Guinea Pig  
(Cavia porcellus)

Natural History
The guinea pig is a native of Peru, Brazil, and Argentina that was domesticated by the Inca Indians. Guinea pigs are also known as “cavies”, a term derived from the South American vernacular. Male guinea pigs are called “boars” and females are “sows”.

Taxonomy
Class Mammalia  
Order Rodentia  
Suborder Hystricomorpha  
Family Caviidae

Breeds
Eleven breeds are recognized with the three most popular being:  
Peruvian: long hair  
American or English: short hair  
Abyssinian: whorled or rough hair

Diet
Guinea pigs require exogenous vitamin C. Commercial guinea pig pellets contain vitamin C. Also supplement vitamin C with small amounts of fruit and vegetables. Feed small amounts of pellets (1/4 cup per day) and free-choice grass hay.

Husbandry
Guinea pigs are crepuscular.  
Caging should be well ventilated with solid flooring. Be sure to provide visual security in the form of a hide box.

Clean and change water bottles frequently.  
Clinically normal rabbits harbor a variety of bacterial organisms that can cause death and disease in guinea pigs. Never house guinea pigs and other rodents near rabbits.

Normal Physiologic Values
<table>
<thead>
<tr>
<th>Parameter</th>
<th>Adult Male</th>
<th>Adult Female</th>
</tr>
</thead>
<tbody>
<tr>
<td>Temperature</td>
<td>99-101.5 F</td>
<td>37.2-38.6 C</td>
</tr>
<tr>
<td>Pulse</td>
<td>230-380</td>
<td></td>
</tr>
<tr>
<td>Respiration</td>
<td>40-100</td>
<td></td>
</tr>
<tr>
<td>Body weight</td>
<td>900-1200 g</td>
<td>700-900 g</td>
</tr>
<tr>
<td>Mean life span</td>
<td>5-7 y</td>
<td></td>
</tr>
<tr>
<td>Sexual maturity</td>
<td>2-4 months</td>
<td>2 months (F) 3 months (M)</td>
</tr>
</tbody>
</table>
Males will exhibit mounting behavior as early as 1 month of age. Females can become pregnant as early as 4-5 weeks of age.

<table>
<thead>
<tr>
<th>Trait</th>
<th>Value</th>
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<tbody>
<tr>
<td>Gestation</td>
<td>59-72 days (average 68 days)</td>
</tr>
<tr>
<td>Litter size</td>
<td>1 to 13 (2 to 4 is the usual)</td>
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<tr>
<td>Birth weight</td>
<td>45-115 g (inversely related to litter size) 70-100 g</td>
</tr>
<tr>
<td>Weaning age</td>
<td>21 days (180 g)</td>
</tr>
<tr>
<td>Target environmental temperature</td>
<td>65-79 F 18-26 C</td>
</tr>
</tbody>
</table>

**Anatomy/ Physiology**

Females must be bred before 6-9 months of age. Immature males and females have a fibrocartilaginous pelvic symphysis fusion, which becomes ossified over 1 year of age. The symphysis remains cartilaginous in primiparous sows so the pelvic canal can dilate allowing passage of the large fetus.

**Musculoskeletal:**

Males have lateral scrotal swellings on each side of the anus. Accessory glands include a prostate, coagulating gland, bulbourethral gland, and seminal vesicles. Seminal vesicles are large, yellow-white tubular structures, which lie dorsal to the bladder. The seminal vesicles may be confused with the uterus.

**Urogenital:**

Incisors 1/1 Canine 0/0 PM 1/1 Molar 3/3

**Dental formula**

All teeth are open-rooted. The lower incisors are normally 3X longer than the upper incisors.

**Respiratory:**

All rodents are obligate nasal breathers.

**Important Medical Conditions**

- Bacterial pneumonia
- Dystocia
- Fur mites
- Hypovitaminosis C or scurvy (can reportedly occur w/in 4d of dietary decrease)
- Malocclusion
- Pododermatitis

**Restraint**

Most pet guinea pigs are calm, gentle animals that rarely bite. To pick up a guinea pig, cup one hand gently under the thorax and use the other hand to support the hind end.
Venipuncture

Large volumes: Jugular vein, cranial vena cava
Small volumes: Cephalic vein, lateral saphenous vein

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

References


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