	
Memory Index(ZS)	0.442 - 0.817	0,218	

Reference Standard: **Normal(-)** **Mildly Abnormal(+)** **Moderately Abnormal(++)** **Severely Abnormal(+++)**

I. Status of Brain Tissue Blood Supply: reflects the blood supply of the brain region

Mild blood supply insufficiency	110.24--143.37
Moderate blood supply insufficiency	100.41--110.24
Severe blood supply insufficiency	<100.41

II. Cerebral Arteriosclerosis: reflects intracranial arterial blood flow resistance and the degree of cerebral arteriosclerosis

Mild sclerosis	0.642--0.757
Moderate sclerosis	0.757--0.941
Severe sclerosis	>0.941

III. Cranial Nerve Function: reflects calculation ability, understanding ability, identification ability, positioning ability, directed ability and even dementia and so on.

Mild impairment	0.115--0.253
Moderate impairment	0.053--0.115
Severe impairment	<0.053

IV. Sentiment Index: reflects the injury extent of brain cells

Mild injury	0.351--0.483
Moderate injury	0.483--0.699
Severe injury	>0.699

V. Memory Index (ZS): reflects person's memory

Mild fading	0.262--0.442

Moderate fading	0.169--0.262
Severe fading	<0.169

Parameter Description
Status of Brain Tissue Blood Supply: Cerebral microcirculation usually refers to the blood vessels with the diameter <150 (m, including small arteries, capillaries and small veins. However, the definition of the microcirculation has not been widely accepted, and it is not clear whether the small arteries (based on anatomical criteria, the lumen diameter > 150 (m) belong to the microcirculation. Therefore, it is defined in accordance with the vascular physiology, namely the response of a single-vessel to elevated pressure inside the lumen, rather than in accordance with the diameter or structure. According to this definition, all those arteries whose lumen diameter has myogenic contractile responses to elevated pressure, and capillaries and small veins will be included in the microcirculation. The primary function of microcirculation is to make the supply of nutrients and oxygen in tissues change following with the change in demand; the second important role is to avoid the drastic fluctuation of hydrostatic pressure in capillaries to cause the exchange barrier of capillaries; and finally, the hydrostatic pressure is significantly reduced in the microcirculation level. Thus, microcirculation has an extremely important role in determining the total peripheral resistance. In addition, the microcirculation is also the first diseased parts of cardiovascular disease, in particular the inflammatory process.
Cerebral Arteriosclerosis: Due to atherosclerosis, a variety of arterial inflammation, trauma and local cerebral vascular diseases caused by other physical factors and blood diseases, the resistance of blood flow is greater to lead to the occurrence of ischemic cerebrovascular diseases. (1). Transient ischemic attack whose diseased causes are related to cerebral atherosclerosis is the function disturbance caused by transient, ischemic and focal brain tissue damage. (2). Cerebral thrombosis is mostly caused by the blocking of formed blood clots. (3). Cerebral embolism can be induced by the fact that emboli resulting from a variety of diseases enter into the blood to block the blood vessels in the brain. In clinic, heart diseases are the most common cause; the others causes orderly include fat into the blood after fractures, or trauma; eggs or bacterial infection; the fact that air into the blood of pneumothorax and others, emboli formed from phlebitis and other factors block the brain blood vessels. The vessels in the brain surface and bottom are ruptured to lead to cerebral hemorrhage, and cerebral hemorrhage caused by ruptured blood vessels in real results in hemorrhagic cerebrovascular diseases.
Functional Status of Cranial Nerve: Cranial nerve system can be divided into three parts according to functions. The first part, which introduces the information out of the body to the brain, is called as the sensory nervous system. The second part, which carries out processing and storage and drives the body to respond, is called as the central nervous system, namely the majority of the brain. The third part, which drives the muscles, internal organs and glands, is called as the motor nervous system which implements the decision in the brain. The third part also includes the main nervous system which makes the whole person to enter or dissolve the ready and operational status. The communication among the nerve cells of the three parts depends on two factors: one is the connection networks among cranial nerve cells. The cranial nerve system has about 100 billion cranial nerve cells, and almost each person has the same number. The number of connection networks among cranial nerve cells determines whether the person is smarter than others. Each cranial nerve cell is connected with 1000-200000 other cranial nerve cells, averagely 15000. The other is neurotransmitter. Message transmission in a cranial nerve cell depends on the electric guanidine line, but message transmission between two cranial nerve cells depends on some biological or chemical substances manufactured by the body, which are called as neurotransmitter. A cranial nerve cell releases a kind of neurotransmitter at the gap of the connection between it and other cranial nerve cells, and the 15000 linked cranial nerve cells produce the relevant electric guanidine lines after receiving the neurotransmitter. The procedure is repeated, and the 15000

linked cranial nerve cells send the massage to other 15000 linked cranial nerve cells to constantly continue. Now, these neurotransmitters have been found more than 80 kinds, while the main neurotransmitters have only 8 or 9 kinds. These neurotransmitters drive the various parts of the body to maintain or change their status, and are also the determinants of our sentiment.

Sentiment Index:

Sentiment is people's experience of attitude toward the objective things, and the reflection whether people's needs are satisfied. Sentiment is divided into two kinds: positive sentiment and negative sentiment. The positive sentiment can enhance immune function and promote health, therefore improving quality of life; the negative sentiment including upset, sadness, anxiety, resentment, apathy, etc. is harmful for physical and mental health. Physiological and psychological study and life practice show that the bad sentiment can induce production of the disease and aggravate the disease, and it can also reduce the effect of drug treatment. Because physical condition deteriorates of the elderly and the ability to resist disease-causing factors in and out of the body is reduced, the elderly is susceptible to various diseases. The common diseases include high blood pressure, heart disease, ulcer disease, diabetes, cancer, etc. Because of many diseases, unhealthy conditions and even the threat of death, the elderly is prone to negative sentiment and pessimistic minds and is demoralized and dispirited to result in destruction of physical and mental coordination, so that the body is in stress, the immunity is weakened, therefore making the diseased conditions worse or aggravate. After the elderly is sick, the elderly self will bear a lot of pressure, but also it brings the family, society and medical personnel a heavy burden. If the negative sentiment of the elderly can be changed into positive sentiment, it will help to enhance their disease resistance and self-confidence to improve the living conditions of the elder patients and enhance the quality of life. The sentiment state is a kind of psychological factor or psychological factor. The psychological factor is different from other factors, and its harm for the body is not directly revealed and has a hidden nature. It is invisible, and therefore people often easily overlook it. Modern medical theory and clinical practice have been converted grown from a pure biomedical model into a new model of 'biological - psychological - social' organic combination from the pure bio-medical model. Thus, we take measures from the psychological direct to eliminate the patient's negative sentiment, which is very beneficial to prevention and treatment of diseases. To the end, we put forward the following measures: anxiety and frustration have a direct relationship with the hyperactivity of brain's fear center. Depression has two forms: one is reactivity, and one is internality. The reactive depression often occurs after in a certain life events, such as the death of friends and relatives, the fire at home, work fault, spouse's infidelity and divorce and so on, and the depressed sentiment usually does not last too long time and can be recovered under others' help. The internal depression is unconsciously generated in long-term life, such as the unhappy marriage, difficult life, having chronic diseases, unsatisfying of leaders, low title in long term, disabled child .....

Memory Index(ZS):

It reflects the strength of people's memory. Cerebral arteriosclerosis, cerebral atrophy and others will lead to insufficient blood supply to the brain. The functional declination of hippocampal cells in the brain is the histological reason of memory declination of the elderly. Memory is divided into two kinds: one is auditory memory that people remember by ears through listening to others' talk or read; one is visual memory that people remember by eyes through looking. Memory means are different, the memory is in auditory type if the person is good at remembering by ears, and the memory is in visual type if the person is good at remembering by eyes. Memory can be divided into instantaneous memory, short-term memory and long-term memory. People do not need to preserve some memories of life in mind in long term, sometimes we only need to remember a specific time of some things, and it's ok to forget it. But there are some things we need to maintain a long time in our mind. If we forget some things, it will bring great difficulties and even foolish results for our study, life and work. How is the forgotten generated? There are two reasons: one is fading; it means you forget some knowledge and do not always recall, and then the impression in the mind will gradually weaken and eventually fade away. It is like ink on a piece of paper, the ink is not always painted, so the color of ink will be light and white.One is interference; it means there are so many things in mind, and they are overlapped and confused; if you want to recall a problem, you can not remember it immediately and can remember it or a little after repeatedly thinking.

The test results for reference only and not as a diagnostic conclusion.

(Bone Disease) Analysis Report Card

Name: Leif Rehnvall | Sex: Male | Age: 81
Figure: 168cm, 52kg | Testing Time: 2026-02-27 20:15

Actual Testing Results

Testing Item	Normal Range	Actual Measurement Value
Lumbar Fiber Protruding Dimension	No Direction	No Direction
Adhesion Degree of Shoulder Muscle	< u 0.2	u 0,12
Limbs Circulation Limit	+	+
Age of Ligament	10%-40%	19%

Testing Term Description:

1. Lumbar Fiber Protruding Dimension: it shows the lumbar fiber cycle or the nucleus pulposus protrudes toward one side of the body or protrudes near the side. Generally, the common case is that the left side compress the equina of the right side. No direction is normal.

2. Adhesion Degree of Shoulder Muscle: it shows the degree of shoulder inflammatory lesions of the elderly, or the adhesion degree of shoulder muscle. Generally, the smaller the tested value is, the better it is. It proves their illness is lighter or there is no body disease.

3. Limbs Circulation Limit: it shows the limit of stiffness or activities of blood microcirculation of limbs due to a variety of external factors. Generally, four pluses mean it is most serious. The less the number of plus is, the better it is; it proves that the probability of the disease factors in the body is lower.

4. Age of Ligament: this indicator is an integrated parameter obtained through the above four indicators, and the results are generally in 10% -40%. The greater value proves the degree of degenerative diseases or aging is larger, and contrariwise it proves the physique and the human immunity are stronger.

The test results for reference only and not as a diagnostic conclusion.

(Bone Mineral Density) Analysis Report Card

Name: Leif Rehnvall Sex: Male Age: 81

Figure: 168cm, 52kg Testing Time: 2026-02-27 20:15

Actual Testing Results

Testing Item	Normal Range	Actual Measurement Value	Testing Result
Osteoclast Coefficient	86.73 - 180.97	186,997	
Amount of Calcium Loss	0.209 - 0.751	0,556	
Degree of Bone Hyperplasia	0.046 - 0.167	0,369	
Degree of Osteoporosis	0.124 - 0.453	0,72	
Bone Mineral Density	0.796 - 0.433	0,203	

Reference Standard:	Normal(-) Moderately Abnormal (++)	Mildly Abnormal(+) Severely Abnormal (+++)
Osteoclast Coefficient:	86.73-180.97(-) 190.37-203.99(++)	180.97-190.37(+) >203.99(+++)
Amount of Calcium Loss:	0.209-0.751(-) 0.844-0.987(++)	0.751-0.844(+) >0.987(+++)
Degree of Bone Hyperplasia:	0.046-0.167(-) 0.457-0.989(++)	0.167-0.457(+) >0.989(+++)
Degree of Osteoporosis:	0.124-0.453(-) 0.525-0.749(++)	0.453-0.525(+) >0.749(+++)
Bone Mineral Density:	0.796-0.433(-) 0.165-0.212(++)	0.433-0.212(+) <0.165(+++)

Parameter Description

Osteoclast Coefficient:

Osteoclast consists of multinuclear giant cells that reach a diameter of 100μm, contain 2 ~ 50 nuclei and are mainly distributed in the bone surface and around bone vascular access. The osteoclasts whose number is less are combined by several single-nucleated cells, the basophilia of cytoplasm is aged following with the cells to be gradually changed to be eosinophilic.

Osteoclast has a special absorption function. In absorbing some local inflammatory lesions, macrophages are also involved in the process of bone resorption. In the process of osteoclasts absorbing organic matters and mineral in bone matrix, the surface of matrix becomes irregular to form lacuna in a similar shape of cells, and the lacuna is called as howship. On the side toward the bone in the howship, the cells protrude a lot of hair-like protrusions which are like the longitudinal

profile border and the brush border of the surface of epithelial cells. Under the electron microscope, one side close to the bone has many irregular microvilli, namely cell protrusions, being called as ruffled border. There is a circular cytoplasmic zone on the periphery of the ruffled border zone. The cytoplasmic zone contains some microfilament but lacks of other organelles, being known as clear zone where the cell membrane is smooth and is close to the bone surface. The clear zone is like a bounding wall consisting of cytoplasm and makes the surrounded area form a micro-environment. Osteoclast releases lactic acids, citric acids and others to the part. Under the acidic condition, the bone inorganic minerals are in pinocytosis from the ruffled border to form some pinocytotic vesicles or phagosomes in ruffled border matrix. In the osteoclast, the inorganic objects are degraded to be expelled into the blood stream in the form of calcium ions. The loss of inorganic objects makes collagen fibers in the bone matrix exposed. Osteoclast secretes a variety of lysosomal enzymes, especially cathepsin B and collagenolytic cathepsin. After osteoclasts leave from the bone surface, the ruffled border disappears, and the inner parts of cells are changed to enter the stationary phase. Mononuclear cells in blood or phagocytic cells in tissues can not be transformed into osteoclasts, because all these cells only contain mature, unsplit and late mononuclear phagocytes. Only the early immature proliferating mononuclear phagocytes are the precursors of osteoclasts.

Amount of Calcium Loss:

In a long time, the publicity of many businessmen lets people have the impression: there is only one way to prevent and treat osteoporosis. However, after in-depth study about the pathogenesis of osteoporosis, modern medical experts find that in the pathogenesis of osteoporosis, the supplement of calcium and vitamin D as well as the impact of hormones and other non-mechanical factors are not the most important factors of the occurrence of osteoporosis, but the muscle mass (including muscle segment mass and muscular strength) under the control of the human nervous system is one of the most important factors for determining the bone strength (including bone mass and bone structure). In general, bone calcium of male after the age of 32 and female after the age of 28 begins to lose. With the increasing age, the loss rate will also be accelerated. 50% of bone calcium has been lost at 60 years old. Thus, at present, it's time to prevent fracture and prevent osteoporosis and supplement calcium. Therefore, diet nutrition is very much related to the occurrence of osteoporosis. Children and adolescents under 18 years old should take in 1200 mg of calcium each day, and adults should take in 800 mg of calcium each day. At the same time, it is need to take in many vitamins D to help the body more easily and more effectively absorb calcium.

Degree of Bone Hyperplasia:

It is the bone state. In the process of growth, development and functional completion of bone, some parts lose the normal shape. Bone hyperplasia are in various forms and have their own characteristics because of the different parts. For instance, hyperplasia of knee joint is often referred to 'bone spur', and there is Intra-articular loose bodies and cartilage hyperplasia. Hyperplasia of spine bone mainly show the 'lip-like' change of the vertebral body, compressing the nerve, resulting in abnormal limb sense and motor abnormality.

Degree of Osteoporosis:

It is a phenomenon of bone reduction of the whole body. It is mainly showed that the content of bone matrix is significantly reduced, while the components of minerals (mainly containing calcium and phosphorus) in the bone are basically normal. In other words, in osteoporosis, the content of protein and other organic substances and water in the bone are decreased, and the content of calcium, phosphorus and other minerals are at the normal level. The bone matrix plays the role of support and connection between calcium, phosphorus and other minerals. Thus, if the bone matrix is reduced, the gaps among the minerals are increased, being expressed as osteoporosis. With the progress of osteoporosis, calcium, phosphorus and other minerals in the bone will also be constantly lost and reduced, and therefore the bone matrix and minerals of the bone are decreased. Osteoporosis in old age is actually a consequence of long-term calcium deficiency.

Bone Mineral Density:

It mainly reflects the strength of bone, and therefore it is the gold standard of the diagnosis of osteoporosis, but also can predict the risk of the occurrence of fracture. Although the transformation of post-menopausal bone has a sudden-jump process, the biochemical indicators which can reflect this change and predict the risk of the occurrence of fracture of patients are very limited. Undoubtedly, it brings a lot of inconvenience for the following up of clinical treatment and the development of research work. The researchers point out that the bone mineral density and the used biochemical indicators can not fully reflect the effects of anti-osteoporosis treatment and predict the risk of the occurrence of fracture of patients. But there is no a more valuable test indicator, so the bone mineral density is still the most commonly used indicators for diagnosis and following up. Determining and reflecting the biochemical indicators of transformation of the bone possess an important position both in the diagnosis of osteoporosis and the research of etiology or treatment.

The test results for reference only and not as a diagnostic conclusion.

(Rheumatoid Bone Disease) Analysis Report Card

Name: Leif Rehnvall Sex: Male Age: 81

Figure: 168cm, 52kg Testing Time: 2026-02-27 20:15

Actual Testing Results

Testing Item	Normal Range	Actual Measurement Value	Testing Result
Degree of Cervical Calcification	421 - 490	513,32	
Degree of Lumbar Calcification	4.326 - 7.531	6,675	
Bone Hyperplasia Coefficient	2.954 - 5.543	6,025	
Osteoporosis Coefficient	2.019 - 4.721	6,081	
Rheumatism Coefficient	4.023 - 11.627	14,085	

Parameter Description
Degree of Cervical Calcification: It shows the size of deposition rate of cervical bone hyperplasia. No calcification means there is no hyperplasia, basic calcification means the rate of hyperplasia reaches over 30%, and calcification means the rate of hyperplasia reaches over 70%.
Degree of Lumbar Calcification: It shows the size of deposition rate of lumbar bone hyperplasia. No calcification means there is no hyperplasia, basic calcification means the rate of hyperplasia reaches over 30%, and calcification means the rate of hyperplasia reaches over 70%.
Bone Hyperplasia Coefficient: It is the bone state. In the process of growth, development and functional completion of bone, some parts lose the normal shape. Bone hyperplasia are in various forms and have their own characteristics because of the different parts. For instance, hyperplasia of knee joint is often referred to 'bone spur', and there is Intra-articular loose bodies and cartilage hyperplasia. Hyperplasia of spine bone mainly show the 'lip-like' change of the vertebral body, compressing the nerve, resulting in abnormal limb sense and motor abnormality.
Osteoporosis Coefficient: It is a phenomenon of bone reduction of the whole body. It is mainly showed that the content of bone matrix is significantly reduced, while the components of minerals (mainly containing calcium and phosphorus) in the bone are basically normal. In other words, in osteoporosis, the content of protein and other organic substances and water in the bone are decreased, and the content of calcium, phosphorus and other minerals are at the normal level. The bone matrix plays the role of support and connection between calcium, phosphorus and other minerals. Thus, if the bone matrix is reduced, the gaps among the minerals are increased, being expressed as osteoporosis. With the progress of osteoporosis, calcium, phosphorus and other minerals in the bone will also be constantly lost and reduced, and therefore the bone matrix and minerals of the bone are decreased. Osteoporosis in old age is actually a consequence of long-term calcium deficiency. In general, bone calcium of male after the age of 32 and female after the age of 28

begins to lose. With the increasing age, the loss rate will also be accelerated. 50% of bone calcium has been lost at 60 years old. Thus, at present, it's time to prevent fracture and prevent osteoporosis and supplement calcium. Therefore, diet nutrition is very much related to the occurrence of osteoporosis. Children and adolescents under 18 years old should take in 1200 mg of calcium each day, and adults should take in 800 mg of calcium each day. At the same time, it is need to take in many vitamins D to help the body more easily and more effectively absorb calcium.

Rheumatism Coefficient:

Rheumatism is divided into the broad and the narrow. The broad rheumatism refers to a group of diseases impacting bone joints and their surrounding soft tissues, such as muscle tendon, bursae synovialis, fascia, etc. The narrow rheumatism refers to a recurrent acute or chronic systemic inflammatory disease of connective tissue induced by the upper respiratory tract infection caused by Group A hemolytic streptococcus. The most obvious symptom is heart and joint lesions, significant heart valve diseases are often left to form chronic rheumatic valvular heart disease.

The test results for reference only and not as a diagnostic conclusion.

(Bone Growth Index) Analysis Report Card

Name: Leif Rehnvall | Sex: Male | Age: 81
Figure: 168cm, 52kg | Testing Time: 2026-02-27 20:15

Actual Testing Results

Testing Item	Normal Range	Actual Measurement Value	Testing Result
Bone alkaline phosphatase	0.433 - 0.796	0,212	
Osteocalcin	0.525 - 0.817	0,422	
Status of long bone healing	0.713 - 0.992	0,748	
Short bone cartilage healing situation	0.202 - 0.991	0,282	
Epiphyseal line	0.432 - 0.826	0,644	

Reference Standard:	Normal(-) / Moderately Abnormal (++)	Mildly Abnormal(+) / Severely Abnormal (+++)
Bone alkaline phosphatase:	0.433-0.796(-) 0.126-0.319(++)	0.319-0.433(+) <0.126(+++)
Osteocalcin:	0.525-0.817(-) 0.297-0.409(++)	0.409-0.525(+) <0.297(+++)
Status of long bone healing:	0.713-0.992(-) 0.381-0.475(++)	0.486-0.713(+) <0.381(+++)
Short bone cartilage healing situation:	0.202-0.991(-) 0.043-0.094(++)	0.094-0.202(+) <0.043(+++)
Epiphyseal line:	0.432-0.826(-) 0.132-0.358(++)	0.358-0.432(+) <0.132(+++)

Parameter Description
Bone alkaline phosphatase: Bone alkaline phosphatase is secreted by the bone, it can directly reflect the activity of osteocytes, or functional status, is used as the best indicator of bone mineralization disorders to evaluate the human body. When calcium precipitation in the bones is insufficient, the enzyme secretion increase, the secretion of calcium in bone is to reduce, so to help check for the calcium absorption.
Osteocalcin: Value changes with ages, osteocalcin and bone changes in the different update rates. The faster bone turnover rate, the higher the value of osteocalcin, lower. In the primary osteoporosis, the

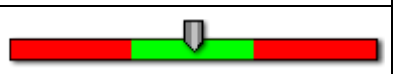
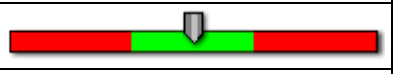
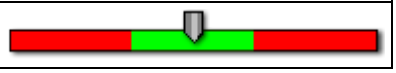
postmenopausal osteoporosis is a high conversion type, so osteocalcin significantly increased; senile osteoporosis is a low conversion type, thus increased osteocalcin is not obvious. It can identify whether changes in osteocalcin osteoporosis is a low or high conversion type.
Status of long bone healing: Mainly in the limbs, an elongated tube. Can be divided into one backbone\two ends. Body also known as the backbone of its external perimembranous bone, the central bone marrow cavity to accommodate the bone marrow. More swollen at both ends, called epiphyseal. Epiphyseal cartilage attached to the surface of the section, the formation of the articular surface, and adjacent bone of the articular surface constitute a flexible joint movement, to complete a wide range of movement.
Short bone cartilage healing situation: Shapes as columnar or cuboidal bones, and more groups located in the wrist, foot, and the latter part of the spine, etc.. Short bone can withstand greater pressure, often with multiple articular surface and bone formation adjacent to the micro-joints, and often supplemented by tough ligaments, form a suitable support of flexibility of the structure constitutes.
Epiphyseal line: Epiphyseal line-The cross-section images of epiphyseal plate. Between the metaphysis and epiphysis of long bones have a discoid cartilage, called epiphyseal plate. In the growth, although the epiphyseal plate is in a gradual ossification, but changes itself and less (thin), so as to ensure our long bone growth, when puberty began to develop over time, with the sex hormone secretion, can be understood as the epiphysis and then After the gradual ossification of the ability not to continue to grow, all ossification finished, no longer space to grow and materials of growth.

