

Animal Eye Doctors Offer a Salve for Working Dogs' Souls as Well as Sight

By John Kelly
Thursday, May 7, 2009

To be perfectly honest, most of the working dogs who padded into the SouthPaws veterinary clinic in Fairfax yesterday morning don't really depend on their eyes for their jobs. It's their noses that bring in the paychecks: the smell of an injured person trapped under a collapsed building, the telltale scent of a stick of Semtex hidden in a glove compartment.

But a dog's eyes are important, too, and so every year, *Nancy Bromberg*, animal ophthalmologist, is among veterinarians offering a free vision check for the working dogs and therapy dogs of the Washington area.

Grizzly was her first patient, a border collie in training to be a search and rescue dog.

How does that training work, I asked owners *Marci* and *Chris Larson* of Bristow.

"I get lost," Chris said.

Grizzly jumped up on a carpeted platform, and Dr. Bromberg shined a lamp in his big dark eyes.

Dogs have some of the same eye problems humans do: glaucoma, cataracts, retinal degeneration. Dogs have the further complication that most can't resist bounding into bushes or tall grass.

"Foreign matter in their eyes can get compacted, or they might get a seed in their third eyelid making them more likely to get a corneal ulcer," Dr. Bromberg said.

What a minute. *Third eyelid?*

Yes, Dr. Bromberg said, dogs have three eyelids: a top one, a bottom one and a third one underneath the lower lid that "comes up from the inner corner and sweeps across the eye like a windshield wiper and cleans debris."

Fun fact to work into future cocktail party conversation: A gland at the base of the dog's third eyelid produces 50 percent of its tears.

Dr. Bromberg looked into Grizzly's eyes, examining the eyelids, the conjunctiva and the surface of the cornea. Then she squeezed a few drops of the same stuff you and I get to dilate our pupils and sent him to wait in another room.

Dr. Bromberg knew from the age of 6 that she wanted to be a veterinarian. She was raised in a fourth-floor walk-up apartment in Brooklyn, but her family always had pets: dogs, birds, a turtle, a hamster. She never owned a horse, but she learned to ride one not far away in Canarsie. At vet school at the University of Pennsylvania, she gravitated toward the animal eye and made it her specialty.

As Grizzly waited for his eyes to dilate two armed and uniformed Pentagon K-9 officers came in with their bomb-sniffing dogs: *Fibi*, an excitable yellow Lab, and *Sasha*, a regal-looking Dutch shepherd.

"When we're working, I'm just the guy with the leash," said Sasha's handler, who, being a DOD guy, didn't want his name used. "And I hand her the toy."

Next up was another Pentagon dog, a brown-and-white border collie named *Bonzi*. He had a spot on his left iris, a little freckle-like thing called a nevus. It hadn't gotten any worse in the year since Dr. Bromberg had last seen him. Then came *Jessie*, a pit bull mix therapy dog. Her owner, *Samantha Duvall*, takes Jessie to libraries in Spotsylvania County, where children read to her, appreciating a nonjudgmental audience.

Some dogs go blind, of course. Glaucoma robs them of their vision, the world slowly blinks out. "But they adapt just fine," said Dr. Bromberg. They adapt so well that "some owners think their dogs have gotten their vision back when they haven't."

Although a little vision problem might be okay for some dogs -- Bonzi's handler said a one-eyed bomb-sniffing dog just moved from the Pentagon to the Secret Service -- it's not all right for others. Seeing Eye dogs spring to mind.

What does Dr. Bromberg see when she looks into the eyes of a dog? Does she see fatigue or stress? Do these working dogs worry that the economic downturn will leave them unemployed? Are they haunted by the bomb they may not find, the person they may not rescue?

No, what she sees is color, glorious color. At the back of a dog's retina is something called the tapetum lucidum. It's a layer of reflective cells, and it's what allows dogs to see so well in the dark.

It's different in every dog -- even in the same dog. The tapetum can be golden or emerald. In puppies it's often the pale purple of a hyacinth. When she gazes into their dilated pupils, Dr. Bromberg sees the Northern Lights, an explosion of jewel tones dancing just this side of their brains, the stained-glass windows to their canine souls.

It's almost Friday already. Join me tomorrow at noon for my weekly online chat. Go to <http://www.washingtonpost.com/discussions>.