

A1c

A1Care® Test Kit

The First A1c Test for the Diagnosis and Management of Diabetes Mellitus in Dogs and Cats

A1c



A1Care

Diabetes Detection

For 30 years, the A1c test has been the gold standard for the diagnosis and ongoing management of human diabetes.

A1c technology is now available to veterinary practitioners in an easy-to-use test that is specifically indicated for screening dogs and cats

AN A1c TEST, THE GOLD STANDARD DIABETES TEST FOR HUMANS, IS NOW AVAILABLE FOR VETERINARY HOSPITALS AND IT IS SPECIFICALLY INDICATED FOR USE IN BOTH DOGS AND CATS

The tradename of the new test is A1Care and it is now available for both dogs and cats. A1Care provides up to 6 times more historical average glucose levels than tests that veterinary hospitals might currently be performing, such as a Fructosamine test which provides an average over the prior 7-14 days prior to testing. In addition, Glucose meters only measure blood glucose at that moment and can be impacted by animal stress, especially in cats. Resulting blood glucose curves are difficult and labor intensive to maintain. In contrast, A1Care provides an average of the prior 70 days for cats and 110 days for dogs.

A LITTLE ABOUT A1c

When hemoglobin and glucose bond, a coating of sugar forms on the hemoglobin that gets thicker when there's more sugar in the blood. An A1c test checks the amount of sugar bound to the hemoglobin in red blood cells. Since red blood cells have a lifespan of 70 days for cats and 110 days for dogs, an A1c test will show how much glucose was in the blood for that period. The test shows how well diabetes has been controlled and whether a diabetes treatment plan needs to be altered.

A1CARE IS SIMPLE AND EASY TO USE

A1Care is a glycohemoglobin (A1c) dried blood spot diagnostic test. Simply collect enough whole blood to fill the 2 discs on the test and it is ready to be sent to the lab to be read. Blood samples can be obtained from any location on the pet, even inside the lip.

THE INCIDENCE OF DIABETES MELLITUS IN DOGS AND CATS IS INCREASING

According to a Banfield Pet Hospital report "the prevalence of diabetes mellitus in dogs increased from 13.1 cases per 10,000 in 2006 to 23.6 cases per 10,000 in 2015, a 79.7 percent increase." And "the prevalence of diabetes mellitus in cats increased from 57.2 cases per 10,000 in 2006 to 67.6 cases per 10,000 in 2015."¹

WHAT SCIENTIFIC PAPERS ARE SAYING ABOUT A1c

In a paper published by Elliott, Nelson, Feldman and Neal², "Glycosylated Hemoglobin Concentration for Assessment of Glycemic Control in Diabetic Cats," it was demonstrated that the "Evaluation of blood GHb (A1c) concentration may be a clinically useful test for monitoring glycemic control of diabetes in cats."

Additionally a paper published by Lien and Huang³, "Glycosylated Hemoglobin Concentrations in Dogs with Hyperadrenocorticism and/or Diabetes Mellitus Compared to Clinically Healthy Dogs," stated "Our results showed that HbA1c levels correlated with blood glucose concentration, and significantly increased in diabetic dogs. These findings corroborate the findings of previous studies. HbA1c concentrations were also correlated to pack cell volume and hemoglobin levels. Because the relationship between HbA1c and plasma glucose concentration is multifaceted, interpretation of HbA1c levels should consider pack cell volume and hemoglobin concentration data in addition to blood glucose data."

WHAT DO TEST RESULTS IN DOGS AND CATS INDICATE

HbA1c Levels

	Average Normal	Normal Range	Pre-Diabetes	Diabetes
Cat	1.8	0 to 4	4 to 6	6 to 12+
Dog	3.3	0 to 4	4 to 6	6 to 12+

These ranges would be an indication of an average HbA1c level for the prior 70 days in Cats and 110 days in Dogs.

1. Banfield Pet Hospital. Common Diseases in Cats and Dogs. Banfield.com <https://www.banfield.com/state-of-pet-health> (accessed January 31, 2017)
2. Elliott DA, Nelson RW, Feldman EC, Neal LA. 1997. Glycosylated hemoglobin concentration for assessment of glycemic control in diabetic cats. *Journal of Veterinary Internal Medicine* 11(3):161-165.
3. Lien YH, Huang HP. 2009. Glycosylated hemoglobin concentrations in dogs with hyperadrenocorticism and/or diabetes mellitus compared to clinically healthy dogs. *JVMS* 2(2):37-41.



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