

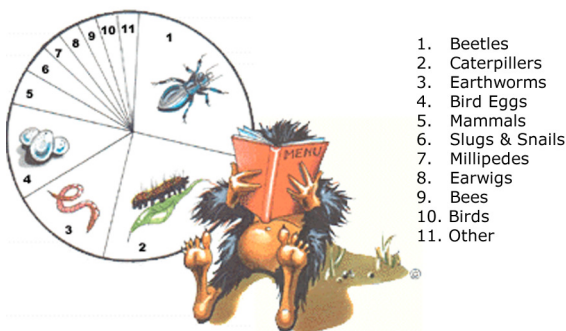
# Hedgehog Basics

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## Diet<sup>1</sup>

### Introducing Fiber to Your Hedgehog's Diet

Hedgehogs are small insect-eating mammals, native to England, Europe, Africa and Asia. The ones available now as pets in North America are the African hedgehog (*Atelerix spp.*) from Central Africa. Although hedgehogs are generally classed as insectivores, their dietary habits are more omnivorous with the occasional ingestion of plant material.



In the wild, hedgehogs will forage long distances (miles) to consume insects. Generally they seem to have a preference for soft-bodied insects but will eat beetles, ants, termites or grasshoppers whenever this prey is easier catch. But no matter what they catch, the hedgehog often consumes the entire insect including the exoskeleton. And this exoskeleton is a good source of fiber known as chitin.

Unlike their wild cousins, our pet hedgies don't have as much opportunity to forage for their food. This causes a propensity towards obesity. Captive hedgehogs are inclined to become "couch potatoes" because they are offered high-calorie, high fat diets and little exercise. In other words, they have nothing to do but eat! If allowed, hedgehogs can eat up to 33% of their body weight (which would be comparable to a 150 lb human eating 50 lbs of food). Hedgehog obesity can lead to problems such as fatty liver disease and heart disease.

Research done by the Nutrition Department of the Wildlife Conservation Society (Bronx Zoo) has found that adding insect fiber (chitin) to your hedgehog's diet can improve their health. Insects contain up to 15% neutral detergent fiber (NDF), which is comparable to the content of Bran Flakes or Fruit and Fiber cereals for people. And similar to humans, the hedgehog does benefit from good quality fiber in the diet. However, unlike human metabolism, the insect fiber (chitin) actually increases the hedgehogs' ability to digest fat, which in turn helps them utilize the fat-soluble vitamins.

### What Should You Feed?

The right quantity of food along with enough exercise is the key to keeping your hedgehog at an optimal weight. Hedgies require about 70 to 100 calories a day which isn't all that much. Roughly, depending on the specific calorie content of the food offered, this would break down to about 1 to 3 Tablespoons per day. But remember, if more is offered, hedgehogs will gorge, consuming many more calories than they need.

There are hedgehog foods available as well as dry cat diets that make good choices. You can choose a high quality hedgehog pelleted diet supplemented with vitamins and minerals or if your hedgehog finds that unpalatable, you may want to try a dry cat food.

Always select a cat food that lists meat as a higher quantity ingredient rather than plant products. And remember that either of the above mentioned dry diets will provide good abrasion when chewing to keep your hedgie's teeth healthy.

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Whatever commercial food you choose can be supplemented with small amounts of chopped fruits and vegetables three or four times a week as a healthy treat. Not only will this provide some variety to your hedgies' meals, it may actually be needed since the exact dietary requirements of captive hedgehogs are still unknown.

As mentioned earlier, the addition of hard-shelled live insects such as crickets and mealworms or dry insect food to provide chitin fiber should also be a part of your hedgehog's rations. Live insects can be fed three to four times per week. Each serving should consist of one cricket or large mealworm or two to three medium sized mealworms.

If you elect not to feed live, dry insect food can make up 15 to 25% of your hedgehog's daily meal. To avoid overfeeding, live food and dry insect food should not be given together on the same day. Your hedgie will enjoy it, but so will his waistline!

### **Insect Food**

Often purchased crickets and mealworms have not been fed. This means that they are "empty" shells rather than nutritious food. These insects are likely to be imbalanced in the calcium to phosphorus ratio, which can cause metabolic disorders.

However, there are ways to supplement your "bugs". Pre-made insect supplements are available, generally at pet stores which deal in reptiles. Also some crickets and mealworms come on nutritious bedding. You can check with your supplier as to the type of bedding supplied. If the bedding is inadequate, you can purchase poultry layer mash to use as insect bedding or just make your own.

