

# Health Examination Result Description

## Height and Weight

1. There are two commonly used methods for calculating the standard weight as the followings:

(1) Body mass index (BMI)= weight (kg) / height (m)<sup>2</sup>

It is standard weight when this index falls in the range of 18.5~23.9; overweight when it falls in 24~26.9; obesity when it is equal or more than 27; underweight when it is less than 18.5.

(2) Male standard weight (kg) = 【height (cm)-80】 × 0.7

Female standard weight (kg) = 【height (cm)-70】 × 0.6

Weight range	Description
Above standard weight more than 20%	Obesity
Above standard weight between 10%~20%	Overweight
Above or below standard weight in 10%	Normal
Below standard weight between 10%~20%	Underweight
Below standard weight more than 20%	Emaciated

2. Obese people are more prone to suffer from hypertension, diabetes, high cholesterol, sleep apnea syndrome, coronary heart disease, stroke, gallstones and some sort of cancers. Obesity will lead some adverse effect on health, therefor it has been regarded as a chronic disease and must be treated. Diet and exercise are the ways to lose weight with least side-effects; how to reduce the dietary calories uptake could be consulted from the nutritionist. If necessary, you shall go to the weight loss clinic or department of endocrinology (medicine) for medical treatment.
3. When you are underweight, it shall be estimated whether is due to monophagia, improper exercise or potential disease. Especially when you lose weight significantly in a short time, the reason shall be even more traced by the doctor.

# Heart Rate

The normal heart rate is between 60 and 100 per minute; some physiological phenomena or diseases could alter the heart rate. The heart rate will reduce when you take a rest or sleep, and the heart rate of athletes or the elderly could be reduced to fewer than 50 per minute; the heart rate will fasten when you are taking exercise or in tense. Because lots of diseases will alter the heart rate, therefore the reason causes heart rate abnormality shall be further traced.


# Blood Pressure

1. Definition:

Unit: mmHg

Description	Systolic pressure	Diastolic pressure
Hypertension	Greater or equal to 140	Greater or equal to 90
Prehypertension	120~139	80~89
Normal pressure	Less than 120	Less than 80

- The blood pressure will be affected by many factors such as exercise, diet, temperature, mood, sleep, posture, smoking, drugs and physiological state. Only when measured in more than three different occasions, the blood pressure measured is over 140/90 mm Hg after sufficient rest, and then hypertension could be determined. Therefore, this health examination measures only 1 or 2 times of blood pressure, even the high blood pressure is found, the symptom shall be further traced and several same results are measured, then hypertension could be determined.
- Chronic hypertension with poor control may lead to serious complications throughout the heart, brain, kidney and aortas, so it shall be ignored.
- Hypertension does not necessarily have symptoms; please do NOT delay the treatment until you feel uncomfortable. Whether the blood pressure is well controlled depends on the judgment based on multiple measurements instead of your feeling.
- Treatment: go to the Family Medicine for treatment. In principle, proper exercise, weight control, low salt diet, quit-smoking, limited alcohol consumption, avoid fatigue, adequate sleep and living pressure adjustment, those non-drug treatment shall be adopted in first priority.



If you cannot make the blood pressure in normal range or you are a moderate or severe hypertension patient, you shall accept the medication treatment at the same time.

## Oral Examination

1. If there is any dental disease, please go to the dentist.
2. In order to maintain oral health, brushing teeth with fluoride toothpaste after meal and before sleep and clean the food residues dead-stuck in your teeth shall be noticed. In addition, you shall go to the dentist to do teeth cleaning every six months.

## Sight

1. Lots of reasons may cause abnormal sight; the most common reason for young people is myopia (nearsightedness). This sight examination is mainly for screening the abnormality instead of providing eye exam. If your uncorrected or corrected sight is less than 0.6, please go to the ophthalmology for further examination or treatment.
2. If you know you are a patient with high myopia which is more than 600 degrees, you should go to the ophthalmology to do sight examination every year. If your myopia degrees increase 100 degrees or more within half year or there is sudden shadow in your eyesight, you also shall go to the ophthalmology for further assessment.

## Color Differentiation

Abnormal color differentiation means that some people's ability to distinguish between certain color is poor than average people, this could result from congenital inheritance or acquired eye or brain disease.

## Total Cholesterol

1. Reference value: less than 200 *mg/dL*.
2. High blood cholesterol levels lead to atherosclerosis, myocardial infarction, stroke and other diseases.
3. People with high total cholesterol shall avoid high cholesterol food, weight control and proper exercise; for further health information,

please reserve in the family medicine of the health center and be referred to the nutrition counseling clinic.

