



Zoo, Avian, Aquatic and Unusual Pets
Veterinary Consultancy

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Healthy hibernation



Please be aware that there are a few tortoise species that should NOT be hibernated. These include the African spur tortoise, African leopard tortoise, red footed tortoise and yellow footed tortoise.

Your tortoise can start hibernating from 2 or 3 years old as long as they weigh over 200g and are fully healthy. Start off by hibernating your tortoise for four weeks. For the next year you can add on an extra week of hibernating until you reach a maximum of 12 weeks.

If you are unsure if your tortoise can be hibernated then please call us for advice. If you are unsure what species your tortoise is then please book an appointment and we can identify them as well as perform a health check to ensure your tortoise can undergo hibernation.

There are a few things to consider when preparing your tortoise for hibernation. Take a look at the following information and please call us if you have any queries.

Is your tortoise healthy enough for hibernation?

Has your tortoise shown any signs of being ill towards the end of summer going into autumn?
Has this caused them to stop eating or to lose weight?

It is very important that a tortoise has prepared themselves for hibernation by building up their body fat. This is what they will rely on to get them through. If they have started losing weight before hibernation this should be investigated before hibernation takes place.

We recommend weighing your tortoise weekly throughout its life so that you can notice any changes should they occur. You can also weigh them through hibernation to ensure they are not dramatically losing weight (please see later).

If they have shown any signs of being ill then we will probably not recommend hibernating them. However, this is a case by case basis so please speak to us before making a decision.

Checking your tortoise over- always start at the head and finish at their tail (These tips can be used throughout your tortoise's life).

Nose: Any signs of discharge from either or both nostrils? Note the type of discharge. If there is any discharge immediately separate the tortoise if it is housed with others. Some causes of discharge from the nose can be highly infectious. Check the nose for any wounds or abrasions.



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Eyes: Are they fully able to open both eyes? Are they clear? Are there any signs of discharge or inflammation? Is there any swelling?

Mouth: Are there any abnormalities such as colour change, red spots or discharge? Are there any signs of pus coming from the mouth?

Ears: Just behind their jaw is a membrane that looks larger than the scales surrounding it. These are their ears. They should be flat and smooth with no discharge seen.

Legs: Check for any wounds, swellings or discharge. Is your tortoise able to walk on all four normally?

Shell: Ensure you check the top (carapace) and the bottom (plastron) of their shell. Are there any abrasions or wounds? Any cracks in the shell? Is there any discharge from the shell? Is there any smell coming from the shell?

Tail: Does the tail have any cuts or abrasions, does it look swollen? Is there any abnormal discharge coming from the cloaca, does it have a strong smell?

Behaviour: You know your tortoise best. Are they acting out of character? Sleeping more or hiding away? Or are they constantly trying to dig when they didn't before. Notice if they are digging with their front or back legs.

Please do not attempt to hibernate your tortoise without ensuring they are fully fit. Book in for a pre-hibernation consult with us and we can give them a health check, faeces check and ensure they are ready for hibernation.

When did they last eat or drink?

As tortoises prepare themselves to hibernate they will start to eat less and less. During this time food can sit inside a tortoise's stomach for a few weeks as digestion starts to slow down. This is why it is important that they are at their optimum weight before hibernating as they will only start to lose a bit of weight rather than put any more on!

They need to be at their optimum temperatures to ensure they can digest their food. You should not place a tortoise into hibernation if they have eaten recently as this food can sit in the stomach, not be correctly digested and start to 'rot'. This can cause lethal toxins to build up inside your tortoise that can be fatal.

The fasting period before hibernation varies depending on your tortoise's size:

Large tortoises (2-3kg) = 1 month of fasting

Medium tortoise (1-2kg) = 3 weeks of fasting

Small tortoise (<1kg) = 2 weeks of fasting



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Allowing your tortoise to drink before hibernation is encouraged. This will minimise the risk of them getting dehydrated and ensure their bladder is full.

Preparing your tortoise

Along with the food and water advice above, start preparing your tortoise by shortening their day length and cooling their temperature down. For most owners this will be done artificially by changing the timings on your UV lights and heat bulbs. Just ensure you keep the temperature above 13 for the first two weeks to ensure they can digest any food that may be in the stomach at the beginning of the fasting period.

Once the fasting period for your tortoise has come to an end any food in the stomach should be mostly digested so you can begin to cool down the temperatures even further and then remove any external heat sources so that they acclimatise to room temperature. This process may take a week. Then move your tortoise to an area where the temperature is below 10°C but no lower than 2°C! Allow your tortoise to settle here up to a week, by slowing down and barely moving before placing them inside their hibernation accommodation.

During this preparation period although you cannot feed your tortoise you should continue to bathe your tortoise four times a week. This will ensure they stay hydrated throughout hibernation.

Preparing your accommodation

Before placing your tortoise into hibernation ensure its accommodation is ready! The key to this is temperature! Invest in a good thermometer that allows for maximum and minimum temperatures to be monitored. You may also want one that will alarm if the temperature becomes too high or too low. Should the temperature fluctuate too much it may cause the tortoise to use up valuable fat reserves, wake up early or if too cold, freeze.

Recommended temperatures: Min 2°C

Max 10°C

Ideal temperature is 5°C

Ensure your accommodation stays between these temperatures for a few days before placing your tortoise inside.

Your accommodation should also be dry and in a draft free area.

Accommodation

The box method

This method has the potential for temperatures to fluctuate drastically depending on where it is placed and this can have serious health effects for your tortoise. Temperatures must be monitored closely.