The test results for reference only and not as a diagnostic conclusion.

(Blood Sugar) Analysis Report Card

Name: Leif Rehnvall Sex: Male Age: 81
Figure: 168cm, 52kg Testing Time: 2026-02-27 20:15

Actual Testing Results

Testing Item	Normal Range	Actual Measurement Value	Testing Result
Coefficient of Insulin Secretion	2.967 - 3.528	2,979	
Blood Sugar Coefficient	2.163 - 7.321	6,701	
Urine Sugar Coefficient	2.204 - 2.819	2,316	

Testing Value Description:

1. Coefficient of Insulin Secretion: Health Scope: 2.967~3.528

1. >3.528, increase.
It is easy to convert calories into fat to be stored in the body, thereby obesity appearing.

2. <2.967, reduction.
Seen in metabolic disorders caused by inadequate insulin secretion, including sugar, protein, fat, water, electrolytes, etc. Acid-base balance disorders often appear in seriously inadequate insulin secretion, and it has no symptom in clinic early. In the period of symptom, it has the symptoms of polyphagia, polyuria, polydipsia, good hunger, weight loss or obesity, fatigue, weakness, etc. Chronic patients are often accompanied with cardiovascular and cerebrovascular, kidney, eye and nerve diseases. Severe cases or patients in stress can generate the ketoacidosis, hyperosmolar coma, lactic acidosis to threaten life, and are often complicated with purulent infection, urinary tract infection, tuberculosis, etc.

2. Blood Sugar Coefficient: BG Health Scope: 2.163~7.321

1. >7.321, blood sugar increase.
(1)Physiological increase is seen in 1 to 2 hours after meals and after the injection of glucose or adrenaline preparation during emotional stress.
(2)Insulin inadequateness: seen in type 1 or 2 diabetes.
(3)Secretion increase of hormone elevating blood sugar. Seen in anterior pituitary and adrenal cortex hyperactivity.
(4)Central disease.
(5)Adrenal cortex hyperactivity.
(6)Hyperthyroidism.
(7)Vomiting, diarrhea, fever, Yin and Yang deficiency diabetes, etc. are mostly the symptoms of mild elevation of blood sugar.

2. <2.163, blood sugar reduction.
(1)Physiological: sports and hunger.
(2)Excessive insulin secretion: seen in functional insulin excess disorder and excess injected insulin or oral hypoglycemic drug.
(3)Thyroxine inadequateness: hypothyroidism.
(4)Source reduction of blood sugar: long-term malnutrition and acute liver injury.
(5)Excessive loss of blood sugar, genetic enzyme deficiency, glycogen synthase deficiency, kidney-yang deficiency type diabetes, etc.

3. Urine Sugar Coefficient: GLL Health Scope: 2.204~2.819

1. >2.819, positive.
(1)Physiological glucosuria: consuming large quantity of carbohydrate food once, late pregnancy of women and lactation.
(2)Renal glucosuria: renal glucose threshold is lower than that of a health person, or the function of renal tubular reabsorption of glucose is reduced.
(3)Pathological glucosuria: diabetes and hyperthyroidism.
(4)Lung-heat and consumption of fluid type diabetes.
(5)Stomach heat and flaming type diabetes.
(6)Kidney yin deficiency type diabetes and so on.

2. <2.204, negative.
Body health, mild polydipsia, polyphagia and polyuria, the body weight loss symptoms and sub-health state.

Parameter Description
Coefficient of Insulin Secretion: Insulin is a kind of protein hormone. Pancreatic β-cells are secreted into insulin in the body. Beside the duodenum of the body, there is a long-shaped organ called as pancreas. Many cell masses are scattered in the pancreas, and the cell mass is called as pancreatic islet. There are about 100 to 200 million pancreatic islets in the pancreas. Islet cells are divided into the following categories in accordance with their functions for secreting hormones: (1) B-cell (β cells), accounting for about 60% to 80% of islet cells, and secreting insulin which can lower blood sugar. (2) A cell (α cells), accounting for about 24% to 40% of islet cells, and secreting glucagon which has the contrary role of insulin and can increase blood sugar. (3) D cell, accounting for about 6% to 15% of the total number of islet cells, and secreting growth hormone-inhibiting hormone. Due to viral infection, autoimmune, genetic and other disease factors, the pathophysiology of diabetes patients is mainly caused by relative or absolute lack of insulin activity and relative or absolute excess glucagon activity, namely B and A cell bilateral hormone dysfunction. Insulin-dependent diabetes in which insulin-secreting cells are in severe damage or complete absence, such as lower endogenous insulin secretion, needs exogenous insulin therapy. In non-insulin-dependent diabetes, insulin secretion disorder is lighter, the concentration of basal insulin is normal or is elevated, insulin secretion is generally lower than that of persons of the corresponding weight after glucose stimulation, namely the relative lack of insulin. The insulin secretion function has an important reference value in diabetes diagnosis, classification, treatment, prognosis and predication for high-risk groups whether they will have diabetes in future. Both clinicians and researchers attach importance to its assessment. The level of insulin secretion is impacted by both insulin resistance and β cell function.
Blood Sugar Coefficient: Blood sugar refers to the glucose in blood. Other types of sugar, such as sugar, disaccharide and polysaccharides can be called as glucose after they are converted into glucose to enter into blood. The blood glucose concentration of the healthy human body is also in a stable and balanced state. Once the balance is destroyed, such as abnormally increased glucose, diabetes will appear.
Urine Sugar Coefficient: Urine sugar refers to the sugar in urine, mainly refering to the glucose in urine. The healthy human body's urine sugar is little, it can not be measured by the general method, so the healthy human body's urine sugar is negative or there is no sugar in urine. In the healthy human body, only when blood sugar is over 160 ~ 180mg/dl, more sugar can be excreted from the urine to form urine sugar. Therefore, the blood sugar level determines the presence or absence of urine sugar.

The test results for reference only and not as a diagnostic conclusion.

(Trace Element) Analysis Report Card

Name: Leif Rehnvall Sex: Male Age: 81
Figure: 168cm, 52kg Testing Time: 2026-02-27 20:15

Actual Testing Results

Testing Item	Normal Range	Actual Measurement Value	Testing Result
Calcium	1.219 - 3.021	3,003	
Iron	1.151 - 1.847	0,724	
Zinc	1.143 - 1.989	1,062	
Selenium	0.847 - 2.045	1,151	
Phosphorus	1.195 - 2.134	2,129	
Potassium	0.689 - 0.987	0,358	
Magnesium	0.568 - 0.992	0,595	
Copper	0.474 - 0.749	0,705	
Cobalt	2.326 - 5.531	3,833	
Manganese	0.497 - 0.879	0,784	
Iodine	1.421 - 5.490	4,182	
Nickel	2.462 - 5.753	2,708	
Fluorine	1.954 - 4.543	4,114	
Molybdenum	0.938 - 1.712	1,403	
Vanadium	1.019 - 3.721	2,097	
Tin	1.023 - 7.627	3,694	
Silicon	1.425 - 5.872	1,066	
Strontium	1.142 - 5.862	3,897	
Boron	1.124 - 3.453	2,012	

Parameter Description
Calcium(Ca): Calcium is a metallic element, being silver-white crystal and being easy for chemical combination. For instance, animal bones, clam shells and eggshells contain calcium carbonate, calcium phosphate, etc. Calcium is one of constant elements of the body, accounting for the fifth place.

The role of calcium in the body:
1. It composes the human skeleton and supports the body, being the fulcrum of muscle flexing.
2. In the soft tissue of blood cells, it plays important roles, such as heart rate maintenance, nerve conduction, muscle flexing stress, blood coagulation and cell adhesion.
Unfortunately, although it is very important, it can be synthesized by the body self only by external intake.

Iron(Fe):

Iron accounts for the fifth place of the trace elements in the body.
It is the necessary matter for constituting hemoglobin, cell chromatin and tissue enzyme and has the oxygen carrier function. Iron deficiency can cause anemia, lower oxygen carrier function and make tissues hypoxia to cause diseases. A healthy adult's body contains 3-5g of iron, and a healthy baby's body contains 500mg.

Zinc(Zn):

Zinc as an important trace element in the human body is composition and activator composing hundreds of kinds of enzymes in the body. Its main function: it catalyzes human biochemical reactions, activates various enzyme proteins and is involved in protein synthesis to promote active metabolism.
Zinc deficiency can cause:
1. Dull sense of taste and blocking of the taste buds of the tongue
2. Partial eclipse and pica, such as eating cinders, mud, nails, plaster, etc.
3. Dwarfism
4. It is difficult to heal wounds.
5. Hypoplasia of secondary sexual characteristic
6. Women's menstrual cramps, or amenrorrhea
7. It affects the sperm motility to cause sterility.

Selenium(Se):

Selenium is one of the necessary trace elements of the human body. Selenium is a carrier of calcium, and calcium can not be attached on the bone if there is no selenium. Selenium can help to activate antioxidant enzymes, such as glutathione peroxidase, which can neutralize potentially harmful free radicals. Selenium is the necessity for maintenance of muscle (including heart) health. Selenium also has a certain effect for maintain eyesight, skin and hair healthy.
Human selenium deficiency can have a variety of expression modes, and the common expression modes include: myalgia, myositis, myocardial fatty change, Keshan disease, hemolytic anemia, bone changes (Kashin-Beck disease), etc. Leukocyte bactericidal capacity and cell-mediated immunity are reduced to be infected.

Phosphorus(P):

Almost all of the foods contain phosphorus. Plenty of phosphorus can be obtained in diet. A supplement is not needed. The excessive intake of phosphorus will destroy the balance of minerals and cause calcium deficiency. Especially in people over the age of 40, the kidneys can no longer help to excrete excess phosphorus, which will lead to calcium deficiency. Therefore, the meat intake should be reduced, and more milk and vegetables should be taken.

Too much phosphorus in the blood will reduce the concentration of calcium, which will cause hypocalcemia, leading to enhanced neural excitability, tetany and convulsion. The manifestations: 1. Brittle and Fragile bones; 2. Tooth decay; 3. Various symptoms resulting from calcium deficiency become increasingly evident; 4. Nervous breakdown; 5. The unbalance of other minerals.

Potassium(K):

Potassium is an essential macronutrient in human. The content of potassium in an adult body is about 150 g. Potassium is stored mainly in the body cells. It is an essential nutrient in human body and an important electrolyte for the organism. The main function of it is maintaining and regulating volume and osmotic pressure of the intracellular fluid, maintaining acid-base balance of humor and the conduction of nerve actions. Potassium plays very important roles on the metabolism and the maintenance of the structure and function of human cells. It can enhance the

excitability of human nerve and muscle, reducing myocardial excitability, so it can maintain the normal function of nerves and muscles, especially the normal movement of the heart.

Normally the concentration of serum potassium is 3.5 to 5.5 mmol / l, and the symptom of the concentration of potassium lower than 3.5 mmol / l is called hypokalemia. The most outstanding manifestation of hypokalemia is limb numbness with different levels of neuromuscular relaxation and paralysis, especially in the crura. That is called potassium-deficiency-caused flaccid paralysis. It usually starts from the lower extremities, especially from the quadriceps, with the symptoms of infirm standing, weakness or difficulty ascending. Then with the aggravation of the potassium deficiency, muscle weakness can be more serious: the loss of muscle strength of trunk and upper limbs is becoming serious gradually until effect to the respiratory muscles, or even lead to respiratory failure, or accompanied by severe dysfunction of the cardiovascular system, such as chest tightness, palpitation, and even respiratory muscle paralysis, difficulty breathing and severe arrhythmia.

Magnesium(Mg):

In human cells, magnesium is the second most important cation (with potassium first). The content of magnesium is inferior to that of potassium. Magnesium has many special physiological functions: it can activate a variety of enzymes in the body, inhibit abnormal excitation of nerve system, maintain the stability of the structure of nuclear acids, and participate in protein synthesis, muscle contraction and body temperature regulation. Magnesium affects the [channel] for the intra and extra cellular mobility of potassium, sodium and calcium, and maintains the membrane potential.

The clinical manifestations of magnesium deficiency are: emotional disturbance, excitation, tetany, hyperreflexia, etc. Normally oral intake of overdose of magnesium will not lead to magnesium toxcity due to the regulation of the kidney. But in circumstance of renal insufficiency, a large number of oral magnesium can cause magnesium toxicity, manifested as abdominal pain, diarrhea, vomiting, polydipsia, fatigue, weakness, and difficulty in breathing, cyanosis, mydriasis etc in serious situation.

Copper(Cu):

The manifestations of copper deficiency are hypochromic small-cell anemia, stunted growth, bone lesions such as arthritis, proliferation and bone fractures, ulcer, hepatosplenomegaly, cardiovascular damage, coronary heartdisease, brain barrier, vitiligo, female infertility and curl hair etc.

The copper intake exceeds l00 times more than the requirement of human body will cause hemolytic anemia and necrotizing hepatitis. The poisoning symptoms of copper are salivation, nausea and vomiting, hematemesis, bellyache and diarrhea, acute gastroenteritis, hemolysis, hematuria, melena, red protein in the urinary, lysosomal membrane rupture, jaundice, arrhythmia, liver tissue necrosis, renal failure, uremia and shock. Excessive copper can not only cause schizophrenia, epilepsy and rheumatoid arthritis, but also related to tumors including esophageal cancer, gastric cancer, liver cancer and lung cancer. The toxicosis of overdose of copper can be treated by gastric lavage with dimercapto-propanol and potassium ferrocyanide or sodium thiosulfate.

Cobalt(Co):

Cobalt is the essential element of the human body. It exists in a state of ion. Cobalt is a component of vitamin B12, related to hematopoietic function. The daily intake of cobalt in human body is about 5 - 45 mg. Intake of overdose of cobalt will induce pneumonia, and lead to myocardial damage, thyroid damage and erythrocytosis, etc. Co-60?-ray has certain effects on the treatment of human cancer.

Manganese(Mn):

The Mn deficiency in human body will affect the growth and development. Mn deficiency in pregnant women causes baby Mn deficiency, which will lead to ataxia in newborns; Mn deficiency in children and adolescents may impair growth and lead to bone deformities; Mn deficiency in adults may cause reproductive dysfunction. Although the sea is very rich in manganese, and manganese plays an important role in human body, the body's requirement for

manganese is very tiny. The manganese requirement in diet of ordinary people is 4-9 mg per day, about half of which is absorbed by intestine.

Manganese is also involved in hematopoiesis. The mechanism of manganese in hematopoiesis is by improving the body utilization of copper to promote the absorption and utilization of iron and maturation and release of red blood cells.

Iodine(I):

Iodine is an essential micronutrient. The content of iodine in adults is about 20 to 50 mg, 70% to 80% of which concentrates in the thyroid near the throat, the rest presenting in muscle and other tissues. Iodine is the essential material for the synthesis of thyroid hormone, the deficiency of which can lead to hypothyroidism, causing mental and physical developmental disabilities. Illness in children will affect their growth and development; illness in pregnant women will not only result in goiter in herself but also affect fetal development, leading to slow growth, dwarfism, deafness, mental retardation, and even dementia in children after birth, which is called [cretinism]; goiter in adults can reduce the body's energy metabolism, causing myxedema, heart rate reduction, decreased sexual function, facial swelling, slow speech, and indifferent look.

The daily supply of iodine for adults is about 100 to 200 mg, and that for children aged 1 to 10 is 60 ~110 mg. Excessive iodine intake may cause iodine goiter, so the iodine intake is not the much, the better.

Iodine-rich food is seafood, such as kelp, seaweed, sea fish and sea salt. The iodine concentration of seaweed is thousands times higher than that of seawater. Iodine also exists in the soil of most areas. So the daily requirement for iodine can be obtained in vegetables and water as well.

Nickel(Ni):

Nickel is an essential element of life, mainly supplied by vegetable, cereal and seaweed, etc. Nickel is widely distributed in nature, but its content in the human body is extremely low. Normally, the adult body contains about 10mg of nickel, and the daily requirement for nickel is 0.3mg. Lack of nickel can cause diabetes mellitus, anemia, cirrhosis, uremia, renal failure and metabolic dysfunction of liver lipid and phospholipids, etc. Animal experiments showed that lack of nickel will cause slow growth, rising mortality rate of the organism, decrease of hematocrit, hemoglobin and iron content, reduce the bone calcium content and the zinc content in liver, hair, muscles and bones, and brain. Nickel deficiency is one of the causes of infertility.

Fluorine(F):

Fluorine is a nonmetallic element. The main toxic symptoms caused by excessive fluoride in human body are: yellow teeth, black teeth, X-or O-shaped legs, crookback or arm with dysfunction in stretching, dental fluorosis in mild sufferers, skeletal fluorosis in severe sufferers who might even lost the abilities of working and living. One suffering from fluorosis once will never be cured, and medications can only slow the aggravation of the disease. Endemic fluorosis is an endemic seriously endangering the health of people, which is a biogeochemical disease, divided into water-drinking type, coal-burning type and tea-drinking type.

Molybdenum(Mo):

Molybdenum is one of the essential micronutrients. The total molybdenum content in adult body is about 9 mg, distributed in various tissues and fluids of the body, in which liver and kidney contains the highest content of.molybdenum, Molybdenum requirements the body is very small, and molybdenum exists in a variety of foods. Molybdenum functions as the prosthetic group of enzymes, catalytically oxidating the corresponding substrate. Molybdenum deficiency will not occur under normal conditions, but may occur in long-term total parenteral nutrition patients. Lack of molybdenum in animals can cause weight loss, reduced fertility, and shortened life expectancy.

Vanadium(V):

Vanadium is one of the essential micronutrients, playing important roles on the maintenance of body growth and development, acceleration on the growth of bones and teeth, and promotion on hematopoiesis and the increase of body immunity. The proper amount of vanadium can also lower blood sugar, blood pressure and lipids, increasing myocardial contractility and preventing heart disease. At present what researchers are most concerned with is its hypoglycemic function. Insulin

is the only hormone to reduce blood glucose in human body. Vanadium can not only play a role as insulin, but also protect the islet cells, thus reducing the body blood sugar.

Daily diet provides about 15 mg of vanadium, which can meet the body requirment, and supplement of vanadium is not needed. But people lacking vanadium or patients with diabetes, high cholesterol and hypertension should pay attention to take vanadium in foods. Cereal products, meat, chicken, duck, fish, cucumber, shellfish, mushrooms and parsley contain plenty of vanadium. But inorganic vanadium salt has unsatisfied fat-solubility, bad absorption, and great toxicity, which will affect people's health.

Tin(Sn):

Tin is an essential micronutrient of human lives, and one of the earliest elements human found as well. Recent scientific research shows that: tin can improve the metabolism of protein and nucleic acid, conducive to growth and development. Lack of tin leads to slow development of the body, especially for children. Tin deficiency will affect the normal development, and in severe cases can cause dwarfism.

Silicon(Si):

Silicon is an essential mineral in the human body and a micronutrient as well. It is the silicon maintains flexibility and elasticity of our bodies, making us possessing soft skin and hard bone. Silicone can promote child growth and development, and also plays an irreplaceable role in the prevention of aging. Besides, silicon can promote the increase of collagen, resulting in some cosmetic effects. Lack of silicon will lead to dry skin, wrinkling and susceptibleness to fractures. With the growth of age, silicon content in various tissues gradually decreased. Thus, the reduction degree of silicon content can be used as an indicator for aging to remind the elderly to enhance health-care and anti-aging.

The harm of silicon to human body is made by the lack of silicon or excessive silicon. Silicon shortage may cause osteoporosis and fragile nails etc. But excessive silicon is also very harmful. For example the long-term inhalation of dioxide silicon dust will easily cause excessive silicon, leading to silicosis. Excessive silicon in body may result in focal glomerulonephritis.

Strontium(Sr):

Strontium is an essential micronutrient, which can promote the growth and development of the bone. In long-term people have been focus only on the relativity between bone development and VD and calcium, but neglected the importance of strontium. The latest research data shows that: the lack of strontium human body will lead to metabolic disorders, and will cause physical weakness, sweating and skeletal growth retardation, even resulting in serious consequences such as osteoporosis.

The research concludes that: children's insufficient intake of coarse grains and vegetables matching with food, blindly supplied with calcium supplements are the main causes of children strontium deficiency. To avoid the lack of strontium, children should pay attention to the thickness match of grain and the species match of meat and vegetables, and take the calcium supplements with dairy products and animal bones under the guidance of a doctor.

Boron(B):

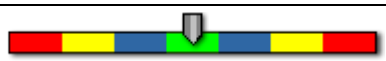
Boron commonly exists in fruits and vegetables, which is one of the micronutrients to maintain the health of the bone and metabolism of calcium, phosphorus and magnesium. The lack of boron will increase the lack of vitamin C; on the other hand, boron also helps to improve the secretion of testosterone, strengthen the muscles, which is an essential nutrient for athletes. Boron also improves the brain function and enhances the reaction capacity. Although most people do not lack boron, it is necessary for the elderly to take proper amount of boron.

The test results for reference only and not as a diagnostic conclusion.

