

Taking good care of Göttingen Minipigs®

Important things to remember when receiving Göttingen Minipigs:

- Talk quietly and calmly to the minipigs and move slowly around them.
- Sort the minipigs according to their pen of origin (the pen number is written in the upper right corner of the label on the front of the shipping crate).
- Give minipigs access to water ad libitum - Clean water troughs frequently - if you have an automated system, place the water nipples at the minipigs' shoulder height.
- After delivery, feed the minipigs 30% less than the recommended amount. Then gradually increase the ration to match the amount in the table on page 7. Keep feeding according to this chart but adjust when necessary to follow the normal growth curve.



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Housing and Feeding of Göttingen Minipigs®

Housing

Due to the high health standard of Göttingen Minipigs, they should not be housed together with other swine breeds. If other breeds are housed in the same facility, Göttingen Minipigs should be housed in a separate building. Staff working with other pigs should avoid contact with Göttingen Minipigs. If the same staff must take care of different pig breeds, they should start with the Göttingen Minipigs before working with pigs that have a lower health status. Afterwards, they shall shower before attending to the minipigs again. Maintain strict procedures to avoid contamination from tools, feed carts, clothes, footwear, etc.

Minipigs, like all pigs, are social animals and prefer to be socially housed. However, there is a hierarchy and therefore special attention must be given to compatibility.

When establishing new groups after arrival, sort the minipigs according to their original pen number, if possible. This will minimize stress when establishing their new hierarchy. The pen of origin is written on the label of the shipping crate. As pigs regulate their hierarchy by avoidance, give them a lot more space than usual until the group is settled after a few hours. Keep them under observation in this period.

Group housing is preferred. If your study requires individual housing, the minipigs should be able to have snout contact through pen dividers or at least visual and auditory contact.

Pens are preferable to cages; floors should be solid and of medium grit to provide secure foothold and to keep the minipig's hooves trimmed. When minipigs are housed on smooth floors, their hooves need to be trimmed regularly (every 60-90 days). Floor sloping should be from the back wall towards the front. Water nipples should be placed in the front so that excess water does not run back into the pen. Minipigs prefer to sleep in the back part of the pen. Make sure it is dry and warm and divisions are solid in that part. Divisions need to be at least 1.2m high as minipigs can climb or jump higher than expected.

It is important to have a sturdy construction as minipigs will explore and manipulate all that can be manipulated and destruction can be the result. Minipigs develop a dunging pattern and will defecate as far as possible from where they are fed. Frequently, the defecation area will be developed near the watering area or other wet areas.

Water ad libitum should be available. Water nipples must be at the minipig shoulder height, so they only need to lift their head a little to drink. The height of the nipples should be adjusted once or twice a month as the minipigs grow.

Good ventilation and climate control need to be provided.

Ventilation at 10-15 air changes/hour. Beware of draught.

Light:

12 hours daily, 100-200 lux

Humidity:

50-70%

Temperature:

Room temperature should be at least 20°C. The table below is meant as a guidance - the temperature depends on level of activity, number of minipigs in the pen and amount of bedding etc. Observe the minipigs: Clumping together in groups could be an indication of too low room temperature - and the other way around.

Age	Temperature °C
Less than one month	28
1-2 months	26
3-6 months	22-24
More than 6 months	20-22

Bedding

Minipigs should be provided with bedding or rooting material. At Ellegaard Göttingen Minipigs, they are used to chopped straw but any other material which satisfies their natural urge to root will be appreciated. Straw is the optimal bedding but wood shavings and sawdust, especially when enriched with hay, will be fine as well. Please note that bedding will be ingested, which in case of straw is acceptable but ingested wooden materials might lead to constipation.



Housing and Feeding of Göttingen Minipigs[®]

Feeding

Minipigs are by nature omnivorous. To keep the minipigs lean, restrictive feed is necessary as they are prone to obesity. The diet should be rich in fibers (13-14%) to avoid hunger and still provide satiety. A specially designed minipig diet is recommended and most suppliers of laboratory diet will be able to provide it.

Minipigs younger than 7 months should be fed twice daily – one ration per day works for minipigs older than 7 months but it is common practice to feed them twice. Minipigs can be fed on the floor. This encourages natural rooting behaviour.

To control the amount of diet eaten and encourage a healthy appetite, it is recommended to remove any uneaten pellets after one hour. This will encourage interest and hunger at the next diet which is essential for a normal feeding pattern.

The exact requirement of the diet is influenced by a variety of factors such as age, weight, gender, health status, activity, singular/group housing, room temperature etc.

Males have a higher maintenance requirement compared to females, and males react to the diet or environmental changes by losing weight faster than females.

The table below is a guideline to a feeding regime with minipig diet. It is important to weigh the animals regularly and judge them visually to ensure that the ration is correct. Adjust when necessary.

