



HEDGEHOG WELFARE SOCIETY

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To protect the well-being of pet hedgehogs through rescue, research, and education of the people who care for them.



Six-year-old Madalyne Harris bonds with Emma. (Photo courtesy of *Okiepokeyhogs.com*)

Quarantine for a New Hedgehog: Why and How

By Laura C. Dunklee, HWS Co-Chair for Health, Research, and Education

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Bringing home a new hedgehog is an exciting event. However, if you already have hedgehogs in your home, you must institute a stringent quarantine for a minimum of 30 days. Regardless of whether your new hedgehog is from a breeder, has come from a pet store, is a rehome, or is a rescue, quarantine is essential.

WHY QUARANTINE?

Even if you are convinced your new little one is perfectly healthy, and they very may well be, it's also possible that they carry mites, or have parasitic, bacterial, viral, or fungal infections. All of these can be transferred to other hedgehogs and you do not want to risk causing health issues for your current hedgehogs.

By keeping your new hedgehog in strict quarantine, you protect your resident hedgies and allow the time needed for symptoms to become evident in the new hedgehog. You also have time to get the new one to your vet for a thorough exam, including a skin scraping and fecal test.

Common Health Issues that May Be Prevented from Spreading During Quarantine

Mites: Many hedgehogs may have a small number of mites, but these are kept in check by the hedgehog's immune system. The stress of moving to a new home and new environment may slightly weaken the hedgehog's ability to keep the mites in check and lead to an outbreak.

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Parasites: Both skin parasites and parasites in the gastrointestinal (GI) system may not be immediately obvious. Parasites can be easily transferred between hedgehogs if you handle an infected hedge and then one who is healthy. Likewise, you can inadvertently transfer parasites through using the same wheel, scrubbing brush, shared food and water dishes, and anything else that might have come into contact with the infected hedgehog.

Bacteria, Viral and Fungal: Bacterial and viral infections of the skin or GI system, as well as fungal infections affecting a hedgehog's skin can be transferred by handling an infected hedgehog and then a healthy one. Likewise, all three can be airborne, depending on the type.

HOW TO QUARANTINE

It's essential to have your quarantine routine planned before you bring your new little one home. Being prepared means less chance of cross-contamination and infecting your other hedgehogs.

The Room

It's best to house your new hedgehog in a room separate from your resident hedgehog. This minimizes the likelihood of airborne transmission of any infections. If you cannot put the new hedgehog in a separate room, place their cage as far as possible from your current hedgehog's cage. If possible, have a plastic barrier between the two; you can drape a shower curtain over the new hedgehog's quarantine cage, for example, though make sure there is still adequate airflow.

The Quarantine Cage

My preference is for a large, Sterilite tub as a quarantine cage. These are extremely easy to sterilize, inexpensive, and hard to escape from. Because hedgehogs need plenty of room, purchase one that is at least 110 quarts. Make sure the one you buy has a flat, not slightly rounded bottom, for a steady walking surface for the hedgehog.

Preparing the Quarantine Cage

Bedding: You have two choices for bedding in the cage: particulate substrate, such as kiln-dried wood or recycled paper bedding, or you can use fabric liners. While the substrate sounds like the best choice, as it can be tossed as it becomes soiled, there's an issue you need to consider: it's important you're able to see the new hedgehog's urine and stool. With a substrate, the urine and fecal matter gets mixed in or absorbed, and you're not able to see the color, consistency or amount of waste.

Why is it important to see what your new hedgehog is producing? Very often the first sign of a stressed or ill hedgehog is a change in their waste. While you won't know what their urine and feces looked like before coming into your care, you'll immediately be able to see what they're excreting. For example, dark, concentrated, stinky urine can be a sign of bladder, kidney or urinary tract problems, or dehydration. Light colored, and lightly-scented urine means all is functioning well.

As for stool, hedgehogs can produce an amazing array of feces, ranging in color, consistency, amount, and, well, scent. It's not unusual for a stressed hedgehog to develop green or soft stool when moving to a new environment. However, if they are harboring intestinal parasites, or fighting a stomach bacterial infection, the stress of the change in surroundings and routine can cause those issues to flare up and become serious.

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Clipart from Clyker.com

If you use fabric liners, preferably light-colored ones, place either folded white paper towels or unscented puppy pads under your new hedgehog's wheel, then you will be able to see the color, consistency, and amount of the hedgehog's waste.