(Vitamin) Analysis Report Card

Name: Leif Rehnvall Sex: Male Age: 81
Figure: 168cm, 52kg Testing Time: 2026-02-27 20:15

Actual Testing Results

Testing Item	Normal Range	Actual Measurement Value	Testing Result
Vitamin A	0.346 - 0.401	0,343	
Vitamin B1	2.124 - 4.192	2,217	
Vitamin B2	1.549 - 2.213	1,661	
Vitamin B3	14.477 - 21.348	18,614	
Vitamin B6	0.824 - 1.942	0,64	
Vitamin B12	6.428 - 21.396	8,375	
Vitamin C	4.543 - 5.023	3,917	
Vitamin D3	5.327 - 7.109	4,187	
Vitamin E	4.826 - 6.013	5,02	
Vitamin K	0.717 - 1.486	0,476	

Reference Standard: **Normal(-)** **Mildly Abnormal(+)** **Moderately Abnormal(++)** **Severely Abnormal(+++)**

Vitamin A:	0.346-0.401(-) 0.286-0.311(++)	0.311-0.346(+) <0.286(+++)
Vitamin B1:	2.124-4.192(-) 0.643-1.369(++)	1.369-2.124(+) <0.643(+++)
Vitamin B2:	1.549-2.213(-) 1.147-1.229(++)	1.229-1.549(+) <1.147(+++)
Vitamin B3:	14.477-21.348(-) 8.742-12.793(++)	12.793-14.477(+) <8.742(+++)
Vitamin B6:	0.824-1.942(-) 0.399-0.547(++)	0.547-0.824(+) <0.399(+++)
Vitamin B12:	6.428-21.396(-) 1.614-3.219(++)	3.219-6.428(+) <1.614(+++)
Vitamin C:	4.543-5.023(-) 3.153-3.872(++)	3.872-4.543(+) <3.153(+++)
Vitamin D3:	5.327-7.109(-)	4.201-5.327(+)

	2.413-4.201(++)	<2.413(+++)
Vitamin E:	4.826-6.013(-)	4.213-4.826(+)
	3.379-4.213(++)	<3.379(+++)
Vitamin K:	0.717-1.486(-)	0.541-0.717(+)
	0.438-0.541(++)	<0.438(+++)

Parameter Description
Vitamin A: Vitamin A is related to growth and reproduction, and is an indispensable material of epithelial cells. The lack of vitamin A will cause cortex keratosis, rough skin, night blindness and dry eye.
Vitamin B1: Vitamin B1 is in charge of carbohydrate metabolism. The lack of vitamin B1 will make the substance not metabolized accumulate in the tissues to result in poisoning, athlete's foot, feet numbness, edema and weakened functions of muscle, skin or heart.
Vitamin B2: Vitamin B2 is in charge of fat and protein metabolism and detoxification in the liver. The lack of vitamin B2 will cause decreased growth and skin type and mouth type digestive disturbances.
Vitamin B3: Vitamin B3 is also known as nicotinic acid and nicotinamide. It can be dissolved in water and can make use of tryptophan for synthesis in the human body, and it is an essential substance of synthetic hormones. Vitamin B3 can promote blood circulation, lower blood pressure, lower cholesterol and triglycerides, reduce gastrointestinal disorder and alleviate the symptoms of Meniere's syndrome and so on. Vitamin B3 has effects for seborrheic dermatitis and eczema and the functions for whitening and activating the skin cells. Vitamin B3 exists in animal livers, kidneys, lean meat, eggs, wheat germ, whole wheat products, peanuts, figs, etc.
Vitamin B6: Vitamin B6 is related to amino acid metabolism. It can lead to disappearance of neurological irritability and have a certain role for the formation of immune substances and the prevention of atherosclerosis. The lack of vitamin B6 will cause anemia, frostbite and other skin disorders. In addition, it can inhibit tryptophan to convert into xanthurenic acid damaging the pancreas, thereby protecting the pancreas.
Vitamin B12: Vitamin B12 has the function for stimulating the hematopoietic function of bone marrow.
Vitamin C (Ascorbic acid): Vitamin C is colorless crystal, can be dissolved in water and alcohol, and can be easily destroyed. Its main functions: it can enhance the body immunity and protect capillaries, prevent scurvy and promote wound healing. Vitamin C can increase the use of iron, its chemical and biological process is that it reduces ferric iron in the diet to ferrous iron to promote the absorption of iron and to store iron in ferritin in the liver and bones. Practice shows that the supplementation of iron as well as adding VC can increase the iron absorption rate by 22%, it basically reaches the normal absorption rate of hemoglobin.
Vitamin D3: Its main physiological function is to promote intestinal calcium absorption, induce bone calcium-phosphorus attaching and prevent rickets.
Vitamin E:

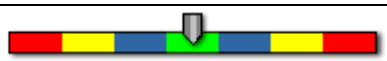
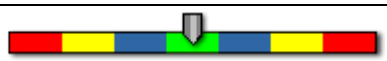
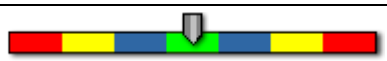
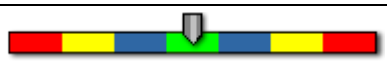
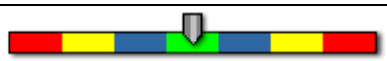
Its basic function is to protect the integrity of the internal structure of cells, and it can inhibit the oxidation of lipid in cells and on cell membranes and protect cells against damage of free radical. It also has the functions of anti-oxidation, anti-aging and beautifying.
Vitamin K: Vitamin K is an important vitamin for promoting normal blood coagulation and bone growth. Vitamin K is the essential substance in the synthesis of four kinds of blood clotting proteins (prothrombin, factor VII, anti-hemophilia factor and stuart factor) in the liver. The human body has little vitamin K, but it can maintain normal function of blood coagulation, reduce heavy bleeding in the physiological period, and prevent internal bleeding and hemorrhoids. The person with frequent nosebleed should take in more vitamin K from the natural foods.

The test results for reference only and not as a diagnostic conclusion.

(Amino Acid) Analysis Report Card

Name: Leif Rehnvall Sex: Male Age: 81
Figure: 168cm, 52kg Testing Time: 2026-02-27 20:15

Actual Testing Results

Testing Item	Normal Range	Actual Measurement Value	Testing Result
Lysine	0.962 - 1.213	0,751	
Tryptophan	4.978 - 6.289	4,541	
Phenylalanine	1.928 - 2.491	2,484	
Methionine	1.245 - 1.637	1,463	
Threonine	1.194 - 1.685	1,427	
Isoleucine	4.582 - 5.657	5,275	
Leucine	6.982 - 9.256	6,374	
Valine	6.982 - 9.677	8,403	
Histidine	5.113 - 6.258	6,04	
Arginine	1.812 - 2.337	1,993	
Homocysteine	0.983 - 1.265	1,051	

Reference Standard: **Normal(-)** **Mildly Abnormal(+)** **Moderately Abnormal(++)** **Severely Abnormal(+++)**

Lysine:	0.962-1.213(-) 0.253-0.659(++)	0.659-0.962(+) <0.253(+++)
Tryptophan:	4.978-6.289(-) 2.374-3.709(++)	3.709-4.978(+) <2.374(+++)
Phenylalanine:	1.928-2.491(-) 0.731-1.307(++)	1.307-1.928(+) <0.731(+++)
Methionine:	1.245-1.637(-) 0.432-0.826(++)	0.826-1.245(+) <0.432(+++)
Threonine:	1.194-1.685(-) 0.422-0.817(++)	0.817-1.194(+) <0.422(+++)
Isoleucine:	4.582-5.657(-) 1.831-3.248(++)	3.248-4.582(+) <1.831(+++)
Leucine:	6.982-9.256(-) 2.073-4.579(++)	4.579-6.982(+) <2.073(+++)

Valine:	6.982-9.677(-)	4.892-6.982(+)
	2.012-4.892(++)	<2.012(+++)
Histidine:	5.113-6.258(-)	4.012-5.113(+)
	2.903-4.012(++)	<2.903(+++)
Arginine:	1.812-2.337(-)	1.209-1.812(+)
	0.710-1.209(++)	<0.710(+++)
Homocysteine:	0.983-1.265(-)	0.709-0.983(+)
	0.510-0.709(++)	<0.510(+++)

Parameter Description
Lysine:enhance the development of the brain. It is the composition of liver and gallbladder, which enhances the metabolism of the fats, regulates the pineal gland, lactiferous glands, corpus luteum and ovary, and prevent the degradation of the cell. Lysine is the basic essential amino acid. Due to the low content in the cereal and the destruction during the food processing lysine is deficient, so it is called the first limiting amino acid. Symptoms for lack of lysine include fatigue, weakness, nausea, vomiting, dizziness, loss of appetite, growth retardation and anemia. Nutritious supplements can be taken in the advice of the medical professionals. The recommended intake for lysine is 10mg/pound for children, 3000-9000mg for adults. Lysine is the key material helpful to the absorption and utilization of other nourishment. Only when the body is supplied with sufficient lysine, the protein absorption and utilization of food can be enhanced, the nutrition can be balanced, and growth and development can be promoted. Lysine may adjust the balance of the human body metabolism. Lysine provides structural components for the synthesis of carnitine, which will lead to the synthesis of fatty acids in cells. Adding a small amount of lysine in foods will stimulate the secretion of pepsin and acid and improve the gastric secretion, which can enhance appetite and promote the growth and development of the infants. Lysine also increases absorption and accumulation of calcium in the body, accelerate bone growth. Lack of lysine may cause low gastric secretion, which will lead to anorexia and nutritional anemia, resulting in central nervous system disruption and dysplasia.
Tryptophan: promote the production of gastric and pancreatic juice Tryptophan can be converted to an important neurotransmitter in human brain---- 5 - hydroxy tryptamine, which can act as norepinephrine and epinephrine and can improve the sleep duration. When the content of 5 - HT decreases in the brain of an animal, the abnormal behavior, insanity hallucinations and insomnia will occur. In addition, 5 - HT has a strong effect of vasoconstriction. It may exist in many tissues, including platelets and intestinal mucosa cells. The injured organism will stanch bleeding by the release of 5 - HT. Tryptophan is often used as anti-nausea agent, anticonvulsant, gastric secretion regulator, gastric mucosal protection agent and strong anti-coma agent.
Phenylalanine:participate in eliminating the loss of the function of kidney and bladder Phenylalanine is one of the essential amino acids for human body. Ingested through food intake, some of the phenylalanine are used for protein synthesis, and the rest are converted into tyrosine in reaction with liver tyrosine hydroxylase, and then converted into other biologically active substances.
Methionine:the constituent of hemoglobin, tissue and serum with the function of promotion of the spleen, pancreas and lymph. Methionine is a sulfur-containing essential amino acid, closely related to the in-vivo metabolism of a variety of sulfur compounds. The lack of methionine will cause loss of appetite, growth-

slowing or stagnation of weight-gaining, enlarged kidney and liver iron accumulation etc, then lead to liver necrosis or fibrosis.

Methionine can also methylate the toxics or drugs with its methyl to perform the function of detoxification. Thus, methionine can be used in the prevention and treatment of liver diseases such as chronic or acute hepatitis and cirrhosis, etc, and in the alleviation of the toxicity of harmful substances such as arsenic, chloroform, carbon tetrachloride, benzene, pyridine and quinoline and so on.

Threonine:has the function of converting of some kinds of amino acids to gain the balance.

Threonine has a hydroxyl in its structure, which retains water in human skin. Combining with the oligosaccharide chain, it plays an important role in protecting the cell membrane, and promotes in-vivo phospholipid synthesis and fatty acid oxidation. Its preparation has the medicinal function of enhancing human body development and resisting fatty liver, being a composition of the composite amino acid infusion. Meanwhile, threonine is the raw material to produce single-amide streptozotocina, an antibiotic with high efficiency and low allergenicity.

Isoleucine:participates in the regulation and metabolism of thymus, spleen and pituitary gland

Valine, leucine and isoleucine are branched-chain amino acids, and essential amino acids as well. Isoleucine can be used in the treatments of neurological disorders, loss of appetite and anemia, acting an important role in muscle protein metabolism.

Leucine:balances the isoleucine

Leucine can be used for the diagnosis and treatment of sudden hyperglycemia of children; it can also be used as therapeutic agents for dizziness and nutritional tonics.

Valine:acts on corpus luteum, galactophore and ovarian.

When valine is in a low level, the supply imbalance and dysfunction of central nervous system function of the rats will occur, which will result in limbs tremor. Anatomic slice of the brain tissue showed the red nucleus cell degeneration. Patients with advanced cirrhosis often contract high hyperinsulinemia due to the damage to the liver, and this result in the reduction of branched-chain amino acids in the blood. The ratio of branched-chain amino acids and aromatic amino acids decreases from the normal range of 3.0-3.5 to 1.0 -1.5. So the branched-chain amino acid injection such as valine is often used in the treatment of diseases as liver failure. In addition, it can also functions as a therapeutic agent accelerating the wound healing.

Histidine: Functions in metabolic regulation

The imidazole of histidine can form coordination compounds with Fe2+or other ions, promoting the iron absorption. So histidine can be used in prevention of anemia. Histidine can reduce gastric acidity, ease the pain from gastrointestinal surgery, alleviate vomiting during pregnancy and burning sensation of the stomach, autonomic nervous inhibit the gastrointestinal ulcers caused by autonomic nervousness, and also be effective to allergic diseases such as asthma. In addition, due to its effect of dilating blood vessels and lowering blood pressure, histidine can be used for treatment of diseases such as angina and heart failure. The histidine content in the blood of patients with rheumatoid arthritis reduced significantly, but after the treatment of histidine, it is found that indicators including its grip strength, walking and erythrocyte sedimentation rate were improved.Adults can synthesize histamine, but children under 10 can not, so the requirement of histidine among children aged below 10 should be metby food supply.

Arginine: Promotes wound healing, sperm protein components

Arginine is an integral component in ornithine cycle, with extremely important physiological functions. Eating more arginine can increase the activity of arginase in liver and help converting ammonia in the blood into urea for excretion. Therefore, arginine is quite effective to diseases such as hyperammonemia and liver dysfunction.

Homocysteine:

Homocysteine is an amino acid that is produced as a degradation product in the human carbon cycle. Elevated values can cause damage to the blood vessels. A close relationship with premature senile dementia, the so-called Alzheimer's disease, is also being discussed.

Homocysteine has the psychological significance: lack of willingness to change destroys the joy of life.

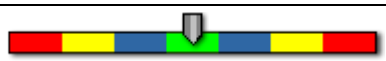
The test results for reference only and not as a diagnostic conclusion.

(Coenzyme) Analysis Report Card

Name: Leif Rehnvall Sex: Male Age: 81

Figure: 168cm, 52kg Testing Time: 2026-02-27 20:15

Actual Testing Results

Testing Item	Normal Range	Actual Measurement Value	Testing Result
Nicotinamide	2.074 - 3.309	1,345	
Biotin	1.833 - 2.979	1,909	
Pantothenic acid	1.116 - 2.101	0,735	
Folic acid	1.449 - 2.246	1,759	
Coenzyme Q10	0.831 - 1.588	0,819	
Glutathione	0.726 - 1.281	0,838	

Reference Standard: **Normal(-)** **Mildly Abnormal(+)** **Moderately Abnormal(++)** **Severely Abnormal(+++)**

Nicotinamide:	2.074-3.309(-) 0.626-1.348(++)	1.348-2.074(+) <0.626(+++)
Biotin:	1.833-2.979(-) 0.373-1.097(++)	1.097-1.833(+) <0.373(+++)
Pantothenic acid:	1.116-2.101(-) 0.432-0.809(++)	0.809-1.116(+) <0.432(+++)
Folic acid:	1.449-2.246(-) 1.243-1.325(++)	1.325-1.449(+) <1.243(+++)
Coenzyme Q10:	0.831-1.588(-) 0.418-0.627(++)	0.627-0.831(+) <0.418(+++)
Glutathione:	0.726-1.281(-) 0.171-0.476(++)	0.476-0.726(+) <0.171(+++)

Parameter Description
Nicotinamide: Nicotinamide is an essential coenzyme in vivo, plays a role in the biological oxidation of hydrogen transfer, can activate a variety of enzyme systems, to promote nucleic acid, protein, polysaccharide synthesis and metabolism, increasing regulation and control of material transport and improve metabolism.
Biotin:

It is the necessary material of synthesis of vitamin C, is essential to normal metabolism of fat and protein substances. It is necessary for the body's natural growth and to maintain normal body function as water-soluble vitamins; It is an essential fat and protein metabolism of the material, also to maintain normal growth, development and health of the necessary nutrients.
Pantothenic acid: Participate in the manufacture of energy in the body, and can control fat metabolism. It is necessary for brain and nerve nutrient. Helps the body anti-stress hormones (steroids) secretion. To maintain healthy skin and hair.
Folic acid: Folic acid is the necessary material of the body's use of sugars and amino acids, it is the necessary material of the body cell growth and reproduction. Lack of folic acid can cause giant cell anemia and leukopenia to the human body, also lead to physical weakness, irritability, loss of appetite, and psychiatric symptoms.
Coenzyme Q10: Coenzyme Q10 is a fat-soluble antioxidant, coenzyme Q10 is indispensable to human life, one of the important elements that can activate the body's cells and energy nutrients, improve immunity, enhance anti-oxidation, anti-aging and enhance the vitality of the human body, etc. function. The total body content of coenzyme Q10 is only 500-1500mg and with the elderly and reduced. The organ in the human content of coenzyme Q10 in the age of 20 reached a peak and then rapidly decreased.
Glutathione: Glutathione is composed of three amino acids peptide, exists in almost every cell of the body. Normal glutathione helps the body maintain a normal immune system function. Another major physiological role of glutathione is an important antioxidant in the body. It can rid the body of free radicals, clean and purify the human body, environmental pollution, thus enhancing people's health.

The test results for reference only and not as a diagnostic conclusion.

(Essential Fatty Acid) Analysis Report Card

Name: Leif Rehnvall | Sex: Male | Age: 81

Figure: 168cm, 52kg | Testing Time: 2026-02-27 20:15

Actual Testing Results

Testing Item	Normal Range	Actual Measurement Value	Testing Result
Linoleic acid	0.642 - 0.985	0,355	
α-Linolenic acid	0.814 - 1.202	1,006	
γ-Linolenic acid	0.921 - 1.334	1,179	
Arachidonic acid	0.661 - 0.808	0,63	

Reference Standard: **Normal(-)** **Mildly Abnormal(+)** **Moderately Abnormal(++)** **Severely Abnormal(+++)**

Linoleic acid:	0.642-0.985(-) 0.195-0.356(++)	0.356-0.642(+) <0.195(+++)
α-Linolenic acid:	0.814-1.202(-) 0.347-0.502(++)	0.502-0.814(+) <0.347(+++)
γ-Linolenic acid:	0.921-1.334(-) 0.310-0.623(++)	0.623-0.921(+) <0.310(+++)
Arachidonic acid:	0.661-0.808(-) 0.283-0.478(++)	0.478-0.661(+) <0.283(+++)

Parameter Description
Linoleic acid: Linoleic acid is an essential fatty acid, the effect on the human body mainly in: softening cardiovascular, promote blood circulation, lowering blood pressure, promote metabolism, endocrine regulation and slow aging and so on. Can serve to prevent human serum cholesterol deposition in the vessel wall, the [vascular scavenger] in the world, has the effect of prevention and treatment of atherosclerosis and cardiovascular disease.
α-Linolenic acid: Once the body lacks, that will lead from the body's lipid metabolism, resulting in reduced immunity, forgetfulness, fatigue, vision loss, the occurrence of atherosclerosis and other symptoms.
γ-Linolenic acid: γ-Linolenic acid is a structural material of human tissues and biological membranes, is a precursor of prostaglandin synthesis. Metabolic conversion of linoleic acid generated by the adult daily requirement is about 36mg / kg. Such as inadequate intake can cause the body function disorder, cause certain diseases, such as diabetes, high cholesterol and so on.
Arachidonic acid:

Important material of human brain and optic nerve development, to improve intelligence and enhanced visual acuity has an important role. At the same time the structure of lipids in the blood, liver, muscle and other organ systems as phospholipid binding plays an important role, having esterified cholesterol, increasing the elasticity, reduce blood viscosity, regulation of blood cell function and a series of physiological activity.

The test results for reference only and not as a diagnostic conclusion.

(Endocrine System) Analysis Report Card

Name: Leif Rehnvall Sex: Male Age: 81

Figure: 168cm, 52kg Testing Time: 2026-02-27 20:15

Actual Testing Results

Testing Item	Normal Range	Actual Measurement Value	Testing Result
Thyroid secretion index	2.954 - 5.543	3,826	
Parathyroid hormone secretion index	2.845 - 4.017	1,99	
Adrenal glands Index	2.412 - 2.974	1,983	
Pituitary secretion index	2.163 - 7.34	1,573	
Pineal secretion index	3.210 - 6.854	6,005	
Thymus gland secretion index	2.967 - 3.528	2,214	
Gland secretion index	2.204 - 2.819	2,569	

Reference Standard:	Normal(-)	Mildly Abnormal(+)
	Moderately Abnormal (++)	Severely Abnormal (+++)
Thyroid secretion index:	2.954-5.543(-) 0.514-1.864(++)	1.864-2.954(+) <0.514(+++)
Parathyroid hormone secretion index:	2.845-4.017(-) 1.134-1.932(++)	1.932-2.845(+) <1.134(+++)
Adrenal glands Index:	2.412-2.974(-) 1.433-1.976(++)	1.976-2.412(+) <1.433(+++)
Pituitary secretion index:	2.163-7.34(-) 0.641-1.309(++)	1.309-2.163(+) <0.641(+++)
Pineal secretion index:	3.210-6.854(-) 0.966-2.187(++)	2.187-3.210(+) <0.966(+++)
Thymus gland secretion index:	2.967-3.528(-) 1.647-2.318(++)	2.318-2.967(+) <1.647(+++)
Gland secretion index:	2.204-2.819(-) 1.028-1.717(++)	1.717-2.204(+) <1.028(+++)

Parameter Description

Thyroid secretion index:

Thyroid is the endocrine system is an important organ,there is a clear distinction between Thyroid and other body system (such as respiratory, etc), but it contact closely with the nervous system, interact with each other, known as the two major biological information systems, without their closely cooperation, the body's internal environment can not be maintained relatively stable. Endocrine system, including many of the glands, after the endocrine glands are stimulated appropriately by nerve , can make some of these endocrine cells release chemicals efficiently, the chemical was sent to the corresponding organ by the blood circulation to play regulating function, this highly efficient chemical are called as hormone.thyroid is the largest endocrine glands in Human endocrine system, it can secret thyroid hormone secretion after stimulated by nerve, and those hormone will pay a physiological effect after being sent to the corresponding organ in the human body.

Parathyroid hormone secretion index:

PTH main function is to affect the metabolism of calcium and phosphorus, mobilizing calcium from the bones to increase calcium concentration in blood, while also acting on the intestine and renal tubules to increase the absorption of calcium, so as to maintain the stability of calcium . If the parathyroid secretion is low, calcium concentration decreased, there is Tetany; if hyperthyroidism, bone prone to fractures maybe caused by excessive absorption. Parathyroid dysfunction may cause disorders of blood calcium and phosphorus ratio.

Adrenal glands Index:

Adrenal medulla is part of the internal, secretion of adrenaline and noradrenaline. The increased release of stress hormones, can help increase blood pressure, heart rate, elevated blood glucose, mobilize the reserve substances in the body, to prepare for struggling with the external environment. Therefore, adrenal glands is a very important Gland in body. All its activities are subject to the nerve center of the pituitary and fine-tuning. For example, aldosterone secretion are regulated by the kidneys renin, secretion of cortisol and androgen are regulated by ACTH of the pituitary. Epinephrine and norepinephrine are regulated by the sympathetic nervous system.

Pituitary secretion index:

Pituitary glands is the most important human Glands, it has two parts: sub-frontal and posterior lobe. It secretes hormones, such as growth hormone, thyroid stimulating hormone, adrenocorticotropic hormone, gonadotropin, oxytocin, prolactin, black cell stimulating hormone, etc., can also store the antidiuretic hormone of hypothalamus secretion . These hormones play an important role on metabolism, growth, development and reproduction, etc.

