

Liver Enzyme Tests

Although these enzymes may be produced by other tissues in the body, an unexplained elevation of one or more of these enzymes is a concern for an impairment of liver function. The liver enzymes most commonly encountered by the underwriter include:

- SGOT (serum glutamic oxaloacetic transaminase) also known as AST (aspartate aminotransferase)
- SGPT (serum glutamic pyruvic transaminase) also known as ALT (alanine aminotransferase)
- GGTP or GGT (gamma-glutamyl transferase or transpeptidase)

Elevations of SGOT and SGPT are usually caused by some type of liver cell damage which alters the permeability of the cell membrane and allows the enzyme to “leak out.” The degree of elevation roughly parallels the extent of liver cell damage.

GGTP is a very sensitive enzyme for the early detection of liver disease or damage. Many different impairments may cause an elevation such as: hepatitis, cirrhosis, fatty liver, carcinoma, alcohol use, some medications (such as barbituates, tranquilizers, dilantin, digoxin, and cholesterol-lowering drugs, e.g. Mevacor), and a variety of infiltrative diseases.

Many impairments and conditions may result in increased levels of liver enzymes. The underwriter will consider the degree of the abnormality, the clinical history, and the current physical findings. The goal in underwriting elevated liver enzymes is to determine the cause of the abnormality and classify the risk accordingly. When no apparent cause is found for the elevations, the following ratings will usually apply.

Normal values may vary depending on the laboratory.

SGOT and/or SGPT or GGTP

up to 2x normal	Non-rated
" " 3x normal	Table B
" " 4x normal	Table D
" " 5x normal	Table F
" " >5x normal	Usually decline

Credits to offset the rating will be allowed if:

- only one enzyme is ratable and the other enzymes are normal
- favorable work-up is available, including negative hepatitis B and C, iron screening, and no criticism of habits or positive alcohol markers
- on Dilantin therapy - an elevated GGTP up to 250 will be accepted at no rating if the other enzymes are in a non-ratable range

To get an idea of how a client with abnormal liver enzymes would be viewed in the underwriting process, please feel free to use the *Ask “Rx” pert underwriter* on the reverse side for an informal quote.

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This material is intended for insurance informational purposes only and is not personal medical advice for clients.

Liver Enzymes - Ask "Rx" perts underwriter
(ask our experts)

Producer _____ Phone _____ FAX _____
Client _____ Age/DOB _____ Sex _____

If your client has elevated liver enzymes, please answer the following:

- ① How long has this abnormality been present? _____ (years)
- ② Please give the date and results of the most recent liver enzyme tests.
 - a) AST/SGOT _____
 - b) ALT/SGPT _____
 - c) GGTP _____
- ③ Have these results been
 - increasing
 - decreasing
 - stable
 - fluctuating up and down
 - unknown
- ④ Does your client drink alcohol? (answer all that apply)
 - yes, please note amount and frequency _____
 - no
 - drinking pattern changed recently _____
- ⑤ Is your client on any medications (prescription and/or non-prescription)?
 - yes, please give details _____
 - no
- ⑥ Please check if your client has had any further studies for evaluation:
 - a) Hepatitis A, B, or C normal abnormal
 - b) iron studies normal abnormal
 - c) liver ultrasound, CT scan, or MRI normal abnormal
 - d) liver biopsy normal abnormal
 - e) no further evaluations
- ⑦ Does your client have any other major health problems (ex: heart disease, etc)?
 - yes, please give details _____
 - no

After reading the *Rx for Success* on Liver Enzyme Tests, please feel free to use this Ask "Rx" pert underwriter for an informal quote.

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