When feeding the minipigs in a group, make sure that all animals are eating. Spreading the diet over a large area will help to provide access for all minipigs. If one individual is excluded or if one is too dominant, feed them separately.

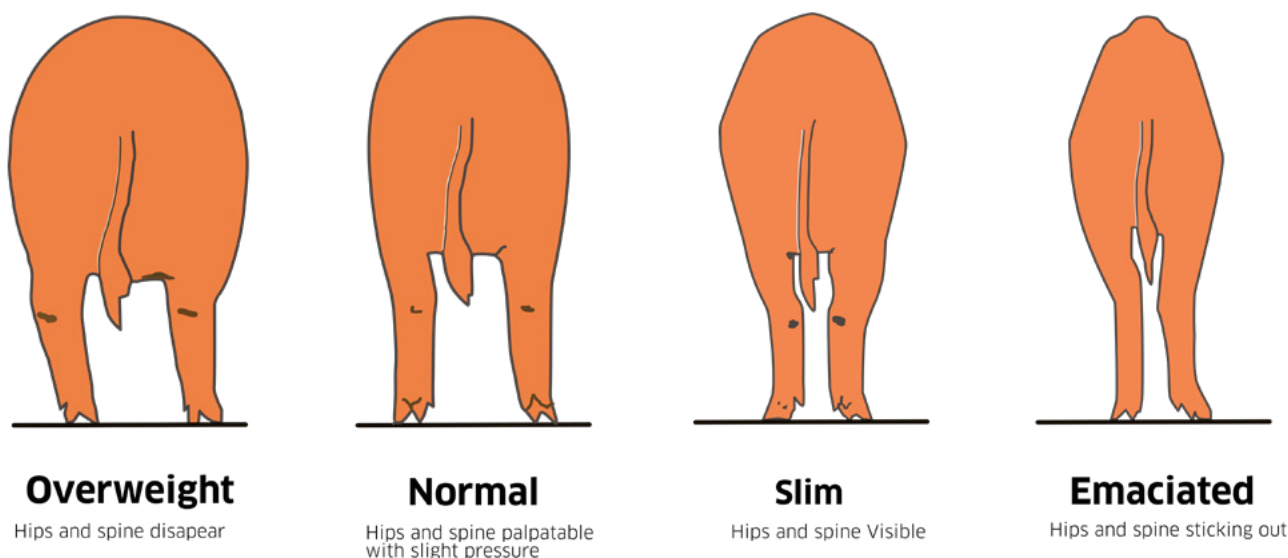


Image: Guide for visual judging

Age (months)	Weight (kg)	Males (g)	Females (g)
2-4	5-9	240	220
4-6	9-13	240-300	220-280
6-8	13-17	300-340	280-320
8-10	17-21	340-380	320-360
10-12	21-25	380-420	360-400
>12	25-35	420-600	400-600

Minipigs should gain roughly 0.5 kg per week from 1 month to 12 months of age. After that it should be a bit less. A maximum weight of approximately 35 - 40 kg is desirable at 24 months of age.

Göttingen Minipigs Growth Curve:

The vertical lines indicate the 95% reference range which presents the prediction interval between which the weight of 95% of the minipigs fall into. A small number of normal minipigs are beyond the lower/upper limit of this interval.