Pineal secretion index:

Pineal cells were dominated by sympathetic postganglionic fibers which from cervical ganglion,sympathetic stimulation may promote the synthesis and secretion of pineal melatonin.Secretion of the pineal gland is closely related to light, pineal gland will become small by continuously lighting, inhibit the secretion of pineal cells, and dark on the secretion of the pineal gland play a catalytic role.Since melatonin secretion and synthesis are regulated by light and darkness, so it appears secretion circadian rhythm. In human plasma, its secretion is lowest at noon, and highest at midnight.In addition, its cyclical secretion is closely related to the sexual cycle of animals and humans, as well as to the menstrual cycle of women.Pineal gland will release [time signal] to the central nervous system through melatonin secretion cycle, thus affecting the body's biological effects of time, such as sleep and awakening, especially the cyclical activity of hypothalamus-pituitary-gonadal axis.

Thymus gland secretion index:

Thymus is a lymphoid organs with endocrine function . Thymus develops to larger in the neonatal and early childhood, after sexually mature, it will gradually shrink to degradation.Thymus is divided into left and right lobe, asymmetric, adult thymus is about 25 to 40 grams, color gray red, soft, mainly located in the anterior mediastinum.Thymus is hematopoietic organ in the embryonic, in adulthood it can produce lymphocytes, plasma cells, and myeloid cells.Thymus reticular epithelial cells secrete thymosin, it can promote the producing and maturing of T cells with immune function , and it also can inhibit the synthesis and release of acetylcholine of motor nerve

terminals.when there is thymoma, thymosin will increase, this could lead to the myasthenia gravis because of emergence of neuromuscular disorder.

Gland secretion index:

Mainly refers to the male gonad testis, ovary women.
Testis secrete male hormone testosterone (testosterone), its main function is to promote the development of gonad and its subsidiary structures and the appearance of sexual characteristics, but also to promote the protein synthesis.
Ovarian secrete follicle stimulating hormone, progesterone, relaxin and male hormones.
Its functions are:
(1) to stimulate endometrial proliferation, to promote thickening of the uterus, enlarge breast and the emergence of female sexual characteristics and so on.
(2) to promote proliferation of uterine epithelium and uterine gland and maintain the body water, sodium, calcium, and lower blood sugar, elevated body temperature.
(3) to promote the laxity of cervix and the pubic symphysis ligament to help childbirth.
(4) To enable women to appear masculine sexual characteristics, etc.

The test results for reference only and not as a diagnostic conclusion.

(Immune System) Analysis Report Card

Name: Leif Rehnvall Sex: Male Age: 81
Figure: 168cm, 52kg Testing Time: 2026-02-27 20:15

Actual Testing Results

Testing Item	Normal Range	Actual Measurement Value	Testing Result
Lymph node Index	133.437 - 140.47	134,025	
Tonsil immune Index	0.124 - 0.453	0,1	
Bone marrow Index	0.146 - 3.218	0,398	
Spleen index	34.367 - 35.642	35,081	
Thymus index	58.425 - 61.213	52,711	
Immunoglobulin index	3.712 - 6.981	5,006	
Respiratory immune Index	3.241 - 9.814	8,864	
Gastrointestinal immune Index	0.638 - 1.712	1,318	
Mucosa immune Index	4.111 - 18.741	14,334	

Reference Standard:	**Normal(-)** / **Moderately Abnormal (++)**	**Mildly Abnormal(+)** / **Severely Abnormal (+++)**
Lymph node Index:	133.437-140.47(-) 146.926-153.164(++)	140.47-146.926(+) >153.164(+++)
Tonsil immune Index:	0.124-0.453(-) 0.073-0.097(++)	0.097-0.124(+) <0.073(+++)
Bone marrow Index:	0.146-3.218(-) 0.052-0.089(++)	0.089-0.146(+) <0.052(+++)
Spleen index:	34.367-35.642(-) 29.947-33.109(++)	33.109-34.367(+) <29.947(+++)
Thymus index:	58.425-61.213(-) 52.518-55.627(++)	55.627-58.425(+) <52.518(+++)
Immunoglobulin index:	3.712-6.981(-) 1.571-2.476(++)	2.476-3.712(+) <1.571(+++)
Respiratory immune Index:	3.241-9.814(-) 1.029-2.174(++)	2.174-3.241(+) <1.029(+++)

Gastrointestinal immune Index:	0.638-1.712(-)	0.434-0.638(+)
	0.218-0.434(++)	<0.218(+++)
Mucosa immune Index:	4.111-18.741(-)	2.647-4.111(+)
	1.138-2.647(++)	<1.138(+++)

Parameter Description
Lymph node Index: Lymph node is the unique organ of mammals. Normal human's superficial lymph nodes is very small, smooth, soft, no adhesion with surrounding tissue and no tenderness, less than 0.5 cm in diameter . When the bacteria enter into your body from the site of injury, the lymphocytes will produce lymphokines and antibodies to kill the bacteria effectively. The result is lymphocytes hyperplasia and histiocytosis of the cellular response to lymph nodes within the lymph node, as lymph node reactive hyperplasia.viruses, certain chemicals, toxic products of metabolism, degeneration of tissue components and foreign matter Can cause lymph node reactive hyperplasia . Therefore, the enlarged lymph nodes are the body's beacon, a warning device
Tonsil immune Index: Tonsil is the largest lymphoid tissue in pharyngeal. In childhood, it is an active immune organ, containing all developmental stages of the cell, such as T cells, B cells, phagocytic cells. It therefore has a role in humoral immunity, resulting in a variety of immune globulin, also have some role in cellular immunity. Tonsil IgA immunoglobulins produced a strong immune system, inhibit bacterial adhesion to respiratory mucosa, and inhibit bacterial growth and spread of the virus has neutralization and inhibition.
Bone marrow Index: Human hematopoietic bone marrow is located within the body's bones. there are Two types of adult bone marrow: red marrow and yellow marrow. Red bone marrow manufacture red blood cells, platelets and various leukocytes. Platelets have hemostatic function, white blood cells can kill and suppress a variety of pathogens, including bacteria, viruses, etc.; some of the lymphocytes produce antibodies. Therefore, the bone marrow is not only the blood-forming organs, but also an important immune organ.
Spleen index: Spleen is the body's largest lymphoid organ, located in the left upper abdomen. The main function of the spleen is filtering and storage of blood. Spleen is a crisp texture and a rich blood supply of organs,it is easy to break in the event of a strong external force to combat. Splenic rupture can cause serious bleeding, it is One of acute abdomen to death.
Thymus index: Thymus (thymus) as an important body in lymphoid organs,a ductless glandular organ at the base of the neck that produces lymphocytes and aids in producing immunity; atrophies with age which is closely associated with immune function. which locat in the chest before the mediastinum. during the late embryonic stage and birth, the human thymus weighing about 10 to 15 grams. With age, the thymus continues to develop, to the adolescent about 30 ~ 40 grams. After puberty, the thymus shrinks to only 15 grams aged thymus.
Immunoglobulin index: Immune globulin is a protein with antibody activity in animals. Mainly in plasma, also found in other body fluids, tissue, and some secretion of fluid. Most of immunoglobulin Human plasma present in the gamma globulin. Immune globulin can be divided into five types IgG, IgA, IgM, IgD, IgE .
Respiratory immune Index:

Human respiratory system is the main gateway connected with the outside world. pathogenic microorganisms and harmful substances can often lead to inflammatory diseases which enter into the respiratory tract with the air . there were lymphoid tissue locat in the entire respiratory tract from the nasopharynx to the respiratory bronchioles and alveoli, typical of the lymph nodes are in the surrounding of trachea and bronchi.
Gastrointestinal immune Index: In recent years, with the development of immunology,people pay more attention to the relationshiping between immune and digestive tract diseases increasingly. Digestive tract of non-specific immunity include: full digestive tract from mouth to rectum mucosal barrier, all decomposition enzymes, bile, liver barrier, gastrointestinal peristalsis and natural flora.
Mucosa immune Index: Mucosal immune system is relatively independent of the systemic immune system, it had also inextricably linked with the systemic immune system. Mucosal immunity constitutes the two major functional areas: the immune induction site and parts of immune responses. Lymphocytes in the body immune system and mucosal immune system move continuously between the two major functional areas, accompanied by cell differentiation and maturation of their own.

The test results for reference only and not as a diagnostic conclusion.

(Thyroid) Analysis Report Card

Name: Leif Rehnvall | Sex: Male | Age: 81

Figure: 168cm, 52kg | Testing Time: 2026-02-27 20:15

Actual Testing Results

Testing Item	Normal Range	Actual Measurement Value	Testing Result
Free thyroxine (FT4)	0.103 - 0.316	0,419	
Thyroglobulin	0.114 - 0.202	0,347	
Anti-thyroglobulin antibodies	0.421 - 0.734	0,551	
Three triiodothyronine (T3)	0.161 - 0.308	0,392	

Reference Standard:	Normal(-) / Moderately Abnormal (++)	Mildly Abnormal(+) / Severely Abnormal (+++)
Free thyroxine (FT4):	0.103-0.316(-) 0.645-0.873(++)	0.316-0.645(+) >0.873(+++)
Thyroglobulin:	0.114-0.202(-) 0.447-0.627(++)	0.202-0.447(+) >0.627(+++)
Anti-thyroglobulin antibodies:	0.421-0.734(-) 0.210-0.323(++)	0.323-0.421(+) <0.210(+++)
Three triiodothyronine (T3):	0.161-0.308(-) 0.543-0.757(++)	0.308-0.543(+) >0.757(+++)

Parameter Description
Free thyroxine (FT4): Free thyroxine (FT4) is a sensitive indicator of thyroid function in vitro tests, even cause thyroid binding proteins in plasma concentration of power and change in physiological and pathological situations, it can more accurately reflect thyroid function.
Thyroglobulin: Thyroglobulin thyroid follicular epithelial cells by synthesis of a glycoprotein molecules, is the main component of the thyroid follicular colloid, globulin synthesized in the form of thyroid hormone is stored in the follicular lumen. Under normal circumstances, only a trace amount of TG into the blood circulation.
Anti-thyroglobulin antibodies: Anti-thyroglobulin antibodies are thyroiditis caused by autoantibodies specific for the diagnosis of chronic lymphocytic thyroiditis index. Anti-thyroglobulin antibodies and anti-microsomal antibody positive rate of chronic lymphocytic thyroiditis (Hashimoto's thyroiditis) the highest,

followed by primary hypothyroidism. Other thyroid diseases and can also be detected in the blood of healthy people, but lower titers.
Three triiodothyronine (T3): T3 is a thyroid follicular cell synthesis and secretion of hormones.

The test results for reference only and not as a diagnostic conclusion.

(Human Toxin) Analysis Report Card

Name: Leif Rehnvall Sex: Male Age: 81

Figure: 168cm, 52kg Testing Time: 2026-02-27 20:15

Actual Testing Results

Testing Item	Normal Range	Actual Measurement Value	Testing Result
Stimulating Beverage	0.209 - 0.751	0,351	
Electromagnetic Radiation	0.046 - 0.167	0,477	
Free Radical	0.124 - 0.453	0,514	
Toxic Pesticide Residue	0.013 - 0.313	0,437	

Reference Standard: **Normal(-)** **Mildly Abnormal(+)** **Moderately Abnormal(++)** **Severely Abnormal(+++)**

Stimulating Beverage:	0.209-0.751(-)	0.751-0.844(+)
	0.844-0.987(++)	>0.987(+++)
Electromagnetic Radiation:	0.046-0.167(-)	0.167-0.457(+)
	0.457-0.989(++)	>0.989(+++)
Free Radical:	0.124-0.453(-)	0.453-0.525(+)
	0.525-0.749(++)	>0.749(+++)
Toxic Pesticide Residue:	0.013-0.313(-)	0.313-0.406(+)
	0.406-0.626(++)	>0.626(+++)

Parameter Description
Stimulating Beverage: These stimulating beverages have no or little electrolytes. If the person drinks these beverages after exercise, it is conducive to the body to add moisture after exercise and possibly results in the reduction of extracellular fluid osmotic pressure in the body due to the intake of a lot of moisture to accelerate the further loss of intracellular electrolytes. Some people like drinking ice water after exercise. Although people feel cool after drinking ice water, but the immediate drinking after exercise will stimulate gastrointestinal smooth muscle to cause gastrointestinal cramps and abdominal pain. Water temperature preferably is 15 to 40 Degree C, so the recovery process speeds up. The main ingredients of these stimulating beverages are sugar (or saccharin), pigment, carbonated water and carbon dioxide, these stimulating beverages almost have little nutrition besides certain amount of calories. If the human body takes in excessive synthetic flavors and pigment, it is harmful to the body, so we should drink less. Color juice: fruit juice is made from a variety of fruit juice, containing a variety of vitamins and sugars. Drinking fruit juice can supplement vitamins and inorganic salts in the body, organic acids can regulate the acid-base balance of body fluid, stimulate the secretion of digestive juice, promote appetite and invigorate the spleen.
Electromagnetic Radiation:

I. What is electromagnetic radiation? The interactive change of electric and magnetic fields generates electromagnetic waves, and the phenomenon of the air-launch or exposure of electromagnetic waves is called as electromagnetic radiation. The electromagnetic radiation exceeding the safety limit causes the electromagnetic pollution. At present, the electromagnetic pollution has become the first major pollution, being ranked before the sewage, waste gas and noise.
II. Electromagnetic radiation and physical health: on the subject whether the electromagnetic field (50-60HZ) of industrial frequency impacts the physical health, occident countries have made a large number of surveys and statistical analysis and obtain a surprising result: the probability of occurrence of human tumors is closely related to the low-frequency electromagnetic radiation.
III. Mechanism of electromagnetic radiation on the human body: the human body, being a conductor, can absorb electromagnetic energy. Under the action of electromagnetic field, the human body will cause thermal effects. The greater the strength of electromagnetic field, the more obvious the thermal effects are. In addition, it will interfere with the transmission of bio-electrical information of the human body.
IV. Harms of electromagnetic radiation on the human body are mainly showed: electromagnetic radiation can widely impact the human health, and can change neurological, reproductive, cardiovascular and immune functions, eye vision, etc. The main symptoms include headache, dizziness, memory loss, inability of concentration, depression, irritability, women's menstrual disorders, breast cancer, skin aging, breathing difficulties, back pain and so on. The rate of occurrence of leukemia of people often contacting with electromagnetic radiation is 2.93 times higher than that of the healthy people, and the rate of occurrence of brain tumors is 3.26 times higher than that of the healthy people.

Free Radical:

Free radicals, also known as the source of all diseases, are the main cause of human aging and disease. Active oxygen free radicals in the body have certain functions, such as immune and signaling processes. But too much active oxygen free radicals will have a destructive effect, leading to the damage of normal cells and tissues of the human body, thus causing various diseases. Such as heart disease, dementia, Parkinson's disease and tumors. In addition, sunlight radiation, air pollution, smoking, pesticides, etc. in the external environment will cause the body to produce more active oxygen free radicals and mutate nucleic acids, which is the root cause of human aging and disease.

Toxic Pesticide Residue:

The original body of pesticides, toxic metabolites, degradation products and impurities left on the organisms, subsidiary agricultural products and environment after use of pesticides are called as pesticide residues. People often only consider the residues of the original body of pesticides as pesticide residues and neglect toxic metabolite and the degradation products thereof. In fact, not only the original body is toxic, but also the chronic toxicity of its metabolites or impurities is equal to or more serious that that of the original body. Pesticides can alter hormones to result in women's secretion disorders, male oligozoospermia and low sperm survival rate; after the pesticides enter the body, one part is converted by kidneys and livers or expelled to increase the workload of the body to cause diseases; one part is combined with hemoglobin of blood to reduce its capacity for oxygen supply; and one part of fat soluble pesticides is deposited in the body fat.

The test results for reference only and not as a diagnostic conclusion.

(Heavy Metal) Analysis Report Card

Name: Leif Rehnvall Sex: Male Age: 81
Figure: 168cm, 52kg Testing Time: 2026-02-27 20:15

Actual Testing Results

Testing Item	Normal Range	Actual Measurement Value	Testing Result
Lead	0.052 - 0.643	1,515	
Mercury	0.013 - 0.336	0,724	
Cadmium	0.527 - 1.523	1,733	
Chromium	0.176 - 1.183	1,022	
Arsenic	0.153 - 0.621	0,618	
Antimony	0.162 - 0.412	0,367	
Thallium	0.182 - 0.542	0,447	
Aluminum	0.192 - 0.412	0,555	

Reference Standard: **Normal(-)** **Mildly Abnormal(+)** **Moderately Abnormal(++)** **Severely Abnormal(+++)**

Lead:	0.052-0.643(-) 1.005-1.582(++)	0.643-1.005(+) >1.582(+++)
Mercury:	0.013-0.336(-) 0.721-1.043(++)	0.336-0.721(+) >1.043(+++)
Cadmium:	0.527-1.523(-) 1.932-2.146(++)	1.523-1.932(+) >2.146(+++)
Chromium:	0.176-1.183(-) 1.843-2.663(++)	1.183-1.843(+) >2.663(+++)
Arsenic:	0.153-0.621(-) 1.243-1.945(++)	0.621-1.243(+) >1.945(+++)
Antimony:	0.162-0.412(-) 0.885-1.374(++)	0.412-0.885(+) >1.374(+++)
Thallium:	0.182-0.542(-) 1.133-1.721(++)	0.542-1.133(+) >1.721(+++)
Aluminum:	0.192-0.412(-) 0.726-1.476(++)	0.412-0.726(+) >1.476(+++)

Parameter Description
Lead: Blood lead is generally believed that the relative safety standards should not exceed 10 micrograms to 14 micrograms / liter; long-term inhalation exposure to metallic lead or lead compounds in dust, can cause varying degrees of [lead poisoning] disease (serum concentration greater than 40 micrograms of lead / l); inhaled too much will harm the human nervous system, heart and respiratory system, causing varying degrees of lead poisoning; the human body, can lead to interference with a variety of enzymes with a wide range of physiological activities organisms, leading the body organ harm; the chance of lead poisoning in children is far more than adults.
Mercury: Mercury ingested directly after sinking into the liver, brain, eye nerve damage greatly, mainly involving harm to human central nervous system, digestive system and kidneys, in addition to have a certain impact.of the respiratory system, skin, blood and eyes.
Cadmium: Cadmium would cause irritation for respiratory, long-term exposure can cause disease as loss of sense of smell, macular or gums had become a yellow circle, cadmium compounds can not easily be absorbed in the intestine, but can be absorbed into the body through breathing, accumulation in the liver or kidney cause obvious damage to the kidneys. Especially with the bone metabolic disruption, resulting in osteoporosis, atrophy, deformation and a series of symptoms.
Chromium: Chromium in nature mainly in the trivalent form of chromium and hexavalent chromium. Hexavalent chromium is mainly harm for people with chronic poisoning, which can be through the digestive tract, respiratory tract, skin and mucous membrane into the human body. The body accumulates mainly in liver, kidney and endocrine glands in the. Through the respiratory tract is easy to accumulate in the lungs. Hexavalent chromium has a strong oxidation, so the chronic poisoning often began with the development of local damage to the hopeless. Invade the body through the respiratory tract, the start against the upper respiratory tract, causing rhinitis, pharyngitis and laryngitis, bronchitis.
Arsenic: Arsenic invades the human body, discharge by the urine, digestive tract, saliva, breast discharge, then accumulation in the Ministry of osteoporosis, liver, kidney, spleen, muscle, hair, nails and other parts. Arsenic on the nervous system, stimulate the blood-forming organs, a small amount into the human body a long time, have a stimulating effect on erythropoiesis, long-term exposure to arsenic poisoning can cause cell and capillary poisoning, may also induce cancer.
Antimony: Antimony is a silvery white metal of natural, can irritate the eyes, nose, throat and skin, continuous exposure may damage the heart and liver function, inhalation of high levels of antimony antimony poisoning can cause symptoms including vomiting, headaches, breathing difficulties, and severe may cause dying.
Thallium: Thallium as a strong nerve poison, damage effect for the liver and kidney. Inhalation, oral can cause acute poisoning; also can be absorbed through the skin.
Aluminum: Aluminum will continue to accumulate in the human body, causing disease of the nervous system, interfering human thought, consciousness and memory function, severe cases may dementia. Excessive intake of aluminum, but also lead to deposition of calcium in bone loss and inhibit bone formation, the occurrence of osteomalacia.

The test results for reference only and not as a diagnostic conclusion.

(Basic Physical Quality) Analysis Report Card

Name: Leif Rehnvall Sex: Male Age: 81

Figure: 168cm, 52kg Testing Time: 2026-02-27 20:15

Actual Testing Results

Testing Item	Normal Range	Actual Measurement Value	Testing Result
Response Ability	59.786 - 65.424	64,004	
Mental Power	58.715 - 63.213	56,972	
Water Shortage	33.967 - 37.642	32,627	
Hypoxia	133.642 - 141.476	140,29	
PH	3.156 - 3.694	3,046	

Reference Standard: **Normal(-)** **Mildly Abnormal(+)** **Moderately Abnormal(++)** **Severely Abnormal(+++)**

Response Ability:	59.786-65.424(-)	57.331-59.786(+)
	54.347-57.331(++)	<54.347(+++)
Mental Power:	58.715-63.213(-)	56.729-58.715(+)
	52.743-56.729(++)	<52.743(+++)
Water Shortage:	33.967-37.642(-)	31.265-33.967(+)
	28.431-31.265(++)	<28.431(+++)
Hypoxia:	133.642-141.476(-)	126.619-133.642(+)
	123.321-126.619(++)	<123.321(+++)
PH:	3.156 - 3.694 (Normal)	
	>3.694 (Alkaline)	<3.156 (Acid)

Parameter Description
Response Ability: In the range of 59.786-65.424, it shows the adrenal function, compressive capacity and willpower are normal. The abnormality shows the adrenal gland secretion is too low, the sentiment seems depressed and the response is slow.
Mental Power: In the range of 58.715-63.213, it shows the brain function and the vitality are normal. The abnormality shows the weaker brain function, depression, insomnia, thinking and memory deterioration and so on.
Water Shortage:

In the range of 33.967-37.642, moisture in the body is normal. The abnormality shows moisture in the body is too low, and the person has a sense of thirst and fatigue, so it should be appropriate to supplement water. The long-term water shortage usually makes the skin dry and be easy to aging.
Hypoxia: In the range of 133.642-141.476, it shows the oxygen content of the body's cells is normal. The abnormality shows the oxygen content of the cells is low, the respiratory system is possible abnormal, and there is an anemia trend and lack of exercise. It can result in cell degeneration, memory loss and indigestion.
PH: In the range of 3.156-3.694, it shows blood pH is normal. In the pH larger than 3.694, it biases alkalinity, and the body is easy to pain. In the pH lower than 3.156, it biases acidity, and the body is easy to result in chronic diseases and generate the following symptoms: 1. it is easy to have fatigue, asthma and sleepyhead.2. It is easy to have a cold or diabetes, hypertension and gout. 3. It is easy to have obesity. 4. The skin has more wrinkles and lacks of luster. In the body, there are three kinds of mechanisms to regulate the PH value: 1. Blood protein. 2. Lungs expel carbon dioxide to prevent the accumulation of carbonate. 3. Kidneys excrete acid-base and produce HCO-neutralization H + ion to regulate the PH value. There are two main reasons to cause the acidic physique: 1. Large emotional pressure. 2. Excessive intake of acidic foods. Healthy physique is slightly alkaline, and people do not easily get sick.

