

Black and White Tegu Care Guide

Loving Leos Reptile Rescue

lovingleosrescue@gmail.com

Rescue and Rehabilitation

Science-based Education

Advanced Husbandry Practices



Introduction

Shopping List

- 1.) Supplies
- 2.) Products to avoid

Nutrition

- 1.) Diet
- 2.) Feeding Frequency
- 3.) Supplementation

UVB, Heating and Visible Light

- 1.) The Importance of UVB
- 2.) The Importance of Infrared Heating
- 3.) The Importance of Full Spectrum Lighting

Temperature, Humidity and UV Index

- 1.) Temperature Ranges
- 2.) Humidity Ranges
- 3.) Safe UVB Exposure
- 4.) Proper Lighting Placement

Enrichment

- 1.) The Importance of Enrichment
- 2.) Ways to Provide Enrichment

Enclosure Example

Common Tegu Illnesses

- 1.) Scale Rot
- 2.) Parasitic Infection
- 3.) Shedding issues
- 4.) Fatty Lip
- 5.) Obesity

Resources

Introduction

Argentine black and white tegus are not a beginner-friendly reptile species. They are active animals requiring as much space as you can provide. They are also highly intelligent, capable of using puzzle toys, learning target training, basic commands, and even potty training. Tegus are thought to be capable of forming bonds with their keepers, preferring them to other people. In the wild, tegus roam vast territories, hunting for prey and scavenging from dead animals. They create large underground burrows to sleep in. During the winter they will dig down into their burrows and brumate until spring.

Shopping List

1.) Supplies:

- **FOR 0-8 MONTHS:** 4X2X2' 120 Gallon Front-Opening Terrarium (48x24x24" or larger)
 - Minimum recommended size for ONE juvenile tegu
- **FOR 8+ MONTHS:** 8x4x4' 957 Gallon Front-Opening Terrarium (96x48x48" or larger)
 - Minimum recommended size for ONE adult tegu
- Linear UVB (long tube, half the length of the enclosure)
 - Zoo Med ReptiSun T5HO 10.0 UVB Kit
 - Arcadia ProT5 12% UVB Kit
 - Arcadia DragonD3 ProT5 14% UVB Kit
 - Reptile Systems T5HO Zone 3 10.0 UVB Kit
 - Leap Habitats T5HO 10.0 UVB Kit
 - **IMPORTANT!** Please avoid knock-off Chinese brands of UVB you may find on Amazon! These are NOT safe and could harm your pet. Brands to avoid for UVB include ReptiZoo, Giangarden, OIIBO, Lucky Herp, Reptile King, etc. The brands listed above are SAFE and thoroughly tested by experts
- Incandescent Basking Bulb
 - Fluker's Basking Bulb
 - Exo Terra Intense Basking Spot Lamp
 - Arcadia Basking Spot Lamp
 - Wattage may vary based on your house temperatures or enclosure size, but typically 100-150w bulbs will work well
 - **Please note, tegus are large animals. You may need multiple basking lamps to cover their entire body and reach the basking temperatures they need**
- Dimming dome for your heat lamp, OR a pulse proportional dimming thermostat
- Laser thermometer gun
- LED Full Spectrum Bar

- LED Full Spectrum Spot Lamp
- Natural, safe substrate options
 - 70/30 Mix of Scott's Organic Topsoil (no fertilizers!) and Quikrete Play Sand
 - Sphagnum moss to mix with substrate
- Hygrometer/thermometer devices x 2
- Temperature probe
- Water dish
- Flat stones for basking, stacking, natural nail filing. Make sure the stones are heavy enough that your tegu can't lift them
- Large basking platform, big enough for the tegu to lay entirely on
- Large cork bark and logs to create hides, climbing options
 - At least one hide should be used as a humid hide to aid in shedding
- Outlet Timer/Power Strip
- Reptivite OR Repashy Calcium Plus LoD Multivitamin
- Zoo Med Calcium with D3
- Zoo Med Calcium without D3

