

Fact Sheet 5: Badger Cubs



INTRODUCTION

Admitting an orphaned badger cub to a wildlife centre may not always be necessary. A cub being reared in a centre is nearly always the second best to be reared in the wild, and it is consequently better for the cub's welfare for it to be reared in its natal group if possible. The process of rearing badger cubs, their rehabilitation and release, and bTB testing are long and difficult (See Fact Sheet 4: Testing for Bovine Tuberculosis).

The return of cubs to the sow (Monitored Natal Return; MNR) is uncommon and difficult and should not be attempted without the advice of a rehabilitator experienced in this procedure. Please see Fact Sheet 2: Capture, Handling, Transport & Release for further guidance on MNR and also how to identify a lactating female.

Early veterinary intervention is essential to assess injuries or disease and establish if the badger is likely to be one that can be released. If the badger is unsuitable for release, it should be euthanased as soon as possible to prevent suffering.

Cubs may be admitted from a few days old and they need to be held in captivity for some months before being old enough to survive in the wild. Badger cubs kept in captivity for any amount of time (ideally no more than a few days) need to be mixed with other badger cubs because they are social animals and begin to develop abnormal behaviours if kept in isolation. This may mean that very young badger cubs have to be moved some distance to a suitable rehabilitation centre.

Cubs can be very difficult to rear and will show very few symptoms when ill. It is important to keep records for reference throughout the time they are reared.

Badger cubs have very specific guidelines for their management in captivity, testing for TB and vaccination (please read the full Badger Rehabilitation Protocol).

Rearing is further complicated by the necessity to release cub groups into the wild, in areas often away from where they were found (See Fact Sheet 3: Artificial Setts); as a consequence of this, there is a requirement for them to be tested for bTB (see Fact Sheet 4: Testing for Bovine Tuberculosis).

Cubs must also be microchipped, under licence, on admission to ensure their identification prior to bTB testing.

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BADGER CUB DEVELOPMENT

The average size and weight of a badger cub at birth are given in Figure 1. Cubs will begin to be fully mobile at this age, although this is shaky and uncoordinated. Cubs naturally come above ground when they are 8-10 weeks of age and this is when orphans are most likely to be found. At this age, the hair is quite long and they are capable of biting. If the incisor teeth are present it may be possible to wean the cub at this stage, rather than to start on milk feeds. NB: Trying to approximate the age of cubs based on length and weight can be very difficult as individuals vary greatly in their growth rates, but some approximations can be made.

Figure 1. Badger Cub Development

Age of Cub	Appearance	Eyes	Teeth	Size/Weight	Notes
At birth	Pink skin, sparse grey fur	Closed	None	75 - 100g	Umbilical cord present, long and/or wet
Up to 1 week (Figure 1a)	Pink skin, sparse grey fur	Closed	None	200 - 300g	Umbilical cord dry, may be present and long
1- 5 weeks (Figure 1b)	Short grey fur	Closed - Opening	Milk teeth erupting	Approx 800g	Umbilical remnants gone
5 - 8 weeks (Figure 1c)	Black and white coat	Open	Milk teeth present	Approx 1500g	Naturally seen above ground
8 - 12 weeks old	Black and white coat	Open	Permanent teeth erupting	Approx 3kg	Weaning naturally begins
12 - 15 weeks old	Black and white coat	Open	Permanent teeth erupting	Approx 5kg	Usually naturally independent

Figure 1a: Up to 1 week old



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Figure 1b: 2-3 weeks old



© Northants Badger Group

Figure 1c: 5-8 weeks old



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RECORD KEEPING

Continuous records of all cubs should be kept in order to follow and reflect upon their progress. Records also provide useful information for veterinary surgeons and other rehabilitators if the cub needs additional care or is transferred to a specialist centre. Records should include:

- Admission Record: This records precise details of the location where the cub was found and details of the person who first found it., reason for admission, treatment given and end result.
- Cub Feeding Record: Mainly for badger cubs needing to be bottle-fed. Each day the cub should be weighed at the same time of day to see how it is progressing.
- Cub Care Record: More appropriate for older cubs who are weaned and being given food. The form is used to record the slow increases in feeding that will be being made.

Example forms can be found in the full Badger Rehabilitation Protocol.

PROCESSING CUBS ON ARRIVAL

Check the cub thoroughly working from head to rump methodically without causing too much stress. Veterinary assessment of all cubs should take place within 24 hours of admission.

