

## AMERICAN COLLEGE OF GASTROENTEROLOGY

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# ACG Guideline on Evaluation of Abnormal Liver Chemistries Recommends "New Normal" for Serum ALT Levels

**BETHESDA, MD, December 20, 2016** — A new clinical guideline from the American College of Gastroenterology offers the first recommendations in over 10 years on the evaluation of abnormal liver chemistries. For the first time in a liver test guideline, the authors define a normal healthy serum alanine aminotransferase (ALT) level for women and men (up to 25 IU/L for women, up to 33 IU/L for men) and recommend that levels above this should be assessed by physicians.

This guideline, which was jointly authored by Paul Y. Kwo, MD, FACG, of Stanford University School of Medicine, Stanley M. Cohen, MD, FACG, of Case Western Reserve University School of Medicine, and Joseph K. Lim, MD, FACG, of Yale University School of Medicine, provides a framework for physicians to approach the very common problem encountered of a patient whose liver chemistries are abnormal.

## **Defining a "New Normal" for ALT**

The authors write: "For the purposes of this guideline, we have opted to define a 'normal' ALT based on the available literature correlating ALT levels and liver-related mortality. However, clinical judgment still remains of paramount importance."

"This decision was based on the emerging data over the past decade demonstrating that ALT levels above our defined thresholds are associated with higher liver-related mortality rates across a broad range of populations worldwide, including populations from the United States, Europe, and Asia, that is driven in part by the obesity epidemic," according to Dr. Kwo.

Dr. Kwo further explains, "With the broad range of 'upper limit of normal' levels for ALT that vary from institution to institution, clinicians may not think to evaluate an ALT level of 70 IU/L, as this may be within the normal level for the reporting laboratory — even though this level of elevation is associated with increased liver-related mortality."

This is particularly relevant as there remain large pools of individuals who have yet to be diagnosed with chronic hepatitis and C, non-alcoholic fatty liver disease, advanced liver disease, as well as less-common conditions, all of whom will require evaluation. In particular, the rise in the prevalence of non-alcoholic fatty liver disease worldwide will be addressed in part by identifying and evaluating these individuals prior to the development of advanced fibrosis.

The guideline takes clinicians through a step-wise approach to the evaluation of elevated aminotransferase (ALT and AST), alkaline phosphatase, and bilirubin levels including appropriate historical questions, important physical examination findings, laboratory, radiological evaluation, and finally liver biopsy if required.

## **New Algorithms Help Clinicians Categorize Elevated ALT Levels**

To help clinicians proceed with evaluation of elevated aminotransferase levels, the ACG Abnormal Liver Chemistries Guideline includes algorithms that allow a graded approach to those with elevated aminotransferase elevations by categorizing these elevations as minimal, mild, moderate and severe, as well as giving specific guidelines as to when immediate evaluation is required and when a more limited evaluation can be performed with subsequent evaluation, if liver chemistries fail to normalize. The authors recognize that it will take time for clinicians to recognize the newer lower limits of ALT levels that should now be considered normal.

In addition, the new guideline includes algorithms to evaluate abnormalities in alkaline phosphatase and bilirubin levels to help clinicians efficiently evaluate these abnormalities, including suggested serologic and radiologic evaluations as well as when liver biopsy should be considered.

Access the full text of "ACG Practice Guideline: Evaluation of Abnormal Liver Chemistries" HERE.

## **About the American College of Gastroenterology**

Founded in 1932, the American College of Gastroenterology (ACG) is an organization with an international membership of almost 14,000 individuals from 86 countries. The College's vision is to be the pre-eminent professional organization that champions the evolving needs of clinicians in the delivery of high-quality, evidence-based and compassionate health care to gastroenterology patients. The mission of the College is to advance world-class care for patients with gastrointestinal disorders through excellence, innovation and advocacy in the areas of scientific investigation, education, prevention and treatment. <a href="https://www.gi.org">www.gi.org</a>