2.) Products to Avoid: (This is not a complete list, just a compilation of the most common unsafe items on the market)

- Coil Florescent UVB Bulbs
 - These bulbs do not provide a broad enough gradient of UVB for proper exposure
- Mercury Vapor Bulbs
 - These bulbs can lead to serious UVB and heat burns. They do provide UVB and heat all in one, but are dangerously inconsistent in their output and cannot be controlled with a dimming device. MVB's also produce an unnatural green light, which may affect an animal's color vision and inhibit natural behaviors
- Reptile Carpet
 - Snags teeth, holds bacteria. Cannot be dampened without molding risk
- Aspen Bedding
 - This is not a suitable substrate for tegus. It cannot be dampened to hold the humidity these animals need for hydration and shedding, and will mold. This can lead to respiratory infections
- UVB "test" Cards
 - These items do not accurately detect UVB. They react to light emitted by heat lamps as well, and do not tell you exactly how much UVB is being emitted by a bulb
- Colored Heat Bulbs
 - Colored bulbs (red, blue, purple) wash out a reptile's color vision. This can interfere with their natural circadian rhythm and behavior. Heat bulbs should mimic the warm/white color of sunlight
- Heat Mats
 - Heat mats do not provide the correct Infrared heating reptiles need for proper warming, metabolism, digestion. Even with thermostat use, power failures can occur leading to severe, even fatal burns
- Heat Rocks
 - Heat rocks do not provide the correct Infrared heating reptiles need for proper warming, metabolism, digestion. These items have been known to cause serious, sometimes fatal burns

- Cloth and Hemp Hammocks
 - These items can tear out claws and teeth. They are easily soiled and will hold bacteria
- LED UVB Products
 - As of current research (2025), LED UVB products are not recommended for safe usage in reptile keeping. They do not produce vital UVA2 wavelengths, which signal an animal's body to stop producing pre-D3. This can potentially lead to **hypervitaminosis D3**, and **photoconjunctivitis**

Nutrition

1.) Diet:

- Tegus are omnivorous reptiles, feeding on birds, mice, rats, eggs, lizards, amphibians and carrion in the wild. Providing a variety of whole-prey feeders and fresh fruits and vegetables in captivity is a great way to give your tegu a well-rounded diet
- Loving Leos Reptile Rescue does not recommend feeding live prey items to tegus, except for insects, and especially unsupervised. There is a risk the prey will escape, harm your tegu, and a higher risk of parasitic infection. Frozen-thawed whole prey items from quality sources are much safer. Fresh fruits and vegetables are also recommended.
 - Safe frozen-thawed whole prey items (**feed prey items with fur, scales or feathers sparingly to avoid impaction risks**)
 - Mice
 - Small rats
 - Chicks
 - Quail
 - Gerbils
 - Hamsters
 - Newborn rabbit
 - Safe insects
 - Shell-less snails
 - Locusts
 - Dubia roaches
 - Silkworms
 - Hissing roaches
 - Black soldier fly larvae
 - Superworms
 - Captive-bred hornworms (wild-caught are toxic!)
 - Safe meats
 - Beef hearts (dust with calcium)
 - Quail eggs (feed sparingly)
 - Chicken eggs (feed sparingly)
 - Chicken legs (with bones)
 - Ground turkey
 - Blue gill fish
 - Catfish
 - Rabbit meat (legs with bones can be fed)

- Human-grade frogs
- White-tail deer meat, liver, heart
- Safe vegetables and greens
 - Collard, mustard, turnip greens
 - Kale
 - Cactus pads
 - Squash
 - Zucchini
 - Yam
 - Dandelion greens and flowers
 - Alfalfa
 - Bell pepper
- Safe fruits
 - Banana
 - Blueberries
 - Strawberries
 - Red or green grapes
 - Blackberries
 - Figs
 - Mango
 - Papaya

2.) Supplementation:

