

## Science

LIFESAVING

# Pet Blood Donors Come to the Rescue

Cat and dog blood is not always easy to come by, so volunteers step up.

By EMILY ANTHES

**A**t first, it was hard to tell whether something was really wrong with Rover. The 10-year-old yellow Lab had always been a bit of a loafer, so when he refused to get up from the rug last February, it was not entirely out of character. But then he declined a treat.

“That was when we were like, ‘We have a very sick dog on our hands,’” said Hilary O’Hollaren of Portland, Ore.

Ms. O’Hollaren’s husband rushed Rover to DoveLewis Veterinary Emergency and Specialty Hospital, where doctors had grave news: The dog had a tumor on his spleen. Worse, it had ruptured, causing massive internal bleeding. Without a blood transfusion, Rover had just hours to live.

The couple quickly gave their consent, and the transfusion bought enough time for further diagnostic testing. The veterinarians discovered that although Rover had an aggressive form of cancer, which would eventually recur, it had not yet metastasized. So they removed Rover’s spleen and sent him home to live out his final months with his family.

“We’re just really so grateful that there was even the option of having that transfusion,” Ms. O’Hollaren said. “We’re just trying to make every day the best day ever for him.”

All kinds of ailments — including injuries, infectious diseases, immune conditions and cancer — can leave a pet in desperate need of blood, and transfusion has become an increasingly routine part of veterinary care.

“It is just as important a part of veterinary medicine as it is for human medicine,” said Dr. Dana LeVine, a small-animal internist at Auburn University and the president of the Association of



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A rapid test card at City Cat Vets. The card is showing type A.

Veterinary Hematology and Transfusion Medicine.

But animal-blood transfusions require animal blood, which is not always easy to come by. There is no canine Red Cross. Instead, there are hospitals with in-house blood donation colonies, veterinary clinics with a roster of ad hoc donors on call and a small number of commercial blood banks, with wait lists that can stretch for months. There is also a growing community of pet owners who are signing their animals up to provide blood for other pets in need, which is how DoveLewis found the blood it gave to Rover.

“That some pet family said ‘Yes, we want to do this,’ just really struck me as a very, very precious and generous gift,” Ms. O’Hollaren said.

## A bloody beginning

Transfusion medicine may have begun with dogs. The first well-documented, successful transfusion in history took place in 1665, when a British physician used the blood of a healthy dog to revive a dying one. It was a grisly procedure — and not one that was intended to benefit the canine recipient, who had been deliberately bled for the experiment.

Not until the mid-20th century did transfusions become a practical treatment option for sick pets. In those early decades, it tended to be an ad hoc practice, with veterinarians sometimes turning to their own pets, or animals that lived at their clinics, when blood was needed.

That approach hasn’t entirely disappeared. “There’s a lot of folks that have a cat wandering their hospital who is the in-house donor,” said Dr. Karl Jandrey, an emergency and critical care veterinarian at the University of California, Davis.

(Cats and dogs have their own sets of blood types, so places that rely on in-house donors, which tend to be practices that do not often perform transfusions, must ensure that recipients are compatible with them.)

Commercial blood banks for animals began emerging in the 1980s. Some rely on “closed colonies,” a group of cats or dogs that live on site, providing blood for several years before they are put up for adoption.

Closed colonies have been a critical source of animal blood and can be run humanely, experts said. “I know many places that have fabulous cat rooms for cat donors,” said Dr. LeVine, who adopted her previous cat, Salt, from a blood donation colony.

But animal rights activists have also exposed mistreatment and abuse at some commercial blood banks with closed colonies, and demand far outstrips the volume of blood they can provide.

## Community canines

These factors have helped fuel interest in an alternate model, which recruits local pets to become regular donors. At DoveLewis, roughly 90 dogs and 40 cats serve as regular donors, or what the hospital calls “superheroes.” And when Rover was discharged, DoveLewis sent him home with one of its custom superhero trading cards, featuring a photo of his donor: Kira, another Lab who loved food and tennis balls.

