

Elevated Liver Enzymes (ALT)

What Does it Mean?

Liver enzymes that we measure on bloodwork are proteins produced by liver cells. When these values are elevated, all that is telling us is that some of those cells are damaged and releasing those proteins. *It does not tell us WHY that is happening.* These values can elevate due to many things— an infection in the liver, a shunt (a blood vessel that is supposed to go to the liver but bypasses it instead), primary liver disease, gall bladder disease, liver tumors or even liver failure. Occasionally, *though not commonly*, this can be seen as a transient increase— where the liver processed something it's not used to, is upset about it, and it temporarily “spikes”.

What are the Next Steps?

Next steps usually involve assessing liver function through a bile acids test, and looking at the liver itself via an abdominal ultrasound to figure out what's going on. Since the liver processes many drugs, including anesthesia ones, we usually recommend bile acids first— especially if your pet was in for a procedure originally and these elevations were found incidentally. As long as liver FUNCTION is adequate, we may be able to reschedule and still move forward with the procedure. Otherwise, if the liver is not functioning well then your pet may not be a safe anesthesia candidate and we should investigate further before moving forward. If bile acids are normal, then an ultrasound would not be wrong to do as well, but we could also try rechecking the values in a month to see if they are going up or down. If they continue to go up then ultrasound is warranted. Some pets even have to go on

What are Bile Acids?

Bile acids are enzymes produced by the liver and stored in the gall bladder. After you eat a meal, they get released into the intestines to help in the digestion of fat. In a normal, healthy pet, the liver is very efficient in recycling bile acids- so whether it's before or after a meal they should always be low. When the liver is not functioning well, it cannot recycle the bile acids efficiently and so they elevate. So measuring them before and after eating is a great way to assess liver function. For this blood test, we need to fast your pet for 12 hours (no food after 8pm the night prior to the drop-off appointment), take a blood sample, feed them, and then take another blood sample two hours later. This means your pet will be with us for at least half of the day, but we will call you when we have all the samples collected and they are ready to go home. Results typically return in 1-3 business days. We typically reschedule any procedures for 1-2 weeks away so we have sufficient time to see if it's safe to proceed.

But My Pet is Not Showing Symptoms—Can it Wait?

The fact that your pet is not showing symptoms is a really good thing! That's because by the time we start to see symptoms that means that fairly bad damage has already been done to the liver and that may or may not be reversible. Symptoms can be fairly vague like vomiting and lethargy or even severe like distended abdomen and jaundice (yellow discoloration of the skin, eyes, and gums). If your pet is not showing symptoms then we likely caught whatever it is early and should investigate sooner to prevent more serious damage from occurring.

AS ALWAYS, IF YOU EVER HAVE ANY QUESTIONS OR CONCERNS PLEASE DO NOT HESITATE TO BRING THEM UP TO YOUR VETERINARIAN. THE INTERNET CAN BE FULL OF A LOT OF INFORMATION, BUT ONLY YOUR VETERINARIAN CAN HELP YOU SORT OUT THE GOOD AND BAD RESOURCES