



House Rabbit Network

P.O. Box 2602

Woburn, MA 01888-1102



Dedicated to educating the public and to fostering and adoption of companion rabbits. 781-431-1211 or www.rabbitnetwork.org

Rabbit Tracks

Winter 2015

Table of Contents

Bunny Cooties.....	pg 2
Twilight's Syndrome.....	pg 3
All About Hay	pg 4
Winter Storm Juno.....	pg 5
Adoption Success Stories.....	pg 6
Saving Buns from the Winter Chill.....	pg 7
HRN News.....	pg 8
Memorials.....	pg 9
HRN Membership.....	pg 10



Bunny Cooties: When Bunnies Can Make You Sick

by Astrid Kruse, DVM

A zoonotic disease is one that is transmitted from a non-human animal to a human. Thankfully, there are comparatively few diseases that pet rabbits can pass to humans, and most are not serious. Most diseases humans contract from animals are through the food supply and not from pets, especially rabbits. However, human bunny parents should be aware of the diseases they could catch from their rabbits.

Cheyletiella or “the walking dandruff mite” is common in rabbits. Anything that looks flaky or red on bunnies is a mite infection until proven otherwise. The actual mites are difficult to find, but quite easy to treat with ivermectin or Revolution® (selamectin). Rabbits can suddenly develop signs of a mite infestation even if they haven’t been around other bunnies. Bunnies may have low numbers of mites on them without showing signs for years, but any underlying immune system dysfunction can allow the mites to proliferate. Humans can temporarily have this species of mite crawl on them and may develop little red bumps on their skin. In vet school before I knew what all the dandruff on my Angora rabbit meant, my little Mac slept in bed with us and neither my husband nor I developed a rash, if that is of comfort.

Ringworm is a fungal infection of the skin that rabbits can sometimes carry asymptotically (no signs of the infection show) or have skin lesions that look like crusty circles. This fungus is a relative of athlete’s foot and jock itch, lovely thought. Some people seem to be more sensitive than others to contracting the infection – itchy red circles are the classic sign. This is more annoying than anything else, except when the infection is widespread across the body, which may ruin a first date.

Pasteurella is a bacteria that most rabbits carry. Humans can get infected from bite wounds or deep scratches, and an abscess may develop. Prompt cleaning of any wound that breaks the skin will likely stop infection, and hopefully your pet bunny doesn’t have such terrible manners.

Encephalitozoon cuniculi is a common parasite in rabbits. The normal human immune system does a

remarkable job of defending against disease. However, humans with severely compromised immune systems, such as end-stage AIDS patients, can develop this disease and become very ill. The organism is transmitted through the urine of infective rabbits for about three weeks after infection. However, unless you are seriously ill, your immune system shields you from this as from so many of the endless bugs we are constantly exposed to.

The rabies virus can infect any mammal including rabbits and humans. Rabies is transmitted through the saliva of an infected animal after the virus has migrated to the brain from the original bite wound. Therefore any rabbit with a wound of unknown origin that could be from a bite is required by law to undergo a six-month rabies quarantine (meaning the pet has to be kept inside and be monitored for neurologic signs). Rabies meningitis is just about 100% fatal in humans, and in the developing world this disease causes tens of thousands of human deaths every year. The disease is nothing to take lightly. Keep your bunny indoors, handle any strays with gloves, and get them immediate veterinary attention.

Tularemia is a very rare bacterial disease that humans can contract from rabbits, but this usually occurs in hunters of wild rabbits and hares. Pet parents of indoor rabbits are not at risk.

Although external parasites like fleas and ticks are not zoonotic germs, they can jump from a rabbit to a human. A pet would contract these from the great outdoors, although some houses are infested, usually from dogs or cats that go outdoors without appropriate preventive medication. Keeping a bunny indoors will prevent new infections, and existing ones can be easily treated. Frontline® is not safe for rabbits. Revolution (selamectin) is safe and effective. I do not recommend flea baths, as they don’t work well and have fairly toxic chemicals.

