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## 1 General information

This leaflet cannot cover everything to do with caring for hedgehogs in need. Please refer to the specific leaflets for information on rearing orphaned hedgehogs, young hedgehogs that need help in the autumn, hibernation while in human care, and release into the wild. Other publications, for example the book "IGEL IN DER TIERARZTPRAXIS" can serve as further references.

## 2 Legal basis

Hedgehogs are a specially protected species. The Federal Nature Conservation Act prohibits catching them, taking them into your possession, injuring or killing them. It is however permitted to take in injured, sick or helpless hedgehogs in order to nurse them back to health. They are to be released without delay as soon as they are able to survive in the wild on their own. In addition, the Animal Protection Act and other regulations must be observed: see leaflet 4.10 LEGISLATION.

# 3 Which hedgehogs require care?

- Orphaned hoglets that are out of the nest during the day with closed eyes and ears and possibly hypothermic: See leaflet 4.6 REARING ORPHANED HOGLETS.
- Injured hedgehogs
- Sick hedgehogs: mostly active during the day, walking around or lying down, apathetic, thin, with sunken eyes. If you disturb a hedgehog while gardening it will wander around in search of a new shelter – also during the day. Such an

- animal is naturally not to be considered as being in need of care.
- Young hedgehogs that weigh less than 500 grams at the beginning of November: In leaflet 4.7 Young hedgehogs needing help in the Autumn you can find information explaining the types of care these normally underweight and often sick young animals need, and also if and when they can be fed outside or whether they must be taken into the house.



 Hedgehogs active after the onset of winter, i.e. in permafrost and/or snow, mostly walking around during the day.

In order to help such animals properly, a love of animals and old school knowledge are not enough! You must be informed by, for example, hedgehog rescue centres or vets who have experience with hedgehogs about the regulations in "TierSchG §2 (3)".

## 4 First aid

When a suspected hedgehog in need has been found, you should:

 Write down the date, time, weight and place found: this is the beginning of the care protocol in which the weight development, veterinary visits, medication administered, etc. are documented.

- Determine the sex of the hedgehog: Male: a knob of skin = Penis opening, in the middle of the back half of the body. Female: Vagina immediately before the anus. Determining the sex is especially important in the summer months when mothers are suckling.
- Check hedgehogs all over for injuries: also inspect the stomach and legs.
- Warm up hypothermic hedgehogs: if they are hypothermic, the animal's belly side feels much colder than your hand. Wrap a terry towel around a hot-water bottle filled with lukewarm water and put it in a suitably high walled box, place the hedgehog (or hedgehog litter) on top and cover it with another towel. Heating pads and red-light lamps can overheat!



- Remove external parasites: Fly eggs and maggots which are found in wounds as well as in all body cavities especially in the warm months should be carefully removed with tweezers. Fleas can be killed off with special spray (e.g. Jacutin Pedicul-Spray). Ticks (don't confuse them with the teats) can be pulled out of the skin with a jerky movement using tweezers. Do not use oil!
- Gather information as soon as possible by contacting a vet, hedgehog rescue centre or hedgehog advice centre!

- First meal: You can feed the hedgehog with tinned cat food, but it is better to give it scrambled eggs. The eggs can be thickened up in the pan with minimal fat and no spices, and then mashed with a fork. Put some drinking water (never milk) on a tray.
- Prepare a hedgehog enclosure with sleeping house; see Section. 5.
- Prepare faecal analysis: Collect two days worth of droppings in a plastic container that can be closed tightly.
   Faecal analysis provides information about the type and extent of internal parasites and bacterial infections. The addresses of testing laboratories can be obtained from the Veterinary Office and at the vet.
- Release hedgehogs that are healthy again immediately, and if possible at the place where they were found!



Igel sind weder Haustiere noch Kinderspielzeug!

## 5 Housing

Hedgehogs are lone wolves. Every hedgehog needs its own enclosure. Generally only very young hedgehogs from the same litter – and up to a weight of about 350 g – can be kept together in without any problems.

A hedgehog enclosure should have a floor area of at least 2m<sup>2</sup>. It also needs to be escape-proof. The side walls must be 45 to 50 cm high. It is best to make the enclosure from easy to clean, coated chipboard or hardboard. For heat insulation the enclosure should have a floor. This should be covered with several layers of newspaper that is changed daily (!). Sawdust, small animal litter (or cat litter),

peat, etc. are not suitable. Such materials stick to the paws, get in the hedgehog's nose and eyes, and are carried into the food and possibly eaten with it.



For a sleeping house, choose a cardboard box with an edge length of approx. 30 cm that can be closed at the top. Make an opening on the side of approx. 10 x 10 cm.

The sleeping house is filled with plenty of torn up and crumpled newspaper or kitchen roll paper (no hay/straw, no rags, no wood shavings), which you change when it gets dirty. Paper has the advantage over other so-called natural materials that it is dry and parasite free. It also makes it easy to see unusual excrement and urine. And this means that diseases can be detected and treated more quickly.

