What are leopard geckos?
Leopard geckos are reptiles that can be found on land and water. They breathe air through their lungs and have skin covered with scales. Other reptiles include animals such as turtles and snakes. All reptiles are cold-blooded; they cannot regulate their own body temperature and must rely on environmental temperatures to regulate body heat.

Leopard geckos are members of the Gekkiod family and are also commonly grouped under the name “lizards.” Leopard geckos are native to India and Pakistan and their natural habitat ranges from open grassland to arid high desert plateaus.

Leopard geckos have eyelids, claws on their toes, and lack the toe pads that allow other geckos to climb walls. Instead, leopard geckos live on the ground. These small lizards measure three to five inches in body length when fully mature.

Gender is easy to determine in adult lizards, but very difficult when immature. Males are larger than females and are a little bit heavier. Males also have a row of scent glands present along the underside of the pelvis.

Bright and inquisitive, these small lizards will retreat to burrows or rock crevices during the heat of the day, or if they feel threatened. They can make a barking sound if agitated. Leopard geckos have the ability to drop their tails if handled roughly—a process is called autotomy. Autotomy is a means of escape from predators. The tail will fall off and wiggle on the ground, hopefully distracting any predators while the lizard makes an escape. The tail will grow back, but the regrown tail is often darker and patterned differently than the original tail. Never pick up or catch a leopard gecko by the tail.

If properly cared for, leopard geckos can live for 12-15 years, though some leopard geckos have been known to live for over 25 years. Leopard geckos tolerate human attention well and bites are uncommon.

How should I take care of my leopard gecko?
Keeping any pet is a great responsibility. Leopard geckos require very specific husbandry (care, food, shelter). The key to keeping your pet healthy is to provide an environment close to the species’ natural environment, accounting for temperature range, humidity level, light cycle, and landscape. Proper nutrition is also essential. The resources on this handout should be used as a starting guide. Your Banfield team is your best resource if you have questions about your reptile. The majority of your leopard gecko’s health concerns can be avoided by having the proper enclosure, diet and ensuring the reptile’s environment is clean.

Minimum enclosure/environmental requirements*

Natural Terrain: Arid, terrestrial
Optimal Temperature: 85°F – 95°F (29°C – 35°C)
Optimal Humidity: 10 percent – 20 percent
Length: 3x snout-to-tail length
Depth: 2x snout-to-tail length
Height (terrestrial ground living): 1.5x snout-to-tail length

*Sizes listed are the minimum. Enclosures should be as large as possible.

The enclosure should be designed with a range of temperatures or a “heat gradient.” Temperature in one end of the enclosure should be cool, with the other end of the enclosure toward the higher end of the heat spectrum.
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This will allow the gecko to regulate its own body heat based on metabolic needs. If your pet consistently spends all of its time huddled under its heat source, the enclosure is too cold and vice versa.

Enclosure

Leopard geckos can be kept alone or in pairs or trios if one male is kept with one or two females. Multiple males housed in the same enclosure will fight, sometimes leading to severe injury. In the wild, leopard geckos are solitary, coming together once a year to mate. Remember, multiple pets mean a larger enclosure.

Humidity and the hide box – Leopard geckos need visual barriers in the enclosure to feel secure, calm and well-adjusted. Hide boxes can be purchased or homemade. The hide should be large enough to accommodate your gecko(s), but geckos like to feel structure all around so keep the box snug. Hide boxes should be made out of a non-porous substance that is easy to clean, such as plastic. Humidity is an important aspect of this pet’s captive husbandry and environment. Humidity aids in respiration, skin health, helps prevent dehydration and can help with reproduction. Although native to semi-arid conditions where the ambient humidity is usually between 50 percent to 65 percent, most leopard geckos hide in a burrow or crevice during the day, where the humidity is as high as 75 percent to 85 percent. This high humidity burrow environment must be replicated in captivity. To do so, fill 1/3 of the hide box with a moist substrate such as damp play sand (never use calcium sand), spagnum moss or peat moss. Check the moisture level weekly while cleaning and add water as needed. If the substrate is soiled or moldy, throw it out.

The water bowl should be large enough for the leopard gecko to crawl into and submerge at least half its body for a good soak, but not so deep that the gecko cannot get out of the bowl. The bowls should have a wide base for stability and be easy to clean. Multiple bowls for any given enclosure are useful since reptiles will often defecate in the water. Dirty bowls should be removed quickly to ensure the health of your pet.

Lighting – Leopard geckos are largely nocturnal in nature and most active at night. Leopard geckos need a day/night cycle to be healthy. You can use an incandescent light to provide both heat and light for your pet. You must also provide a UV light, in the correct light spectrum, for your pet to stay healthy. Most pet stores sell special UV lights for this purpose. An automatic light timer makes regulating the day/night cycle easier. A usual setting is 12 hours of “daytime” and 12 hours of “nighttime.”

The substrate (material lining the bottom of the enclosure) should be nontoxic, easy to clean or replace and safe for your pet. Some of the more commonly used substrates include newspaper, paper towels, outdoor patio carpet (sold in pet stores as reptile carpet), aspen shavings, cypress mulch, and coconut fiber mulch. Although sand is commonly used, many leopard geckos swallow it in the course of eating and develop stomach problems. Never use calcium sands. It is difficult for the leopard gecko to digest and can potentially cause serious health problems including death. Cedar or pine shavings should be avoided in households with snakes as the aromatic oils are irritating to snakes and can even be toxic in some cases.

