

Hibernation Tips

Hibernation is a very important part of the natural cycle of desert tortoises, box turtles, and many other turtles and tortoises kept as pets. Make sure you know if your turtle or tortoise is supposed to hibernate or not.

As a general rule of thumb, Mediterranean tortoises do hibernate and tropical tortoises don't. **Those that don't hibernate** include sulcatas, leopards, radiateds, red/yellow foots, Golden Greeks, and hinge backs. **Those that do hibernate** include deserts, Russians, box turtles, Greeks, marginateds, and Hermann's.

Hibernation, sometimes referred to as brumation, is an adaptation used by many species around the world, including many tortoise species, to survive cold weather. Like all cold-blooded animals, tortoises are unable to produce their own body heat. As the temperatures outside fall their metabolism slows. A slower metabolism means every physiologic activity, from digestion or reproduction, slows too.

Tortoises should only hibernate if they're in good physical shape. Feeding them a healthy, balanced diet during the spring and summer months can help them to prepare for their long winter sleep. If they've shown signs of respiratory issues or have not healed from an injury, do not allow your pet to hibernate. Have them evaluated by one of the recommended veterinarians listed on our website under Resources.

Fast your pet 2-6 weeks before hibernation. Stop feeding your chelonian any food or treats in October. Many turtles and tortoises die because owners hibernate them with undigested food still in their digestive tract. Do not try to hibernate a turtle or tortoise who has eaten within the last month; instead, delay hibernation. Ask your vet for a specific fasting time for your species if in doubt.

- Undigested food kills hibernating pets in 2 ways. Either the food decays and causes fatal bacterial infections inside your pet; or the food decays and creates large clouds of gas, which press internally on your pet's lungs to suffocate it.
- Your pet's digestive system is controlled to a large extent by temperature.
- Tortoises need 3-6 weeks to process food. Small tortoises (<1kg) need 3 weeks; medium sized (1-1.5 kg) need 3-4 weeks; large tortoises (2-3kg) need 4-6 weeks.
- Turtles need roughly 2-3 weeks. A small turtle like a box turtle might need only 10-14 days.

Hydrate your pet. While fasting, soak your pet every other day 10-20 minutes in warm chin-deep water. Ensure your turtle or tortoise has access to clean drinking water daily prior to hibernation. A large plant saucer works well. This helps encourage the tortoise to expel waste from its digestive tract and stay hydrated.

Decide where your pet will hibernate. During hibernation turtles and tortoises need a quiet, dark area where they will remain undisturbed.

- If you have an aquatic turtle that is staying in water outdoors, make sure the water does not freeze and has a depth of at least 18".
- If your pet is staying indoors, scope out a cool location in your house. Many use garages, basements, or any room that temperatures can be maintained between 40-60 degrees. Although some pet owners use a refrigerator, this is not recommended.

Pick your boxes. A hibernaculum is a small to medium size container or plastic tub for your turtle or tortoise to hibernate in and it protects your animal from hazards. Make sure the lid can be securely fastened. Small holes drilled into the upper sides allows for ventilation.

- The box should be filled with substrate, preferably sterilized soil, Timothy or Bermuda hay, cypress mulch and/or pine shavings.
- The substrate should be deep enough that the tortoise can bury itself.
- It's not advisable to use cardboard as it's not sturdy enough to protect your turtle/tortoise against predators.
- Your turtle or tortoise should be able to turn around in the tub but not wander about.

Start hibernation. Make sure that your turtle or tortoise has no illnesses or injuries, no food in their digestive system, and is at a temperature hovering around or at 50°F (10°C). If any one of these things cannot be maintained, do not force your pet into hibernation until they can be.

- If your pet is hibernating outdoors in nature and not in a hibernaculum, make sure your pet will neither drown nor freeze in its hibernation spot. If the animal is hibernating in a burrow make sure to cover the hole and the surrounding area with a well secured tarp to prevent water from entering or seeping through.
- If your turtle is hibernating outdoors, it will naturally bury itself in or around a pond. The pond should have a good bed of dirt or muck to dig into, and be at least 18 inches (45.7 cm) deep to provide some temperature insulation. If needed, keep the pond from freezing by using a floating pond heater through the winter. Healthy water turtles often remain under water for the entire hibernation period!
- If your outdoor water turtle will not hibernate, even though the weather has cooled, or you see it swimming or basking a lot after other turtles have disappeared, bring it inside. Some turtles just don't know how to hibernate and will not survive the winter outside.
- It is very important to check your tortoise occasionally, about once a month, to make sure hibernation is going well. During this time they can be prey to raccoons, rodents and ants.
- Your tortoise should not lose more than 1% of its body weight per month.

Stay at 40°F (4.5°C). An ideal temperature for hibernation is around 40°F (4.5°C), though your pet can hibernate at temperatures ranging between 35-60°F. Any lower and your pet might suffer permanent damage or death; any higher and your pet will burn too much fat to stay in hibernation, and will start waking up.

- Check with a thermometer periodically. Check daily during very cold or hot times.
- If the temperature is consistently too warm or cold, change the location of your hibernaculum to a place with a more optimal temperature. Look for the shadiest part of your yard. A corner that gets the least amount of sun during the winter months should be adequate.

Hibernation usually occurs from November through March in most areas. When your pet comes out of hibernation they will appear somewhat lethargic and won't begin eating right away. Make sure they have access to fresh water. As the weather continues to warm up they'll begin grazing on their own and their activity level will increase.

Like the flowers in bloom, turtle/tortoise sightings are a sign that Spring has arrived. Now you can begin to enjoy your pet once again!

**Adapted from Wikipedia content