Sick hedgehogs or hedgehogs needing feeding are kept in a warm place at temperatures of 18–20° C. Light and ventilation are always necessary. Very busy rooms (kitchen, children's rooms) are not suitable for noise-sensitive hedgehogs.

#### 6 Nutrition

For the hedgehog to thrive, in addition to the medical treatment that is usually

necessary, a balanced diet appropriate to the species is essential.

#### 6.1 What not to feed hedgehogs

Hedgehogs are insectivores. In captivity, however, you should never feed them snails or earthworms as these can transmit internal parasites. Milk and dairy products are also taboo, because hedgehogs cannot digest the lactose. Fruit and vegetables are not broken down in the short intestine of these insectivores and can therefore not provide the hedgehog with any nutrition.

#### 6.2 The right nutrition

Hedgehogs are fed once a day in the evening. Only very weak hedgehogs are fed with several small portions throughout the day. Food and water should be provided in flat, tip-proof glass or porcelain bowls. Any leftover food must be thrown away and the bowls rinsed hot every day.

Just like the nutrition hedgehogs find in nature, the food provided should be high in protein and fat, but low in carbohydrates. A hedgehog's energy requirements depend on its body weight. If it is in poor health, the amount of food should be rationed accordingly or increased gradually. High quality tinned cat food (at least 60 % meat) is suitable as a basic food. The diet can be supplemented with various types of meat (cooked, chopped or minced), eggs (scrambled without spices or boiled) or cooked fish. The mixing ratio should be 50:50. A mix like this is much richer in calories than wet cat food alone, and the hedgehog's digestive system is not so heavily burdened as a result of the smaller portions: 100 g of canned cat food corresponds to 75–80 kcal, 100 g minced beef to approx. 225 kcal. As an example: 50 g cat food + 50 g minced beef (cooked) contains approx. 150 kcal (one portion for a 500 g hedgehog).

A popular choice, because it is convenient, is a diet made up solely of wet cat food. This almost always causes soft, smelly excrement. Admittedly adding dietary fibre can reduce the unpleasant effects of a one-sided diet like this. Both vegetable raw fibre (e.g. wheat bran, oat flakes) and animal substances (cartilage, connective tissue, chitin) are suitable for this purpose. If intestinal motor function is impaired - as a result of e.g. intestinal inflammations or food intolerances - an increased amount of dietary fibres in the food can be helpful. However, in the long term, a varied diet with a mix of freshly prepared food is much healthier. Feeding with commercial dry food mixtures is not recommended.

Hedgehogs do not need to be fed low-fat food, it is however very important that they not be fattened up: young hedgehogs should never weigh more than 750 g during the time they are in care and up until the time they are released into the wild. The average weight of an adult hedgehog is about 1000g.

### 6.3 Food quantity and weight gain

The amount of food given depends on the age, weight and the extent of weight-



gain needed. As a guide, a 500 g hedgehog needs about 150 kcal per day. 5

The deciding factor, however, when determining the amount of food to be given is weight gain. Initially you must weigh the hedgehog every two days, later weekly! At the beginning of the care period the hedgehog should gain 15–20 g daily, later 10–15 g; so basically a weekly weight gain of 70–100 g.

## 6.4 Dental care and keeping hedgehogs active

Once or twice a week give boiled and skinned chicken giblets with the bones, boiled beef soup bones or spare ribs fro them to gnaw on. Dried chicken necks, which are also available in feed shops or pet shops, are also suitable for both dental care and to keep them active.

#### 6.5 Vitamins and minerals

If the hedgehog is given a varied diet supplementary vitamins and minerals are unnecessary and can even be harmful. If the hedgehog is sick or weakened such supplements should only be administered when prescribed by a vet.

#### 6.6 Beverages

Only give hedgehogs water to drink never milk! In the beginning weak animals can be given unsweetened fennel tea or chamomile tea.

## 7 Diseases

Many hedgehogs are acutely ill and require medical care or veterinary treatment.

#### 7.1 Parasite infestation

Hedgehogs needing care almost always suffer from an excess of external and in-

ternal parasites. Fleas, ticks, fly eggs and maggots should be removed as a part of the first aid procedure.



The most common signs are a refusal to eat, coughing or wheezing, which indicate a massive internal parasite infestation. Weakness and thinness are visible consequences. Internal parasites include lungworms, intestinal hair worms and intestinal sucking worms, coccidia etc. A low to medium level of internal parasite infestation is however normal for animals in the wild and usually does not require treatment. A massive infestation however, especially when combined with a lack of food or weakness through infant rearing, can be life threatening.

## 7.2 Bacterial infections, fungal infections and other diseases

Aside from parasitoses, hedgehogs can suffer from many other diseases, e.g. bacterial infections and fungal diseases, some of which are zoonoses, i.e. infectious for both humans and animals.

