

## Hedgehogs in winter

The hedgehog is bigger than most insectivores and consequently can find itself in trouble if natural food is not available, especially during the colder months of the year when more food is needed to build the brown fat store to keep the body warm and mobile. It's a catch 22 situation, just when the hedgehog needs more food, there is less available, the insects have either died out or have gone into hiding until the spring. Even the earthworms have gone deep into the soil where only the badger's tremendous digging powers can get at them.



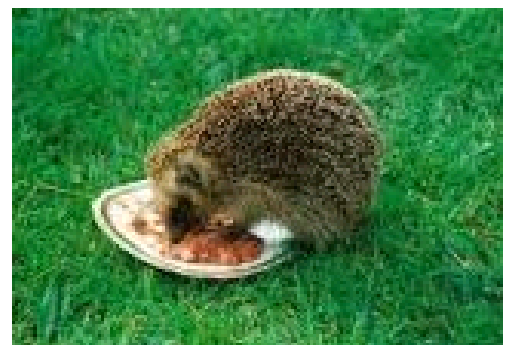
A hedgehog in hibernation is in a state of torpor and will all but shut down all bodily functions and metabolism. At first sight they appear to be dead and the feet, ears and skin feel cold to the touch but if you gently touch it, unconscious reflexes make its spines stand up and tuck its head into an impenetrable ball. Any sound will evoke the same response and yet the hedgehog's centre of nerve activity, the brain, is virtually closed down. They will drop their heartbeat from around 190 beats a minute to a slow 20 beats per minute. They hardly breathe at all, perhaps taking one breath every few minutes. Research has found that they can hold their breath for 2 ½ hours followed by a few rapid breaths. Their body temperature, which is normally around 35°C, drops to 10°C, a fall which would kill most other mammals.

When a hedgehog is hibernating, it is essential that its body temperature does not fall below 1°C or it will suffer frostbite or may even freeze to death. Hedgehogs don't know what the temperature is outside the hibernacula (the hibernation nest) and if the weather turns very cold, the hedgehog's body uses the brown fat reserves, which are supercharged fuel boosts, to raise body temperature so stay healthy. This fat fueled heat is then pumped through the bloodstream to warm the muscles to cause them to shiver and produce even more heat until after three or four hours the hedgehog's temperature and pulse rate will have risen. The hedgehog will slowly wake and realize that the present nest is badly constructed and has insufficient insulation and will move elsewhere to build another one, which is why you can sometimes see hedgehogs active on some colder evenings as they will also make the occasional nightly foray to feed.

It is not usually until November, December or January that larger hedgehogs finally settle down to hibernation, when the greatest threats they face are mostly winter weather related like storms and freezing temperatures or hungry predators which may kill them while they are hibernating.

It has been estimated that a hedgehog needs to weigh around 600g – 650g to survive the stress of hibernation, and many late born Autumn hoglets are born late in the year and have little hope of making the weight before the onset of winter. From the end of September onwards any small hedgehogs should be weighed and, depending on weight and time of year, can be offered cat food in a hedgehog feeding station.

Throughout the autumn and early winter months a hedgehog builds up fat reserves until they are the equivalent of around 30% of its whole weight. You can help by putting out cat food, its best to stick with chicken in jelly as hedgehogs are sensitive to fish protein and gravy can cause tummy upsets. Also offer fresh water each evening. When Spring arrives, and the weather warms their fat reserves will be running low and this is when the hedgehogs start to waken from hibernation. They will be thirsty and will have lost



around a third of their bodyweight, so they'll try to find as much food as possible just in case the weather turns cold again and another shorter sleep period is opted for.

Any hedgehog found in a definite nest should be left alone, no matter what the weather conditions. Waking a hedgehog up means that they will use much of the fat reserves, which may prevent it from being able to go into a further period of hibernation. Leave them alone if they are not injured or out in the open during the day.

If a hedgehog is found sleeping out in the open, away from a nest or during the day, it is not hibernating and is probably suffering from hypothermia and will need care. Take it indoors, an outbuilding or shed is not warm enough. Place it on a warm hot water bottle wrapped in a towel and phone your local wildlife rehabilitator or Vet asap. [www.iwra.ie](http://www.iwra.ie) has a list of Vets who treat wildlife.

Please do not offer food and water until you have had proper advice. Resist the temptation to ask for advice on social media. The tips you get may not be appropriate and importantly these little hedgehogs need help as soon as possible. This is especially important if the hedgehog has been injured, trapped or has noisy laboured breathing. Most hedgehogs, particularly in the Autumn and Winter, can be affected by parasites like lungworms. These can cause breathing problems and in cases of severe infestation can prove fatal if treatment isn't given whilst being monitored by a trained rehabilitator. Your local IWRA Rehabilitator member can help with current advice based on up to date research see [www.iwra.ie](http://www.iwra.ie) for a list of licensed rehabilitators and vets who can help with advice and treatment should you be concerned about the health of the hedgehog.



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