- The cub should have its approximate age estimated (Figure 1), be weighed (Figure 2) and examined (Figure 3) to ensure that they are clinically well.
- A feed of oral rehydration solution should be given first. If the cub will not feed, veterinary attention is required in order to administer fluids via other routes.
- All neonatal badgers with their eyes closed, need to be toileted before feeding (see below).
- Parasites, including species-specific fleas and biting lice, may be seen around the eyes, as well as ticks often in ears, between toes and around the base of the tail. These should be removed or treated as necessary (see below).
- If there are multiple badger cubs, they will need to be marked appropriately with a small dot of Tipp-Ex or nail varnish so they can be identified as individuals.

Figure 2



Cub being weighed © Secret World Wildlife Rescue

NB: A licence is required from Natural England (or the devolved equivalent) for the marking of badgers.

REMOVAL OF PARASITES

In the case of cubs, the need for regular handling and the often large parasite burdens means that treatment is generally recommended. If necessary, a veterinary-prescribed product can be used (e.g. fipronil spray). At 8 weeks old and weighing over 2kg the small dog 'spot-on' version may be used. The correct amount must be administered.

Badger cubs are slowly maturing animals, and their eyes and ears are closed for up to the first 5 weeks of life. They are mobile at 7 weeks, and they are slow to wean, only showing interest in solid food from 8 -9 weeks onwards.

HOUSING

Badgers of up to 5 weeks age:

- Badgers under 5 weeks of age are likely to need an incubator.
- Neonate badgers up to the age of 3 weeks will need an incubator of 27-30°C.
- The incubator should be kept in a quiet, ideally silent room, used exclusively for badger cubs.
- Line the incubator with newspaper, vet bed, fleece blanket and a teddy (Figure 4).
- A warm hot water bottle or snuggle safe can be placed in the incubator to help initially with temperature regulation, check to ensure the badger cub is not too warm or too cold. Place in a position in which the cub can move away from the heat source.
- The incubator will need cleaning at least twice a day and more if soiled. Check bedding cleanliness at each feed.
- Badger cubs do not require any food or water in the pen until they are starting to wean (7-8 weeks old)
- Once the eyes are open, look to move the cub/s to a brooder.

At approximately 7-8 weeks old they will now be in a pen in the badger cub room.

By 12 weeks of age, the cubs will be in a larger pen, be weaned and have started the hands-off process.