Diseases that do not pass from rabbits to humans: pinworms (human pinworms are a different species), bacterial skin infections and abscesses, urinary...

continued on pg. 3

Twilight's Syndrome, A Mysterious Toxin

by Suzanne Trayhan

In the last four years, we have seen a peculiar, unknown illness appear in rabbits, with several cases in New England. Within HRN, we have had eight different rabbits come down with this ailment. We call it Twilight's Syndrome, after the first rabbit in our care to go through this. He was a young mini-lop who was healthy. Symptoms came on suddenly, overnight, with the most obvious one being his nose down to the ground with the neck/back arched. Although some people will mistake this for head tilt, this is different. With head tilt the head is tilted to either the left or right, with one eye often straight up. In this case there is no tilt to either side, and the neck is not twisted. Rather the nose is straight to the ground, almost like they can't lift it off the ground.

Twilight's case was so unusual that we were referred to Angell Memorial Hospital in Boston where he saw a specialist and a neurologist. The veterinarians had never seen anything like it. They performed tests, took bloodwork, and x-rays, and presented findings over lists searching for answers – all to no avail. Since then several other animal hospitals have also worked on patients without finding answers.



Twilight

Seven of eight rabbits recuperated with recovery typically taking from 7-14 days. Once better they appear completely healed with no after effects of their illness. They often got worse the first one to three days, but after that showed steady improvement. Cases were reported in three different New England states, in five different foster homes. Some of the homes had many rabbits, yet only one came down ill. Only once did we have multiple rabbits ill at the same time in a home. We have tried to find common elements, but at this point have been unable to determine anything.

The last case we dealt with was winter 2014. Three rabbits in the same foster home came down ill – all in one evening. This was the first time that multiple rabbits were ill at the same time. With these three rabbits, one was far more ill than any of the other cases. Sadly, Guinivere did not make it.

With so much that we didn't know, we had a necropsy (an autopsy performed on an animal) done. The most important thing we learned was that there was a toxin involved. The unfortunate thing with toxins is that you can't just run a blood test and find a toxin; rather each known toxin needs to be...

continued on pg. 4

Bunny Cooties: When Bunnies Can Make You Sick cont'd

tract infections, and a bad attitude. You can not get sick from cleaning rabbit litterboxes, even if you are pregnant. Herpes can spread from human to rabbits, so kissing your bunny when you have a cold sore can kill your pet! Diseases that do not pass from humans

to rabbits: colds, flu, stomach viruses, or anything else. Diseases that pass from humans to humans: a zillion. So kiss your bunny, but wash your hands well after touching anything that has been near or on another human please.

Twilight's Syndrome, A Mysterious Toxin cont'd

tested individually. Unless you can narrow down the scope to test, it usually isn't done since there are hundreds of toxins to test for and it is rather costly to go through them all.

While we would love to figure out what the toxin is, it is still useful to know we are dealing with a toxin rather than some sort of bacterial infection or virus. It gives us some indication of how to treat it. In past cases we tried an antibiotic and Panacur® (prescription medication used to control and remove roundworms, hookworms, whipworms, and certain tapeworms), not knowing if they helped or not. It looks

like they had no impact in recovery. Without isolating the toxin, the best course of treatment is likely fluids to help flush it out of the system, along with supportive care.

We have video and pictures which may help here:

<http://www.rabbitnetwork.org/articles/twilight/>

http://www.medirabbit.com/EN/Neurology/Differentials/Head_down.htm

<http://www.medirabbit.com/EN/Neurology/Differentials/Twilight-hrn.htm>

Full necropsy results are available upon request.



All About Hay

by A. A.

Hay is the main staple of the rabbit diet and is the only food rabbits should have unlimited access to. Rabbits require a diet high in indigestible fiber in order to maintain healthy digestive systems and teeth. However, there are different types of hay and knowing what your rabbit needs is extremely important. The first thing to note is that pellets and straw are never acceptable substitutes for fresh hay. Pellets were developed to be a cheap alternative to hay, and are very detrimental to a rabbit's health when used as a primary food source. Straw has little nutritional value and is too low in calories to sustain a rabbit.

Grass hay is what wild rabbits eat and should also make up the bulk of an adult house rabbit's diet. Research has suggested that wild rabbits have far fewer instances of GI Stasis (digestive system slows down or stops completely) due to fur ingestion than house rabbits, in part because of a diet high in grass hay. Timothy hay, which is bunchgrass, is a good option and is easy to find. It provides protein, vitamins, and other essential nutrients in a form that a rabbit's system can easily handle. Other types of healthy grass hay are orchard grass, oat, and brome. Grass hay is essential but not all bunnies like every type, so



try different varieties or feed them a mix to see what your rabbit prefers. Keep in mind that rabbits not only eat hay but they like to use it as a bathroom as well. As long as your rabbit is eating the hay, the fact that she also pees on it is not a rejection.

