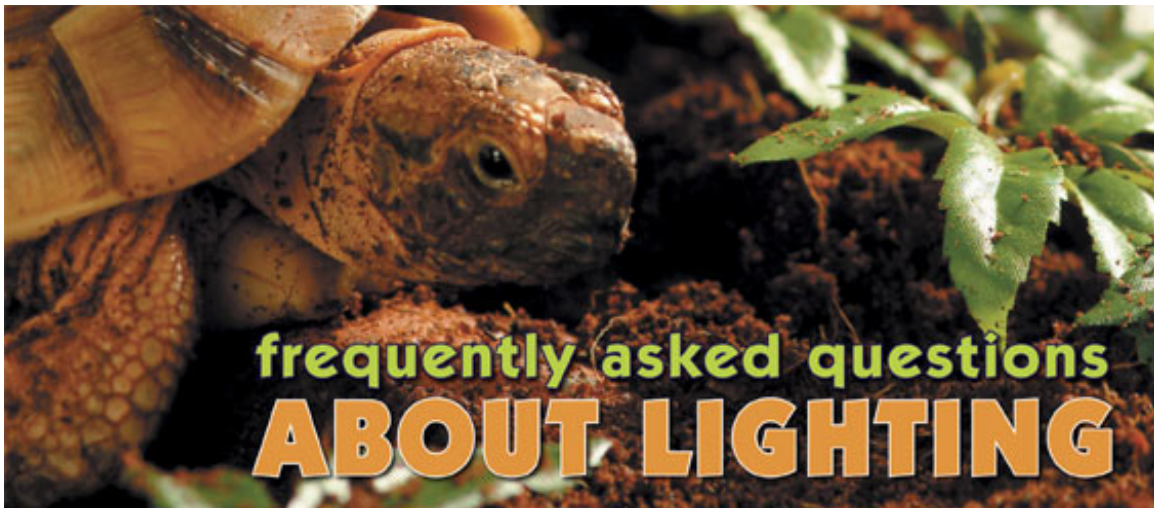


FAQs: Reptile Lighting

Drs. Foster & Smith Educational Staff



Setting up a proper lighting system is vital to your reptile's health and well-being. With so many types of lighting available, it can be difficult to know exactly what your reptile needs. The information below will help to clear up some of the questions you may have about your reptile's lighting requirements.

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What effect does improper lighting have on my reptile?

Improper lighting can have many negative effects on your reptile. Proper lighting keeps herps on a normal day/night cycle. It affects how your reptile perceives his environment and contributes to his overall mental and physiological well-being. It also regulates necessary processes that occur in your reptile's skin and contributes to a well-functioning immune system.

Failing to provide the proper lighting can lead to decreased appetite, refusal to eat, lethargy, and failure to breed. It can prevent them from engaging in natural behaviors, and it can cause high levels of stress, which leaves a reptile much more susceptible to illness. Improper lighting can also cause vitamin and mineral deficiencies, leading to growth and development diseases.

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What is UVA light and why does my reptile need it?

[UVA light](#) ranges from 320 to 400 nanometers (nm) and it has a significant effect on many reptile behaviors. Humans cannot see UVA light, but reptiles can, and it affects how they perceive the world around them. UVA light enables them to recognize other reptiles of their species and detect movement. It stimulates their appetite by making their food more appealing. It promotes proper foraging, feeding, digestion, activity, social behavior, and reproduction.

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What is UVB light and why does my reptile need it?

[UVB light](#) ranges from 290 to 320 nm and is necessary for proper metabolism of calcium. UVB light regulates the synthesis of Vitamin D3 in your reptile's skin. It is this vitamin that allows diurnal herps (those that are active during the day) to properly absorb and metabolize calcium. For many reptiles, it is their main source of Vitamin D3, and a lack of UVB light will lead to chronic calcium deficiency, which can lead to painful diseases like metabolic bone disease. Though reptiles cannot actually see UVB light, they can detect it, and they will move in and out of UVB light as necessary.

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Do all reptiles need UV light?

All reptiles have some exposure to UV light in their natural environment, even those that are nocturnal. Though a reptile may spend almost all day in a hiding spot, he will still have access to some UV light rays that filter into his hideout. We recommend that you attempt to simulate the lighting in their natural environment as much as possible. Some species will need constant daytime exposure to UV light while others will require a UV light "gradient" that allows only minimal exposure. If you do provide a UV light for your nocturnal species, only use it for a couple hours a day and provide plenty of hiding spots.

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What is "full spectrum" lighting, and does my reptile need it?

True [full spectrum lighting](#) is that which produces UVA light, UVB light, the full spectrum of visible light, and infrared heat. Sunlight is full spectrum light. All reptiles, even those that are nocturnal, will need some full spectrum lighting.