Cleaning and disinfecting the enclosure is imperative for the health of your pet. Disposable substrate, such as newspaper or paper towels, should be changed as soon as it is soiled to prevent bacterial growth and odors. Carpet should be changed weekly and cleaned by soaking it in a weak bleach/water solution. The carpet should then be thoroughly rinsed with water. Particulate substrates such as aspen shavings or cypress mulch can often be scooped to remove the fecal material and should be changed out entirely every two to three weeks.
The enclosure, hide box, water bowl and other accessories should be cleaned with a mild bleach solution every two to three weeks as well. Thoroughly rinse items with water to remove all bleach residue. Do not clean the enclosure, or any of the gecko’s accessories, in an area you prepare food in or bathe in.

What do I feed my leopard gecko?
Leopard geckos eat insects. A variety of feeder insects are available at specialty pet stores or through many Internet-based companies. Crickets, mealworms, waxworms, butterworms, phoenix worms, tobacco hornworms and even cockroaches are available commercially. Leopard geckos need calcium and insects are a poor source. An artificial source of calcium and vitamin D³ must be provided to the leopard gecko to ensure continued health. This is done by “gut loading” the insects with calcium, vitamin D³ and other nutrients. To do this, place the insect in a container with a supplemented food source for about 24 hours prior to feeding the insects to the lizards. The geckos will benefit from the calcium, D³ and other nutrients inside the insect. Another method of providing a source of calcium, D³ and nutrients to leopard geckos is to “dust” the insects with a vitamin/nutrient powder immediately prior to feeding the lizard. Place a small amount of powder in a plastic bag with the insects and lightly shake the bag to coat the insects with the powder. Some leopard geckos will not eat vitamin/mineral dusted insects, or the dust will fall off before the lizard eats the insects. Reptile calcium/vitamin D³ supplements are usually available where feeder insects are sold.

What about medical care for my leopard gecko?
Your Banfield veterinarian can help you ensure the health of your pet. Like other family pets, your leopard gecko should visit your Banfield hospital when purchased, and then twice a year for a thorough examination and a microscopic evaluation of the stool. A stool sample can be brought in to the hospital, or your veterinarian can collect a fecal sample in the hospital. Your veterinarian can recommend appropriate treatments if any parasites or health concerns are found.

What health concerns should I look for?

- Healthy skin is a sign of a healthy leopard gecko. Leopard geckos shed their skin in one piece. A difficulty in shedding can be a health concern. If unshed skin accumulates around the tips of the tail, or the tips of the toes, it can cause a loss of bloodflow. This could cause the loss of a toe or tail tip. Increasing the humidity in the enclosure will often help with this. Any unusual skin blistering, wrinkling, color or scale changes should be brought to the attention of your Banfield veterinarian.

- Insectivorous lizards can suffer from Metabolic Bone Disease (MBD). This is caused by a general lack of calcium or vitamin D³ in the diet and/or lack of UV lighting. A lizard with MBD pulls calcium out of the bones to keep the blood calcium levels normal. This causes bones to become weak and leads to fractures, paralysis, seizures and death if left untreated. Early signs of calcium deficiency include low energy levels, lack of appetite and twitching toes. Later signs of MBD include swollen jaws, swollen legs, curved spines, paralysis, rectal prolapse and eventually death. When caught early, treatments exist that can alleviate the symptoms and reverse the progress of the disease. Supplementing the insects fed to your pet gecko with the proper nutrients is an important step to prevent this serious disease, as is the provision of appropriate UV light.
Due to the varied diet of insects, many leopard geckos will develop internal parasites. These are often parasitic worms, but may also include Coccidiosis and flagellate protozoa such as Giardia, which are zoonotic parasites (transmissible to humans). If left untreated in a captive environment these parasites can cause serious health problems such as loss of appetite, malnutrition, and in serious cases, rectal prolapse.

- Salmonellosis is a bacterial infection that can cause serious health concerns in humans. The bacteria can be found in the intestinal tract of many reptiles. Most reptiles do not display symptoms if infected with Salmonella. Reptiles are very good at hiding signs of illness. In the wild, an animal that shows signs of weakness is often targeted by other animals. Even minor changes in feeding, behavior, energy level and stools may be symptoms of a greater medical concern. Contact your Banfield veterinarian right away if your leopard gecko's routine changes. By the time a reptile appears sick, the disease process is often very advanced and may make treatment difficult, more expensive and reduce the chance of survival.

Can a leopard gecko be harmful to my family?

All reptiles are potential carriers of diseases capable of being spread from animals to people such as salmonella. Pregnant women, young children and those with compromised immune systems (cancer, AIDS, chronic diseases) should avoid contact with reptiles. Things you can do to ensure you keep your pet and family healthy are:

- Buy only captive bred reptiles.
- Immediately wash your hands with soap and water after handling a reptile, its enclosure or accessories.
- Wear gloves and a mask when cleaning a reptile's enclosure.
- Do not kiss a reptile or let it kiss you.
- Do not clean the enclosure, or any of the reptile’s accessories, in an area where you prepare food.
- Do not let your reptile bathe in the family bathtub or sink. They prefer their own water space.
- If bitten or scratched by a reptile, thoroughly clean the affected area with a disinfectant and hot water and immediately consult your physician.
- Have your reptile examined by your Banfield veterinarian twice a year.

If you have any questions or concerns about the health of your pet, please contact your Banfield veterinarian.