Alfalfa hay is also readily available but the consensus of vets is that it should only be fed to rabbits in certain circumstances. Alfalfa is legume hay and differs from grass hay in that it's higher in calcium, higher in calories, and lower in fiber. Too much calcium aggravates serious problems, such as bladder stones, in otherwise healthy rabbits. However, rabbits that are...

continued on pg. 5

All About Hay cont'd

pregnant, nursing, under 6 months old, or underweight and calcium deficient can be given alfalfa because they need the extra calcium it provides. Conversely, alfalfa should be completely off-limits to rabbits that are overweight or suffering from bladder or kidney issues. Because alfalfa is essentially junk food, rabbits raised on it may initially be reluctant to give it up cold turkey. They can be given a mix of alfalfa and grass hay at first and weaned off of alfalfa over time.

Hay fields are cut several times a season and bags are usually labeled as first or second cut. They have slightly different nutritional values in terms of protein and fiber content but both are healthy as long as the hay is high quality, though many rabbits do prefer the taste of second cut. When choosing hay, quality is important. Look for hay that is mostly green, not brown, yellow, or full of straw. Hay should smell fresh and bend rather than snap. Check to

make sure there's no mold, dust, or large amounts of other plants mixed in, as these can be hallmarks of poor-quality hay. Bunnies are notoriously picky and typically won't eat unappealing hay anyway, so it's not only bad for bunny health but a waste of money. Of course, since hay fields are not enclosed, most batches won't be pristine; it's normal to occasionally find some thorny plants, chunks of dirt, rocks, or even the occasional dead mouse or garden snake, so inspect your hay every time and pick out the debris.

To keep hay fresh, store it in a cool, dry place. Also, keep it out of direct sunlight and avoid storing it in airtight containers or bags, as this can cause mold to develop.

Most varieties of hay can be found in pet supply stores, online, or mail order. Bales of hay can also be purchased from local farms or feed stores. Sometimes, big-box stores carry a lower quality hay, so seek out local retailers who sell reliable brands.

Winter Storm Juno

The weather reports saw it coming, so the House Rabbit Network went into action to figure out how best to handle the shelter rabbits. If we got as much snow for as long as the reports predicted, would volunteers even be able to travel to the shelter to care for the buns? HRN needed to ensure that the buns were well taken care of, but the organization didn't want any volunteers driving in unsafe conditions.

The solution: If the volunteers couldn't safely get to the shelter during Juno, we'd get the shelter buns to the volunteers before the storm. Several members of the HRN team offered to take our shelter bunnies home with them on Sunday and Monday. All 18 buns were so well taken care of in warm homes that they never even realized there was about 28" of snow that fell outside the shelter.

All rabbits were returned to the shelter on Thursday. Relocating the rabbits for the storm was a big undertaking, but it was the best way to keep the rabbits and volunteers safe. Thank you to everyone who helped make this happen.

HRN at Year's End

We're proud to announce that in 2014 we had a total of 188 adoptions! As always, we're grateful to the foster families and volunteers who care for our bunnies until their day comes.

January started off with 18 adoptions. We wish them all the best with their new families.

Adoption Success Stories

by Sadie MacMillan

Midnight and Bruin



Midnight & Bruin

When HRN rescues a rabbit, one of our goals is to help socialize it, so that when a family expresses interest in adopting it, it is ready to be loved. This can be a challenge when the rabbit has come to us from a bad situation.

Midnight and Bruin were two such rabbits, bonded sister buns who came to us in 2011 from an animal hoarding case in Lempster, NH. At first, they were so extremely fearful that they would cover at the back of their cage if you approached them to pet them.

They stayed at the HRN shelter for a long time. All the shelter volunteers took special care with them, trying to coax them out of that place of fear and encourage them to trust people. Eventually the hard work paid off, and Midnight and Bruin slowly grew more comfortable and a little more relaxed.