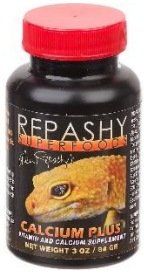
- Tegus get much of their nutritional needs from the fresh and frozen-thawed whole prey items they eat. However, multivitamin and mineral supplementing can help your tegu “top up” on their vitamin stores, and avoid serious dietary deficiencies.
- **Please note, when feeding ground meats or animal organs, the phosphorous-to-calcium ratio needs to be corrected for proper calcium absorption. 5g of calcium needs to be added per 1lb of meat. This can be pre-mixed into a mash**



Arcadia RevitalizeD3, EarthPro-A, CalciumProMG



Zoo Med Reptivite with D3



Repashy Calcium Plus. This can be paired with Zoo Med Calcium and ZooMed Calcium D3



B Complex supplement, can be used occasionally to help with shedding

3.) Feeding Regiment and Frequency:

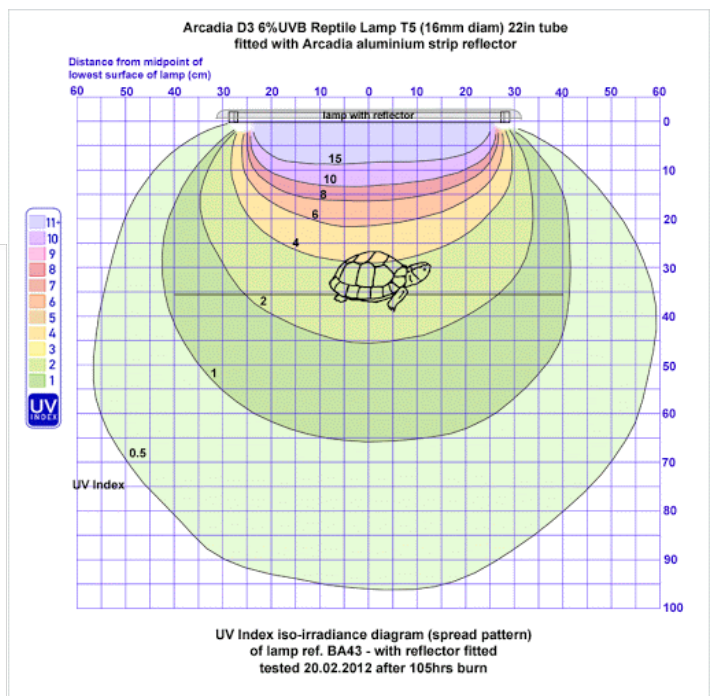
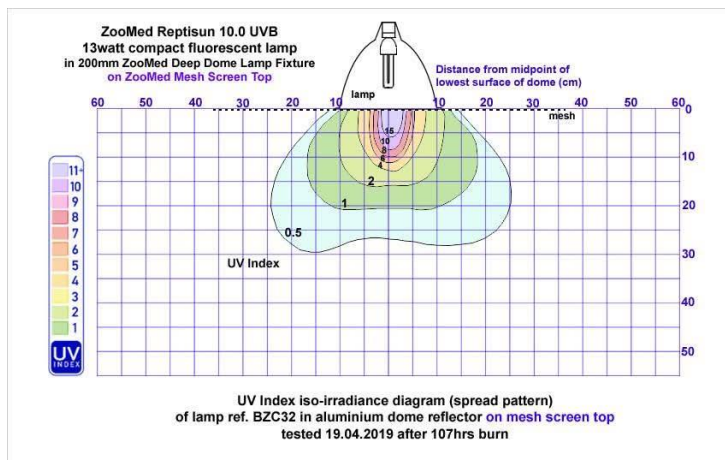
- Many keepers opt to make pre-made mashes of meats, vegetables and fruit
- **For juveniles**, these mixes should be made up of 60% invertebrates (insects), 10% vegetables and fruit, and 30% vertebrates (small animals)
- **For adults**, these mixes should be made up of 60% protein, 30% vegetables, and 10% fruit. Occasionally alternating fruits and vegetable ratios is also beneficial. You can use a food processor to blend the ingredients together
 - **Making a mash:**
 - Plain calcium **without D3** should be added to meats, **5g of calcium per 1lb of meat.**
 - Portion out your meats, vegetables and fruit ratios
 - Use a food processor to form ingredients into a mash
 - After blending, drain excess fluid and portion out meals in Zip Loc bags. Portion sizes should be roughly the same size as your tegu's head. Freeze meals for up to 8 months and thaw out as needed
 - Vertebrate and insect prey items should not be added to mash mixes, but fed separately
 - Whole prey items should be no larger than your tegu's head
 - **Juveniles 0-12 Months: 7x's a week**
 - **Sunday: Whole prey or whole bone-in meats + Calcium D3**
 - **Monday: Insects + Calcium**
 - **Tuesday: Insects + Multivitamin**
 - **Wednesday: Mash + Calcium**
 - **Thursday: Insects + Calcium D3**
 - **Friday: Insects + Calcium**
 - **Saturday: Mash + Calcium**
 - **12 Months+ : 2-3x's a week**
 - **Sunday: Mash + Multivitamin**
 - **Wednesday: Mash + Calcium D3**
 - **(Offered only 1-2 days a month) Saturday: Whole prey or whole bone-in meats + Calcium**
- **Additional Notes on Feeding**

