

Shiba Inu and the Low ALT Gene - Veterinary Handout

Shiba Inu and the Low ALT Gene - What Owners and Veterinarians Need to Know

Overview:

The "low ALT" gene (GPT variant) affects how the liver enzyme alanine aminotransferase (ALT) appears on bloodwork. ALT is a key marker for liver health, but in dogs with this gene, normal levels can be much lower than standard lab ranges.

The Shiba Inu Connection:

- Every known Shiba Inu tested to date has at least one copy of the low ALT gene.
- Many Shibas have two copies.
- Low ALT is normal for Shibas and does NOT mean liver disease.

Why It Matters:

- ALT may remain within normal limits even if liver disease is present.
- In Shibas with two copies, ALT may stay very low even during significant liver injury.
- This can mask early signs of liver disease if ALT is interpreted without genetic context.

Key Recommendations for Veterinarians:

1. Always obtain a baseline ALT when the Shiba Inu is healthy.
2. Interpret ALT values in context of genetic status.
3. Look for changes from the individual dog's baseline rather than the lab's standard range.
4. Use additional diagnostics (bile acids, ultrasound, biopsy) if liver disease is suspected.
5. Be especially alert if the dog also carries ATP7B or ATP7A copper toxicosis variants.

Key Recommendations for Owners:

- Share your dog's genetic results with your veterinarian.
- Understand that a low ALT value is usually normal for Shibas.
- Keep a copy of baseline ALT results for comparison in the future.
- Monitor for upward trends in ALT, even if still "within normal range."

Bottom Line:

Low ALT is the norm for Shiba Inu, not the exception. The best safeguard for your dog's liver health is to establish a personal baseline and monitor for any changes over time.

Related Reading:

Copper Toxicosis in Dogs - What Breeders and Owners Should Know:

<https://shibas.dog/index.html?entry=copper-toxicosis-in-dogs-what>