Cage Contents: Anything you put in the quarantine cage must be able to be sterilized or thrown out. Plastics are good, wood and paper are fine, but if the hedgehog is harboring mites and has an outbreak, the wood and paper items will need to be thrown away.

You can have fabric in the cage. In addition to liners, cuddle or snuggle bags, fleece blankets, and hedgegie hats are all fine.

Cleaning

You'll need to put together a small kit of items that you will use only to clean the quarantine cage and to bathe the hedgehog. Necessary items are:

- A spray bottle containing water and bleach. A good ratio is about 1 teaspoon of bleach to 1 cup of water.
- A roll of paper towels.
- A scrubbing brush.
- A soft bristle tooth brush.
- Several bath towels.

The quarantine cage needs to be cleaned regularly. However, this needs to be done after you've cleaned your other hedgehogs' habitats. You'll need to place your new hedgehog somewhere secure, as now is not the time to let them out to explore a room unless you're prepared to disinfect everything in there. A hard-sided carrier is perfect.

Remove everything from the habitat, including the liners. Set all fabric items on a surface you can sterilize, or put into a plastic bag. Use the bleach and water mixture to spray down all cage surfaces. If you've opted to use a wire-topped cage for quarantine, you'll need to spray each bar, because you don't know if the hedgehog has climbed and possibly transferred fecal matter to the bars. Let sit for two minutes, and then wipe out any remaining liquid.

Wipe out any accumulated feces and urine from the hedgehog's wheel, then repeat the same spraying and letting it sit for two minutes process. Be sure to clean the wheel base. Use the scrub brush if there's any dried on waste that didn't come off in the wipe down.

Repeat with anything else in the cage, including plastic housing or hiding spots, plastic tubes, and food and water dishes. Once everything is clean and dry, you can set up the cage again and return the hedgehog.

As for the bedding: if you've opted to use fabric liners, I usually replace them every two to three days, or more often if they become dirty. (If the hedgehog has mites, then a whole other routine is instituted). I place the soiled liners, along with any other fabric items, in a plastic garbage bag and launder them in hot water, washing twice, separately from other hedgehog bedding.

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Bathing

If your new hedgehog needs a bath, whether due to poopy boots or they need a whole body and quill cleaning, it's safe to do so. Use a toothbrush that's dedicated to them, and bleach the sink / tub after the bath. Be sure to separate the bath towels after use, too, and wash with the quarantined hedgehog's other fabric items.

Handling

It's natural to want to handle your new hedgehog and start the bonding process. And it's fine to do so, with the caveat that it needs to be done *after* you've handled and cuddled your other hedgehog. Also, do not cuddle with the new hedgehog on a space where you handle your other hedges, unless it can be sterilized.

After cuddle time, scrub down your hands and arms, and change your shirt, make sure you don't forget and reach into a resident hedgegie's habitat for a quick snuggle.

VET VISIT

A vet visit during the quarantine period is essential. I usually do it in the third week, which gives time for health issues to present (Of course, if there's reason for concern, they see the vet earlier!). At their visit, I ask for a skin scraping to check for mites or mite eggs and usually ask for a prescription for Kitten / Puppy *Revolution* to treat the hedgehog proactively. I also ask for a fecal sample to be examined for parasites and bacteria.

The vet visit is both a time to check for existing health issues and for the vet to establish a baseline for the hedgehog. This ensures that the vet is familiar with the hedgehog should there be health issues in the future.

IN SUMMARY

Quarantining a new hedgehog can be a challenge, but it's also vital. You do not want to risk the health of a resident hedgegie and be dealing with two (or more) sick little ones at the same time. Plan ahead, be prepared, and think through your actions. It can be done. It must be done. And you can do it!





Thoughts from the President

By Deb Weaver

Ahhh, summer time and the living is easy. You've got to love the slower pace that the summer months typically bring.

A couple of things have crossed my mind lately, going on vacation (one of my favorite things) and the hotter weather (not one of my favorite things).

I'm soon taking a trip (close enough to have started "the countdown") to the tip of the "thumb" here in Wisconsin, Door County, one of my favorite places to hang out. The kids aren't traveling with me, but instead will go to a friend's house for the week. I've already started to make a list of their things (tents, liners, blankies, food, toys, dishes, etc.). I'll also pack along my first aid kit, feeding syringes and food (in case of a hunger strike). I also leave written documentation with the sitter on each kid's daily routine - - so she'll know what's normal and what's not.