- Feeding whole bone-in meats such as chicken, rabbit or frog legs provide opportunities for your tegu to chew. Firm fruits such as papaya and mango are also beneficial for gum and lip health. Chewing helps to flex lip tissue and can prevent one of the causes for fatty lip issues (see **Common Tegu Illnesses** below)
- Feeding whole prey items provides nutrients from organ meats and bones

UVB, Heating and Visible Light

1.) The Importance of UVB

- UVB lighting is superior to D3 powder supplementation for the following benefits:
 - Creates beta-endorphin “feel-good” hormones in the skin
 - Promotes better organ health
 - Stimulates white blood cells and promotes better immune health
 - Facilitates natural D3 synthesis for calcium absorption
 - Simulates natural UVB that would be provided by the sun in the wild and promotes more natural behaviors

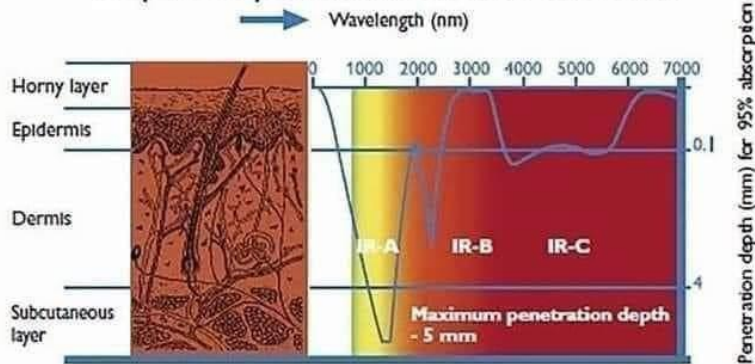