The test results for reference only and not as a diagnostic conclusion.

(Allergy) Analysis Report Card

Name: Leif Rehnvall Sex: Male Age: 81
Figure: 168cm, 52kg Testing Time: 2026-02-27 20:15

Actual Testing Results

Testing Item	Normal Range	Actual Measurement Value	Testing Result
Drug allergy index	0.431 - 1.329	1,423	
Alcohol allergy index	0.432 - 1.246	0,793	
Pollen allergy index	0.143 - 1.989	0,914	
Injection allergy index	0.847 - 1.045	1,223	
Chemical products allergy index	0.842 - 1.643	1,609	
Paint allergy index	0.346 - 1.401	0,584	
Dust allergy index	0.543 - 1.023	1,21	
Smoke allergy index	0.826 - 1.013	1,877	
Hair dye allergy index	0.717 - 1.486	1,069	
Animal fur allergy index	0.124 - 1.192	0,276	
Metal jewelry allergy index	0.549 - 1.213	1,333	
Seafood allergy index	0.449 - 1.246	0,705	
Milk allergy index	0.477 - 1.348	3,329	

Reference Standard:	**Normal(-)** **Moderately Abnormal (++)**	**Mildly Abnormal(+)** **Severely Abnormal (+++)**
Drug allergy index:	0.431-1.329(-) 2.227-5.219(++)	1.329-2.227(+) >5.219(+++)
Alcohol allergy index:	0.432-1.246(-) 2.462-5.663(++)	1.246-2.462(+) >5.663 (+++)
Pollen allergy index:	0.143-1.989(-) 2.843-5.945(++)	1.989-2.843(+) >5.945(+++)
Injection allergy index:	0.847-1.045(-) 1.847-2.663(++)	1.045-1.847(+) >2.663(+++)
Chemical products allergy index:	0.842-1.643(-) 2.721-3.943(++)	1.643-2.721(+) >3.943(+++)

Paint allergy index:	0.346-1.401(-)	1.401-2.346(+)
	2.346-4.311(++)	>4.311(+++)
Dust allergy index:	0.543-1.023(-)	1.023-1.543(+)
	1.543-2.872(++)	>2.872(+++)
Smoke allergy index:	0.826-1.013(-)	1.013-2.826(+)
	2.826-4.213(++)	>4.213(+++)
Hair dye allergy index:	0.717-1.486(-)	1.486-2.717(+)
	2.717-5.541(++)	>5.541(+++)
Animal fur allergy index:	0.124-1.192(-)	1.192-2.124(+)
	2.124-4.369(++)	>4.369(+++)
Metal jewelry allergy index:	0.549-1.213(-)	1.213-2.549(+)
	2.549-3.229(++)	>3.229(+++)
Seafood allergy index:	0.449-1.246(-)	1.246-2.844(+)
	2.844-4.325(++)	>4.325(+++)
Milk allergy index:	0.477-1.348(-)	1.348-4.477(+)
	4.477-8.742(++)	>8.742(+++)

Parameter Description
Drug allergy index: Drug allergy is due to drug-induced allergic reactions. Allergic reactions are a class of abnormal immune responses. Abnormal immune response, either too strong or too weak, the body is negative, it will cause a series of lesions; caused by the drugs situation is drug allergy. Usually may occur skin flushing, itching, heart palpitations, skin rashes, breathing difficulties, severe shock or death.
Alcohol allergy index: Alcohol allergy is caused by the lack of the enzyme acetaldehyde of the body, an external symptoms of skin allergy reactions. Allergic to alcohol, two necessary conditions are allergy and alcohol, allergies are mostly the lack of acetaldehyde-converting enzyme in vivo. Alcohol, which is ethanol, in the body into acetaldehyde, because the lack of body-converting enzyme acetaldehyde, acetic acid can not be discharged into the body, so resulting the acetaldehyde poisoning, people will show a variety of allergy symptoms. The large amount of alcohol people, because this enzyme in the body more quickly out, and no symptoms of poisoning, and will not drink. Alcohol allergy, mostly allergies. Once the allergens allergies come into contact with alcohol, there will be a variety of allergy symptoms. These people are allergic, alcohol is the allergen, exposure to cause allergies to allergens.
Pollen allergy index: Pollen diameter is generally about 30 to 50 microns, drift in the air when they can easily be sucked into the respiratory tract. People who have pollen allergies have an allergic reaction after inhaling the pollen, which is pollen allergy. The main symptoms of pollen allergy is sneezing, runny nose, watery eyes, nose, itching eyes and external auditory canal, also induced severe bronchitis, bronchial asthma, pulmonary heart disease (multiple in summer and autumn). The reason why the human body can cause pollen allergy is pollen is rich in protein, some of which are allergic to the protein component are the major source of allergens.

Injection allergy index: Likely to cause allergy injections including: penicillin, streptomycin, and other heterogeneous serum, 5% of the population to 6% of such injections allergies, and any age, any dosage form and dose, any route of administration, allergies can occur reaction. Therefore, the use of such injections should do allergy testing first, test results negative before treatment.
Chemical products allergy index: The raw materials of chemical fiber cloth is from coal, oil, gas and other high-molecular compound or nitrogen compounds extracted, some of which species are likely to become allergic to the source, enters the body, can easily lead to allergic dermatitis, causing itching, pain, swelling or blisters.
Paint allergy index: Paint and other chemical products easily attract people's allergies. However, the emergence of such symptoms is not necessarily due to substandard quality of paint, but by the decision of each person's body. Mainly two kinds of paint allergy symptoms. 1, the paint can cause allergic rhinitis: frequent hand-rubbing the nose, frequent sneezing, runny nose a bit and smell the paint fumes are nausea and vomiting. 2, paint allergy can cause allergic dermatitis: the body, hands, etc. Commissioner of red points, after breaking become inflamed, and itchy.
Dust allergy index: Inhalation of dust are allergic to allergy. When the allergies inhaled dust allergy symptoms occur such as itchy nose, itchy skin, itchy eyes, wheezing and coughing. Once asthma symptoms, you should go to hospital for treatment.
Smoke allergy index: Allergies are allergic to smoke inhalation. When the smoke fumes when inhaled allergens, can cause sneezing, runny nose, and some can cause allergic dermatitis, causing itching, pain, swelling, or blisters.
Hair dye allergy index: Caused by the hair dye hair dye allergy allergic contact dermatitis, light performance of the scalp swelling, itching, burning, severe scalp, neck and facial swelling occurs, blisters, streams of yellow water, or even purulent infection. Hair dye composition has called 'p-phenylenediamine' chemicals, easy to skin damage. The more frequent hair dye, the more closely chemicals attach hair and scalp, the greater the harm to the body, the greater occurrence of the chance of hair dye allergy.
Animal fur allergy index: Animal fur allergy is allergic to animal fur contact allergy. After contacting with animal fur, there will be allergy symptoms such as itchy nose, itchy skin, itchy eyes, wheezing and coughing.
Metal jewelry allergy index: A lot of metal jewelry are mixed with a small amount in proportion to the nickel, copper, chromium and other allergenic metals, hot, sweating, pores, telangiectasia lead to metal jewelry in a small amount of sulfuric acid and nickel into the body through the pores and sebaceous glands, and Certain proteins in vivo, resulting in inflammation of skin allergies.
Seafood allergy index: Seafood allergy is due to the large number of heterogeneous seafood rich in protein, these mutant proteins directly or indirectly activate immune cells, causing the release of chemical mediators, and then produce a series of complex biochemical reactions. The interaction of Antibody-antigen, the human body shows symptoms of allergy.
Milk allergy index: Milk allergy is allergic to milk protein, and then may be eczema, vomiting, diarrhea or abdominal pain and other symptoms. Milk protein as the protein molecules of the opposite sex, and sometimes can trigger allergies allergy symptoms.

The test results for reference only and not as a diagnostic conclusion.

(Obesity) Analysis Report Card

Name: Leif Rehnvall Sex: Male Age: 81

Figure: 168cm, 52kg Testing Time: 2026-02-27 20:15

Actual Testing Results

Testing Item	Normal Range	Actual Measurement Value	Testing Result
Abnormal lipid metabolism coefficient	1.992 - 3.713	2,137	
Brown adipose tissue abnormalities coefficient	2.791 - 4.202	2,885	
Hyperinsulinemia coefficient	0.097 - 0.215	0,204	
Nucleus of the hypothalamus abnormal coefficient	0.332 - 0.626	0,508	
Triglyceride content of abnormal coefficient	1.341 - 1.991	2,735	

Reference Standard:	Normal(-)	Mildly Abnormal (+)
	Moderately Abnormal(++)	Severely Abnormal (+++)
Abnormal lipid metabolism coefficient:	1.992-3.713(-)	1.113-1.992(+)
	0.782-1.113(++)	<0.782(+++)
Brown adipose tissue abnormalities coefficient:	2.791-4.202(-)	2.202-2.791(+)
	1.691-2.020(++)	<1.691(+++)
Hyperinsulinemia coefficient:	0.097-0.215(-)	0.215-0.426(+)
	0.426-0.519(++)	>0.519(+++)
Nucleus of the hypothalamus abnormal coefficient:	0.332-0.626(-)	0.626-0.832(+)
	0.832-0.958(++)	>0.926(+++)
Triglyceride content of abnormal coefficient:	1.341-1.991(-)	1.991-3.568(+)
	3.568-5.621(++)	>5.621(+++)

Parameter Description
Abnormal lipid metabolism coefficient: Abnormal lipid metabolism is congenital or acquired factors to bring out the abnormal lipid substances and their metabolites produced for blood and other tissues and organs. Lipid metabolism to regulation by the genetic, neural, body fluids, hormones, enzymes, and liver tissues

and organs can cause when these factors have abnormal lipid metabolism disorders and organ pathophysiological changes. Specific symptoms, including: hyperlipoproteinemia, lipid storage disease, obesity, fatty liver and so on.
Brown adipose tissue abnormalities coefficient: Brown adipose tissue a thermogenic organ function, when the body ingestion or cold stimulation, the brown fat cells, fat burning, and to determine the level of the body's energy metabolism. Both cases were known that the feeding induced by heat and cold induced heat production. Brown adipose tissue thermogenesis organizations directly involved in the total regulation of body heat, excess body heat is distributed to the in vitro energy metabolism tends to balance. Brown adipose tissue thermogenesis of the body's nutritional balance, and prevents the body from obesity.
Hyperinsulinemia coefficient: Obesity often coexist with hyperinsulinemia, but is generally believed that the Department of hyperinsulinemia caused by obesity. Hyperinsulinemic obese, insulin release is about three times the normal. Insulin promote fat accumulation of a significant and it was suggested that insulin can be used as an indicator of the overall fat content and obesity in a certain sense can be used as monitoring factor. Plasma insulin concentration, and the overall fat content was significantly positively correlated.
Nucleus of the hypothalamus abnormal coefficient: Known human hypothalamus many animals there are two pairs of feeding behavior nucleus. Abdominal contralateral nucleus (VMH), also known as full central; another hunger for the ventrolateral nucleus (LHA), also known as the hub. Full central excited satiety and antifeedant destroyed appetite; central nervous system stimulation when hungry appetite, failure, anorexia, poor feeding. Between regulation, mutual restraint, in a state of dynamic equilibrium under physiological conditions, appetite regulation and maintain normal body weight within normal range.The moment hypothalamic lesions occur, whether the inflammatory sequelae (such as meningitis, encephalitis), trauma, tumors and other pathological changes, such as the ventral medial nuclear destruction, the ventrolateral nuclear function of relative hyperthyroidism and bulimia assiduous , causing obesity. Conversely, when the nuclear destruction of the ventrolateral, ventromedial nuclear function of the relative hyperactivity and loss of appetite, caused weight loss.
Triglyceride content of abnormal coefficient: Day consumption of caloric over consumption of energy required divided by the liver and muscle glycogen in the form of storage, almost completely converted to fat and store in the library of body fat, mainly triglycerides, due to limited glycogen reserves. Therefore, fat as the major storage form of body heat. Such as recurrent excessive intake of neutral fat and carbohydrates, fat synthesis accelerated as the external causes of obesity.

The test results for reference only and not as a diagnostic conclusion.

(Skin) Analysis Report Card

Name: Leif Rehnvall | Sex: Male | Age: 81

Figure: 168cm, 52kg | Testing Time: 2026-02-27 20:15

Actual Testing Results

Testing Item	Normal Range	Actual Measurement Value	Testing Result
Skin Free Radical Index	0.124 - 3.453	0,701	
Skin Collagen Index	4.471 - 6.079	1,992	
Skin Grease Index	14.477 - 21.348	17,8	
Skin Immunity Index	1.035 - 3.230	4,804	
Skin Moisture Index	0.218 - 0.953	1,19	
Skin Moisture Loss	2.214 - 4.158	6,932	
Skin Red Blood Trace Index	0.824 - 1.942	1,896	
Skin Elasticity Index	2.717 - 3.512	2,934	
Skin Melanin Index	0.346 - 0.501	0,672	
Skin Horniness Index	0.842 - 1.858	1,917	

Reference Standard:	**Normal(-)** **Moderately Abnormal (++)**	**Mildly Abnormal(+)** **Severely Abnormal (+++)**
Skin Free Radical Index:	0.124-3.453(-) 6.723-9.954(++)	3.453-6.723(+) >9.954(+++)
Skin Collagen Index:	4.471-6.079(-) 1.453-2.879(++)	2.879-4.471(+) <1.453(+++)
Skin Grease Index:	14.477-21.348(-) 28.432-35.879(++)	21.348-28.432(+) >35.879(+++)
Skin Immunity Index:	1.035-3.230(-) 5.545-7.831(++)	3.230-5.545(+) >7.831(+++)
Skin Moisture Index:	0.218-0.953(-) 1.623-2.369(++)	0.953-1.623(+) >2.369(+++)
Skin Moisture Loss:	2.214-4.158(-) 6.076-7.983(++)	4.158-6.076(+) >7.983(+++)
Skin Red Blood Trace Index:	0.824-1.942(-)	1.942-3.141(+)

	3.141-4.231(++)	>4.231(+++)
Skin Elasticity Index:	2.717-3.512(-)	1.521-2.717(+)
	0.645-1.521(++)	<0.645(+++)
Skin Melanin Index:	0.346-0.501(-)	0.501-0.711(+)
	0.711-0.845(++)	>0.845(+++)
Skin Horniness Index:	0.842-1.858(-)	1.858-2.534(+)
	2.534-3.316(++)	>3.316(+++)

Parameter Description
Skin Free Radical Index: It is inner poison which causes the greatest harm to human body. This substance is a product of the human body oxidation reaction. It is constantly generated and plays an important role in human aging process and pharmacological and toxicological effects. It also will damage the body's proteins, DNA, etc., and cause cell death or cancer. Skin will be loose and shrinking, forms wrinkles, and will be dry.
Skin Collagen Index: Collagen is a biological high polymer material with the English name of Collagen. It plays a role of combination tissue in animal cells, is one of the most crucial raw materials in the biotechnology industry, and is the best biomedical material with huge demand. Its application fields include biomedical materials, cosmetics, food industry, research purposes and the like.Collagen is slowly entering the field of cosmetic skin care now. Collagen is one of the major components of human body organizational structures, is the most abundant protein, and accounts for about 25-33% of total body protein equivalent to 6% of body weight, it spreads to various tissues and organs throughout the body, such as: skin, bone, cartilage, ligaments, cornea, a variety of intimas, fascia, etc., is the main component to maintain morphology and structure of the skin and tissue organs, and is important raw material for repairing injured tissues. After collagen in cortex (the yellow part of the below picture) is oxidized and fractured, its supporting role to skin is gone, thereby resulting collapse of heterogeneity and generating wrinkles.
Skin Grease Index: Oily skin: sebaceous glands excrete strongly, and the skin presents a shiny sense for long time. The skin is thick with large pores, and may generate acne and pimple easily. It is not easy to produce wrinkles. Facial make-up rarely lasts. Routine care should control skin oil secretion and maintain skin clean as main tasks, thereby reducing blackheads, acne and pimple from occurring. Fresh and converged products should be selected for skin care, and exfoliation and deep cleansing should be intensified for weekly care. Moisturizing sunscreen should be done well in daytime to avoid skin aging. Products with thin texture and oil control efficacy should be selected for make-up.
Skin Immunity Index: The immunity of the whole body should be firstly improved in order to improve skin immunity and prevent invasion of microorganisms such as viruses, bacteria, fungi and the like and skin allergies problems. Specifically: 1. People should pay attention to eating more fungus (mushroom, cap fungus, black fungus, white fungus, golden mushroom, Agrocybe, and other common edible fungi), dark-colored vegetables and fruits (purplish cabbage, purple eggplant, purple grapes, sweet potato, etc.), food containing more zinc (livers of animals, seafood, apples, etc., zinc can enhance immunity, is beneficial for skin at the same time, and can reduce the sensitivity of the skin) in the aspect of eating. 2. People should do moderate exercise and have reasonable work and rest, and particularly should

not stay up late, and should go to bed earlier.
3. People should maintain a healthy heart.

Skin Moisture Index:

Dry skin may be the biggest complaints of women. A recent survey shows that 60% of women are most concerned with dry skin problems, even more than the wrinkles. 70% of them claim that body skin is very dry in winter, and 40% of them have dry skin. (In summer, rates are respectively 34% and 15%).
Reasons for causing dry skin comprise:
1.Age growth
The skin's ability of retaining moisture declines, and sebum secretion will reduce with the increase of age.
2.Insufficient sebum secretion
The surface of skin is formed by sebum membrane, and can help skin maintain proper moisture. Once the sebum secretion reduces, the secretion can not meet the needs of manufacturing sebum membrane, and the skin becomes dry.
3.Temperature lowering
The secretion of sebum and sweat will reduce rapidly in cold winter, but since the air is too dry, the skin moisture is gradually evaporated, the skin's surface becomes more rough, and the resistance will be weakened.
4.Lack of sleep
Lack of sleep coupled with fatigue damage body to a considerable extent, and the blood circulation will deteriorate. When the health is out of balance, the skin will have no energy and is prone to generate the dry and rough phenomenon.
5.Weight loss and partial eclipse
Extreme weight loss and partial eclipse also enable skin to become dry. When the skin cannot obtain sufficient nutrients, the skin can not be fully flexible and will lose moisture, and thereby skin becomes dry and fragile. Dry skin disorder is also known as dry skin disease.
6.Other reasons
Indoor heating temperature is too high, bathing with too hot water, using harsh soap or detergent, endocrine changes, for example women's estrogen reduces in the postmenopausal period.

Skin Moisture Loss:

Normal skin corneum only needs 10% -30% of moisture to maintain the skin's elasticity and softness. When the season enters the winter, the air becomes cold and dry suddenly, temperature difference between day and night is great, the secretion of sebaceous glands and sweat glands reduces, and the water content of skin cells also declines sharply.

Skin Red Blood Trace Index:

Red blood trace is caused by telangiectasia in people body, is often manifested in people's face, abdomen and buttocks as macular or linear red stripes, and is a common skin disease, and some people will show burning or irritation feeding with different degrees.

Skin Elasticity Index:

Strong ultraviolet radiation easily causes skin keratosis and enables skin to lose elasticity, thereby causing premature aging. Skin elasticity can be improved through adjusting diet from the aspect of diet, thereby making up the skin damage caused by ultraviolet radiation. People should drink suitable amount of water, it is well known that the water content of human body tissue fluid achieves 72%, and the water content in bodies of adults is about 58% to 67%. Mater in human body will be reduced continuously especially in summer under higher temperatures, thereby causing dry skin, reducing sebaceous gland secretion, and enabling skin to lose its elasticity. So it is important to drink sufficient water everyday, normal people should drink water for about 1500ml everyday.

Skin Melanin Index:

Melanin can be widely found in human skin, mucous membranes, retina, pia mater encephali, gall bladder and ovary and etc. Melanin is composed of melanocytes. Skin melanocytes are mainly distributed in the basal layer of epidermis, and also can be found in hair roots and outer hair sheath. Human epidermis may have about 2 billion melanocytes with the weight of about 1 g and

are symmetrically distributed around the body with average 1560 per square millimeter. Melanocytes can synthesize and secrete melanin, therefore they are gland cells. However, the biosynthesis of melanin is very complex and is formed by tyrosine - tyrosinase reaction in color body (immature melanin). Disorder in any link of vitiligo melanin formation, transfer and degradation process can affect the metabolism, thereby resulting in changes in skin color.
Skin Horniness Index: Skin is divided into epidermis, dermis and subcutaneous tissue; the skin epidermis is further divided into five levels of basal layer, spinous cell layer, granular layer, transparent layer and corneum from bottom to top in turn. Skin cells begin to grow from the basal layer and pass through the process of aging and death with the outward passage, corneum is the final product of continuous regeneration of skin cells, skin surface corneum is thick, and skin will lose its luster, become gray, peel, wrinkle, and generate acne, etc.. The skin corneum formation cycle is about a month, so beauty experts pay attention to removing horininess every 28 days.

The test results for reference only and not as a diagnostic conclusion.