Some typical symptoms are: green, slimy, smelly, blood-soaked droppings, diarrhoea, bleeding from the mouth and intestines, balance problems, paralysis, apathy, scabby coatings the skin, considerable spine loss, cramps (not to be confused with the sudden jerking or rolling up that hedgehogs do!), pale mucous

membranes, swollen legs. If any of these signs of illness are observed, a vet familiar with hedgehogs should be consulted immediately.



Neither warmth nor food can cure a serious illness!

#### 7.3 Injuries

They occur mainly in the summer months. Injuries from garden tools and dogs are common. Often they are already infected, i.e. purulent, and requiring immediate medical treatment..



#### 7.4 Hygiene

The basic rules of hygiene must be observed when handling hedgehogs. Wash your hands thoroughly after each contact. Depending on the illness disposable gloves or even spine-proof gloves must be worn.

## 8 Release into the wild

In accordance with the Federal Nature Conservation Act: A hedgehog which has been taken into care must be released back into the wild as soon as it is able to survive there on its own, see also Leaflet 4.9 Release of recovered hedgehogs. If the location where the hedgehog was found is known, it is imperative that

the animal be taken there: the only exception being if there is a clear danger at that location, e.g. a building site or a road junction. Hedgehogs have a very good memory for places. They know their habitat well, and can settle in there much faster than in an unknown area.



If in some cases you have to look for a new habitat, it should be one that provides both cover and food. Especially suited habitats are the outskirts of settlements with natural gardens and older bushes and trees, or the shrubby edges of forests or small-scale agriculture farms with outbuildings. The best time to release them is dusk. If possible, place the hedgehog in a temporary hay nest (not as conspicuous as straw) and place some food in close proximity.

## 9 Hibernation

Many hedgehogs find themselves needing care during the autumn months. After their recovery some reach the weight sufficient for hibernation (young hedgehogs 600-700 g, adult hedgehogs upwards of 1000 g) just shortly before the onset of winter or even after it has begun, meaning that they cannot be released into the wild.

#### 9.1 The right winter quarters

If due to the advanced time of year reintroduction into the wild no longer makes sense, the fosterling must be given the opportunity to hibernate whilst in human care.

For this purpose, the enclosure should be placed in a very cold room, or even better on the balcony, on the terrace, in a garden house, alternatively an outdoor enclosure can be built to provide a sheltered place in the garden. Cellar rooms are usually too warm. For hibernation, the ambient temperature should be as close as possible to the outside temperature or just slightly higher. At higher temperatures the hedgehog will fall into an energy-sapping "twilight sleep" in which he can neither eat nor hibernate and therefore will lose weight.

The hedgehog's winter quarters must be escape-proof. If the location chosen is protected from the weather it is sufficient to place the previous sleeping house in a larger cardboard box, otherwise a wooden house is recommended. Insulate between the two houses (also above and below) with plenty of crumpled newspaper. Of course, the upper house also has to have an exit hole aligned in the same position.



After bringing the hedgehog to its winter quarters, continue feeding it normal-

ly until it no longer takes the food. If it does not want to fall asleep despite the low temperatures, don't feed it for three days. A lack of food is an important trigger for hibernation! If the hedgehog has retreated to hibernate, you should stick a sheet of toilet paper in front of the hole. In this way you can see at a glance without reaching into the hibernation house – whether the animal has woken up and left its house. Just in case, put out some dry hedgehog food as emergency rations. Fresh water must also always be available. If the hedgehog interrupts its hibernation for a few days, give it some normal protein-rich food.

If you are worried because you have not seen your hedgehog for a long time, you can look inside the sleeping house and touch him carefully. A hibernating hedgehog is rolled up into a spiny ball. If you touch him, the spines will straighten up in slow motion. If the hedgehog is dead you can usually see his stomach, paws and head.

During hibernation – depending on duration and climate – a hedgehog will

lose between a fifth and a third of its body weight,

#### 9.2 After hibernation

Once the hedgehog has awakened from hibernation – usually from March to mid-April – it must be fed again. Within two or three weeks he will reach or exceed the weight he had before hibernation (release weight of young hedgehogs: approx. 650–700 g). If the weight when found was under 250 g, a temporary stay in an outdoor enclosure will make it easier for the hedgehog to integrate into nature. It can train his muscles and practise catching prey whilst in the enclosure.



#### **Imprint**

© 1994 Pro Igel e.V., Munster/Westf. 13., new edition 2016, revised reprint 03|2022 1st English edition, reprint 03|2020 ISBN 978-3-940377-15-9 (complete set of leaflets)

Photo credits: A. u. F. Calov, Cottbus: 2; K. Dudziak, Wuppertal: 7; K. Effenberger, Lugau: 4; B. Hofmann, Donauwörth: 5; M. Neumeier, Lindau/B.: 6 right; Pohmer, (location unknown): 6 left; Reinhard-Tierfoto N. Reinhard, Heiligkreuzsteinach: 3; Th. Salein, Braunschweig: 8 right; G. Zinnecker, Wendelsheim: 8 left

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