Something else I do is to notify my vet, first with a call then with a fax, giving permission for my caretaker to bring my kids in for treatment. I also give my caretaker a copy of this document, along with a credit card (I also document in the fax that they'll have this card and have my permission to sign on it).

Another thing we need to turn our attention to in the summer months is the hotter and more humid weather and what measures we may need to take to make sure our hedgegies are comfortable. While we're still having very cool weather here in Milwaukee as I write this, sooner or later the humid 90 degree days will hit. My kids and I don't live with air conditioning. Last summer, I dragged in from work one day and checked on them right away. It was 90 - - I was hot, sticky, sweaty, and cranky. Both kids were dug under two layers of fleeces blankets in their condos and snoozing away happily. Suffice to say, my heat tolerance and theirs are different!

We need to remember to provide cooling for our hedgegies. A fan to move air can help keep things comfortable. If you live with AC, perhaps close the register closest to the hedgehogs - - or continue to provide fleeces blankies throughout the summer - - so they don't get too cold. Make sure the cages aren't in the path of sunlight coming through a window, or keep the shades pulled. For cage cooling, many hedgehog owners use terracotta pots as an alternative place to rest or they place small ceramic tiles or marble slabs in the cages. I freeze plastic bottles of water, then drop them into a sweat sock and place them near where the kids sleep. I also check the water bowls a couple of times each day to make sure there's plenty to drink.

Whatever your summer plans are, I hope that they include some time for family and fun - - as well as some time for yourself!



Tiny Ancient Hedgehog Discovered in British Columbia

Margaret Myhre

Canada's Driftwood Canyon Provincial Park is located north-east of the town of Smithers in the Bulkley Valley of British Columbia. The park was established in 1967 after fossils were discovered embedded in the rock on the eastern side of Dawson Creek. The area is a designated historic park and its fossil beds are protected for further study and observation. Professor David Greenwood, of Brandon University in Manitoba, Canada, describes Driftwood Canyon as "a window into a lost world, an evolutionary experiment where palms grew beneath spruce trees and the insects included a mixture of Canadian and Australian species."

50 million years ago, Bulkley Valley was a subtropical wetland of swamps and lakes. Then, a million years ago, volcanoes erupted and lava covered the lakes, trapping animals and plants in the lake beds under layers of volcanic sediment. Later the ice age carved out the large canyon now known as Bulkley Valley, exposing the fossil remains of plants, insects and animals that had been hidden for century in sheets of rock. The most common fossils found there today are insects, such as water striders and march flies, and the world's oldest specimens of fish, including trout, suckers and salmon.

In 2010, a team of scientists led by David Greenwood found the first mammal remains in Driftwood Canyon and identified them as the jawbone of a tiny hedgehog. The jawbone, which was about a centimeter long, was broken into two slabs of rock. The normal procedure would have been to extract the remains from the rock and reassemble them. However, the animal's tiny size, made that impossible. Instead, the specimen was sent to the Canadian Museum of Nature in Ottawa where it was examined by palaeobiologist Natalia Rybczynski.

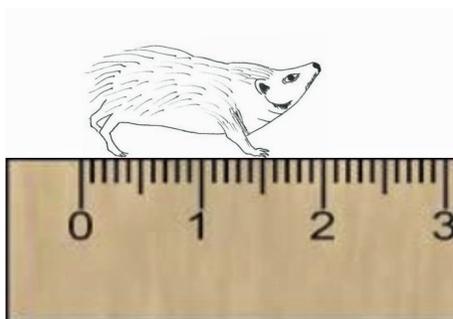
"We didn't touch the specimen at all," she said, "You could not handle it."

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Instead, she used a micro CAT scan to create a 3D version of the jawbone. This was re-assembled into a virtual version of the jaw bone which could be compared with other existing specimens. The actual hedgehog jaw was examined at the Canadian Museum of Nature before being sent to the Royal British Museum in Victoria.

The tiny hedgehog, which was given the name *Silvacola acares* (meaning "tiny forest dweller"), was about 2 inches long, approximately the size of a human adult's thumb! There was no indication that the hedgehog had quills. Primitive European hedgehogs were known to have stiff hair bristles and it's possible that *Silvacola acares* also had them.