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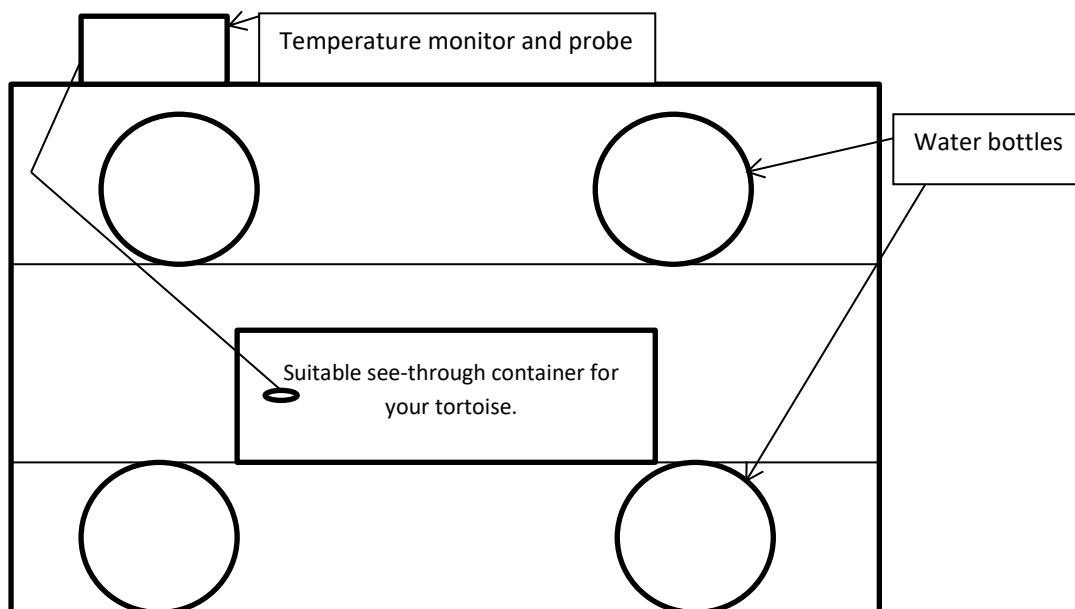
You should hibernate your tortoise inside two boxes. The first outer box can be made out of wood or strong cardboard. This should contain insulating material such as polystyrene or shredded paper. The inside box is then for your tortoise. Ensure it is of a fairly tight fit to avoid too much movement but also allows for some more insulating material to go around your tortoise; this can be soil substrate that you may use in their main habitat or shredded paper. This box must have air holes in the top which can be covered with wire to stop any unwanted visitors getting in with your tortoise. The box can then be placed in a dry, draft free area where you can easily maintain the temperature and check on your tortoise. Ensure you have two thermometers to accurately measure temperatures. One end of your temperature probe should be placed on the outside of the box to measure external temperatures and the other temperature probe placed inside the outer box with the insulating material. Do not let this second probe drop below zero!

The fridge method

This method is the preferred method as temperatures are easier to monitor and easier to control.

Place your tortoise in a plastic see through container that allows for a fairly tight fit with room to place insulating material such as their soil substrate, shredded paper or newspaper around the tortoise. Do not put a lid on the box as this interrupts air flow but ensure the box is deep enough that your tortoise cannot climb out. Then using a separate fridge (such as a small drinks fridge) place your tortoise inside. Place your tortoise in the middle of the fridge where they do not come into contact with the sides or any refrigerant. On the shelves above and below your tortoise, place bottles of water. These will help maintain a constant temperature throughout the fridge. Do not use a fridge containing food for human consumption due to the risk of salmonella.

Place the temperature probe in the insulating material surrounding your tortoise. Although the temperatures can be easier to maintain using the fridge method ensure you must still monitor them regularly and it should ideally stay at 5°C. Try to keep the temperature between 4°C to 8°C when using the fridge method. Do not allow the temperature to drop to 0°C. Even short periods at this temperature can be fatal.





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Keep the fridge inside as low outside temperatures can cause the temperature inside the fridge to drop. The fridge door should be opened daily to allow for fresh airflow for the tortoise but also for you to check on them.

Garden hibernation

We do not recommend allowing your tortoise to hibernate by itself. This used to be done as it was believed that they would 'know' when they needed to go to sleep and wake up. Unfortunately this method saw a lot of fatalities in tortoises and many did not survive their first hibernation. Winter temperatures in the UK are too cold for them or they are unable to find an area which they can sufficiently dig into. Temperatures cannot be controlled via this method. Now we understand the hibernation process we can give them a better chance of survival using the other methods discussed.

During hibernation

Ensure you check your tortoise regularly during hibernation. Do not be afraid of disturbing them as you may spot something that means they need to come out of hibernation early-but do not over handle them. You CAN and should weigh your tortoise during hibernation. They will lose a little weight but if they lose more than 10% of their body weight they should be bought out of hibernation. This indicates they may be becoming unwell or that they are too active due to temperatures not being cool enough.

Ensure your tortoise does not urinate during hibernation. If they lose water they risk becoming dehydrated during hibernation and so you should be monitoring the process of waking them up.

Waking them up

When their hibernation period has finished you can remove them from their accommodation and place them in a warm room to acclimatise to room temperature. They will begin to wake up and slowly start moving their limbs, this may take an hour or so. Once they show signs of adequate movement place them into their normal enclosure under their heat lamp. The temperature here should be above 25°C and turn on their UV light. Allow them to warm up here and begin moving around. When they are fully awake and warmed up give them a warm bath for ten minutes to help rehydrate them. Once back in their enclosure you may begin offering them food. Most tortoises will begin eating within a week of coming out of hibernation. If they do not then please book in for an appointment so our vets can give them a check over. Keep bathing them daily until they are eating sufficiently. They can then go back to their normal bathing regime.

We hope hibernation of your tortoise goes smoothly. If you have any queries or problems, please call us.

For more information please also check out: www.tortoisetrust.org

