

Revisiting the role of USG in detecting hepatic steatosis: contemporary insights and debates



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The American Association for the Study of Liver Diseases (AASLD) has released a practice guidance document addressing the clinical assessment and management of non-alcoholic fatty liver disease (NAFLD), which can progress to fibrosis and cirrhosis. NAFLD encompasses both non-alcoholic fatty liver (NAFL) and non-alcoholic steatohepatitis (NASH), with the latter involving inflammation. The condition is commonly associated with obesity, type 2 diabetes, hypertension, dyslipidaemia, and insulin resistance.

The document highlights that standard B mode ultrasound is not recommended for identifying hepatic steatosis due to its low sensitivity. Instead, primary care clinicians should screen patients at risk for NAFLD using the fibrosis-4 (FIB-4) index, which incorporates patient age, aspartate aminotransferase (AST), alanine aminotransferase (ALT), and platelet count.

Diet and exercise, along with weight reduction for overweight individuals, are emphasised as the foundation of treatment for NAFLD. Patients are also advised to abstain from alcohol.

In a recent study published in the American Journal of Gastroenterology (AJG), researchers disputed the recommendation against using ultrasound for diagnosing hepatic steatosis, suggesting that contemporary ultrasound equipment has acceptable sensitivity. The study involved 5,000 patients across multiple centres and found that ultrasound had a sensitivity of 89% and specificity of 81% for detecting any degree of steatosis. While the debate on ultrasound usage continues, the AASLD guidance remains cautious due to older data.

Overall, this practice guidance document serves as a comprehensive resource for primary care clinicians and specialists, offering detailed insights into the assessment and management of NAFLD. It emphasises the importance of early detection, lifestyle modifications, and appropriate referrals to specialists for further evaluation and intervention.

INSIGHTS FROM DR LUI'S EXPERT DISCUSSION

Understanding liver functions, lifestyle choices & treatment options for liver health

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Dr Lui Hock Foong is a gastroenterologist and liver transplant specialist practising at Gleneagles Hospital in Singapore. With a focus on digestive disorders and liver diseases, Dr Lui offers comprehensive care to patients with both common and complex conditions.



In a recent interview with The Daily Star, Dr Lui shed light on the functions of the liver and discussed various aspects of liver health and treatment options. Dr Lui emphasised that the liver acts as a multifunctional factory, carrying out vital processes such as manufacturing proteins, warehousing essential substances, and detoxifying waste products.

When it comes to maintaining a healthy liver, Dr Lui highlighted three key lifestyle factors. Firstly, striking a balance between exercise and food intake is crucial. Excess energy from food, regardless of its source, can be converted into fat and stored in the liver, potentially leading to fatty liver disease. Secondly, excessive alcohol consumption can also harm the liver, making it important to moderate alcohol intake. Finally, minimising exposure to viruses, such as Hepatitis C, is essential for liver health.

Dr Lui noted that fatty liver disease has become a significant problem worldwide, surpassing viral liver diseases in some regions. While medications are still being developed to combat fatty liver disease, lifestyle changes remain the primary treatment approach. Increasing physical activity and reducing excessive fat intake can help the liver utilise stored fat as energy. Dr Lui emphasised that reversing fatty liver is possible in the early and moderate stages, but once it progresses to advanced stages, such as cirrhosis, the damage becomes irreversible.

To detect fatty liver, Dr Lui recommended initial screening with blood tests and ultrasound. If further evaluation is needed, more precise tests like FibroScan or MRI-based techniques can provide additional insights without resorting to invasive biopsies. Regular check-ups every six months, including blood tests and monitoring weight, are advised for individuals at risk.

In cases where liver disease has progressed to an advanced stage and medical treatments are no longer effective, liver transplantation may be necessary. Dr Lui stressed that liver transplantation is a complex surgery but has a success rate of over 95%. Transplant recipients need to be aware that lifelong medication is required to prevent rejection and that suitable donors must have a healthy liver, preferably of the same blood group.

Dr Lui highlighted the advancements in liver transplantation, making the procedure safer and more successful than ever before. He emphasised the importance of awareness and regular check-ups to catch liver diseases early, when they are more treatable.

In conclusion, Dr Lui's insights provide valuable information on liver health, lifestyle choices, and available treatment options. By understanding the functions of the liver and taking proactive steps to maintain its health, individuals can protect themselves against liver diseases and potentially prevent irreversible damage.

How blood sugar levels affect your body

Our bodies depend on blood sugar. Understanding how blood sugar levels affect your body is important for diet and lifestyle decisions, whether you have diabetes or not.

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High: causes you to pee more

Your kidneys must work overtime to process all the additional sugar in your blood. When they are unable to keep up, your body eliminates it, along with the water that your body requires.

High: causes thirst

Your body takes water from its own tissues to get rid of the additional sugar. Because you need that fluid to create energy, transmit nutrients, and eliminate waste, your brain flips a switch to notify you that you are thirsty and should drink more.

High: dry mouth

As your body drains moisture from your mouth, it may become dry and cracked at the corners. Infection is more common when you have less saliva and more sugar in your blood. Your gums may swell, and white spots may appear on your tongue and inside your cheeks (this is known as oral thrush). Drinking more water or chewing sugar-free gum can help.

