



Preparation Guide for Tortoise Hibernation (Wind down procedure)

Firstly, ensure that the tortoise is a species that would hibernate naturally in the wild.

Any attempt to hibernate a non-hibernating species may well prove fatal, particularly with tropical tortoises. If you are unsure what species your tortoise is, please feel free to contact us.

Do not attempt to hibernate a tortoise that is not 100% healthy by the end of August or has failed to gain sufficient weight during the summer period. Tortoises need to gain sufficient body fat over the summer period to see them through a safe hibernation. Maintaining long-term weight records for a tortoise is always a good indication as to whether an adult tortoise has gained sufficient weight.

The Jackson Ratio graph can be used as a guide to ensure that a tortoise of the species *Testudo graeca* or *Testudo hermanni* is the correct weight for its size.

Please note that the Ratio is a guide for use ONLY with *Testudo graeca* and *Testudo hermanni* (including the sub-species), and should never be used for any other species of tortoise, as incorrect results will be produced.

Checks to carry out prior to hibernation:-

Body: Thoroughly check the tortoise for any signs of lumps, swelling, cuts or abrasions.

Tail: Check for any swelling or discharge.

Eyes: Ensure both eyes are clear and free from any inflammation or discharge.

Mouth: Check that the inside of the mouth is clean and a healthy pink colour, and look for any signs of abnormalities, particularly for coating of a yellowish/white cheesy substance (mouth rot).

Nose: Ensure the nasal passages are clear and free from discharge.

Ears: Check for the presence of abscesses. The membranes covering the ears should be either flat or concave.

If the tortoise does not pass the pre-hibernation check, then please consult a reputable tortoise veterinary practice.

PLEASE DO NOT ATTEMPT TO HIBERNATE A TORTOISE THAT IS LESS THAN 100% HEALTHY.

If there are any doubts **DO NOT** risk hibernation. Overwinter the tortoise instead.

There is no set wind-down period for a tortoise to prepare it for hibernation, but generally 3 weeks (young juveniles) to 4 weeks (sub-adults and adults) -- and occasionally up to 6 weeks -- are used, depending on a tortoise's weight and the temperature during the wind-down period. Two identical tortoises may require different wind-down periods. For example, one tortoise may spend more time



basking and will digest consumed food more quickly, and another might have stopped consuming food earlier of its own accord. It is important to ensure that there is no undigested food in a tortoise's stomach prior to hibernation and that the tortoise has sufficient water reserves to prevent dehydration in hibernation. Undigested food will rot during the hibernation period and can cause asphyxiation due to internal pressure on the lungs.

FOOD SHOULD NOT BE OFFERED DURING THE WIND-DOWN PERIOD.

Wind-down Guide for Adult/Sub-Adult Tortoises

It is recommended that a record of weights is maintained for reference purposes for future hibernations.

A minimum of 4 full weeks of wind-down is required to ensure that an adult tortoise is adequately prepared for hibernation.

Week 1 No Food

Provide the tortoise with light and heat for 12 hours, as normal. The tortoise needs to have a certain amount of heat to enable it to digest the food already in its stomach. Bathe the tortoise on a daily basis in lukewarm water, preferably in the vicinity of a heat source, to maintain temperatures and to encourage drinking. During this first week the tortoise may seem hungry but DO NOT give in!

If the tortoise starts to eat the substrate, change it for something inedible e.g. a towel, until the tortoise begins to slow down.

Week 2 No Food

Begin to turn on the heating/ lighting later and off earlier, reducing the tortoise's 'sunshine' to approximately 8 hours. Continue to bathe daily/every other day. The tortoise will have slowed down significantly by the end of this period and will be spending much of its time hiding away. It is important at this stage to monitor how often the tortoise is producing faeces.

If it is regularly producing faeces, then week 2 can be extended for up to another 2 weeks.

Failure to provide sufficient heating and lighting (as outlined above) will inhibit the digestive system and prevent the digestion of food in the stomach in the latter periods of wind-down.

Week3+ No Food

Bathe the tortoise every other day in lukewarm water, gradually reducing the heating and lighting from 8 to 4 hours.

