

# Fructosamine Testing

- A fructosamine test is a blood test that helps monitor diabetic patients.
- Checking a pet's fructosamine level can help your veterinarian ensure that a pet's diabetes is being adequately managed.
- To perform a fructosamine test, a small amount of a pet's blood is taken and submitted to a laboratory for analysis.
- The fructosamine level is used to estimate a pet's average blood glucose level over the previous 2 to 3 weeks.

## What Is Fructosamine Testing?

Fructosamine testing involves checking the level of fructosamine in the blood, and this testing is one of the ways a diabetic pet is monitored. Fructosamine is a protein that binds very strongly to glucose (sugar) in the blood. Because fructosamine occurs in proportion to blood glucose, it can provide an accurate estimate of the amount of glucose in the blood. When fructosamine is measured, it helps determine the average glucose level for the previous 2 to 3 weeks.

Fructosamine testing is often the preferred method for monitoring the glucose level in cats because it is not affected by stress, which can cause a sharp increase in the blood glucose level in cats. Fructosamine monitoring can be used in combination with blood glucose curve monitoring (which is a series of single glucose level checks) and other tools to help monitor diabetic patients.

## How Is Fructosamine Testing Performed?

For a fructosamine test, a small amount of blood is taken from the patient and submitted to a laboratory for analysis. Drawing blood generally takes only a few seconds, and the test result is usually available within a few days. The analysis measures the amount of fructosamine protein in the blood sample. The test

results indicate whether the animal has excellent, good, fair, or poor glucose control.

## What Are the Benefits of Fructosamine Testing?

Fructosamine testing is a helpful tool for estimating blood glucose control in diabetic patients. Because this testing checks the glucose level for the previous 2 to 3 weeks, the fructosamine level is not affected by the stress that may occur during an office visit or when the blood sample is taken. Pets, especially cats, can become extremely stressed when visiting a veterinary office for any reason. Stress may cause an abnormal increase in the blood glucose level. If a diabetic cat is stressed when the glucose level is checked, the stress-related increase in glucose can result in a high blood glucose reading that doesn't represent the cat's true blood glucose level. Checking the fructosamine level is a good way to distinguish between falsely high glucose from stress and truly high glucose from uncontrolled diabetes.

Many veterinarians recommend periodically checking the fructosamine level of stable diabetic patients and of recently diagnosed diabetic patients that are being stabilized (with or without insulin). Your veterinarian will discuss with you how often this testing should be done. Combining fructosamine test results with other information about your pet, such as appetite consistency, weight gain or loss, and frequency of drinking and urination, helps your veterinarian determine if a pet's diabetes is being well managed. If your pet is receiving insulin, this information will help your veterinarian determine if the insulin dosage is acceptable or if an adjustment should be made. Sometimes, your veterinarian may recommend additional testing (such as urine testing or direct measurement of the blood glucose level) to see how well your pet is responding to diabetes management.