High: skin issues

To get rid of excess blood sugar, your body draws water from all around. This might result in dry, itchy, cracked skin, particularly on your legs, elbows, feet, and hands. High glucose levels might also cause nerve damage over time. Diabetic neuropathy is the medical term for this condition. Without treatment, they can worsen and result in the loss of a toe, foot, or part of your leg.

High: vision issues

Your body may drain fluid from your eye lenses, making it difficult to focus. Furthermore, excessive blood sugar levels might harm the

blood vessels in the rear of the eye (retina). This can result in long-term visual loss, if not blindness.

High: fatigue

When you have type 2 diabetes and your blood sugar levels are consistently high, you become less responsive to insulin, which aids in the transport of energy to your cells. Tiredness might result from a lack of fuel. Type 1 diabetes might induce weariness because your body cannot produce its own insulin. Physicians can assist you by giving medicine and recommending lifestyle adjustments.

High: digestive issues

If you have high blood sugar for an extended period, it might harm the vagus nerve, which helps move food through your stomach and intestines. You might lose weight if you are not as hungry. You may experience acid reflux, cramping, vomiting, and severe constipation.

Low: sweaty

When your blood sugar drops too low, your body releases hormones that cause you to sweat profusely. When your glucose levels drop too low, it is usually one of the first things you notice. Doctors can assist you in tracking your levels and attempting to keep them within a

healthy range through medication, exercise, and eating habits.

Low: shakiness

Low glucose levels can disrupt your central nervous system, which regulates your movement. When this happens, your body releases chemicals such as adrenaline to help restore your levels. However, those same substances may cause your hands and other body parts to quiver or tremble.

Blood sugar levels impact our bodies and health. High and low blood sugar can damage organs and systems, causing major health issues. You may regulate your blood sugar levels and lower your risk of chronic diseases like diabetes by leading a healthy lifestyle, eating a balanced diet, exercising regularly, and following medical advice. Knowing how blood sugar levels affect your body empowers you to live a better, happier life.



Low birthweight is independently linked to increased risk of type 2 diabetes

Two recent studies published in the journal Diabetologia have found that lower birthweight is an independent risk factor for type 2 diabetes (T2D) and is associated with a distinct presentation of the disease.

The first study, conducted in Denmark, analysed data from over 4,500 adults without diabetes at baseline and followed them for an average of 19 years. The researchers observed that T2D incidence increased with age, was higher in males, and decreased with increasing birthweight. Each additional kilogramme of birthweight was associated with a 40% reduced risk of T2D.

The second study, also from Denmark, examined over 6,800 individuals with T2D and found that lower birthweight was linked to a younger age at diagnosis, a lower body mass index (BMI), a smaller waist circumference, and a higher prevalence of comorbidities such as high blood pressure.

These findings indicate that birth weight plays a crucial role in T2D risk, independent of genetic factors and adult obesity.

Health and cancer awareness seminar held

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Club 89 Ltd., Blue Sky Charitable Foundation (BSCF), International Medical Information Centre (IMIC Ltd.), and Farrer Park Hospital in Singapore held a health and cancer awareness seminar on prostate, breast, and gynaecological cancers in Dhaka recently, says a press release.

This session was chaired by Additional Commissioner of Taxes and BSCF Founder and Head Adviser Ayesha Siddiqua Shelley. Dr Lee Fang Jann, Senior Consultant Urologist from Farrer Park Hospital Singapore, discussed the prevention and treatment of prostate enlargement, prostate cancer, UTIs, and kidney stones. Dr Tania Rahman Mitul, Consultant Gynaecologist, Tejgaon Thana Complex Hospital, Dhaka, has presided over the prevention and management of breast and gynaecological cancers.

The seminar updates attendees on better treatment modalities and aids for appropriate medical options.

Ladies, take a note. The cosmetics you use may contain lead!

DR MAHFUZAR RAHMAN

Cosmetics, generally known as makeup care products, are used to restore and enhance the appearance of the human body, particularly the face. But recent studies from Bangladesh and India have reported moderate to high amounts of lead in many cosmetics, including lipsticks and religious powders. Dermal exposure to lead does not pose a risk; however, mouth-to-fingers exposure contaminated by the way of touching the skin poses a risk.

Other than lipstick, kajal, kohl, and surma are extensively used traditional eye cosmetics in South Asian countries. In fact, putting black makeup around babies' eyes is a common tradition where parents think these eyeliners might protect the eyes or improve sight. These cosmetics contain galena (lead sulphide) as one of the main components and a minimum of lead oxide. Careless application of kajal, eye rubbing, and lacrimation may cause the absorption of lead through the conjunctiva.

Vermilion (traditionally known as sindoor) is a brilliant scarlet powder used during Hindu religious and cultural ceremonies. Some manufacturers use lead tetroxide (Pb_3O_4) to give sindoor a distinctive red colour. The orange or red pigment is used on both children and adults and is intended for topical use only. There are many manufacturers of sindoor, and not all products labelled sindoor contain lead. Lead may be added as a red pigment.

Recognising that there is no safe level of lead exposure, we need to protect women and children from all levels of exposure. If there is a product that could be contaminated with lead, it is in the public's best interest. There is a possibility of spreading through ingestion or inhalation.

So, ladies, if you are still lead-conscious, consider how you will handle your lips. Next time you pick up that innocuous-looking colour stick from the dressing table, think twice.

The writer is a public health professional.

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