Week 4+ No Food

This is the time when the tortoise needs to be cooled right down to prepare it to go into hibernation. Turn off the background heating or place the tortoise in a cool frost-free room. Give the tortoise its final bath two days before the end of the week, making sure the tortoise is thoroughly dried. Providing it doesn't pass faeces during the final bath, continue without heating/lighting for a further two days in a frost-free unheated room/outbuilding to cool the tortoise down completely, and aim to keep the temperature at no higher than 10C (50F). Place the tortoise into its hibernation area (box or fridge) on the last day of the week.



If the tortoise does pass faeces during the last few days, leave it another 2 or 3 days before putting it in into its hibernation area.

Wind-down Guide for Juvenile Tortoises

Juvenile tortoises require a shorter wind-down period than adults, and for this reason their wind-down is calculated using a 5-day week.

Week 1 (Days 1 – 5) No Food

Provide the tortoise with light and heat for 10-12 hours, as normal. The tortoise needs to have a certain amount of heat to enable it to digest the food already in its stomach. Bathe the tortoise on a daily basis in lukewarm water, preferably in the vicinity of a heat source, to maintain temperatures and to encourage drinking. During this first week the tortoise may seem hungry but **DO NOT** give in!

If the tortoise starts to eat the substrate, change it for something inedible e.g. a towel, until the tortoise begins to slow down.

Week 2 (Days 6 – 10) No Food

Begin to turn on the heating/ lighting later and off earlier, reducing the tortoise's 'sunshine' to approximately 8 hours. Continue to bathe daily/every other day. The tortoise will have slowed down significantly by the end of this period and will be spending much of its time hiding away.

Week 3 (Days 11 – 15) No Food

Continue to bathe daily/every other day in lukewarm water, and reduce the heating/lighting from 8 to 4 hours.

Week 4 (Days 16 – 20) No Food

This is the time when the tortoise needs to be cooled right down to prepare it to go into hibernation. Turn off the background heating or place the tortoise in a cool frost-free room. Give the tortoise its final bath on day 17 or 18, making sure the tortoise is thoroughly dried. Providing it doesn't pass faeces during the final bath, continue without heating/lighting for a further two days in a frost-free unheated room/outbuilding to cool the tortoise down completely, and aim to keep the temperature at no higher than 10°C (50°F). Place the tortoise into its hibernation area (box or fridge) on the last day of the week.

If the tortoise does pass faeces during the last few days, leave it another 2 or 3 days before putting it into its hibernation area.

Wind-down Guide for Hatchling Tortoises

The smaller the tortoise is, the higher the risk of a fatality during hibernation. It is recommended that tortoises under 35 grams at the beginning of wind-down should be over-wintered.

There are several reasons for this. In an artificial environment, it is not unheard of for adult tortoises to produce eggs much later than they would in the wild, and so hatchlings do not have time to mature. Also, in the wild there will inevitably be some hatchlings that do not make it through their first winter hibernation. Whilst it is extremely beneficial to hibernate a tortoise and to try and replicate what they would



do naturally in the wild, it is questionable whether the risk is justified for smaller hatchlings.

For hatchlings over 35 grams the juvenile wind-down period should be adapted, accordingly, to a two-week schedule.

For tortoises of any age, please remember that at the end of the wind-down period the tortoise must have an empty stomach and a full bladder. Any food left in the stomach will start to ferment during hibernation with disastrous results.

The tortoise is now ready for hibernation.

Please see our guides on fridge and box hibernation.

No matter which method of hibernation is used (e.g. box method, fridge method) it is imperative that the hibernation area is thoroughly prepared **well before** the wind-down period finishes, so that it is ready for the tortoise, and the temperature range in that area is acceptable and stable. The optimum temperature for hibernation is 4C to 5C (39F to 41F). As temperatures approach freezing, there is a danger that the tortoise could literally freeze or incur irreparable eye damage. As the temperatures approach 10C (50F) the tortoise may start to become active and will start to use its vital reserves.

The TPG therefore recommends a temperature range of 3C (37F) to 7C (45F).

Do not take any chances with temperatures: ALWAYS use at least one well-tested thermometer.