(Eye) Analysis Report Card

Name: Leif Rehnvall Sex: Male Age: 81
Figure: 168cm, 52kg Testing Time: 2026-02-27 20:15

Actual Testing Results

Testing Item	Normal Range	Actual Measurement Value	Testing Result
Bags under the eyes	0.510 - 3.109	3,137	
Collagen eye wrinkle	2.031 - 3.107	1,182	
Dark circles	0.831 - 3.188	2,607	
Lymphatic obstruction	1.116 - 4.101	7,585	
Sagging	0.233 - 0.559	0,563	
Edema	0.332 - 0.726	0,735	
Eye cell activity	0.118 - 0.892	0,758	
Visual fatigue	2.017 - 5.157	6,963	

Reference Standard: **Normal(-)** **Mildly Abnormal(+)** **Moderately Abnormal(++)** **Severely Abnormal(+++)**

Bags under the eyes:	0.510-3.109(-) 7.285-9.729(++)	3.109-7.285(+) >9.729(+++)
Collagen eye wrinkle:	2.031-3.107(-) 0.486-1.107(++)	1.107-2.031(+) <0.486(+++)
Dark circles:	0.831-3.188(-) 5.615-8.036(++)	3.188-5.615(+) >8.036(+++)
Lymphatic obstruction:	1.116-4.101(-) 7.348-9.907(++)	4.101-7.348(+) >9.907(+++)
Sagging:	0.233-0.559(-) 1.066-1.549(++)	0.559-1.066(+) >1.549(+++)
Edema:	0.332-0.726(-) 1.226-1.708(++)	0.726-1.226(+) >1.708(+++)
Eye cell activity:	0.118-0.892(-) 1.37-1.892(++)	0.892-1.37(+) >1.892(+++)
Visual fatigue:	2.017-5.157(-) 8.253-10.184(++)	5.157-8.253(+) >10.184(+++)

Parameter Description
Bags under the eyes: Bags under the eyes are the lower eyelid skin, subcutaneous tissue, muscle and relaxation of the orbital septum, orbital fat hypertrophy, the formation of pocket protruding.
Collagen eye wrinkle: The main chemical components of the collagen fibers is collagen, a connective tissue fibers. In the loose connective tissue arranged in bundles, fiber bundles often branch. Collagen and elastic fibers woven together to form both the toughness and elasticity, both the organs and tissues against external traction, while maintaining a relatively fixed shape and location of loose connective tissue.
Dark circles: Because of often staying up late, emotional instability, eye fatigue, aging, venous blood flow velocity is too slow, lack of oxygen in red blood cells of eye skin, venous carbon dioxide and metabolic wastes accumulate excessive, chronic hypoxia, dark and the formation of stagnant blood and cause eye pigmentation.
Lymphatic obstruction: Lymphatic obstruction for many reasons, can be divided into primary (cause unknown) and the secondary. Secondary, including inflammation, cancer, injury and after the radiation therapy.
Sagging: Because the fibers between the cells degraded over time, skin loses its elasticity; loss of subcutaneous fat, sagging skin and loss of support; support the skin and muscle relaxation, also will make the skin loose.
Edema: Due to the effect of variation of blood circulation system, too late to go to the body of excess waste water discharge. Water retention in the capillaries, or even back to the infiltration into the skin, producing a swelling edema.
Eye cell activity: Cell activity is the cell's physiological state and function, reduce the temperature will slow down the metabolism of cells, low temperature for a long time cause cell death, but the low temperature to a certain extent, also caused the cells in the suspension of respiration, but caused the cells to restore normal temperature, high temperature will lead to cell death.
Visual fatigue: Visual fatigue is engaged in close work or study, due to excessive use of vision resulting from eye fatigue. Disease occurs in close-in precision work, computer work or insufficient lighting and suffer from myopia, hyperopia, the old light and other refractive errors and infirm people. Patients with the usual symptoms are: blurred vision, some can not write or read, dry eyes, dizziness, pain, and even severe nausea and vomiting.

The test results for reference only and not as a diagnostic conclusion.

(Collagen) Analysis Report Card

Name: Leif Rehnvall Sex: Male Age: 81

Figure: 168cm, 52kg Testing Time: 2026-02-27 20:15

Actual Testing Results

Testing Item	Normal Range	Actual Measurement Value	Testing Result
Eye	6.352 - 8.325	6,309	
Tooth	7.245 - 8.562	7,604	
Hair and skin	4.533 - 6.179	1,728	
Endocrine system	6.178 - 8.651	8,048	
Circulatory system	3.586 - 4.337	4,198	
Digestive system	3.492 - 4.723	3,544	
Immune system	3.376 - 4.582	4,166	
Motion systems	6.458 - 8.133	7,255	
Muscle Tissue	6.552 - 8.268	8,123	
Fat Metabolism	6.338 - 8.368	7,871	
Detoxification and metabolism	6.187 - 8.466	4,397	
Reproductive system	3.778 - 4.985	2,803	
Nervous system	3.357 - 4.239	4,085	
Skeleton	6.256 - 8.682	6,32	

Reference Standard: **Normal(-)** **Mildly Abnormal(+)** **Moderately Abnormal (++)** **Severely Abnormal (+++)**

Eye:	6.352-8.325(-) 2.382-4.213(++)	4.213-6.352(+) <2.382(+++)
Tooth:	7.245-8.562(-) 4.694-5.981(++)	5.981-7.245(+) <4.694(+++)
Hair and skin:	4.533-6.179(-) 1.526-2.914(++)	2.914-4.533(+) <1.526(+++)
Endocrine system:	6.178-8.651(-) 1.532-3.826(++)	3.826-6.178(+) <1.532(+++)
Circulatory system:	3.586-4.337(-)	2.791-3.586(+)

	1.964-2.791(++)	<1.964(+++)
Digestive system:	3.492-4.723(-)	2.116-3.492(+)
	0.987-2.116(++)	<0.987(+++)
Immune system:	3.376-4.582(-)	2.127-3.376(+)
	1.101-2.127(++)	<1.101(+++)
Motion systems:	6.458-8.133(-)	4.715-6.458(+)
	2.826-4.715(++)	<2.826(+++)
Muscle Tissue:	6.552-8.268(-)	4.832-6.552(+)
	3.117-4.832(++)	<3.117(+++)
Fat Metabolism:	6.338-8.368(-)	4.326-6.338(+)
	2.362-4.326(++)	<2.362(+++)
Detoxification and metabolism:	6.187-8.466(-)	3.904-6.187(+)
	1.783-3.904(++)	<1.783(+++)
Reproductive system:	3.778-4.985(-)	2.569-3.778(+)
	1.391-2.569(++)	<1.391(+++)
Nervous system:	3.357-4.239(-)	2.415-3.357(+)
	1.526-2.415(++)	<1.526(+++)
Skeleton:	6.256-8.682(-)	3.827-6.256(+)
	1.517-3.827(++)	<1.517(+++)

Parameter Description
Eye: Likely to cause the lack of collagen, such as the eyes, dry eyes, fatigue, spontaneous tears; poor corneal transparency, lens opacity, and lead to cataracts and other eye diseases.
Tooth: Calcium loss, susceptibility to tooth decay, gum disease; easy to loose teeth, loss, pain.
Hair and skin: Dryness of hair, breaking, hair loss, bald, bifurcation, spontaneous, increased dandruff; loose skin, cheeks, chin, eyes drooping. Rupture of collagen fibers, increase wrinkles; jaw ear contour is not clear, the formation of the accumulation of fat in a double chin and ear; dry skin, sensitive and easy, decreased flexibility, horny rough, large pores, oil, and a serious stain.
Endocrine system: Physical characteristics become obvious, amenorrhea, menstruation, menstrual disorders, early entry into menopause; dysplasia, breast sagging, breast hyperplasia, easy to cause breast cancer, could easily cause the masculine signs; male impotence, premature ejaculation, the male was not obvious.
Circulatory system: Vascular wall elasticity variation, affect the stability of blood pressure: prone to lead to blood viscosity, fatty liver, high blood cholesterol; slow blood circulation and the body to absorb the

poor metabolism, susceptibility to cardiovascular and cerebrovascular diseases; memory loss, dizziness, forgetfulness, insomnia.
Digestive system: Decreased abdominal pressure organ ptosis, cardiac pumping, increased waist and abdomen, flatulence, etc.; detoxify the liver abnormalities, gallstones, mouth pain; poor secretion absorption, diabetes, hematopoietic function weak, unbalanced, pernicious anemia and physical decline.
Immune system: Slow lymphatic circulation leading to decreased immunity, easy infection of epidemic diseases, muscle pain, physical lack of weakness and other symptoms; food collagen, immune function is to enhance the overall more than 100 times.
Motion systems: Joint pain, decreased susceptibility to rheumatism, bone and joint flexibility; joint stiffness, bone hyperplasia; back meridian blockage, poor metabolism, back fat accumulation; easy to cause rheumatism, generalized muscle atrophy, bone deformation; measurements are not prominent,cold hands and feet, numbness of the limbs, blocked activity, slow bone healing, loss of calcium; loss of collagen ligament strain easy, flexible variation is easy to damage joints and skeletal sites; the fibrous tissue collapse, making the hips loose span sagging, deformation, fat followed by thickening, formation of the frog's legs.
Muscle Tissue: Increase in fat mass, induration of the cervical muscles, cervical spondylosis; back pain, shoulder tingling: connective tissue block, lactic acid accumulation in the nerve system, Yin hinder the reflex areas; poor muscle contractions, loss of energy, muscle pulling force, decreased muscle tone, was eight-character drooping like.
Fat Metabolism: Metabolism decrease, fat accumulation, was acidic; easy fatigue, drink spilled discomfort: prone to diabetes, high blood pressure, resulting in liver and kidney failure.
Detoxification and metabolism: Susceptibility s to accumulation of toxins in the body yellow, rough skin, constipation, physical obesity, acidic; a variety of visceral recession, kidney and spleen of metabolic disorders, prone to nephritis, the heavier will lead to kidney failure; skin redness, itching skin, pain, fat particles; body acne, rot, various skin diseases, visceral dysfunction, mental decline, skin cancer.
Reproductive system: Easily lead to the shedding of the uterus, urinary incontinence, ovarian atrophy, low immunity, reproductive system; vaginal relaxation fold increase, dryness, women infertility, menstrual disorders and habitual abortion; male impotence, sexless, waist abdomen easy to loose belly; the phenomenon of stretch marks, loose anal muscle contractility, defecation pain, hemorrhoids, pelvic pain.
Nervous system: Collagen contains a large number of amino acids, not only involved in the synthesis of new collagen, but also a central nervous inhibitory mechanism in the brain cells, the loss of collagen can cause memory loss, inability to concentrate, insomnia, anxiety, depression, irritabilityanxiety, menopausal syndrome, poor response, nerve pain and so on.
Skeleton: 80% of the organic bone collagen, collagen loss will lead to decreased bone density, and the formation of hollow, will be a huge loss of calcium. Cause bone and joint pain, bone spurs, muscle atrophy, bones thicken, easy to cause bone cancer and legs paralysis, legs and feet are not flexible and can not stoop to mention heavy, osteoporosis, Glucosamine does not support, easy to fracture, bone healing slower bone toughness decline, bones become brittle.

(Channels and collaterals) Analysis Report Card

Name: Leif Rehnvall Sex: Male Age: 81

Figure: 168cm, 52kg Testing Time: 2026-02-27 20:15

Actual Testing Results

Testing Item	Normal Range	Actual Measurement Value	Testing Result
Hand Tai Yin Lung Meridian	48.264 - 65.371	46,623	
Hand Yangming Large Intestine Meridian	56.749 - 67.522	66,285	
Foot Yangming Stomach Meridian	0.481 - 1.043	0,804	
Foot Tai Yin Lung Meridian	0.327 - 0.937	0,897	
Hand Shao Yin Heart Sutra	1.672 - 1.978	1,512	
Hand the small intestine by the sun	0.192 - 0.412	0,475	
Foot Tai Yang Bladder Meridian	4.832 - 5.147	4,299	
Foot Shao Yin Kidney	3.321 - 4.244	2,886	
Hand Jue Yin Pericardium Meridian	1.338 - 1.672	0,912	
Hand Shao Yang Triple Burner Meridian	0.669 - 1.544	0,95	
Foot Shao Yang Gall Bladder Meridian	1.554 - 1.988	1,395	
Foot Jue Yin Liver Meridian	1.553 - 2.187	2,168	
Ren channel	11.719 - 18.418	8,811	
Governor meridian	0.708 - 1.942	1,045	
Vital meridian	6.138 - 21.396	16,914	
Tai mai	5.733 - 7.109	5,576	

Reference Standard: **Normal(-)** **Mildly Abnormal(+)** **Moderately Abnormal (++)** **Severely Abnormal (+++)**

Hand Tai Yin Lung Meridian: 48.264-65.371(-) 45.074-48.264(+) 35.348-45.074(++) <35.348(+++)

Hand Yangming Large Intestine Meridian:	56.749-67.522(-)	50.833-56.749(+)
	30.097-50.833(++)	<30.097(+++)
Foot Yangming Stomach Meridian:	0.481-1.043(-)	0.316-0.481(+)
	0.109-0.316(++)	<0.109(+++)
Foot Tai Yin Lung Meridian:	0.327-0.937(-)	0.301-0.327(+)
	0.225-0.301(++)	<0.225(+++)
Hand Shao Yin Heart Sutra:	1.672-1.978(-)	1.131-1.672(+)
	0.427-1.131(++)	<0.427(+++)
Hand the small intestine by the sun:	0.192-0.412(-)	0.412-0.726(+)
	0.726-1.476(++)	>1.476(+++)
Foot Tai Yang Bladder Meridian:	4.832-5.147(-)	2.726-4.832(+)
	1.476-2.726(++)	<1.476(+++)
Foot Shao Yin Kidney:	3.321-4.244(-)	2.726-3.321(+)
	1.476-2.726(++)	<1.476(+++)
Hand Jue Yin Pericardium Meridian:	1.338-1.672(-)	0.826-1.338(+)
	0.476-0.826(++)	<0.476(+++)
Hand Shao Yang Triple Burner Meridian:	0.669-1.544(-)	0.416-0.669(+)
	0.209-0.416(++)	<0.209(+++)
Foot Shao Yang Gall Bladder Meridian:	1.554-1.988(-)	1.009-1.554(+)
	0.325-1.009(++)	<0.325(+++)
Foot Jue Yin Liver Meridian:	1.553-2.187(-)	1.031-1.553(+)
	0.627-1.031(++)	<0.627(+++)
Ren channel:	11.719-18.418(-)	8.726-11.719(+)
	2.476-8.726(++)	<2.476(+++)
Governor meridian:	0.708-1.942(-)	0.526-0.708(+)
	0.176-0.526(++)	<0.176(+++)
Vital meridian:	6.138-21.396(-)	4.726-6.138(+)
	1.476-4.726(++)	<1.476(+++)
Tai mai:	5.733-7.109(-)	4.726-5.733(+)
	1.476-4.726(++)	<1.476(+++)

(Pulse of heart and brain)
Analysis Report Card

Name: Leif Rehnvall Sex: Male Age: 81

Figure: 168cm, 52kg Testing Time: 2026-02-27 20:15

Actual Testing Results

Testing Item	Normal Range	Actual Measurement Value	Testing Result
Stroke index	60.735 - 65.396	66,971	
Stroke volume(SV)	63.012 - 67.892	61,291	
Heart peripheral resistance (TRR)	0.983 - 1.265	1,044	
Pulse wave coefficient K	0.316 - 0.401	0,299	
Cerebrovascular blood oxygen saturation(Sa)	0.710 - 1.109	1,033	
Cerebrovascular blood oxygen volume(CaCO2)	7.880 - 10.090	6,992	
Cerebrovascular blood oxygen presure(PaO2)	5.017 - 5.597	4,74	

Reference Standard:	**Normal(-)**	**Mildly Abnormal (+)**
	Moderately Abnormal(++)	**Severely Abnormal (+++)**
Stroke index:	60.735-65.396(-) 71.246-80.348(++)	65.396-71.246(+) >80.348(+++)
Stroke volume(SV):	63.012-67.892(-) 48.097-57.373(++)	57.373-63.012(+) <48.097(+++)
Heart peripheral resistance(TRR):	0.983-1.265(-) 1.716-2.809(++)	1.265-1.716(+) >2.809(+++)
Pulse wave coefficient K:	0.316-0.401(-) 0.171-0.226(++)	0.226-0.316(+) <0.171(+++)
Cerebrovascular blood oxygen saturation(Sa):	0.710-1.109(-) 0.376-0.526(++)	0.526-0.710(+) <0.376(+++)
Cerebrovascular blood oxygen volume(CaCO2):	7.880-10.090(-) 1.716-4.476(++)	4.476-7.880(+) <1.716(+++)
	5.017-5.597(-)	4.726-5.017(+)

Cerebrovascular blood oxygen presure(PaO2):		
	3.476-4.726(++)	<3.476(+++)

The test results for reference only and not as a diagnostic conclusion.

(Blood lipids) Analysis Report Card

Name: Leif Rehnvall Sex: Male Age: 81

Figure: 168cm, 52kg Testing Time: 2026-02-27 20:15

Actual Testing Results

Testing Item	Normal Range	Actual Measurement Value	Testing Result
Blood viscosity	4.131 - 4.562	4,438	
Total cholesterol(TC)	1.833 - 2.979	1,99	
Triglyceride(TG)	1.116 - 2.101	2,687	
High-density lipoprotein (HDL-C)	1.449 - 2.246	1,631	
Low-density lipoprotein (LDL-C)	0.831 - 1.588	1,399	
Neutral fat(MB)	0.726 - 1.281	3,559	
Circulating immune complex(CIC)	13.012 - 17.291	18,336	

Reference Standard:	**Normal(-)**	**Mildly Abnormal(+)**
	Moderately Abnormal (++)	**Severely Abnormal (+++)**
Blood viscosity:	4.131-4.562(-)	4.562-5.074(+)
	5.074-7.348(++)	>7.348(+++)
Total cholesterol(TC):	1.833-2.979(-)	2.979-3.373(+)
	3.373-4.097(++)	>4.097(+++)
Triglyceride(TG):	1.116-2.101(-)	2.101-3.416(+)
	3.419-5.409(++)	>5.409(+++)
High-density lipoprotein (HDL-C):	1.449-2.246(-)	2.246-3.449(+)
	3.449-5.325(++)	>5.325(+++)
Low-density lipoprotein (LDL-C):	0.831-1.588(-)	0.715-0.831(+)
	0.327-0.715(++)	<0.327(+++)
Neutral fat(MB):	0.726-1.281(-)	1.281-3.726(+)
	3.726-6.476(++)	>6.476(+++)
Circulating immune complex (CIC):	13.012-17.291(-)	17.291-19.206(+)
	19.206-24.706(++)	>24.706(+++)

The test results for reference only and not as a diagnostic conclusion.

(Prostate) Analysis Report Card

Name: Leif Rehnvall	Sex: Male	Age: 81
Figure: 168cm, 52kg		Testing Time: 2026-02-27 20:15

Actual Testing Results

Testing Item	Normal Range	Actual Measurement Value	Testing Result
Degree of Prostatic Hyperplasia	1.023 - 3.230	5,179	
Degree of Prostatic Calcification	1.471 - 6.079	13,679	
Prostatitis Syndrome	2.213 - 2.717	7,794	

Reference Standard:	Normal(-)	Mildly Abnormal(+)
	Moderately Abnormal (++)	Severely Abnormal (+++)
Degree of Prostatic Hyperplasia:	1.023-3.230(-)	3.230-4.258(+)
	4.258-6.549(++)	>6.549(+++)
Degree of Prostatic Calcification:	1.471-6.079(-)	6.079-14.479(+)
	14.479-19.399(++)	>19.399(+++)
Prostatitis Syndrome:	2.213-2.717(-)	2.717-5.145(+)
	5.145-6.831(++)	>6.831(+++)

Parameter Description
Degree of Prostatic Hyperplasia: Prostatic hyperplasia is also known as prostatic hypertrophy, being a common chronic disease in elderly men and also being one of the common diseases of urology surgery. When the man is about 45 years old, the prostate begins to generate two trends: the prostate of some men tends to shrinkage, while the prostate of others tends to hyperplasia, namely the volume of prostate gradually increases, forming the prostatic hyperplasia. The course of prostatic hyperplasia develops slowly, so there is no symptom early. The prostate is located at the posterior urethra of the bladder outlet, so the obstruction degree of urinary outlet is aggravated following with the aggravation of prostatic hyperplasia. Urine stays in the bladder, which is easy to generate urinary tract infection and bladder stones, so that the diseases are aggravated. The symptoms of prostatic hyperplasia are mainly manifested as urination disorder.
Degree of Prostatic Calcification: Fibrosis, a scar left by the prostate inflammation, is a precursor of prostate stones. The prostate stones are often accompanied with chronic prostatitis syndrome, and these lesions usually can be seen by B-ultrasonic examination. Due to the structural specificity of the prostate, there is generally no better method of treatment for calcification and stones. The stones will breed bacteria, so prostate calcification (fibrosis) is also a reason for recurrent prostatitis and can not be ignored. Prostatic cyst often occurs in adults, and patients of diabetes are more likely to have prostatic cyst. In clinic, prostatic cyst is manifested as urinary obstruction or bowel obstruction.

The urinary obstruction often causes acute urinary retention. Sometimes, dense secretion flows out of the urethra, rectal examination can touch the fluctuation sense of the prostate, but it often occur at a later stage.There is occasional abscess ruptured into the gaps around the urethra, rectum, perineum or bladder to cause the inflammation of connective tissue. However, some patients may have no fever and mainly have lower urinary tract obstruction, and many patients also have epididymitis and testitis. Cysts are cured through surgical drainage, such as epididymal drainage or transurethral prostate resection drainage. The prostate calcification or calcified stones must be treated, because the prostate after calcification will generate calcified stones to cause a variety of symptoms. The symptoms of some patients can not be eliminated in a long term, so they must be comprehensively checked to see whether the calcified stones are calcified. If the calcification of calcified stones is not treated, the prostate disease can not be completely cured.

Prostatitis Syndrome:

Prostatitis syndrome is a common disease of adult men, which accounts for about 25% to 30% of urology clinic diseases in general statistics. It can be all asymptomatic, can also have obvious symptoms, be persistent unhealed, and even can cause persistent or recurring urinary and reproductive tract infection. It is divided into the following categories:
1. Non-specific bacterial prostatitis: it can also be divided into acute prostatitis and chronic prostatitis. Acute prostatitis refers to acute inflammation caused by non-specific bacterial infection of the prostate, and it is mainly manifested as urinary urgency, frequent urination, dysuria, rectal and perineal pain, fever and aversion to cold, etc., belonging to the category of traditional Chinese medicine [pyretic stranguria]. Chronic prostatitis refers to chronic inflammation caused by non-specific bacterial infection of the prostate, and it is mainly manifested as discomfort of lower abdomen, perineum and testicles, meatus urinarius dribbling white, etc., belonging to category of traditional Chinese medicine [fine muddy]. Chronic prostatitis is often seen in young men.
2. Idiopathic non-bacterial prostatitis: in clinic, it has symptoms of prostate pain, abnormal urination, prostate fluid overflow of meatus urinarius, etc. Prostate fluid white blood cells can be increased, but the bacterial culture has no bacterial growth.
3. Non-specific granulomatous prostatitis: in clinic, it has symptoms of frequent urination, dysuria, urethral burning, the lower back pain, perineal pain, etc. However, the progression of the disease is rapid, and there is an increase in prostate muddy overflow, acute urinary retention and other accompanying symptoms. It is foreign body reaction or allergic reaction caused by substances of poor solubility generated after the proliferation of reticuloendothelial system, so it is divided into allergic prostatitis and nonallergic prostatitis.
4. Prostate pain and congestion of prostate: in clinic, it has symptoms of lasting frequent urination, urinary urgency, dysuria, prostate discomfort, true prostate pain, etc. Prostate fluid has no pus cells, and also has no obvious infected pathological change. It belongs to a kind of non-bacterial prostatitis.
5. Specific prostatitis: it includes prostatitis caused by gonococcus, fungi and parasites (such as trichomonas), etc.
6. Prostatitis caused by other causes: such as the prostatitis caused by virus infection, mycoplasma infection, chlamydial infection, etc.

The test results for reference only and not as a diagnostic conclusion.

