Non-Alcoholic Fatty Liver Disease

**What is Non-alcoholic fatty liver disease (NAFLD)?**

NAFLD is a name that is given to a range of liver disorders that are associated with the presence of too much fat in the liver. Steatosis is a mild form of fatty liver. In some patients with steatosis, inflammation of the liver may occur with resultant hepatitis called non-alcoholic steatohepatitis (NASH). This condition can lead to liver damage with scarring and cirrhosis.

**What are the risk factors for NAFLD?**

- Obesity
- Diabetes
- Insulin resistance
- Hyperlipidemia

**How common is NAFLD?**

NAFLD is estimated to occur in 10-40% of adults in the United States. NASH is present in 2 to 5 percent of individuals. With the current obesity epidemic, these percentages continue to increase.

**How is NAFLD diagnosed?**

Patients with NAFLD, especially those with mild steatosis, rarely have symptoms. Patients may present in one of three ways.

1. A mild increase in liver size may be noted on physical exam, warranting further testing.
2. An elevation of liver enzymes may be noted on routine laboratory testing. An abdominal ultrasound may be obtained as part of the evaluation for these laboratory abnormalities. Steatosis will be noted on the ultrasound.
3. In other individuals, the presence of fat in the liver may be an incidental finding on an imaging study such as an abdominal ultrasound or CAT scan which is obtained for an unrelated reason.

Further testing with a liver biopsy is performed when clinically warranted in patients with steatohepatitis. The liver biopsy helps rule out other diseases and assesses the liver for signs of inflammation and scarring.

**How is NAFLD treated?**

- Weight loss
- Exercise
- Low glycemic index diet is more effective than a low fat diet
- Antioxidants such as Vitamin E, selenium and betaine may be beneficial and studies are underway
- Ursodeoxycholic acid has been beneficial in some patients with elevated liver enzymes
- Insulin sensitizing agents have been successful in adults and are being studied in the pediatric population

For more information or to locate a pediatric gastroenterologist in your area please visit our website at: www.naspghan.org

Additional helpful website www.liverfoundation.org and under ‘Liver Health Information view ‘Nonalcoholic fatty liver Disease (NAFLD/NASH)’

**IMPORTANT REMINDER:** This information from the North American Society for Pediatric Gastroenterology, Hepatology and Nutrition (NASPGHAN) is intended only to provide general information and not as a definitive basis for diagnosis or treatment in any particular case. It is very important that you consult your doctor about your specific condition.