4. After 3 months of treatment of diet and exercise, please track the effectiveness by blood tests. Severe hypercholesterolemia patient are require to accept drug treatment.

## Renal Function– Creatinine

1. Reference value: 0.6~1.3 *mg/dL*.
2. This substance come from the break downed muscles and will be excreted by the kidneys. When the renal function is damaged more than 2/3, the value of creatinine will raise, therefore it is commonly used indicator to assess the renal function.
3. If creatinine value is abnormal, please go to the kidney internal medicine or family medicine for medical treatment and tracing reasons.

## Uric Acid

1. Reference value: male, 3.5~7.5 *mg/dL*; female, 2.6~7.5 *mg/dL*.
2. The purine in the body will become uric acid after metabolism, when the uric acid formation is faster then the rate of renal excretion of uric acid, it will result in hyperuricuria. When the concentration of blood uric acid is more than 7 *mg /dL*, it will become supersaturation, which is easy to let the uric acid become sediment in the joint cavity causing acute inflammation that is so-called gout. The blood uric acid value of people with renal dysfunction is also easy to increase.
3. The high uric acid patient shall avoid high purine food, such as beer, seafood, mushrooms, soy products (including green bean soup, soybean milk, etc.). please go to the family medicine for re-examination and doctor will determine whether it is necessary for drug medication according the condition.

# Physical Examination

1. Some abnormality found in physical examination is temporary and it will disappear when re-examination; and some will constantly exist. Every discovery in the physical examination (for example: thyroiditis, heart murmur, etc.) may have lots of reasons, some need treatment and some need observation only; all of them needs re-examination in hospital and let the doctor decide what to do next.
2. If any abnormality is found in the physical examination, you may do re-examination in family medicine. And you also may request help from specialist doctors according the unusual parts, such as:

Unusual part	Suggestion	Unusual part	Suggestion
Lymphaenopathy in the neck	Otorhinolaryngology	Goiter	Endocrinology
Cardiac abnormalities	Cardiology	Lung abnormalities	Pulmonary Medicine
Abdominal anomalies	Gastroenterology,	Skin lesions	Dermatology
Muscle, bone and joint abnormalities	Orthopaedics or Rheumatology		

## Chest X-ray

1. The purpose of chest X-ray is for whether the lungs, hearts large vessels or chest wall bone is normal.
2. If abnormality is found in the chest X-ray image by the radiology physicians, you are suggested to go to the hospital. Such abnormality shall be confirmed and decided what to do next by another physician.

Unusual part	Suggestion
Scoliosis	Orthopedics or rehabilitation
Cardiac or vascular abnormalities	Cardiology
Lung abnormalities	Chest Medicine

# Urine Examination

Item	Nor.	Ab.	Description
Proteinuria	Negative	$\geq 30$ mg/dL	<p>I. Normal daily urinary excretion of protein should be less than 150 mg, the dipstick shall present (-) or up to (+/-) reaction. If the urine test shows protein greater or equal to 30 mg/ DL, it means there is protein in the urine.</p> <p>II. In cases of too much alkali in the urine, the urine is too thick or blood in the urine, sometimes they will also make protein response positive; but it does not really mean there is protein in the urine, which is false positive reaction.</p> <p>III. In case that the protein really exists in the urine, the possible reasons are following:</p> <ol style="list-style-type: none"> <li>1. Transient or physiological proteinuria: after fierce exercise, fever, sudden exposure to cold environment, heart failure or seizure of epilepsy, the transient or physiological proteinuria may come out.</li> <li>2. Persistent proteinuria: mostly caused by kidney disease or urinary tract (ureter, bladder, urethra), disease, except for orthostatic proteinuria.</li> <li>3. Orthostatic proteinuria: proteinuria appears only when people stand, and that usually is benign and will gradually disappear.</li> </ol> <p>IV. If the urinary protein test response positive, please go to family medicine for re-examination.</p>
Sugar	Negative	Positive	<p>I. The determination of urinary glucose test, the normal response shall be negative.</p> <p>II. If the blood sugar is more than 160 to 180 mg/dL, the sugar will appear in the urine. However, the diagnosis of diabetes shall be based on the glucose in blood, if over 126 mg/dL in the fasting blood glucose is measured twice or more or over 200 mg/dL is measured randomly, the diabetes is determined.</p> <p>III. If the urinary protein test is positive and the blood glucose is normal, it could be caused by kidney disease or a false positive, hydrogen peroxide or bleach can cause a urine test for false positive.</p> <p>IV. If the urinary protein test is positive, please go to the family medicine for further measurement and treatment.</p>
Epithelial cells	Negative	Positive	<p>I. Normal urine may emit a small amount of red blood cells, but should still be negative in urine dipstick test.</p> <p>II. When urine test is made during woman's menstrual period, the urine may be polluted by the blood and shows hematuria, therefore the re-examination shall be sure to avoid the menstrual period. In addition, there are some ingredients that may cause hematuria reaction positive with no blood in the urine; in order to exclude such false positive situation, the further examination is needed.</p> <p>III. Lesion (for example stones, infection, inflammation, tumor) in any place of the urinary tract (kidney, ureter, bladder or urethra) may perform hematuria, some certain systemic diseases may also cause hematuria. People with hematuria shall go to family medicine, nephrology or urology to trace the reason.</p>