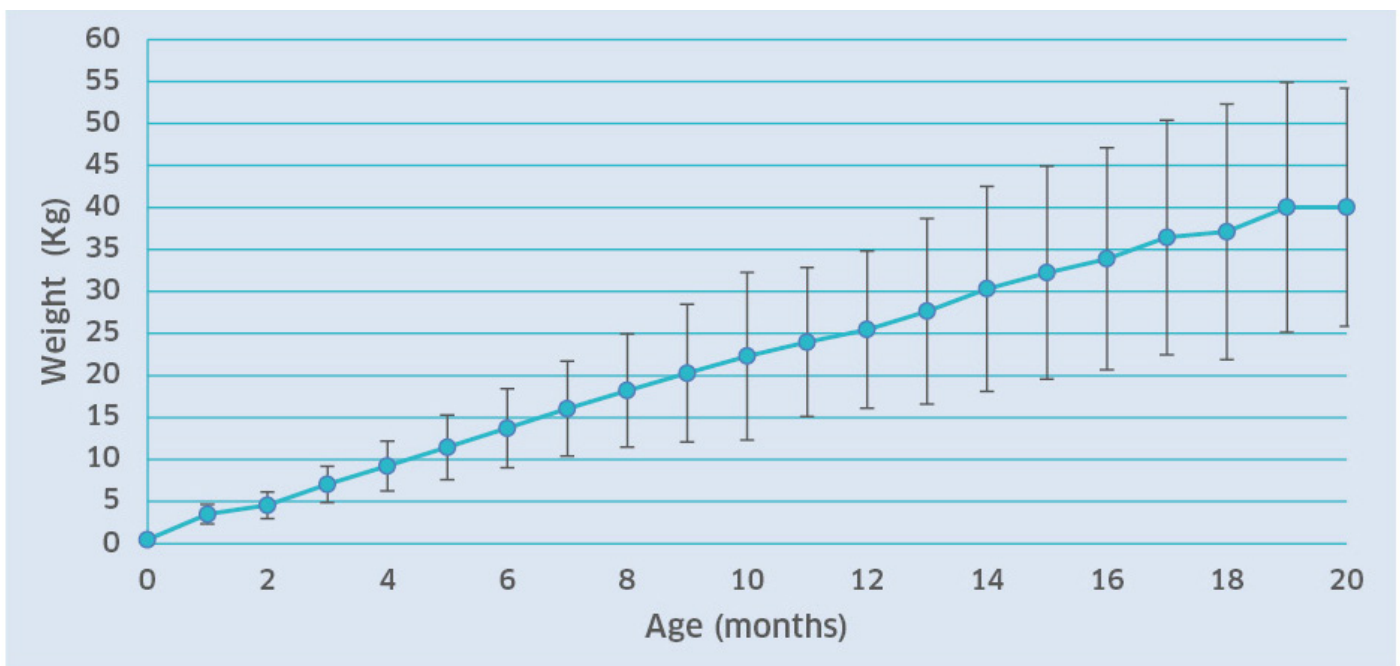


Image: Göttingen Minipigs Growth Curve

Housing and Feeding of Göttingen Minipigs[®]

Enrichment

As a minimum, you should provide rooting material and bite nipples or chains. As minipigs are very inquisitive, they will enjoy toys of all sorts, but in most cases the novelty wears off quickly and they are not used anymore. That means they need to be replaced often, and it is important to check if the toys are played with. Certain types of enrichment are more suited for certain minipig groups than others. Make sure the minipigs make use of the enrichment provided. If not, replace it.

Toys that will change shape or pieces that can be bitten off are interesting, but please check with your study protocol what is acceptable (wood pins, ice blocks, cardboard boxes, bite nipples etc.).

Toys that contain food or have an appealing scent are especially attractive (food balls, frozen fruit, ice blocks containing food, Bunny Blocks™, Porcichew[®] etc.).

Providing water to play with is popular, e.g. in a wading pool. Minipigs also enjoy a lukewarm shower.

Apart from adding different things to the pen, you could consider providing a separate play area/room where lots of different distractions from toys, balls to obstacles that can be climbed or used as tunnels are on offer. This could be indoors as well as outdoors.

Another option of enrichment is providing space to go exploring and maybe have snout contact other minipigs. This could be the corridor in the housing unit.

If you can offer distinctive microclimates, it would give the minipigs a choice of temperature control.

Personal interaction not only makes the minipigs easier to handle, but is also enrichment. Training minipigs with clicker or other means does not only get the minipigs to participate in the study process actively, it is also considered fantastic enrichment as the animals are mentally stimulated and let to succeed in a challenge.

Summary

1. Provide adequate housing and bedding.
2. Know the exact age of your Göttingen Minipigs (see the date of birth on the animal certificate).
3. Remember that males require more food than females – don't just give the average.
4. Feed according to age.
5. Weigh Göttingen Minipigs regularly and make sure their growth is correct according to the weight development in the table or the Growth Curve on page 7.
6. Adjust the daily food amount by +/- 20-40% compared to the above recommendations if the minipigs are outside the weight development in the above table.
7. Remove any uneaten diet within one hour after feeding.
8. For minipigs younger than 7 months, split the daily amount into two feedings. Minipigs older than 7 months can be fed in one daily diet, if desired.

For further information, please consult the technical guides:

[-Acclimatisation, Socialisation and Welfare of Göttingen Minipigs](#)

[-Handling and Dosing of Göttingen Minipigs](#)

Also visit our website for more information: www.minipigs.dk

Main suppliers of minipig diets in Europe:

Altromin International, Germany: altromin.com
altromin.com/products/standarddiets/minipig

SAFE DIETS, France: safe-lab.com
safe-lab.com/safe-wassets/docs/product-data-sheet

KLIBA-NAFAG, Switzerland: kliba-nafag.com
kliba-nafag.com/en/products/standard-diets

SDS Special Diets Service, UK: sdsdiets.com
sdsdiets.com/products/mini-pig

sniff, Germany: www.ssniff.com
ssniff.com/documents

ips, UK: ips-product.supplies
ips-product.supplies/product-category/labdiet/mini-pig-diet

Other diet suppliers can be found on the internet.



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