Then one afternoon in the summer of 2014, a mom and her daughter came in to the shelter and fell in love with these two buns. When the rabbits first got to their new home, they hid under the couch for hours – finally being lured out with some kale. Their new mom named them “little sister” and “little little sister” in Chinese.

Midnight and Bruin are all settled in their new home now. Their new sister says, “Bruin likes to jump on my bed very early in the morning sometimes. I adore them both so much. Midnight often goes to the

kitchen and just stalks my mom while she is cooking. She can hear a banana peel from ANYWHERE.

“Bruin may be slightly deaf, but Midnight knows our ‘olalalalalalalolalalala’ treat call. She’ll dash over right away, but we always have to tell her to call Bruin. She does! She’ll go run into their sleeping area (mom’s room) or the living room...or wherever Bruin is just to find her.”

The photo of the buns in their new home says it all. Stretched out, relaxed, and happy – these buns are just where they belong.

Fluff

Janie came to the shelter in early fall 2014 to meet some bunnies and possibly adopt. She saw Fluff’s cage and asked about her, but we couldn’t tell her much. Fluff was an all-around nice bunny, but it was hard to get a sense of her personality, if she even had one.

But Fluff made it clear that she was the one Janie was supposed to pick. She immediately approached Janie, introduced herself, did some binkies, and spent the last part of their meeting stretched out on



Fluff & Fella

the floor with Janie petting her. She even tugged on Janie’s clothes when Janie got temporarily distracted and stopped petting her for a moment.

Fluff went home with Janie shortly after. She quickly bonded with the other bunny there, Marshfellow (or Fella, for short), and they’re now a happy couple. And it turns out Fluff and her husbun both have enormous personalities.

continued on pg. 7

Adoption Success Stories cont'd

Janie writes, "If they hear a treat bag or pellets, both of them come rocketing over and if I'm on the couch, I have four paws on my chest and two noses in my face within seconds. I was trying to sneak him his dinner last night, and as soon as she realized it, she jumped up directly onto the food container, then spent a few seconds trying to figure out where it was (under her butt)..."

"She gets more outgoing and more relaxed every day...the binks have gotten crazier and more frequent... from little straight-up-and-down popcorn binks to racing down the hall and launching herself at the carpet line for an epic four foot long-jump bink. It's been a joy to watch her come out of her shell more and more – she's so smart and sensitive and beautiful...I just love her to pieces."

Fluff and Marshfellow even have their own Facebook page. Check out their antics at <https://www.facebook.com/lelainblanc> (Buns of Steel).



Saving Buns from the Winter Chill

The House Rabbit Network has some of the most dedicated volunteers you'll ever find. So when a resident in Dorchester contacted us about two domestic bunnies that had been living outside in the cold, the HRN team went into action. Several people volunteered to try to capture the buns. Over five different days these wonderful volunteers searched for the rabbits in incredibly cold temperatures.

On Saturday, January 17, the male grey bunny was caught. Then on Monday, January 19, the white female bunny was captured thanks to some fancy footwork by a volunteer. Much to our surprise we discovered that the female bunny was very, very pregnant. We named her Dotty, and she gave birth to 3 adorable baby bunnies early January 21 – about 30 hours after her rescue. Our theory is that the male grey bunny, named Dusty, is the proud papa.

All bunnies are safe and warm in an HRN foster home and are getting veterinary care. Dotty will be given time to care for her babies, recover from nursing, and get spayed. She will be up for adoption in about three months. Her babies will then be fixed and available for adoption. Dusty has already been neutered and has impressed us with his

good litter box habits.

Thank you to all the volunteers who braved the cold and saved these sweet rabbits. Because of their efforts, these buns were able to ride out the recent blizzard right where they belong – inside a cozy, loving home.



Mom watching over her three little babies.

HRN News

Giggles Fundraiser: Sunday, April 26



Come spend an evening in the company of fellow rabbit-lovers and the good folks from HRN! Join us on Sunday, April 26 at the Giggles Comedy Club in the Prince Pizzeria in Saugus, MA for a night of pizza, laughs, and fun – all in support of our buns!