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Junction of the Telkwa and Bulkley Rivers
Junction of the Telkwa and Bulkley Rivers in 1909, From BC Archives Call #1-33285



The Literary Hedgehog: *Hedgehog's Secret*

By Margaret Myhre

Swedish author and illustrator Lena Anderson is well-known for her picture books for young children and this book is no exception. The cover illustration shows Hedgehog, clothed in a dress and apron, deep in conversation with her unlikely group of friends: a pig, an elephant, and a small human with a teddy bear. The picture is appropriately framed by parentheses of gooseberry branches—the gooseberries are covered with bristles that mimic Hedgehog's quills.

On most days Hedgehog is happy to meet with her friends, but on this day she is distracted. She has a secret treasure and is anxious to put her house in order. She wakes at dawn to scrub her clothes and is just hanging them out to dry when her friend the pig, attired in a sailor suit, drops by for a snack. He is surprised and quite disappointed when Hedgehog responds by saying,

"We'll eat and play another day, but now I have to go, okay?"

Later, Teddy, a small, teary-eyed bear in a red checked dress, asks for a hug and a story. But Hedgehog says,

"I don't have time for reading today."

Teddy joins the pig in the back yard while hedgehog goes back to her house work.

The day wears on with each of Hedgehog's friends being turned away. Hedgehog is too busy for socializing, telling her friends:

"I just don't have time, I'm sorry, I don't.

My house must be in order; if I don't clean it, it won't.

You'll just have to wait, all four of you."

Finally, at the end of the day, Hedgehog reveals her secret to her friends. Sometime during a busy day of cleaning, Hedgehog has given birth to a tiny baby hedgehog!

Together the friends celebrate the new arrival as the day ends and the stars come out.



John Wood's *The Illustrated Natural History: Mammalia*. London: 1865

Large-Scale Hedgehog Sanctuary Created in the United Kingdom

By Margaret Myhre

In the 1950s the hedgehog population in the United Kingdom was estimated at 36 million. Unfortunately since that era British hedgehogs have fallen on hard times. The current population has crashed to less than a million hedgehogs. In response to this grim news, the Warwickshire Wildlife Trust, funded by the British Hedgehog Preservation Society, has created a large-scale hedgehog sanctuary in Solihull, Westmidlands, Warwickshire. It opened for business on March 17th of this year.

The refuge covers a 90-hectare area (equal to 222.39 acres) which extends across a nature reserve and a public park as well as the surrounding streets. "Footprint tunnels" are being created to show where hedgehogs have traveled within the refuge and hidden cameras are being installed to protect the area with help from volunteer "wildlife guardians."

Using a capture, mark and recapture scheme, the Society hopes to estimate the population numbers in the Sanctuary area. According to Simon Thompson, the Warwickshire Wildlife Trust's hedgehog officer, the scheme will work this way:

Hedgehogs will be trapped overnight and in the morning we will give them a unique color code. We'll aim to re-capture them again, and from the results we will be able to estimate the population numbers in the area.

An adult male hedgehog typically travels more than three kilometers (1.8 miles) every night as it forages for food and searches for a safe shelter. Often garden walls block the hedgehog's path. Conservationists are encouraging the residents of Solihull to assist hedgehogs by making small CD-sized holes in their fences and garden walls.

Sally Marjoram, who operates the Solihull Happy Hogs Hedgehog Rescue, explains:

I think it's really sad that we have to go to these lengths, and that people go around their daily business without realizing how they are affecting wildlife. Because once it's gone, it's gone. At the moment the future is very, very bleak, but it's not too late to turn it around. People only need to do little things to make a big difference. This reserve is an amazing start.



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Hedgehog Birthdays

Grady Wrobel	May 1
Priya Wrobel	May 1
Wally Weaver	May 1
Linus Godlewski	May 24
QE2 Becker	June 12
Frannie Bennett	June 20
Hazelnut Dunham	July 20
Robin Hannigan	August 1
Boomer Becker	August 16

WRITERS WANTED



Would you like to write for the Newsletter? We are always Looking for stories, poems, craft Projects, recipes, puzzles, and Articles to include here.

Send your submissions or article Proposals to:
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ARTISTS WANTED



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