(Male Sexual Function) Analysis Report Card

Name: Leif Rehnvall | Sex: Male | Age: 81

Figure: 168cm, 52kg | Testing Time: 2026-02-27 20:15

Actual Testing Results

Testing Item	Normal Range	Actual Measurement Value	Testing Result
Testosterone	3.342 - 9.461	1,616	
Gonadotropin	4.111 - 18.741	5,227	
Erection Transmitter	3.241 - 9.814	1,922	

Reference Standard: **Normal(-)** **Mildly Abnormal(+)** **Moderately Abnormal(++)** **Severely Abnormal(+++)**

Testosterone:	3.342-9.461(-)	2.790-3.342(+)
	1.394-2.790(++)	<1.394(+++)
Gonadotropin:	4.111-18.741(-)	2.790-4.111(+)
	1.737-2.790(++)	<1.737(+++)
Erection Transmitter:	3.241-9.814(-)	2.617-3.241(+)
	1.821-2.617(++)	<1.821(+++)

Parameter Description

Testosterone:

Testosterone is the most important male hormone (androgen), which is mainly secreted by the testes. Effects of testosterone on men's genitals and other vital organs are very complex, and its biochemical processes has not been fully clarified. However, testosterone may affect many systems and functions of the body. After the male puberty starts, the androgen in the body is gradually increased, and the male hormone level can reach a peak in the sexual maturity. Male hormones in the body are mainly testosterone, wherein 95% of testosterone is from interstitial cells of the testes, and 5% of testosterone is secreted by the adrenal glands. The secretion of testosterone is less, the normal secretion is 0.3 ~ 1.0 ug/dl, and there is a rhythm within 24 hours and season fluctuations in one year. Maintaining the level of male testosterone is related to physical health, nutrition, diseases and other factors, and also has a rule that it is changed following with the increase of age.

Gonadotropin:

The role of gonadotropin is mainly to promote maturation of the reproductive organs, such as testis and ovary. If the amount of gonadotropin secretion is insufficient, it may lead to genital dysplasia and sexual growth retardation. Before the puberty, the amount of gonadotropin secretion is less and has no difference between day and night. During the mid-puberty, a lot of gonadotropin is secreted during sleep and waking. After the puberty starts, the amount of secretion is significantly increased during sleep. During the post puberty, the concentration of gonadotropin is increased greatly and is almost close to the adult level. Gonadotropin is divided into interstitial cell stimulating hormone and sperm hormone which are the same hormone. Before the puberty, the concentration of these two hormones is very low. When the puberty starts, the concentration is increased to promote the sexual maturation. Thus, they have an important role in sexual

development. For men, the follicle-stimulating hormone commands testes to produce sperm, and the luteinizing hormone promotes testicular interstitial cells to manufacture male hormones, particularly testosterone.

Erection Transmitter:

Erection transmitter enters the penis corpus cavernosum to cause arteriectasia and blood pressure elevation, about 200 milliliters of blood enters the penis corpus cavernosum to compress the vein, so the blood is difficult to flow back to cause lasting erection. During erection, the penis consists of three corpus cavernosums filled with blood. The penis is like a startling natural hydro-mechanical unit, the physiological response of erection and return is manifested as the inflow and outflow blood dynamics change of an organ under a certain capacity. According to the size of penis, the blood volume in erection is increased by about 80-200 ml of that of at normal time. When the male is in sexual excitation, the brain or the spinal nerve center conveys the message of erection to make the erection transmitter act to the penis corpus cavernosum to cause arteriectasia and blood pressure elevation, and about 200 milliliters of blood enters the penis corpus cavernosum to compress the vein, so the blood is difficult to flow back to cause lasting erection. During erection, the penis consists of three corpus cavernosums filled with blood. The three corpus cavernosums play the functions of penile erectile tissue. Glans and urethra corpus cavernosum provide the volume for the erection, and a pair of penis corpus cavernosums provides erection for hardness. Blood is filled with the corpus cavernosums in the penile erectile tissue, which is like the principle that the sponge is bulged after absorbing water. The blood capacity in the penis corpus cavernosum determines the side of erection. Therefore, it can increase the size of penis by increasing the blood capacity of the corpus cavernosum.

The test results for reference only and not as a diagnostic conclusion.

(Sperm and semen) Analysis Report Card

Name: Leif Rehnvall Sex: Male Age: 81

Figure: 168cm, 52kg Testing Time: 2026-02-27 20:15

Actual Testing Results

Testing Item	Normal Range	Actual Measurement Value	Testing Result
Semen volume	1.502 - 6.028	4,86	
liquefying time	10.283 - 30.282	16,864	
Number of sperms	2.483 - 3.932	2,963	
Sperm motility rate	0.637 - 0.877	0,58	

Reference Standard: **Normal(-)** **Mildly Abnormal(+)** **Moderately Abnormal(++)** **Severely Abnormal(+++)**

Semen volume:	1.502-6.028(-) 0.326-1.074(++)	1.074-1.502(+) <0.326(+++)
liquefying time:	10.283-30.282(-) 5.432-8.091(++)	8.091-10.283(+) <5.432(+++)
Number of sperms:	2.483-3.932(-) 1.025-2.009(++)	2.009-2.483(+) <1.025(+++)
Sperm motility rate:	0.637-0.877(-) 0.218-0.431(++)	0.431-0.637(+) <0.218(+++)

The test results for reference only and not as a diagnostic conclusion.

(Male Hormone) Analysis Report Card

Name: Leif Rehnvall | Sex: Male | Age: 81

Figure: 168cm, 52kg | Testing Time: 2026-02-27 20:15

Actual Testing Results

Testing Item	Normal Range	Actual Measurement Value	Testing Result
Androgen	1.372 - 1.878	1,09	
Estrogen	0.521 - 1.036	0,644	
Progesterone(P)	0.686 - 1.432	1,088	
Luteinizing Hormone (LH)	0.679 - 1.324	0,445	
Prolactin(PRL)	0.738 - 1.742	0,671	
Follicle Stimulating Hormone(FSH)	0.387 - 0.956	0,286	

Reference Standard:	Normal(-)	Mildly Abnormal(+)
	Moderately Abnormal (++)	Severely Abnormal (+++)
Androgen:	1.372-1.878(-) 0.476-1.031(++)	1.031-1.372(+) <0.476(+++)
Estrogen:	0.521-1.036(-) 0.119-0.346(++)	0.346-0.521(+) <0.109(+++)
Progesterone(P):	0.686-1.432(-) 0.193-0.422(++)	0.422-0.686(+) <0.193(+++)
Luteinizing Hormone (LH):	0.679-1.324(-) 0.209-0.416(++)	0.416-0.679(+) <0.209(+++)
Prolactin(PRL):	0.738-1.742(-) 0.176-0.526(++)	0.526-0.738(+) <0.176(+++)
Follicle Stimulating Hormone (FSH):	0.387-0.956(-) 0.125-0.281(++)	0.281-0.387(+) <0.125(+++)

Parameter Description
Androgen: Androgen, also known as testosterone, is a hormone that promotes maturity and secondary sexual characteristics in males and maintains normal sexual desire and reproductive function. It is mainly composed of testosterone (testosterone) secreted by the testes and is a steroid hormone.

Too high levels of androgen can increase the amount of oil secreted by the sebaceous glands, leading to poor skin, and problems such as acne, shine, and roughness.
Estrogen: There are also estrogens in men. Most of the estrogen in the male body is derived from androgen as a source, and is transformed from peripheral tissues such as skin, fat, and nerves. The estrogen in the male body can balance a part of the androgen, which can make the skin delicate and the male characteristics are reduced. However, too high estrogen will have a significant impact on the male reproductive system, including affecting the level of androgen, causing changes in testicular tissue structure, causing testicular cancer, reducing the number of sperm in the semen, causing male breast development, leading to endocrine disorders.
Progesterone(P): Normal males have a small proportion of progesterone (progesterone), which is indispensable. Male progesterone is high, which is easy to lead to the relative lack of androgen, because the two have a transformational relationship, so it is prone to feminine symptoms, such as sparse beard.
Luteinizing Hormone (LH): Luteinizing hormone (LH) is a glycoprotein gonadotropin secreted by pituitary cells that promotes the conversion of cholesterol into sex hormones in gonadal cells. For men, luteinizing hormone promotes the synthesis of testis stromal cells and the release of testosterone.
Prolactin(PRL): Prolactin is a polypeptide hormone, also known as prolactin (PRL), which is one of the hormones secreted by the pituitary gland. There are still many factors that cause the increase of male prolactin, which are generally caused by physiological factors, certain drugs, hypothalamic lesions, and pituitary lesions. When men have hyperprolactinemia, they usually show hypogonadism, erectile dysfunction, decreased sperm count, decreased sperm motility, and even more infertility and osteoporosis.
Follicle Stimulating Hormone(FSH): Follicle stimulating hormone (FSH), also known as follicle stimulating hormone, is secreted by the pituitary gland. The role of follicle-stimulating hormone is related to gender. For men, the role of follicle-stimulating hormone is to promote the maturation of testicular seminiferous tubules and the production of sperm.

The test results for reference only and not as a diagnostic conclusion.

(Human Immunity) Analysis Report Card

Name: Leif Rehnvall Sex: Male Age: 81

Figure: 168cm, 52kg Testing Time: 2026-02-27 20:15

Actual Testing Results

Testing Item	Normal Range	Actual Measurement Value	Testing Result
Tissue barrier immune index	7.435 - 8.847	7,834	
Innate immune cell index	7.424 - 9.052	9,034	
Innate immune molecule index	7.143 - 9.214	7,697	
Cellular immune index	5.769 - 7.643	5,924	
Humoral immunity index	6.424 - 8.219	10,297	

Reference Standard:	**Normal(-)**	**Mildly Abnormal(+)**
	Moderately Abnormal (++)	**Severely Abnormal (+++)**
Tissue barrier immune index:	7.435-8.847(-) 10.296-11.663(++)	8.847-10.296(+) >11.663(+++)
Innate immune cell index:	7.424-9.052(-) 11.024-13.597(++)	9.052-11.024(+) >13.597(+++)
Innate immune molecule index:	7.143-9.214(-) 11.546-13.089(++)	9.214-11.546(+) >13.089(+++)
Cellular immune index:	5.769-7.643(-) 9.865-12.104(++)	7.643-9.865(+) >12.104(+++)
Humoral immunity index:	6.424-8.219(-) 10.325-12.623(++)	8.219-10.325(+) >12.623(+++)

The test results for reference only and not as a diagnostic conclusion.

(Human Consciousness Level) Analysis Report Card

Name: Leif Rehnvall Sex: Male Age: 81

Figure: 168cm, 52kg Testing Time: 2026-02-27 20:15

Actual Testing Results

Testing Item	Normal Range	Actual Measurement Value	Testing Result
Shame	2.214 - 3.925	2,818	
Guilt	2.154 - 3.478	1,967	
Apathy	2.343 - 4.089	3,313	
Grief	1.845 - 3.241	2,754	
Fear	2.155 - 4.031	2,391	
Desire	1.484 - 2.485	1,959	
Anger	1.256 - 2.529	1,252	
Pride	1.378 - 2.489	0,853	
Courage	1.727 - 3.315	3,267	
Neutrality	2.471 - 3.892	3,271	
Willingness	2.216 - 4.094	2,369	
Acceptance	1.668 - 4.053	3,399	
Reason	1.352 - 3.436	3,052	
Love	2.138 - 3.754	3,32	
Joy	2.129 - 4.021	3,751	
Peace	2.243 - 4.022	4,018	
Enlightenment	2.225 - 3.822	3,63	

Reference Standard: **Normal(-)** **Mildly Abnormal(+)** **Moderately Abnormal(++)** **Severely Abnormal(+++)**

Shame:	2.214-3.925(-)	1.073-2.214(+)
	0.301-1.073(++)	<0.301(+++)
Guilt:	2.154-3.478(-)	1.216-2.154(+)
	0.461-1.216(++)	<0.461(+++)
Apathy:	2.343-4.089(-)	1.245-2.343(+)

	0.436-1.245(++)	<0.436(+++)
Grief:	1.845-3.241(-)	1.066-1.845(+)
	0.346-1.066(++)	<0.346(+++)
Fear:	2.155-4.031(-)	1.312-2.155(+)
	0.386-1.312(++)	<0.386(+++)
Desire:	1.484-2.485(-)	0.878-1.484(+)
	0.251-0.878(++)	<0.251(+++)
Anger:	1.256-2.529(-)	0.814-1.256(+)
	0.272-0.814(++)	<0.272(+++)
Pride:	1.378-2.489(-)	0.841-1.378(+)
	0.284-0.841(++)	<0.284(+++)
Courage:	1.727-3.315(-)	1.321-1.727(+)
	0.732-1.321(++)	<0.732(+++)
Neutrality:	2.471-3.892(-)	1.529-2.471(+)
	0.747-1.529(++)	<0.747(+++)
Willingness:	2.216-4.094(-)	1.194-2.216(+)
	0.761-1.194(++)	<0.761(+++)
Acceptance:	1.668-4.053(-)	1.047-1.668(+)
	0.639-1.047(++)	<0.639(+++)
Reason:	1.352-3.436(-)	0.919-1.352(+)
	0.413-0.919(++)	<0.413(+++)
Love:	2.138-3.754(-)	1.504-2.138(+)
	0.763-1.504(++)	<0.763(+++)
Joy:	2.129-4.021(-)	1.493-2.129(+)
	0.727-1.493(++)	<0.727(+++)
Peace:	2.243-4.022(-)	1.572-2.243(+)
	0.981-1.572(++)	<0.981(+++)
Enlightenment:	2.225-3.822(-)	1.522-2.225(+)
	0.813-1.522(++)	<0.813(+++)

The test results for reference only and not as a diagnostic conclusion.

(Respiratory Function) Analysis Report Card

Name: Leif Rehnvall Sex: Male Age: 81

Figure: 168cm, 52kg Testing Time: 2026-02-27 20:15

Actual Testing Results

Testing Item	Normal Range	Actual Measurement Value	Testing Result
Volume Tidal(VT)	5.431 - 7.479	5,707	
Inspiratory Volume(TI)	4.126 - 6.045	4,429	
Functional Residual Capacity(FRC)	5.147 - 6.219	4,664	
Residual Volume(RV)	4.363 - 5.647	4,045	

Reference Standard:	Normal(-)	Moderately Abnormal (++)	Mildly Abnormal(+)	Severely Abnormal (+++)
Volume Tidal(VT):	5.431-7.479(-)	1.924-3.747(++)	3.747-5.431(+)	<1.924(+++)
Inspiratory Volume(TI):	4.126-6.045(-)	1.771-3.095(++)	3.095-4.126(+)	<1.771(+++)
Functional Residual Capacity (FRC):	5.147-6.219(-)	2.556-3.882(++)	3.882-5.147(+)	<2.556(+++)
Residual Volume(RV):	4.363-5.647(-)	1.944-3.105(++)	3.105-4.363(+)	<1.944(+++)

Parameter Description
Volume Tidal(VT): The tidal volume is the amount of air that is inhaled or exhaled each time during a calm breath. It is related to age, gender, volume surface, breathing habits, and body metabolism.
Inspiratory Volume(TI): It refers to the maximum amount of air that can be inhaled after a calm exhalation. The inspiratory volume of a normal adult is about 3000ml.
Functional Residual Capacity(FRC): The amount of gas remaining in the lungs after a calm exhalation.
Residual Volume(RV): Refers to the gas remaining in the lungs after the maximum exhalation.

The test results for reference only and not as a diagnostic conclusion.

(Lecithin) Analysis Report Card

Name: Leif Rehnvall | Sex: Male | Age: 81

Figure: 168cm, 52kg | Testing Time: 2026-02-27 20:15

Actual Testing Results

Testing Item	Normal Range	Actual Measurement Value	Testing Result
Phospholipid index	3.654 - 4.478	4,059	
Sphingolipid index	3.121 - 3.853	2,49	
Sphingomyelin index	3.341 - 4.214	3,7	
Lecithin index	4.365 - 5.142	2,931	
Brain phospholipid index	4.225 - 5.713	5,337	
Liposomal index	3.112 - 4.081	2,256	

Reference Standard: **Normal(-)** **Mildly Abnormal(+)** **Moderately Abnormal(++)** **Severely Abnormal(+++)**

Phospholipid index:	3.654-4.478(-)	2.458-3.654(+)
	1.326-2.458(++)	<1.326(+++)
Sphingolipid index:	3.121-3.853(-)	2.297-3.121(+)
	1.374-2.297(++)	<1.374(+++)
Sphingomyelin index:	3.341-4.214(-)	2.084-3.341(+)
	0.982-2.084(++)	<0.982(+++)
Lecithin index:	4.065-5.142(-)	2.904-4.065(+)
	1.747-2.904(++)	<1.747(+++)
Brain phospholipid index:	4.225-5.713(-)	3.728-4.225(+)
	2.113-3.728(++)	<2.113(+++)
Liposomal index:	3.112-4.081(-)	2.072-3.112(+)
	0.871-2.072(++)	<0.871(+++)

Parameter Description
Phospholipid index: Phospholipids, which are phospholipid-containing lipid compounds, are life-based substances. Phospholipids also have the effect of promoting fat metabolism, preventing fatty liver, lowering serum cholesterol, improving blood circulation, and preventing cardiovascular diseases.
Sphingolipid index:

Sphingolipids are generally found in plant and animal membranes, especially in tissues of the central nervous system. Excessive accumulation of sphingolipids in tissues can seriously affect the central nervous system and even life-threatening.
Sphingomyelin index: Sphingomyelin is a major component of animal cell membranes and various other biofilms.
Lecithin index: Lecithin, also known as lecithin, is known as the third nutrient alongside protein and vitamins.
Brain phospholipid index: Cerebral phospholipid is an excellent natural active agent with unique biological activity and physiological functions, and is non-toxic, non-irritating and does not pollute the environment.
Liposomal index: The liposome is a liposome prepared from lecithin, ceramide, etc., and has a bilayer structure which is identical to the structure of the skin cell membrane and has an excellent moisturizing effect on the skin.

The test results for reference only and not as a diagnostic conclusion.

(Fatty acid) Analysis Report Card

Name: Leif Rehnvall | Sex: Male | Age: 81

Figure: 168cm, 52kg | Testing Time: 2026-02-27 20:15

Actual Testing Results

Testing Item	Normal Range	Actual Measurement Value	Testing Result
Saturated fatty acid index	1.334 - 2.407	1,119	
Unsaturated fatty acid index	2.224 - 3.153	2,5	
Essential fatty acid index	2.144 - 3.238	2,393	
Triglyceride index	3.361 - 4.644	4,432	

Reference Standard:	Normal(-)	Mildly Abnormal(+)
	Moderately Abnormal (++)	Severely Abnormal (+++)
Saturated fatty acid index:	1.334-2.407(-) 0.792-1.047(++)	1.047-1.334(+) <0.792(+++)
Unsaturated fatty acid index:	2.224-3.153(-) 1.071-1.597(++)	1.597-2.224(+) <1.071(+++)
Essential fatty acid index:	2.144-3.238(-) 1.054-1.889(++)	1.889-2.144(+) <1.054(+++)
Triglyceride index:	3.361-4.644(-) 1.347-2.101(++)	2.101-3.361(+) <1.347(+++)

Parameter Description
Saturated fatty acid index: Saturated fatty acids are fatty acids containing saturated bonds. Dietary saturated fatty acids are mostly found in animal fats and milk fats. High intake of saturated fatty acids is the main cause of elevated blood cholesterol, triglyceride, and low-density lipoprotein cholesterol. It causes secondary arterial stenosis and formation of arteries. Atherosclerosis increases the risk of coronary heart disease.
Unsaturated fatty acid index: Unsaturated fatty acids are fatty acids that make up body fat and are indispensable fatty acids in the human body. Unsaturated fatty acids play a significant role in the metabolism of blood lipids, in promoting brain function, in maintaining and improving vision.
Essential fatty acid index: Essential fatty acids are essential for life activities of the body, but the body itself cannot synthesize polyunsaturated fatty acids that must be supplied by food. Essential fatty acids not only attract moisture to moisturize skin cells, but also prevent water loss.

Triglyceride index:

Triglycerides are fat molecules formed by long-chain fatty acids and glycerol, and are the most abundant lipids in the human body. Triglycerides are an independent risk factor for coronary heart disease. High levels of triglycerides also include high blood pressure, gallstones, pancreatitis, senile dementia, male sexual dysfunction, and increased hepatitis.

The test results for reference only and not as a diagnostic conclusion.

(Element of Human) Analysis Report Card

Name: Leif Rehnvall Sex: Male Age: 81
Figure: 168cm, 52kg Testing Time: 2026-02-27 20:15

1.The componential analysis of body

Componential classification	Measurements	Body moisture	Muscle volume	Lean body weight	Weight
(1)Intracellular Fluid (L)	11,7				
(2) Extracellular Fluid(L)	6	(6)Body moisture=(1)+(2)=17,7			
(3)Protein(Kg)	4,63	(7)Muscle volume=(6)+(3)=22,3			
(4)Inorganic substance(Kg)	20,28	(8)Lean body weight=(7)+(4) =42,6			
(5)Body fat (Kg)	9,4	(9)Weight=(8)+(5)=52			

2.Fat analysis

Property	Substandard	Standard	Over stander

80% 85% 90% 95% 100% 105% 110% 115% 120% 125%

1.Height(Cm) 168cm

Note: The average of height of male adult is 172cm, and of female is 162cm.

Predictor formula of standard height (inheritance)

The height of male=(the height of father + the height of mother)*1.08/2(cm)

The height of female=(the height of father*0.923+the height of mother)/2(cm)

Property	Substandard	Standard	Over stander

60% 70% 80% 90% 100% 110% 120% 130% 140% 150%

2.Weight(Kg) 52kg

Note: The way to calculate the standard body weight in World Health Organization

Male:(height(cm)-80)*70%

Female:(height(cm)-70)*60%.

