



Hibernating your tortoise

Overview

In the wild, non-tropical species of tortoise ("Spurr thighed", Hermann's, Horsfield's, Marginated tortoise) hibernate for 1 to 3 months over the winter. Your tortoise will also hibernate if temperatures fall low enough, but our winters are more like 4-5 months long, and too long for their reserves to see them through. Your tortoise should not be hibernated for the whole winter and hence it is important to manage their hibernation. In addition, our summer is much shorter, so they won't be able to build the reserves of fat that they need. You should have access to a heated vivarium to extend the summer length before hibernation and finish the 'winter period' and hibernation sooner. In spring, when tortoises wake up, the outside temperatures are volatile, but with a vivarium, tortoises can be kept in a stable environment which will stimulate appetite and help them recover safely from hibernation.

To have a safe hibernation, your tortoise must be healthy and have been eating well over the summer. Tortoises under a year old are at a higher risk of death during hibernation, and as such it is recommended that hatchlings up to the age of 3 years (100mm, 700g) are kept awake during the winter in a heated vivarium. Never try to hibernate a sick or underweight tortoise that has not been feeding well throughout the summer. It is very important to weigh your tortoise regularly.

You should not attempt to hibernate tropical species of tortoise (eg Leopard Tortoise).

Preparing for hibernation

You should decide whether your tortoise is healthy enough and a suitable weight for hibernation in the middle of August. Your tortoise's appetite will start to decline from August, so if he is not fit in August, he won't be in October/November.

Many tortoises will completely stop eating at the end of summer as night temperatures become colder in preparation for hibernation. This is FAR too early, and as an owner, you should use a heated vivarium to maintain a constant temperature and extend their perceived summer until the end of October to delay hibernation.

In October, you can start to decrease the day and nighttime temperatures over 2 weeks until your tortoise stops eating. Feeding should be kept up as normal until 6 weeks before the intended date of hibernation. It is important **all food is removed 6 weeks before** to the start of hibernation, so that your tortoise's intestines are empty during hibernation. If food is present in the intestines, bacteria can grow on the rotting food inside your tortoise and kill them during hibernation. Conversely, **drinking should be actively encouraged** in the 2 weeks prior to hibernation with supervised daily shallow luke warm water baths.

Hibernation technique

Once your tortoise has not eaten for about 6 weeks, they are ready to be placed in a plastic hibernation box. The hibernation box should be a little larger than your tortoise and have a ventilated lid. Place a little kitchen paper at the bottom of the box. Compost/sand can also be used but is harder to keep clean and can harbour bacteria.

If your tortoise is still quite active, try cooling for another week. Your tortoise should have drunk but not urinated. This is very important, as water is reabsorbed from the bladder during hibernation. Do NOT hibernate the tortoise if it has urinated recently or has not been drinking.

There are two main methods for hibernating your tortoise: a refrigerator or well-insulated box. The refrigerator is the preferred method but is not always practical. The temperature must remain constant between 3-7°C (5°C optimum) as fluctuations will cause your tortoise to drift in and out of sleep and will burn off unnecessary calories. Your tortoise should be checked daily for any signs of problems and the maximum and minimum temperature recorded. The tortoise should be weighed twice a week. It is normal for a healthy tortoise to lose 1% of its total body weight per month. If a tortoise is losing too much weight,



urinates or there are signs of any disease, the tortoise should be woken up immediately.

Fridge method: Due to food hygiene concerns, we recommend you use a different fridge to the one used to store food. Place a digital thermometer probe inside the fridge and slowly adjust the fridge thermostat until 5°C is consistently achieved. Place your tortoise in their hibernation box in the fridge. Opening the fridge door daily when checking your tortoise should provide enough fresh air.

Box method: This method requires closer monitoring and is more difficult to control. Half-fill a large cardboard box (1m) with an insulating material eg Polystyrene packing chips. Do not use hay or straw as they can harbour dangerous fungi which can be fatal to your tortoise. Place your tortoise in their plastic hibernation box, and then place that in the middle of the half-filled cardboard box, on top of the insulation. Fill the cardboard box completely with the polystyrene chips. Place the cardboard box in a vermin free room where the temperature remains between 1-10°C. Place your temperature probe inside the centre of the insulated box near the tortoise with the display on the outside the box.

Waking up in spring

The vivarium comes into its own over spring and early summer when climate temperatures are very variable. Rain and frost can be extremely dangerous to your tortoise and if the weather cools unexpectedly, they can start to go back to sleep without adequate reserves and weight. Once your tortoise is awake, they should stay awake. When the weather is warm, your tortoise can enjoy the sun, but keep them in their vivarium at night or on cold days until the weather is more stable.

You should start to wake your tortoise up in early spring. Move the hibernation box to a warmer area such as your vivarium. If you are using the fridge technique, your tortoise will not wake up unless you move them to a warm area. You should warm your vivarium to 22-24°C. Over 2-3 hours your tortoise should start to become more active. Once active, you should encourage your tortoise to drink and bathe them in shallow luke warm water for 10 mins as this will help to rehydrate them. The bathing should be carried out every day for 10 days; your tortoise must ALWAYS be supervised when bathing.

Your tortoise should be starting to eat within 24 hours and eating well by 72 hours. If this does not occur, they may have 'post-hibernation anorexia' and it is unlikely they will start eating by themselves. This can be caused by low blood glucose or be due to problems such as infection. If your tortoise is not eating within 72 hours, please seek veterinary advice.





In a nutshell:

- You tortoise must be healthy and eating well during summer to proceed with hibernation
- Make sure your tortoise has not eaten for 6 weeks before hibernation starts
- Make sure your tortoise has been drinking but not urinated before hibernation – dehydration is the main killer of tortoises during hibernation.
- Start hibernation at the Beginning of November and end it in early spring. Use a heated vivarium to control timings.
- Check your tortoise daily during hibernation and weigh twice weekly.
- The temperature should be around 3-7°C during hibernation and do not allow it to fluctuate.
- Make sure your tortoise is eating soon after waking up and encourage hydration with regular bathing.