Difference between Coil/Compact UVB coverage, versus Linear T5HO tubes

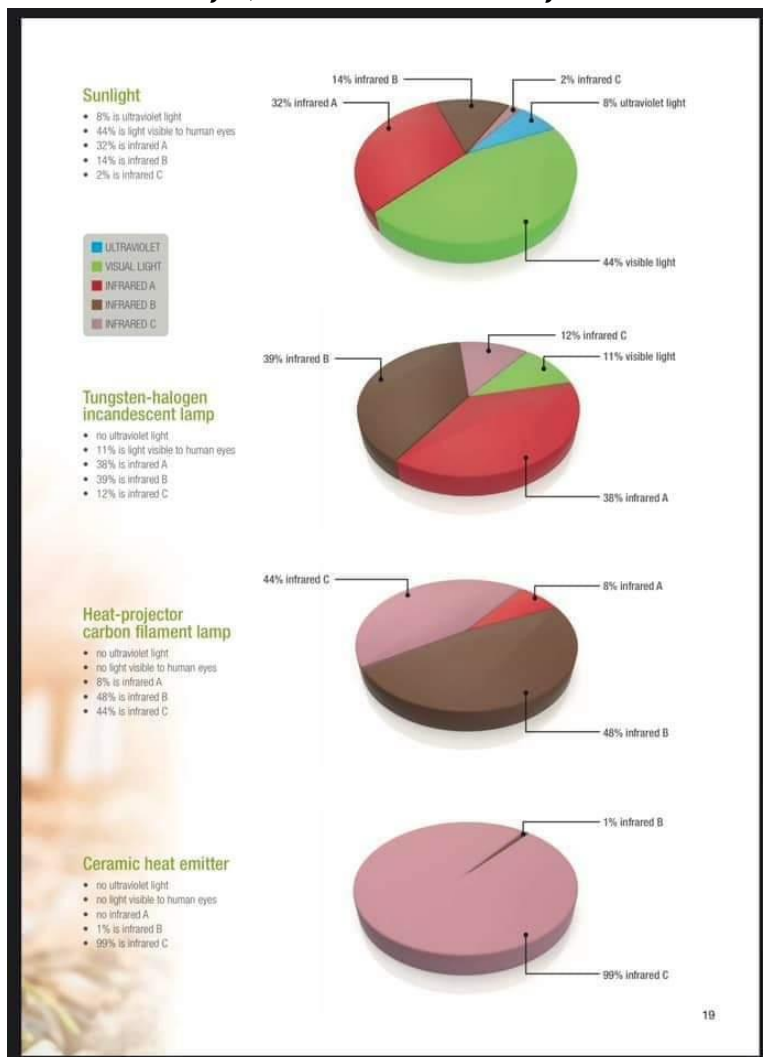
2.) The Importance of Infrared Heating

- Heat sources that provide Infrared A and B are important for:
 - Deep tissue-penetrating heat
 - Faster warming of the animal's body
 - Less time needed to bask
 - Better metabolism and digestion
 - Promotion of more natural behaviors
 - Surfaces below the basking area that absorb IR-A wavelengths will radiate that heat back out as IR-C, so your animal gets the full spectrum of Infrared heating

Depth of penetration into the skin



Example illustrating the depth of penetration between IR-A, IR-B and IR-C wavelengths. IR-A penetrates into the subcutaneous layer, where IR-C is relatively surface-level on the epidermis



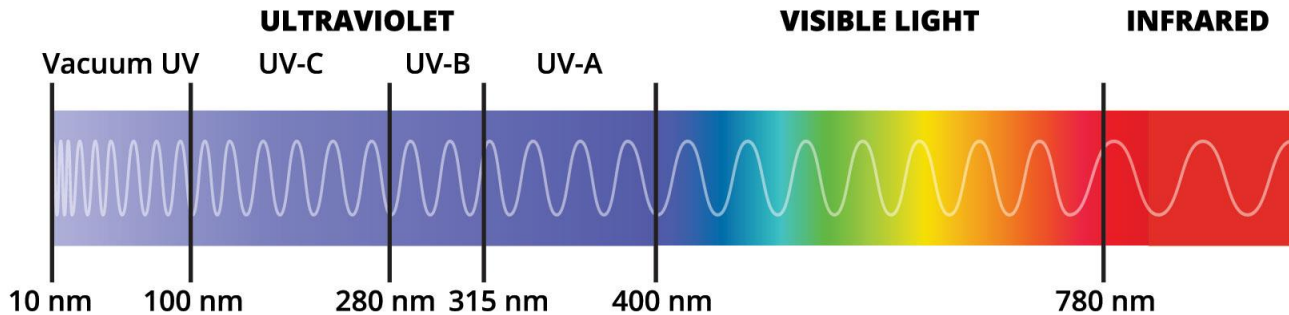
The difference between various heating elements. Incandescent lights provide the most natural array of IR