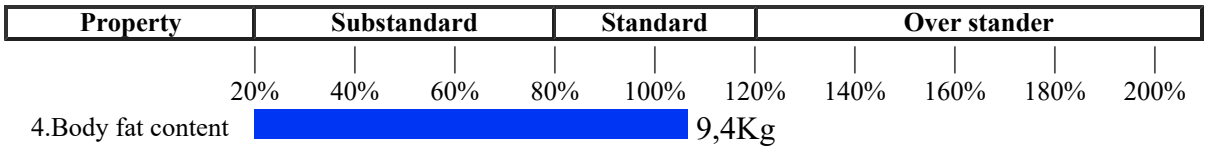
Property	Substandard	Standard	Over stander

60% 70% 80% 90% 100% 110% 120% 130% 140% 150%

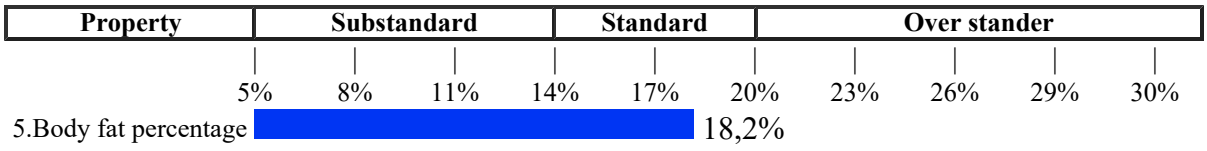
3.Muscle mass 22,3Kg

Note: The muscle is 35%-48% of weight. Muscle quantity in excess is not only to reduce the amount of muscle, but to change the weight of fat to increase the weight of muscle. With your muscles increasing, basal metabolism will improve. Basal metabolism means the energy to keep the basic functionality as breathing, body temperature, and blood circulation. When muscles increase, the basal metabolism will rise, even in a quiet, to burn fat, which will not

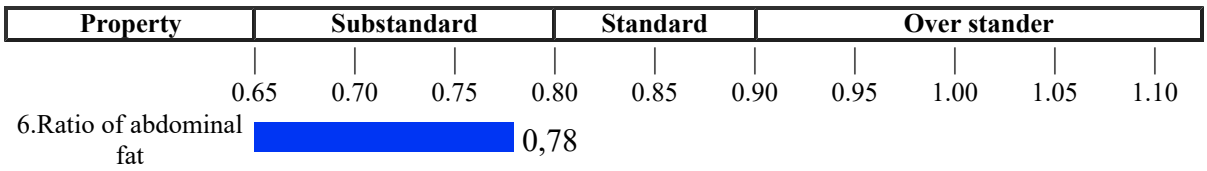
due to obesity. Therefore, when the basal metabolism promote, even when eat the same, the fat will be gradually reduced. So we should increase the quality of muscle firstly, to promote basal metabolism to lose weight. Exercise to improve the power of the muscle and do some aerobics.



Note: Body fat content in healthy human: male 14%~20% , female 17%~24%.



Note: Body fat percentage refers to body fat content with the weight.
Body fat percentage of male: 14~20% is normal,20%-25% is overweight, >25% is obesity;
Body fat percentage of female: 17%~24% is normal?, 25%-30% is overweight, >30% is obesity.



Note: It's called waist-hip ratio, which is the ratio of waistline with tall, (WHR)=W(cm)/H(cm).

WHR	Normal	Fat in waist	Fat in hip
Male	<0.9	>1.0	<1.0
Female	<0.8	>0.85	<0.85

3.Nourishment

Nourishment	
Obesity degree of body(ODB)	84%
Body mass index (BMI)	18,4 Kg/M^2
Basal metabolism rate(BMR)	1068 kcal
Body cell mass (BCM)	16,33 Kg

BMI-- body mass index:

Low weight	Standard	Overweight	Early obesity	One-level obesity	Two-level obesity	Three-level obesity
<18.5	18.5~22.9	>=23	23~24.9	25~29.9	>30	>=40

BMR (unit:Calorie)

The basal metabolism refers to human body's to refer to the human under foundation condition energy metabolism foundation condition to occupy sober and is peaceful, not muscular work factor influence's and so on the time the ambient temperature food and mental strain condition unit

interval/unit time's basal metabolisms is called the foundation metabolism rate, namely each hour each square meter body surface sends out the quantity of heat does not surpass or is not lower than the normal value 15%, is the normal foundation metabolism rate the determination, when is main aiding method which clinical diagnosis thyroid gland illness gets sick, hyperthyroidism,the foundation metabolism rate may elevate obviously, the thyroid gland function is low when the foundation metabolism rate obviously cuts the foundation metabolism rate to lose weight has the very tremendous influence, every day right amountthe movement is helpful in raising body's foundation metabolism rate, but will diet (is extremely fasts) will cut pe.

4.Integrated Assessment

Integrated Assessment				
Muscle type		Low weight	Standard	High weight
	Low muscles type	#		
	Ordinary			
	Muscles type			
Nutriture		Absent	Well	Excess
	Protein		#	
	Fattiness	#		
	Inorganic salt		#	
Upper and lower balance		Well-developed	Standard	Under developed
	Upper limbs		#	
	Lower limbs		#	
Symmetery		Balanced	Unbalanced	
	Upper limbs	#		
	Lower limbs	#		

5.Weight control

Weight control	
Target weight	61,6 Kg
Weight control	9,6 Kg
Fat control	4,3 Kg
Muscle control	5,3 Kg

1. Target weight: standard body weight according to height.
2. Weight control: weight need to change, negative value means need to decrease, positive value means need to increase.
3. Fat control: weight of fat need to change, negative value means need to decrease (Do aerobic exercise, increase metabolism, burn up extra fat, and increase muscular strength), positive value means need to increase.
4. Muscle control: standard weight of muscle according to height.

6.Body form Assessment

Body form Assessment:72,9

Standard declaration: >=70 means pass,>=80 means fine ,>=90 means excellent.

The test results for reference only and not as a diagnostic conclusion.

Expert analysis Report

Name: Leif Rehnvall Sex: Male Age: 81
Figure: 168cm, 52kg Testing Time: 2026-02-27 20:15

About the probably hidden problems

System	Testing Item	Normal Range	Actual Measurement Value
Prostate	Prostatitis Syndrome		
	Expert advice		

About the problems of sub-health trends

System	Testing Item	Normal Range	Actual Measurement Value
Cardiovascular and Cerebrovascular	Blood Viscosity		
	Blood Fat		
	Left Ventricular Ejection Impedance		
	Coronary Perfusion Pressure		
	Expert advice		
Gastrointestinal Function	Gastric Peristalsis Function Coefficient		
	Small Intestine Absorption Function Coefficient		
	Expert advice		
Large Intestine Function	Intestinal bacteria coefficient		
	Expert advice		
Lung Function	Vital Capacity VC		
	Total Lung Capacity TLC		
	Arterial Oxygen Content PaCO2		
	Expert advice		
Brain Nerve	Memory Index(ZS)		
	Expert advice		
Bone Mineral Density	Degree of Osteoporosis		
	Bone Mineral Density		
	Expert advice		
Rheumatoid Bone Disease	Degree of Cervical Calcification		
	Osteoporosis Coefficient		
	Expert advice		
Bone Growth Index	Bone alkaline phosphatase		
	Expert advice		
Trace Element	Potassium		
	Expert advice		
Vitamin	Vitamin D3		

	Vitamin K		
	Expert advice		
Coenzyme	Nicotinamide		
	Pantothenic acid		
	Expert advice		
Essential Fatty Acid	Linoleic acid		
	Expert advice		
Endocrine System	Thymus gland secretion index		
	Expert advice		
Immune System	Thymus index		
	Expert advice		
Human Toxin	Electromagnetic Radiation		
	Toxic Pesticide Residue		
	Expert advice		
Heavy Metal	Lead		
	Mercury		
	Expert advice		
Basic Physical Quality	PH		
	Expert advice		
Skin	Skin Collagen Index		
	Skin Moisture Loss		
	Expert advice		
Eye	Lymphatic obstruction		
	Expert advice		
Collagen	Hair and skin		
	Expert advice		
Prostate	Degree of Prostatic Hyperplasia		
	Expert advice		
Male Sexual Function	Testosterone		
	Erection Transmitter		
	Expert advice		

The test results for reference only and not as a diagnostic conclusion.

Hand analysis Report

Name: Leif Rehnvall Sex: Male Age: 81
Figure: 168cm, 52kg Testing Time: 2026-02-27 20:15

About the probably hidden problems

System	Testing Item	Normal Range	Actual Measurement Value
Prostate	Prostatitis Syndrome	2.213 - 2.717	7,794
	Expert advice		

About the problems of sub-health trends

System	Testing Item	Normal Range	Actual Measurement Value
Cardiovascular and Cerebrovascular	Blood Viscosity	48.264 - 65.371	70,777
	Blood Fat	0.481 - 1.043	1,728
	Left Ventricular Ejection Impedance	0.669 - 1.544	2,392
	Coronary Perfusion Pressure	11.719 - 18.418	20,016
	Expert advice		
Gastrointestinal Function	Gastric Peristalsis Function Coefficient	58.425 - 61.213	55,113
	Small Intestine Absorption Function Coefficient	3.572 - 6.483	2,562
	Expert advice		
Large Intestine Function	Intestinal bacteria coefficient	1.734 - 2.621	0,717
	Expert advice		
Lung Function	Vital Capacity VC	3348 - 3529	3544,063
	Total Lung Capacity TLC	4301 - 4782	4787,298
	Arterial Oxygen Content PaCO2	17.903 - 21.012	15,572
	Expert advice		
Brain Nerve	Memory Index(ZS)	0.442 - 0.817	0,218
	Expert advice		
Bone Mineral Density	Degree of Osteoporosis	0.124 - 0.453	0,72
	Bone Mineral Density	0.796 - 0.433	0,203
	Expert advice		
Rheumatoid Bone Disease	Degree of Cervical Calcification	421 - 490	513,32
	Osteoporosis Coefficient	2.019 - 4.721	6,081
	Expert advice		
Bone Growth Index	Bone alkaline phosphatase	0.433 - 0.796	0,212
	Expert advice		
Trace Element	Potassium	0.689 - 0.987	0,358

	Expert advice		
Vitamin	Vitamin D3	5.327 - 7.109	4,187
	Vitamin K	0.717 - 1.486	0,476
	Expert advice		
Coenzyme	Nicotinamide	2.074 - 3.309	1,345
	Pantothenic acid	1.116 - 2.101	0,735
	Expert advice		
Essential Fatty Acid	Linoleic acid	0.642 - 0.985	0,355
	Expert advice		
Endocrine System	Thymus gland secretion index	2.967 - 3.528	2,214
	Expert advice		
Immune System	Thymus index	58.425 - 61.213	52,711
	Expert advice		
Human Toxin	Electromagnetic Radiation	0.046 - 0.167	0,477
	Toxic Pesticide Residue	0.013 - 0.313	0,437
	Expert advice		
Heavy Metal	Lead	0.052 - 0.643	1,515
	Mercury	0.013 - 0.336	0,724
	Expert advice		
Basic Physical Quality	PH	3.156 - 3.694	3,046
	Expert advice		
Skin	Skin Collagen Index	4.471 - 6.079	1,992
	Skin Moisture Loss	2.214 - 4.158	6,932
	Expert advice		
Eye	Lymphatic obstruction	1.116 - 4.101	7,585
	Expert advice		
Collagen	Hair and skin	4.533 - 6.179	1,728
	Expert advice		
Prostate	Degree of Prostatic Hyperplasia	1.023 - 3.230	5,179
	Expert advice		
Male Sexual Function	Testosterone	3.342 - 9.461	1,616
	Erection Transmitter	3.241 - 9.814	1,922
	Expert advice		

The test results for reference only and not as a diagnostic conclusion.

Comprehensive Report Card

Name: Leif Rehnvall Sex: Male Age: 81
Figure: 168cm, 52kg Testing Time: 2026-02-27 20:15

About the probably hidden problems

System	Testing Item	Normal Range	Actual Measurement Value
Prostate	Prostatitis Syndrome	2.213 - 2.717	7,794
	Expert advice	Prostate health is essential for male wellness, especially as men age. Focus on a diet rich in fruits, vegetables, and whole grains, and limit your intake of red meat and processed foods. Regular exercise, staying hydrated, and avoiding alcohol and tobacco are all important lifestyle factors. Regular checkups with your doctor can help monitor prostate health and prevent potential issues. V-GLUTATION, V-OMEGA 3, V-CURCUMAX , V-LOVKAFE, V-ITADOL	

About the problems of sub-health trends

System	Testing Item	Normal Range	Actual Measurement Value
Cardiovascular and Cerebrovascular	Blood Viscosity	48.264 - 65.371	70,777
	Blood Fat	0.481 - 1.043	1,728
	Left Ventricular Ejection Impedance	0.669 - 1.544	2,392
	Coronary Perfusion Pressure	11.719 - 18.418	20,016
	Expert advice	A diet rich in fruits, leafy greens, fatty fish, whole grains, nuts, olive oil, and lean protein helps support healthy blood flow and vascular integrity. Minimizing intake of sugar, salt, fried foods, and alcohol further reduces strain on the cardiovascular system. Just 30 minutes of moderate physical activity each day—such as walking, swimming, or cycling—can significantly lower cardiovascular risk and promote overall circulatory wellness. V-OMEGA 3, V-ASCULAX, V-NITRO	
Gastrointestinal Function	Gastric Peristalsis Function Coefficient	58.425 - 61.213	55,113
	Small Intestine Absorption Function Coefficient	3.572 - 6.483	2,562
	Expert advice	A fiber-rich diet, including plenty of fruits, vegetables, and whole grains, supports healthy digestion and regular bowel movements. Proper hydration and mindful eating habits, like chewing thoroughly and eating at regular intervals, can help enhance intestinal peristalsis and promote efficient	

		elimination. Including probiotics and herbal supplements can also support gut health and optimize your digestive function.V-FORTIFLORA, V-CONTROL, V-TEDETOX	
Large Intestine Function	Intestinal bacteria coefficient	1.734 - 2.621	0,717
	Expert advice	Focus on a diet rich in fiber to enhance digestion and support proper elimination. Incorporate whole grains, vegetables, fruits, and legumes, as they help speed up intestinal peristalsis and promote regular bowel movements. Ensure you stay hydrated throughout the day and avoid processed foods, which can slow down digestion. Maintaining a healthy gut flora is also key to overall intestinal health. V-TEDETOX, V-CONTROL, V-NEUROKAFE, V-FORTYFLORA	
Lung Function	Vital Capacity VC	3348 - 3529	3544,063
	Total Lung Capacity TLC	4301 - 4782	4787,298
	Arterial Oxygen Content PaCO2	17.903 - 21.012	15,572
	Expert advice	Focus on foods rich in vitamins A, C, and E to support lung health. These vitamins help reduce oxidative stress in the lungs and promote healthy respiratory function. Avoid smoking and limit exposure to environmental pollutants, which can damage lung tissue. Engage in regular cardiovascular exercise to increase lung capacity and improve breathing efficiency. It's also important to reduce the intake of refined sugars, which can contribute to inflammation. V-CURCUMAX, V-ITALBOOST	
Brain Nerve	Memory Index(ZS)	0.442 - 0.817	0,218
	Expert advice	To support the brain and nervous system, it is important to manage stress levels through regular relaxation techniques such as meditation and deep breathing. A balanced diet rich in omega-3 fatty acids, B vitamins, and antioxidants helps maintain cognitive function and prevent neurodegenerative conditions. Regular physical activity and sufficient sleep also play key roles in brain health. Avoiding excess alcohol and tobacco is crucial for preserving nerve function. V-DAILY, V-NEUROKAFE, V-ITALAY, V-OMEGA 3	
Bone Mineral Density	Degree of Osteoporosis	0.124 - 0.453	0,72
	Bone Mineral Density	0.796 - 0.433	0,203
	Expert advice	To improve bone mineral density, focus on increasing your intake of calcium-rich foods, such as leafy greens, fortified	

		plant-based milks, and dairy products. Supplementing with vitamin D is important for calcium absorption and bone health. Regular weight-bearing exercise, including walking and resistance training, is crucial to stimulate bone growth and maintain bone density. It's also important to avoid smoking and limit alcohol consumption, as these can negatively impact bone health. VITALAGE COLLAGEN, V-DAILY	
Rheumatoid Bone Disease	Degree of Cervical Calcification	421 - 490	513,32
	Osteoporosis Coefficient	2.019 - 4.721	6,081
	Expert advice	For managing rheumatic bone diseases, adopt an anti-inflammatory diet rich in omega-3 fatty acids, fruits, vegetables, and whole grains. Avoid foods that promote inflammation, such as processed meats, refined sugars, and trans fats. Regular physical activity and stretching exercises can help maintain joint flexibility and reduce pain. It's important to work with a healthcare provider to manage symptoms effectively. V-ITADOL, VITALAGE COLLAGEN, V-CURCUMAX, V-OMEGA 3	
Bone Growth Index	Bone alkaline phosphatase	0.433 - 0.796	0,212
	Expert advice	To support healthy bone growth, ensure you’re getting sufficient calcium and vitamin D, which are crucial for bone development. Include weight-bearing exercises in your routine to stimulate bone growth. Foods like leafy greens, fortified plant-based milks, and fatty fish provide essential nutrients for bone health. Avoid excessive alcohol and smoking, which can slow down bone growth. Adequate sleep is also vital for proper bone development. VITALPRO, V-DAILY, V-OMEGA 3	
Trace Element	Potassium	0.689 - 0.987	0,358
	Expert advice	Ensure that your diet is rich in essential vitamins and minerals to support overall health. Foods like leafy greens, nuts, seeds, and whole grains are packed with trace elements such as zinc, magnesium, and selenium, which are vital for cellular function and immune support. If needed, consider supplementing your diet with high-quality natural products to fill any nutritional gaps. VITALPRO, V-DAILY, V-OMEGA 3	
Vitamin	Vitamin D3	5.327 - 7.109	4,187
	Vitamin K	0.717 - 1.486	0,476
	Expert advice	A balanced diet with plenty of fruits, vegetables, and whole grains provides a	

		wide variety of vitamins necessary for overall health. If you're not able to get enough from food, consider supplements to ensure you're meeting your vitamin requirements. Vitamins such as A, C, D, E, and the B vitamins play important roles in immune function, energy production, and cellular health. V-NRGY, V-DAILY, VITALPRO	
Coenzyme	Nicotinamide	2.074 - 3.309	1,345
	Pantothenic acid	1.116 - 2.101	0,735
	Expert advice	Coenzymes are vital for many enzymatic reactions in the body and play a role in energy production. Ensure you're consuming a balanced diet that includes a variety of vitamins and minerals, as they are often required for coenzyme function. Foods like leafy greens, legumes, and whole grains are rich in the nutrients needed to support these processes. V-NRGY, V-DAILY, VITALPRO	
Essential Fatty Acid	Linoleic acid	0.642 - 0.985	0,355
	Expert advice	Essential fatty acids are crucial for brain function, inflammation regulation, and overall cellular health. Focus on incorporating omega-3 and omega-6 fatty acids into your diet through foods like fatty fish, flaxseeds, walnuts, and chia seeds. If necessary, supplementing with high-quality fish oil or plant-based omega-3s can help ensure adequate intake of these important nutrients. V-OMEGA 3, VITALPRO	
Endocrine System	Thymus gland secretion index	2.967 - 3.528	2,214
	Expert advice	A balanced diet rich in vitamins B and C can help support the proper function of the endocrine system. Foods like leafy greens, citrus fruits, and whole grains provide the necessary nutrients for hormone production and regulation. Additionally, reducing stress through mindfulness practices, adequate rest, and physical activity can help maintain hormonal balance. V-DAILY	
Immune System	Thymus index	58.425 - 61.213	52,711
	Expert advice	A healthy immune system is vital for your body's defense against infections and diseases. To support it, prioritize a balanced lifestyle that includes a nutritious diet rich in fruits, vegetables, and whole grains. Regular physical activity helps maintain a robust immune system, while adequate sleep and stress management are crucial for preventing immune system suppression.	

		Incorporating key vitamins like Vitamin C, Vitamin D, and Zinc through food or supplements can further bolster immune function. V-ITALBOOST, V-DAILY, V-GLUTATION PLUS	
Human Toxin	Electromagnetic Radiation	0.046 - 0.167	0,477
	Toxic Pesticide Residue	0.013 - 0.313	0,437
	Expert advice	Human toxins, such as heavy metals, pesticides, and environmental pollutants, can accumulate in the body over time, potentially affecting health. To minimize their impact, opt for organic food whenever possible and choose glass or stainless steel containers over plastic to reduce chemical exposure. Drinking plenty of water, incorporating antioxidant-rich foods, and engaging in regular detox practices can help the body naturally eliminate harmful toxins. V-DAILY, V-GLUTATION PLUS, V-TEDETOX	
Heavy Metal	Lead	0.052 - 0.643	1,515
	Mercury	0.013 - 0.336	0,724
	Expert advice	Heavy metals like mercury, lead, and cadmium can accumulate in the body and cause health problems over time. To limit exposure, reduce consumption of foods known to contain heavy metals, such as certain fish and shellfish, and avoid exposure to products that may contain harmful substances. Regularly consuming detoxifying foods like cilantro, garlic, and chlorella can support the body in eliminating heavy metals. V-GLUTATION, V-GLUTATION PLUS, V-TEDETOX	
Basic Physical Quality	PH	3.156 - 3.694	3,046
	Expert advice	Maintaining physical health requires a combination of balanced nutrition, regular exercise, and stress management. Focus on a diet rich in whole foods, such as fruits, vegetables, lean proteins, and healthy fats. Regular physical activity promotes cardiovascular health and helps to manage weight. Incorporate stress-reducing activities such as meditation, yoga, or even simple deep breathing exercises to help keep your body in balance. V-GLUTATION, V-ORGANEX, V-ITAREN, V-DAILY	
Skin	Skin Collagen Index	4.471 - 6.079	1,992
	Skin Moisture Loss	2.214 - 4.158	6,932
	Expert advice	Healthy skin starts from within. Incorporate foods rich in vitamins A, C, and E, such as leafy greens, citrus fruits,	

		and nuts, to support skin regeneration and collagen production. Stay hydrated and protect your skin from sun damage by using sunscreen regularly. Reducing stress and getting enough sleep are essential for healthy, glowing skin. VITALAGE COLLAGEN, V-GLUTATION, V-GLUTATION PLUS, V-DAILY	
Eye	Lymphatic obstruction	1.116 - 4.101	7,585
	Expert advice	To maintain eye health, include foods rich in lutein and zeaxanthin, such as spinach, kale, and corn, as these antioxidants protect the retina from harmful light exposure. Regular eye checkups are also essential for early detection of potential issues. Protect your eyes by limiting screen time, taking breaks to reduce strain, and wearing UV-blocking sunglasses when outdoors. V-OMEGA 3, V-NITRO, V-DAILY	
Collagen	Hair and skin	4.533 - 6.179	1,728
	Expert advice	Collagen is essential for maintaining the strength and elasticity of skin, joints, and connective tissues. As we age, our body's natural collagen production declines, leading to wrinkles and joint discomfort. To support collagen production, consume vitamin C-rich foods like oranges, strawberries, and bell peppers. Regular exercise and sufficient hydration are also key to maintaining healthy collagen levels. VITALAGE COLLAGEN	
Prostate	Degree of Prostatic Hyperplasia	1.023 - 3.230	5,179
	Expert advice	Prostate health is essential for male wellness, especially as men age. Focus on a diet rich in fruits, vegetables, and whole grains, and limit your intake of red meat and processed foods. Regular exercise, staying hydrated, and avoiding alcohol and tobacco are all important lifestyle factors. Regular checkups with your doctor can help monitor prostate health and prevent potential issues. V-GLUTATION, V-OMEGA 3, V-CURCUMAX , V-LOVKAFE, V-ITADOL	
Male Sexual Function	Testosterone	3.342 - 9.461	1,616
	Erection Transmitter	3.241 - 9.814	1,922
	Expert advice	To maintain healthy sexual function, it is important to avoid excessive alcohol and tobacco consumption, as both can impair circulation and hormone balance. Regular physical activity, stress reduction techniques, and a diet rich in antioxidants can help improve circulation and overall	

		sexual health. V-NITRO, V-NRGY, V-LOVKAFE

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