# Hemoglobin, Red blood cells, Hematocrit ratio

1. Reference value:

Item	Male	Female	Unit
Hemoglobin	13.2~17.2	11.5~18	g/dL
Red blood cells	380~600	380~550	Million/ $mm^3$
Hematocrit ratio	36~50	34~47	%


2. There is usually correlation existed among these three values, high value means red blood cells hyperplasia or blood concentration due to body dehydration; and low value means anemia. Under some special circumstances, these three may vary in different directions, such some minor marine anemia patient may have increasing phenomenon of red blood cell number, but the hemoglobin rather slightly decreases.
3. Lots of reason may cause anemia, please trace the reasons in family medicine or internal medicine.

## Whitebloodcells

1. Reference value: male, 3.59~9.64 K/ $\mu L$ ; female, 3.04~8.54 K/ $\mu L$ .
2. The white blood cells can be elevated due to reasons of infection, inflammation, allergies, tumor, autoimmune diseases, tissue necrosis, physical stimuli, emotional reactions or drug influence. White blood cells can be divided into various kinds; different reasons cause increase of different white blood cells. If there is any increase of white blood cells, further examination for classification and tracking down the reason are needed.
3. The reasons for certain infectious diseases, blood diseases, autoimmune diseases, liver disease, drugs can cause white blood cell number decreased. If it happens, please go to family medicine or internal medicine for re-examination.

## Platelet

1. Reference value: male, 148~339 K/ $\mu L$  ; female, 150~361 K/ $\mu L$ .
2. When the platelet number decreases, the body is susceptible to bleeding; when the number increases, it is prone to get blood clots causing vascular obstruction.

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3. Many diseases can cause abnormal platelet number, please go to family medicine or internal medicine for further inspection.



## Liver Function

1. Reference value: SGOT : <37 U/L (male)、<31 U/L (female) ;  
SGPT : <41 U/L (male)、<31 U/L (female) .
2. These two enzymes exist in the liver; some liver diseases can cause liver cell damage, resulting in the rise of these two enzymes. However, these two enzymes also exist in heart, kidney, muscles and blood cells, if any of these organ is damaged, these enzymes will also rise. So when the “liver function” indexes rise, you shall go to the hospital for treatment, after comprehensive understanding, the reason could be determined.
3. When the liver function is abnormal, please go to family medicine or internal medicine for treatment.

## Hepatitis B

1. The meaning of examination result:

HBsAg	Anti-HBsA	Anti-HBcMe	Meanings
—	—	—	Had not been infected with hepatitis B virus, it is recommended that vaccination of hepatitis B vaccine to prevent infection.
—	+	—	Had injected with the hepatitis B vaccine to produce antibodies against hepatitis B, with resistance.
+	—	+	Hepatitis B carriers
—	+	+	Had been infected with hepatitis B and with antibodies (not carriers).

2. Hepatitis B carriers shall maintain normal routine life, avoid over exertion, alcoholism and use medication without instruction from doctor. Tracking liver function once every six month. And the doctor shall decide whether it is necessary to detect alpha fetal protein or arrange for abdominal ultrasound check, and you may go to family medicine for treatment. When female carrier is pregnant, she shall inform the doctor that she is a carrier in order to take appropriate measures to reduce the possibility of fetal infection. The Hepatitis B carrier shall not donate blood to others.
3. For vaccination of hepatitis B vaccine, please go to the home medical treatment facilities and receive vaccination at your own expense. Considering of the physical hazards of hepatitis B, vaccination is quite price-worthy.