3.) The Importance of Full Spectrum Lighting

- Many reptiles have **tetrachromatic vision**, meaning they have four rods in their eyes for color detection and can see much more of the visible light spectrum than we can. Providing additional full spectrum lighting in the form of an LED full spectrum bar helps with:

- More visible colors for your animal to see
- Promotion of natural behaviors
- Closer visible replication of what they would experience under sunlight
- Good brands for LED spot lamps and bars:
 - Sansi
 - Arcadia
 - Barrina

ULTRAVIOLET LIGHT



Quality lighting will cover most of the visible light spectrum (here shown between 400nm to 780nm); however, the purple, or Ultraviolet spectra will be covered in part by UVB lighting. Note that UV-C wavelengths are excluded from UVB and full spectrum equipment and are dangerous.

Temperature, Humidity and UV Index

1.) Temperature

- Temperatures should be provided in a “hot-to-cool” gradient across the tank, with your basking bulb placed on one side of the enclosure
- Temperatures can be monitored by placing a hygrometer/thermometer device on the hot side, and one on the cool side. A thermometer temperature probe can be placed just outside of the beam of light beneath the incandescent heat bulb.
 - Hot side temperatures: 85-90f
 - Basking surface temperatures: 115-125f
 - Cool side temperatures: 75-80f
- Surface temperatures can be measured with a laser thermometer gun

2.) Humidity

- Black and white tegus live in Argentina, as their name suggests. This region experiences high levels of humidity
- Tegu burrows often have higher humidity levels than the outside environment
- In captivity, we can provide humidity spikes, but should aim for:
 - 70-80% ambient humidity ranges
 - Occasional spikes of 100% with adequate dry-out periods can be implemented
- Hygrometer/Thermometer combo devices can be placed on the cool and hot sides to monitor ambient temperatures

3.) Safe UVB Exposure

- UVB should be provided through a linear tube that spans halfway across the enclosure. It should be aligned with your basking bulb to one side of the tank, with the basking bulb centered with the middle of the tube
- Not all UVB bulbs are created equally! Certain strengths, bulb styles and brands are not safe or effective for tegus (refer to the Shopping List for safe UVB products)
- Tegus are **diurnal** reptiles. This means they are most active during the day, and sleep at night. Tegus need to openly bask under appropriate heating and UVB to properly energize themselves and synthesize essential D3
- On the Ferguson Zone (the UV requirement scale for various reptile species), tegus are in Zone 3. This means they need a UVB index between 3.0-4.0
- The height of your enclosure, whether your UVB is mounted above mesh or inside the enclosure, what brand of tank you have (different open-top tank brands have different mesh types) all affect how much UVB your tegu will be exposed to, and how high or low your basking area needs to be to achieve the correct UVB index. To figure out how to safely provide UVB for tegu, refer to the following sources:
 - Reptile Lighting on Facebook
 - Northampton Reptile Center – Ferguson Zone
 - Thomas Griffiths, Tomaskas LTD
 - Reptile Academy
 - Tegu Keepers
 - The Tegu-Phile
 - Reptiles: Advancing Husbandry Practices
 - Arcadia Reptile (for Arcadia product specifications)
 - Zoo Med (for Zoo Med product specifications)
 - Leap Habitats (for Leap Habitats product specifications)
 - Reptile Systems (for Reptile Systems product specifications)

4.) Proper Lighting Placement

- Heating and UVB lighting should be provided in a “light-to-dark”, “hot-to-cool” gradient, with the highest concentration of light over the basking area
- Basking bulbs should be centered with the middle of the UVB tube, where the strongest UVB wavelengths are. This effectively creates a “patch of sun” where the animal can get UVB and heat all in one area
- Full spectrum LED lighting should overlap with the UVB and basking bulb



- 1.) Six 2ft T5 Barrina LED Full Spectrum bars, 2.) Sansi 36w Spot Lamp, 3.) Arcadia 3ft ProT5 Dragon 14% UVB, 4.) One 150w Exo Terra Intense Basking Spot Lamp, Two Exo Terra 75w Intense Basking Spot Lamp, 5.) Braun 4ft LED shop light