### *Insect Supplementation Recipe*

*(can be used as food or bedding for insects)*

- 80 grams (1/4 cup) ground dog food or poultry mash
- 20 grams (4 tsp) Calcium Carbonate supplement
- Store in a sealed container in the refrigerator

If you don't want to bother with live insects, dry insect food is available. It is more expensive but there is less handling involved.

### **Conclusion**

Always provide clean water, available either in a sipper bottle or heavy ceramic dish. If you aren't sure that your hedgehog knows how to drink out of a bottle, leave a dish as well. Be sure to change out the water on at least a daily basis

By offering clean water along with a balanced diet (including fiber) and the right amount of exercise, you will be helping your hedgehog stay healthy and happy.

## Exercise and Enrichment<sup>2-4</sup>

### Hedgehog Activities

Many captive hedgehogs suffer from obesity as they age. This is due to inappropriate feeding practices but can also be attributed to low levels of activity. In the wild, a hedgehog is constantly on the move, tracking down and feasting on bugs, slugs and worms. Since that's unlikely to happen once he's arrived at your home, you need to give your hedgehog simple toys to play with and allow him regular exercise outside of his cage.

There aren't many hedgehog specific toys at your local pet store. However with a little creativity and using materials that you have on hand, you can stimulate your hedgehog's interest inexpensively.



### Foraging For Fun

Since hedgehogs are insectivores, you can use live or frozen insects scattered around their cage to encourage hunting and capture behaviors. A cardboard tube pinched shut at the ends or a hollow dog toy containing insects can be suspended at hedgehog nose level or even left on the ground. Your hedgehog will enjoy the challenge of locating and then digging out a tasty treat or two.



A variation on this is placing freeze dried insects inside an ice cube tray then filling it with unflavored gelatin and refrigerating. After your "buggy cubes" have set, introduce your hedgehog to them, a cube at a time (one cube per hedgehog per day). These cubes can initially be scattered. Once your hedgehog learns that they contain a treat, you may want to try hiding them or even suspending them.

### Tongue Tantalizers

Another interesting way to occupy your hedgehog is by using simple plastic kitchenware. Take a small durable plastic container with a sealable top, such as Rubbermaid or Tupperware and drill holes into the top and/or sides. The holes should be large enough for your hedgehog to stick its tongue through (approximately 1/2") and they should be smoothed down to avoid any jagged edges.

Remove the lid and smear a small amount of low fat peanut butter or yogurt on the walls of the container near the holes. Now reseal and place in your hedgehog's cage. This often turns into a fairly time-consuming activity as your hedgehog uses its long tongue to obtain the treats.

### Frozen Treats

These can provide great enrichment for your hedgehog during the hot days of summer. Offer an ice cube made from all-natural fruit juice diluted in half with water. If your hedgehog is on a low calorie diet, try adding small bits of veggies, fruits or edible leaves to just plain water ice cubes. Even small chunks of frozen fruit such as melon, ripe bananas or grapes are generally well received. You can also try hiding several treats underneath a small pile of plain ice cubes or chips.

### Running Wheels

A wheel is a nice way of providing your hedgehog some much needed exercise inside his cage. Depending on the size of your pet, the wheel can be anywhere from 9" to 14". There are ones designed specifically for hedgehogs or you can purchase a standard rat wheel. Be sure to cover up any spaces between the wires to prevent your hedgehog from putting his leg through while running. Line the wheel with strips of vinyl, duct tape or plastic needlepoint mesh to keep it safe.

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### Exercise Outside of the Cage

You can also allow your hedgehog to explore outside of his cage. Carefully supervised exercise sessions provide a way to bond with your hedgehog. Select an area that's easy to clean up after and that it can be readily "hedgehog-proofed". Your hedgehog's roaming space should have all electrical wires lifted off the floor. Floorboards and walls must be checked for escape holes and any spaces behind heavy furniture should be blocked off. Finish the job by closing up all windows and doors.



Another option would be to use an empty hallway. Block off both ends, add some of your hedgehog's favorite toys and let him explore there to his hearts content.

### Variety is the Spice

Just as you enjoy experiencing different things in life so does your hedgehog. Be creative. Don't use the same treats or toys every day. Rotate them on at least a weekly if not daily basis. But do be consistent with the time that you present your hedgehog's treats so that they will recognize any new items offered as treats.

Also any edible perishable treats shouldn't be left in your hedgehog's cage for more than an hour. Always wash your hands after handling leftover treats or any remaining food items.

Providing exercise and enrichment to your hedgehog is a win-win situation in animal care. The added mental and physical stimulation along with a healthy diet will help your hedgehog live a healthier and happier life.

*Graphics from Prickly Ball Farm Hedgehog Hospital and British Wildlife Garden Center*

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