When choosing a full spectrum light, you must purchase one that is

specifically made for reptiles; regular light bulbs sold for human use at your local hardware store are not sufficient. However, even some reptile lights that are marketed as full spectrum lighting do not produce the amount of UV light that reptiles require. Carefully read the package to make sure that the full spectrum lights you choose will provide everything your herp needs.

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What is the difference between fluorescent, incandescent, and halogen bulbs?

Fluorescent bulbs supply low intensity visible light, a uniform UVB gradient over a large area, and only a small amount of heat. The UVB output is comparable to what you would get sitting in the shade on a sunny day. They are required for reptiles that need UVB light for Vitamin D3 synthesis. [Compact fluorescent bulbs](#) are similar to fluorescent bulbs, but they supply a more intense amount of UVB in a smaller area.

[Incandescent bulbs](#) are similar to regular light bulbs that you find in your home, and they emit no UVB light and only a small amount of UVA light. They are more suited to a heat source than a visual light source and, by themselves, they can be sufficient lighting for nocturnal reptiles, some amphibians, and arachnids, all of which need very little UVB light or visual light. They also make good basking lamps.

[Halogen bulbs](#) are an advanced version of incandescent bulbs. They produce more visible light, they last longer, and they are more energy efficient. However, like incandescent lights, they do not emit UVB light. They are useful as a heat source to warm the habitat or maintain temperatures.

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What is a "mercury vapor" bulb?

Mercury vapor bulbs are bulbs that supply UV light, high visual light, and infrared heat. They are highly effective, but because they are fairly powerful, they are only suitable for very large terrariums. They also tend to consume a lot of energy.

If you choose to use a mercury vapor bulb for your terrarium, be sure to use one made specifically for reptiles. Mercury vapor bulbs made for human use do not produce the levels of UVB light that reptiles need.

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What is a basking lamp, and why does my reptile need it?

A [basking lamp](#) is used to create localized heat. It mimics the heat and light of the sun that your reptile would bask in in his natural environment. They are necessary because they allow your reptile to regulate his body temperature by moving in and out of warm areas. Some basking lamps do emit a certain level of UV light, but in most cases, they are used for the purpose of creating temperature gradients rather than providing necessary light.

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Does my reptile need nocturnal lighting, and what kind?

Only nocturnal reptiles need nocturnal lighting, but you can use some nocturnal lights to view diurnal species or help maintain the temperature in their habitat. The point of nocturnal lighting is to illuminate and heat the habitat as naturally as possible without disturbing nighttime behaviors. Kinds of nocturnal lighting you can use include:

- [Halogen](#)
- [Nightlight Red Reptile Bulbs](#)

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Does my reptile still need natural sunlight?

Though it is important to use a lighting system to recreate their natural environment, there is still no substitute for actual sunlight. Diurnal reptiles should have as much exposure to natural sunlight as possible. However, it is important to note that simply putting your reptile's enclosure near a window is not going to be sufficient. UVB rays cannot pass through glass, so you would still need to supply a source of UVB light. For some reptiles, you may be able to build an outdoor enclosure to put them in for part or all of the year or a few hours each day during good weather.

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How much light does my reptile need each day?

All reptiles, regardless of whether they are nocturnal, diurnal, or crepuscular, require a set photoperiod that varies with the seasons. During winter, your reptile will need approximately 10 hours of light followed by 14 hours of darkness. During summer, the daylight should be longer - 14 hours - followed by 10 hours of darkness. The change between the two should be gradual, as it would be in the wild. Nocturnal reptiles will spend most of the day sleeping, but they still require light.

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Is there such a thing as too much UVB?

Yes, it is possible to provide too much UVB light. The point of a lighting system is not simply to light your reptile's habitat, but to provide a balanced system that simulates what your reptile would encounter in the wild. No reptile is going to sit in the sun and bask all day long, and the intensity of UVB rays change throughout the day. Most will bask early or late in the day, and seek shelter in hides or shade during the hottest parts of the day. The best way to make sure that you are not providing too much UVB light is to set up a habitat that mimics your reptile's natural habitat as closely as possible.

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What are red or black bulbs for?

[Red](#) and black bulbs are used to maintain temperatures in your nocturnal reptile's habitat. They produce very little visible light, and they allow you to observe your reptile without disturbing his natural behaviors.

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Can I use a fluorescent "black light" for my reptile?

There are actually two types of fluorescent black lights: BL tubes, which are safe to use, and BLB tubes, or "poster lights," which should never be used in your reptile's habitat. They don't produce any UVB, so they don't aid with the production of Vitamin D3, and they can actually cause eye damage. Aside from BL bulbs, the only other black lights that are safe to use are those that are made specifically for reptiles to create heat and almost no visible light.

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