BIOTEST

Your reliable home test kits series

Liver Function Test Kit

Product Code 9 555223 208081
For in vitro diagnostic and self-testing use
Store at 15-30ºC

Instructions

Please read all the information in this leaflet before performing the test. Do not use after the expiration date printed on the foil pouch. Store at room temperature between 15º- 30º Celsius. Do not store the strips in the refrigerator or freezer. Since the test strips are sensitive to specific environmental factors, such as moisture, heat and light, do not expose strips to these factors. Use the strip immediately after removing it from the pouch.

Test Principle

The liver is the largest glandular organ of the body. It weighs about 1.35kg. It is reddish brown in colour and is divided into four lobes of unequal size and shape. The liver lies on the right side of the abdominal cavity below the diaphragm (a muscular partition separating the chest and abdominal cavities).

Having a problem with your liver may cause one or more of the following symptoms.

- Yellowing of the skin and the whites of the eyes. A condition called jaundice.
- Pain in the right upper abdomen accompanied by pain in the back
- Abdominal swelling
- Weakness and loss of muscle mass
- Light colour of stool and/or dark colour of urine.

The above symptoms are the first signs of a liver problem. Jaundice is considered the most significant among them.

Jaundice is caused when an excess amount of a compound called bilirubin dissolves in the fat layer under the skin. Bilirubin is a compound that is formed as a result of the breakdown of red blood cells. Bilirubin will be carried to the liver by blood vessels and then to the intestines by means of a small duct connecting the liver with the intestine. This duct is called the bile duct. Bilirubin can also be stored in the gall bladder which is a very small sac-like organ extending out of the bile duct.

In the intestine, bilirubin can be converted to a compound called urobilinogen by the act of intestinal bacteria. A small percentage of this compound can be reabsorbed into the blood stream. Increased levels of urobilinogen and/or bilirubin in blood will lead to its appearance in urine.

Conditions that may increase urobilinogen and/or bilirubin concentration(s) in blood are

1. Excessive breakdown of red blood cells. This is common in newborns – jaundice in newborns
2. Obstruction of the bilary tract which is associated with gallstones, tumors or liver inflammation which will restrict the movement of bilirubin to the intestine on its way out of the body.
3. Liver diseases including hepatitis infection, liver cancer and cirrhosis which is a chronic disease that causes scarring of the liver and interferes with the normal function of the liver. The major cause is chronic alcoholism.

The BIOTEST Liver Function Test Kit contains two dip-and-read test strips and its main use is to check for bilirubin and urobilinogen in urine specimens as an aid in the diagnosis of liver and gall bladder problems.

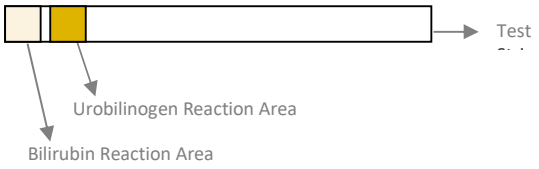
Precautions & Warnings

- Please read all the information in this leaflet before performing the test.
- Do not use the test after the expiration date.
- If the package is not completely sealed do not use the test.
- Do not open the test foil pouch until it has reached room temperature and you are ready to start the test.
- The test should be performed in a well-lit area.
- Use the test device immediately after opening it.
- Do not touch the test area. This could affect results and may also harmful.
- Use the provided collection cup and discard after performing the test.
- The pouch contains a silica gel pack to absorb humidity. Do not open the pack. Throw it away with the remainder of the test.
- Do not freeze.
- At the end of the test, wrap everything you have used in a plastic bag and throw in the bin. Do not forget to wash your hands properly.
- The remaining urine sample should be discarded and flushed in the toilet.
- Keep out of the reach of children.
- For in vitro diagnostic and self-testing use. Not to be taken internally.

How to Use

Use the provided collection cup to collect the urine. Test the urine as soon as possible after collection. This procedure MUST BE FOLLOWED EXACTLY to achieve reliable test results.

1. Prepare the urine specimen.
2. Remove the strip from the pouch. Familiarize yourself with the position of the reaction area of bilirubin and uro-bilinogen. The beige reaction area is for bilirubin and the yellow is for urobilinogen. Also, familiarize yourself with the colour chart on the box.



3. Dip the test strip in the urine until the reaction areas are completely immersed for no more than 1 second.
4. Remove the dipstick from the urine and tap the strip on the rim of the cup to remove excess urine and place it horizontally with the reaction areas facing up.
5. Leave the strip for 30-60 seconds for the reaction to take place.
6. Read the results by comparing the colours of the reaction on the strip to those on the box. While comparing, keep the strip in a horizontal position to avoid possible mixing of colours between the reaction areas on the strip.
7. Identify the best colour match on the colour blocks on the box and the corresponding concentration range. A change in colour that appears only along the edges of the reaction areas indicates that the reaction did not take place properly, so we recommend redoing the test with another strip. Results read after 60 seconds are not valid.

Results

The results are obtained by direct comparison of the test strip with the colour blocks printed on the box. See the table below for test interpretation and recommendations

Bilirubin Result	Urobilinogen Result	Interpretation
+ ++ +++	+ ++ +++ ++++	You probably have one of the conditions mentioned. By means of this test, you will not be able to distinguish between these conditions and you are advised to seek medical advice as soon as possible.
+ ++ +++	Trace	You probably have condition 2 (obstruction of the bilary tract). The cause will be the presence of stones in the bile tract. You are advised to seek medical advice as soon as possible.
Negative	+ ++ +++ ++++	Normal urine specimens ordinarily give a light tan or slight pink colour. This should be considered normal. Having a high concentration of uro-bilinogen while bilirubin is negative is a highly unlikely result. You are advised to repeat the test using a fresh urine sample. If the result is still the same, you are advised to seek medical advice.
Negative	Trace	Normal. You probably have no problem with your liver. If you are still having the symptoms mentioned (other than yellowing of the skin or whites of the eyes), you are more likely to have a problem not related to the liver.

Advice

The BIOTEST Liver Function Test Kit serves only as a screening kit. There are limitations to the test where certain substances may cause abnormal urine colour, and some drugs may affect the colour development on the strip. The colour development on the reagent pad may be masked, or a colour reaction may be produced on the pad that could be interpreted visually as a false positive.

Drugs known to affect the results of bilirubin include phenazopyridine and phenothiazines. Drugs known to affect the results of uro-bilinogen include

acetazolamide, amino-salicylic acid, antipyrine, aspirin, Bromsulphalein, cascara, chlorpromazine, 5-hydroxyindoleacetic acid, phenaxopyridine, phenothiazines and sulfonamides

If the result indicates you have a problem with your liver, we advise that you immediately seek medical advice and perform a more clinical and comprehensive check again. If you get a negative result but still have all the symptoms, we advise that you seek medical advice as well, otherwise perform this test every 6 months.

Please note that the BioTest range of health screening tests is intended for first step screening only and cannot be used as a confirmatory diagnostic tool. Discuss your test result with your doctor or pharmacist.

Version 4.2013

Manufactured by Atlas Medical
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