Community blood banks don’t pay pet owners for blood, but they do offer other perks, which often include free veterinary exams, blood work and flea and tick preventatives. The animals are rewarded, too. At DoveLewis, donor dogs get a jar of chicken or beef baby food. “It’s just the perfect size jar of smelly meat,” said Kelsey Reinauer, the blood bank director. “And then they get to pick out a toy from our toy bucket.”

After Rover was discharged, Ms. O’Hollaren returned to DoveLewis with several bags full of new dog toys for the hospital’s canine donors. “And I made sure I had a can of tennis balls in there for Kira,” she said.

The exact requirements for donating vary by program, but donors typically need to be completely healthy, relatively young and big enough to spare some blood. (Dogs typically donate about a pint at a time, while cats give less than two ounces.)

“There’s no specific breed we’re looking for,” said Dr. Valerie Latchford, the veterinarian and phlebotomist at Blue Ridge Veterinary Blood Bank, a commercial blood bank in Virginia that relies entirely on donations from pet dogs. “We have everything from dogs that were picked up in shelters, a few of them in other countries, all the way up to like the top winning Spinone” — a shaggy, Italian breed — “of all time, show dogs, service dogs.”

One nonnegotiable: The dogs must seem comfortable with the staff and the process, able to remain relaxed for the roughly five minutes it requires to draw their blood. “They didn’t sign the forms to come in,” Dr. Latchford said. “But they do get to have an opinion on whether they donate or not.”

The dog owner Beth Acker has seen that firsthand. Her former dog, Harley, a Bernese mountain dog who craved food and attention, spent six years as a Blue Ridge donor. To have his blood drawn, Harley lay on his side on a table, spooning with the blood bank’s designated “dog snuggler” while being handfed cheese and peanut butter. “He loved it immediately,” Ms. Acker said. “I was really proud of him.”

Harley ultimately donated nearly four gallons of blood; in the final years of his life, Harley needed a transfusion himself,

bringing the experience full circle.

On the other hand, Ms. Acker’s coonhound-black Lab mix, Pancho, did not seem comfortable giving blood himself, though he tagged along on Harley’s appointments “to share the awesome treats,” Ms. Acker said.

## Nine lives

Cats tend to make for trickier donors. “They don’t just jump on the table and lay down,” said Ms. Reinauer of DoveLewis. Feline blood donations often require sedation, which is not a risk-free procedure. For that reason, DoveLewis uses only cats owned by people who work in the veterinary profession. Ms. Reinauer’s cat Apollo, a sturdy Maine coon, is a donor.

There are places making community cat donation work, including BluePearl Pet Hospital, a chain of more than 100 veterinary hospitals. But its total donor pool includes about 250 cats, compared with some 600 dogs. (The donor pool is not large enough for either species, said Dr. Meghan Respass, the national director of blood banking. BluePearl would need to triple that number of donors in order to provide enough blood for all of its hospitals, she said.)

Feline blood can be difficult to obtain, and type B cat blood is an especially “precious commodity,” said Dr. Jandrey, of the University of California, Davis. Across the United States, fewer than 5 percent of cats have type B blood, he said.

Dr. Megan Andeer, the co-owner of City Cat Vets in Philadelphia, has a type B cat named Everett. He needed emergency surgery for a gallbladder obstruction this spring, but the hospital didn’t have enough B blood. So Dr. Andeer and her colleagues hit the phones, spending several hours calling hospitals and blood banks up and down the East Coast, and eventually beyond, without success. Dr. Andeer took her daughter out of school so she could see Everett, in case he didn’t make it.

With options running out, Dr. Andeer called a client whose cat had type B blood. The cat, a black British shorthair named Bagheera, was at the clinic in less than half an hour. (“Bagheera was well compensated with food and a credit for her health care,” Dr. Andeer said.)

Today, Everett, who did end up needing Bagheera’s blood, is back to his goofy, mellow self. And City Cat Vets is trying to build a roster of type B cats that they can call on for other animals in the future.

Most pet owners would not be able to draw on the resources she had, said Dr. Andeer, who hoped to spare her clients the stress she felt when there was simply no blood to be found. “No owner should have to go through that,” she said.