European Rabbit  
(*Oryctolagus cuniculus*)

**Natural history**  
Originally from the Iberian peninsula, the rabbit was introduced to the Romans over 2000 years ago. Rabbits were fully domesticated by the 17th century, and they became popular as children’s pets during the Victorian era.

**Taxonomy**  
Class Mammalia  
Order Lagomorpha  
Family Leporidae  
European rabbits belong to the same family as hares and cottontail rabbits.

**Breeds**  
There are at least 42 pet rabbit breeds. Popular breeds include the Dutch, Netherland Dwarf (adults weigh 1 kg or less), and Rex rabbits.

**Diet**  
**Hay** is essential to a rabbit’s health. Rabbits should also be fed a small amount of high fiber pellets (minimum 18% fiber), and a variety of **vegetables** including leafy green like cilantro and parsley as well as root vegetables.

<table>
<thead>
<tr>
<th>Pellets</th>
<th>7 wks to 7 mos</th>
<th>7 mos to 1 year</th>
<th>1 to 5 years</th>
<th>&gt; 6 years</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unlimited</td>
<td>Reduce to 1/2 cup per 6 lbs</td>
<td>1/4-1/2 cup per 6 lbs</td>
<td>Unlimited grass hay, oat hay, straw</td>
<td></td>
</tr>
<tr>
<td>Hay</td>
<td>Unlimited</td>
<td>Reduce alfalfa</td>
<td></td>
<td>Frail, older rabbits may need unrestricted pellets</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Alfalfa may be offered to thin rabbits if calcium levels are normal</td>
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</tbody>
</table>

**Vegetables**  
Introduce one at a time at 12 weeks, < 1/2 oz.

**Fruit**  
No more
Rabbit Husbandry

Rabbits are crepuscular, but they can adjust their schedule somewhat to that of their human family's schedule. Rabbits are also very social and territorial animals.

House rabbits on solid flooring with recycled paper product or aspen shavings. If wire flooring must be used, cover at least a portion with carpet remnants, grass mats, synthetic sheepskin, or towels (monitor for chewing).

Rabbits may be litter pan trained.

Bunny-proof the home (or a room) by preventing access to electrical cords and other dangerous items while providing safe, chewable items and toys. Rabbits should also be provided with visual security such as a hide box.

Normal physiologic values

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Value Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>Temperature</td>
<td>38.0-39.6°C 101.3-103°F</td>
</tr>
<tr>
<td>Pulse</td>
<td>180-325 bpm</td>
</tr>
<tr>
<td>Respiration</td>
<td>30-60 bpm</td>
</tr>
<tr>
<td>Mean life span</td>
<td>6-7 years</td>
</tr>
<tr>
<td>Sexual maturity</td>
<td>4-6 months</td>
</tr>
<tr>
<td>Gestation</td>
<td>30-33 days</td>
</tr>
<tr>
<td>Birth weight</td>
<td>40-50 g</td>
</tr>
<tr>
<td>Target temp</td>
<td>60-70°F 15.6-21.0°C</td>
</tr>
<tr>
<td>Daily h20 intake</td>
<td>120 ml/kg/day</td>
</tr>
</tbody>
</table>

Anatomy/physiology

- Calcium metabolism is unique in rabbits. All ingested calcium is excreted by the kidneys. Therefore urine varies with diet, and may appear thick and creamy white in rabbits on a high-calcium diet.
- Rabbit neutrophils are called heterophils.
- The thymus lies ventral to the heart, and extends up into the thoracic inlet. The large thymus persists, even into adulthood.
- Rabbits are obligate nasal breathers.
- Dental formula: Incisors 2/1  Canines 0/0  Premolars 3/2  Molars 3/3
  The peg teeth are the second pair of maxillary incisors positioned behind the first pair. All teeth continuously erupt from the open root.
- Rabbits produce cecotropes ("night feces"), which are regularly ingested. Cecotrophy provides vitamins B and K, amino acids, and fiber.
- Indigestible fiber (cellulose, lignin) drives gastrointestinal motility.
- Female rabbits are induced ovulators. The uterus consists of two
Rabbit horns with no uterine body that communicates with two cervixes. The oviducts are very long and coiled.

- Does nurse their young once or twice daily for 3-5 minutes at a time (the milk is extremely rich).
- The rabbit skeleton is relatively thin and lightweight, making up 6-8% of body weight.

Preventive medicine

1. Castration is recommended to reduce the risk of urine spraying and improve pet quality.
2. Ovariohysterectomy is recommended to prevent uterine adenocarcinoma and improve pet quality. Spaying before 6 months of age is recommended to avoid excess fat.

Important medical conditions

- Crystalluria, urolithiasis
- Encephalitozoonosis
- Gastrointestinal stasis
- Lumbosacral fracture, luxation
- Pasteurellosis
- Uterine adenocarcinoma

Venipuncture

Collect larger volumes from the jugular vein or lateral saphenous vein.

Smaller samples may be taken from the cephalic vein.

Rabbits possess a relatively lightweight, delicate skeleton paired with extremely strong, well-developed back and leg muscles. With improper restraint, rabbits that struggle or kick run the risk of a broken back or leg. Always restrain rabbits on a non-slip surface such as a large, heavy towel or pad.

Restraint

Antibiotics to Avoid

Avoid antimicrobials that attack only gram-positive bacteria such as beta-lactams.

P.L.A.C.E.:

- Penicillin
- Lincosamide, lincomycin
- Amoxicillin, ampicillin
- Cephalosporins, clindamycin
- Erythromycin
Rabbit

References and further reading


Mayer J. Natural history of the rabbit (Oryctolagus cuniculus). Exotic Mammal Medicine and Surgery. p.6


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