Tickets are \$25 each until April 19, and \$30 after that. We'll be selling tickets at the door but the number of tickets is limited, so we encourage you to order ahead. The ticket price includes unlimited cheese pizza from 6:00-7:00 pm, and a 75-minute comedy show that begins at 7:00. (You can also purchase food and drinks from the pizzeria menu.) The comics billed for that evening are TBA.

We'll be having a prize auction, too, so be sure to check out the HRN website to see what the prizes will be. And of course, all proceeds of the evening go to support the House Rabbit Network!

There are two easy ways to buy tickets. First, go to the Giggles 2015 fundraiser page on the HRN website:

www.rabbitnetwork.org/giggles.php

If you'd like to buy your tickets online, you can make the purchase securely with Paypal from that page. Please make sure to double-check that you've entered your email address correctly, because we'll be sending the ticket(s) to that address!

The fundraiser web page also has an order form that you can print and fill out, if you prefer to pay by check or money order. You can make your payment out to the House Rabbit Network, and send it by mail to HRN:

HRN
P.O. Box 2602
Woburn, MA 01888-1102
info@rabbitnetwork.org

Prince Pizzeria contact info:
517 Broadway (Rte 1 southbound)
Saugus, Mass.
(781) 233-9950
www.princepizzeria.com

What a fun and easy way to support HRN and the bunnies. We'll see you there!

Please note: The event tickets are non-refundable and the comics are subject to change. Please contact HRN if you have any questions.

We're Looking for Your Adoption Story

There have been so many adoptions of HRN buns to wonderful homes. If you adopted from HRN, we'd love to hear from you. Please share your story with our Facebook folks, and you could see your beautiful bun on Facebook. Just let us know about when you met your bun, how you knew s/he was the bun for you, and how your rabbit has flourished into being a hoppy family member. Please contact facebook@rabbitnetwork.org.

Memorials

Two HRN alumni buns are remembered by their families.



Twix

Twix, also known to us as "Twixy Ranger," was a very special bun to us. Twix was our first rabbit and although she was only with us for two years, we thought of ourselves as a family. She was always curious, lovingly mischievous, and sweet. Twix enjoyed her fair share of wires, shoelaces and escaping her pen! We love and miss our little Twixy Ranger very much. —Kasey & Karl

Dakota

In memory of Dakota, who bounced into our lives when she was one year old and gave us nearly a decade of mad dashes, ravenous treat eating, paper shredding, and endless petting requests. When things weren't going so well for the humans in the household, an intense petting session soon made things feel much better. Dakota was incredibly patient with various medical treatments, bearing with us as we helped her failing body the best we could. Her peaceful hops over the Rainbow Bridge on 21 November 2014 have left a huge hole in our hearts. With love and remembrance from Jill and Shaun.



Join HRN ... or ... Please Renew Your Membership

Through our network of dedicated volunteers and members, HRN is making amazing strides to improve the welfare of house rabbits everywhere. Your support can only further our goals, so become a member and get involved.

Visit our website to find out how to help: www.rabbitnetwork.org

If you are not already a member, please join HRN!

Your membership dollars will go toward rescue and rehabilitation, community outreach and education, and veterinary expenses.

Help make a difference in a rabbit's life. They're counting on you!



Contact House Rabbit Network:

info@rabbitnetwork.org

781-431-1211

P.O. Box 2602

Woburn, MA 01888-1102



House Rabbit Network Membership and Ordering Form

Your membership donation is tax deductible and will be used for medical costs (spays/neuters, veterinary bills) and education expenses. All members will receive a copy of our newsletter, *Rabbit Tracks*, when it is published. Currently, we are publishing three issues per year. You can join online at <http://www.rabbitnetwork.org/join.shtml> or just fill out this page and mail it with your check payable to:

**House Rabbit Network
P.O. Box 2602
Woburn, MA 01888-1102**

Choose your membership level:

- Dwarf\$ 15.00
- Mini Lop\$ 25.00
- New Zealand.....\$ 50.00
- Flemish Giant.....\$ 100.00
- Mix (other)\$ _____

Choose your newsletter delivery preference:

- PDF format via email (significant savings for HRN)
- Hard copy via U.S. Mail

Membership\$ _____

Other Contribution.....\$ _____

Total.....\$ _____

Date _____

NAME(S) _____

STREET _____ APT. _____ CITY _____ STATE _____ ZIP _____

TELEPHONE _____ EMAIL _____