Hamster

Natural history

Hamsters are short, stocky rodents with lots of loose skin. The pet/laboratory hamster known as the Syrian hamster was bred from a small group of hamsters dug out a burrow near Syria in 1930 as well as 11 more collected in 1971 and 3 in 1978.

Taxonomy

Class Mammalia
Order Rodentia
Suborder Myomorpha
Family Cricetidae

Hamsters belong to the same taxonomic family as gerbils and mice.

Species/breeds

The Syrian hamster is also known as the Golden hamster because the colony were reddish-gold, however many varieties exist today. Dwarf hamsters may also be seen in practice.

Diet

Hamsters can do very well on a commercial rodent chow (24% protein) supplemented with vegetables and a small amount of fruit. Hamsters fed seed-based diets are very sensitive to vitamin E deficiency.

Housing

Hamsters are nocturnal. As desert animals, the Syrian hamster instinctively burrows and hoards food. Adult Syrian and Chinese hamsters are fiercely territorial and should be housed singly.

Winter white Russian and Russian Campbell hamsters are social, however it is still ill advised to introduce new individuals to a group. Hamsters can enter torpor if temperatures fall below 41°F (5°C), particularly when exposed to short days.

Normal physiologic values of Syrian hamsters

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Temperature</td>
<td>97-102.3°F</td>
</tr>
<tr>
<td></td>
<td>36.1-38.9°C</td>
</tr>
<tr>
<td>Pulse</td>
<td>250-500 bpm</td>
</tr>
<tr>
<td>Respiration</td>
<td>34-114</td>
</tr>
<tr>
<td>Adult male</td>
<td>85-110</td>
</tr>
<tr>
<td>Adult female</td>
<td>95-130 g</td>
</tr>
</tbody>
</table>
Hamster

<table>
<thead>
<tr>
<th></th>
<th>Mean life span</th>
<th>Sexual maturity</th>
<th>Target environmental temperature</th>
<th>Relative humidity</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2-3y maximum</td>
<td>6-8 weeks</td>
<td>50-68°F 20-24°C</td>
<td>40-60%</td>
</tr>
</tbody>
</table>

- Target environmental temperature: 50-68°F 20-24°C
- Relative humidity: 40-60%

- For optimal breeding, males should be 10-12 weeks old and females 8-10 weeks

- Russian hamsters live 1.5-2 years.

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### Anatomy/Physiology

- **GI**
  - 1. Incisors become yellow with age due to iron pigments.

- **Physiology**
  - 2. Distensible cheek pouches extend back to the shoulders

- **Facts**
  - 3. Non-glandular forestomach and a glandular stomach

- **Derm**
  - Sebaceous flank glands are present in both genders, but are better developed with darker pigmentation in males.

- **Renal**
  - Syrian hamster urine is normally creamy and turbid.

- **Reproductive**
  - Females pass a thick, creamy white post-ovulatory discharge.
  - Each uterine horn opens into a separate cervix.

- **Physiology**
  - Syrian hamsters will hibernate if kept in a cool area with limited food.
  - Syrian hamsters possess renal and respiratory water conservation mechanisms, however unlike some desert rodents they cannot survive on metabolic water

### Restraint

- Syrian hamsters tend to bite, especially when awakened from a deep sleep or put through excessive or prolonged restraint.
- To pick up, cup hamsters in both hands. To restrains, grasp the loose skin over the thorax.
- Roborovskii hamsters are gentle and docile, but very fast.

### Important Medical Conditions

- Adrenocortical hyperplasia and adenomas
- Cheek pouch impaction
- Ocular proptosis
- Proliferative ileitis or "wet tail"

### Venipuncture

- Venipuncture is challenging in the hamster. The jugular and saphenous veins may be tried. The Syrian hamster has a rapid coagulation time so it may help
to heparinize needles.

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References and further reading


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