Enrichment

1.) The Importance of Enrichment

- Many reptile species, including tegus, enjoy living in a stimulating environment where they can climb, bask, sleep, hunt and explore
- When these animals are housed in small, bare enclosures, or not given the opportunity for roaming time outside of their enclosure, they often exhibit “stereotypy” behaviors, which may include glass surfing, aggression, frequent hiding, pacing, pushing at enclosure doors or corners, and listlessness. These are all indicators of boredom, stress, frustration, anxiety, and eventually sensory-atrophy
- Giving our animals more space and more things to investigate, climb, etc, allows them to exhibit natural behaviors and stimulates their senses. These provisions also decrease fear and stress, and enhance the animal's sense of security

2.) Ways to Provide Enrichment

- Enrichment can be provided by “cluttering up” your tegu's home. Add in lots of flat, stacked stones (just make sure they are securely placed and heavy enough so the tegu can't harm themselves by burrowing beneath the rocks), use natural substrates for digging, bury cork bark rounds in the substrate to create tunnels, stack lots of driftwood to create climbing opportunities
- Tegus are intelligent, curious, and active animals who love to investigate new things in their environment. Some tegus have exhibited almost play-like behavior, using puzzle feeders, chasing balls, and working to get food from treat toys. Just be sure to use toys that can't easily be destroyed, or are small enough for the tegu to swallow

- If you happen to have a secure backyard, you can try walking them with a harness and leash. This is a great way to get natural sunlight and stimulation. If you have an area in your home away from other animals and free of loose items the tegu might eat or damage, you can let them free-roam for a few hours a day



Loving Leos Reptile Rescue Tegu Ambassador, Delphine, using a feeding toy with a prey item inside

Enclosure Example

- This enclosure belongs to Loving Leos Reptile Rescue. It is an 8x4x4 PVC enclosure, bioactive with live plants, full spectrum LED lighting, UVB and incandescent heating





Common Tegu Illnesses

1.) Scale Rot

- Scale rot is often caused by unsanitary living conditions and substrate that is too damp. These conditions create breeding grounds for bacteria, which can lead to severe infection and tissue damage
- Scale rot can be prevented by leaving areas of substrate in the enclosure dry, implementing dry-out periods (only spray down the enclosure when humidity levels are too low, and thorough misting done a few times a week, letting the enclosure return to normal humidity levels in between)



Scale rot, possible necrosis on a tegu's neck

2.) Parasitic Infection

- Parasites are a common problem for captive reptiles, especially those who need insect or animal proteins in their diets. Wild-caught tegus are more susceptible to being carriers, and improper care in captivity can exacerbate parasite loads and infection symptoms
- Symptoms of parasite infections can include lethargy, weight loss, lack of appetite, runny, loose and particularly smelly stools
- Fecal exams should be done one to two times a year, and any time there are notable behavioral changes to rule out the possibility of parasite infections, and to treat them as necessary
- It is important to maintain a clean environment for your tegu to prevent the spread of illness and parasites. Be sure to keep feces off of their skin, and clean their feeding accessories (water and food dishes, tongs etc) regularly

3.) Shedding Issues

- Shedding problems in tegus are common. They can occur from incorrect humidity levels, improper UVB, and improper supplementation
- Adding B vitamin complex supplements to your tegu's meals on occasion can help with shedding
- Making sure humidity levels are where they need to be, particularly when the animal is going into shed, will help prevent skin issues
- Be sure to monitor tail and toe tips for constricted shed. If stuck shed is left on the toes or tail tip, blood circulation can get cut off, causing the appendages to die, fall off and possibly lead to necrosis



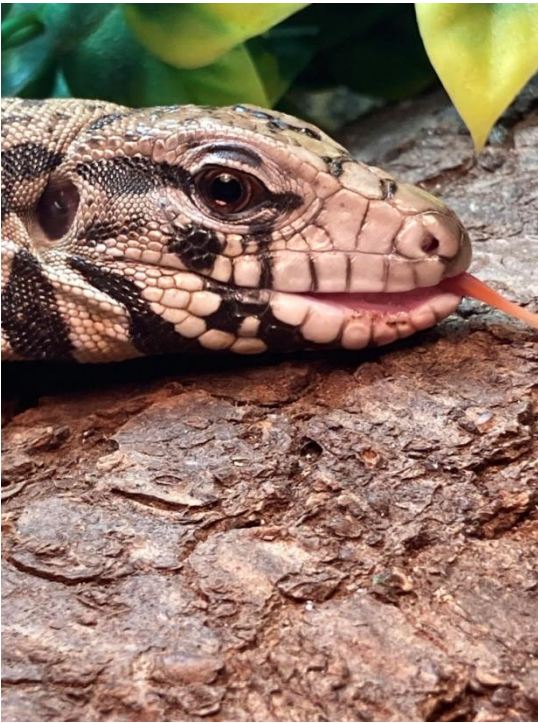
Red tegu missing several front and hind toes from constricted shed. This can affect the tegu's ability to walk and climb

4.) Fatty Lip

- There is no general consensus on any one cause for this issue, but common reasons for a fatty, loose or flabby appearance to the lower lip may include a diet too high in protein, obesity, oral tumors, or mouth rot (stomatitis)
- If your tegu isn't able to fully close its mouth and the lower lip appears swoll



Oral tumor in a Colombian tegu



Stomatitis in a young Argentine tegu

5.) Obesity

- Obesity in tegus is a very common problem. Tegus naturally have a big appetite and will eat just about anything they can find in the wild, including carrion
- In captivity, tegus have less opportunity to roam as they would in the wild to search for food, so they generally don't get as much exercise. Being mindful of their diets, keeping track of their weight, adjusting meals as needed, and giving your tegu time to explore outside of their enclosure are all good ways to ensure your tegu stays within a healthy weight range
- Obesity can cause a number of health issues, including fatty liver disease, kidney problems, gout, lethargy, and in severe cases, a shorter lifespan
- Physical signs of an overweight tegu can include: loss of a visible lateral line (the horizontal fold of skin along a tegu's sides), ears disappearing into skin folds, fat rolls around the torso and tail

6.) Metabolic Bone Disease (MBD)

- Metabolic bone disease is one of the most common illnesses in reptile species across the board. It is caused by improper diet and supplementation, and providing improper or no UVB. In rare cases, animals may have a predisposition for developing the disease from poor genetics, which may cause a compromised ability to absorb calcium
- MBD causes deformities in an animal's body from a malabsorption of calcium. Reptiles need vitamin D3 to absorb and metabolize calcium, and when D3 isn't being provided through their diets and UVB lighting, their bodies will begin to pull calcium directly from their bones to maintain organ, muscle and neurological function
- Physical deformities from this condition can be painful and are permanent. MBD can be stopped from worsening by correcting care and bone density can be improved, but deformities are lifelong



A tegu with a deformed spine, tail, limbs and toes from MBD

Resources

- **Facebook**
 - Reptile Lighting
 - Behavior Education
 - Tegu Keepers
 - The Tegu-Phile
 - Reptiles: Advancing Husbandry Practices
 - Loving Leos Reptile Rescue
- **YouTube**
 - Animals at Home
 - Reptiles and Research
 - Herp Talk
 - Jessica's Animal Friends

- **Supplies**
 - Pangea Reptile
 - Bean Farm
 - Light Your Reptiles
 - Reptile Basics
 - Dubia Roaches
 - PetCo
 - PetSmart
 - RodentPro
 - Layne Labs
- **Experts who have published papers online for science-based research**
 - Thomas Griffiths, Tomaskas LTD, Zoo Husbandry Consultant
 - Dr. Frances Baines, Veterinary Surgeon
 - Dr. Sarina Wunderlich, light physicist
 - Lori Torrini, Behavior Education, Animal Behaviorist
 - The British Herpetological Society