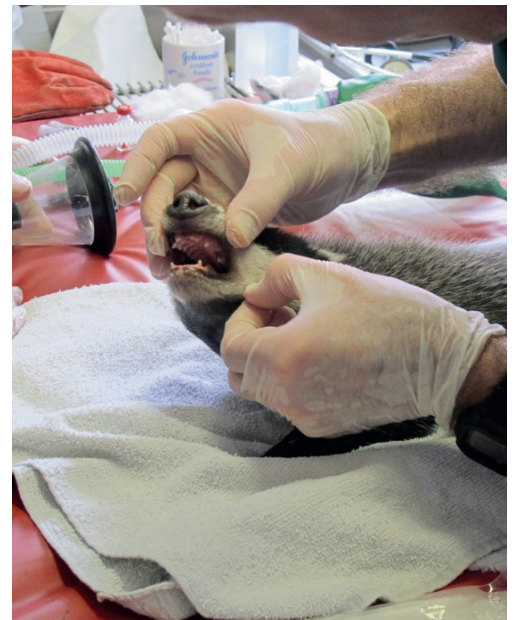


Fig. 3 Cub assessment © Secret World

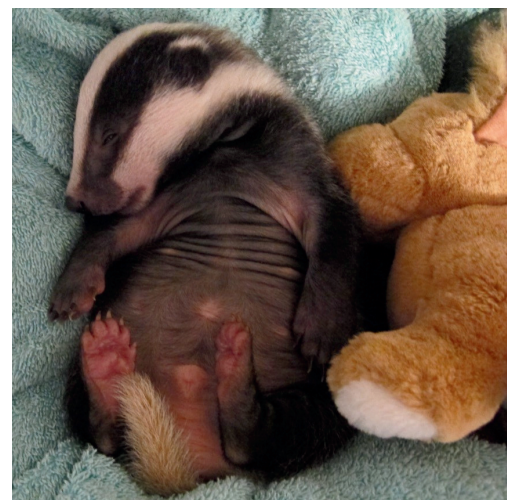


Fig. 4 Cub with teddy © Secret World



FEEDING AND TOILETING

Ensure the cub is weighed before the first feed of each day. After an initial oral rehydration solution, feed a puppy milk replacement (e.g. Babydog; Royal Canin). Puppy milk is typically fed 1 part powder to 2 parts boiled and cooled water. Ensure that the milk is warm to the touch; it may need reheating during the feeding process. If the cub stops feeding it could be due to cold milk. Until the cub is used to the taste of the milk, feed using a 1 ml syringe with the teat attached. When the cub is sucking strongly, change to a baby's bottle (usually best to change on the first feed of the day). Use a fast-flow 'newborn' or 'toddler' teat and do not enlarge the hole in the teat.

It is easier to sit down while feeding, with the badger cub across your knees on a towel. A disposable apron or a tabard that is restricted to use only for that orphan **MUST** be worn. Cubs in which the eyes are still closed should be placed on a hot water bottle covered in a towel, to keep them warm at all times.

Hold the cub underneath the front part of its body or by the side of its head to enable you to put the teat into its mouth. All cubs are different and some do prefer to feed in a more upright position. Sometimes cubs will 'clamp', holding the teat and clamping their head to their chest very strongly (Figure 5). This is a natural behaviour; they have found a teat with food and clamp naturally to stop any other cub from taking that teat away from them. It is not because they do not want to feed. You need to relax and wait, and the cub will eventually start to suck.

The 'neonatal badger cub feeding chart' (Figure 7) is a guideline for feeding frequency; this can vary considerably between cubs. Let the badger cub eat as much as it wants at each feed; don't force the cub to take more, as this can result in them inhaling the milk and cause pneumonia.

Within the first 24 hours after arrival, the cub may only take small amounts of milk; if this continues, please speak to a mentor or vet, as hydration may need assessing. Once sucking strongly from a bottle, badger cubs will take most of the feed in one go. When only having 3 or 4 feeds a day they will take up to 250ml per feed. At the end of feeding, place the cub on its chest and 'wind' it by rubbing and gently patting its back.

From day one badger cubs scent mark when being fed. This means that they push out the scent gland under the tail to 'scent their mother' (Figure 6). This should not be mistaken for being constipated.

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Figure 5



Locking on - Locking the body shows signs of hunger © Secret World Wildlife Rescue

Figure 6



Scent marking, pushing out scent glands © Secret World Wildlife Rescue

NEONATAL BADGER CUB FEEDING CHART

Figure 7

Age (Weeks)	Approximate volume of milk in 24hrs	Number of feeds in 24hrs	Comments
0 - 1	140ml	9 - 12	Feed every 2 hours, day and night, depending on how much the cub takes. If taking 10-15ml per feed reduce to 3 hourly.
1 - 2	200ml	6 - 8	3-4 hourly day and night, depending on amount taken, if taking larger amounts can cut to 4 hourly.
2 - 4	300ml	5	4 hourly from 6am to midnight.
5 - 7	600ml	4 - 5	5 feeds daily, every 4 hours from 8am until midnight. When taking 150ml+ per feed cut to 4 feeds per day .
8 - 9	750ml	4	Start to introduce solid foods (see "Weaning badger cubs" below), cut out 1 milk feed and replace this with solid food and leave solid food in overnight. (NB: Natural foods are preferred but some have success with a custard cream to ascertain interest in solid foods)
9 - 12	500ml	2	Reduce to 2 milk feeds (e.g. milk feeds at 8am and 8pm) and 2 solid food feeds and leave solid food overnight and at lunchtime. Reduce to 1 milk feed at about 11weeks.
12 +	0	0	Fully weaned, on solid feeds twice daily, increasing the amount of solid food given if they are eating it all

Individual badger cubs are all different and the table above gives approximate values only. If you have any concerns about cub feeding contact a veterinary surgeon.

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TOILETING

- Badgers must be toileted before feeding as this will help induce a sucking reflex.
- Disposable gloves must be worn for this procedure.
- Use warm clean water, on cotton wool or tissue, to gently rub the perineal (bottom) area under the tail to stimulate urine and faeces to be produced. Ensure any waste material is gently wiped away.
- Apply talcum powder to the genital area after toileting.
- Once the badger cub is toileting for itself, manual toileting can stop.
- Waste material (urine, faeces and soiled cotton wool and bedding) must be disposed of correctly and in a biosecure way.
- Do not be overly concerned if faeces change colour once the animal starts weaning into solids. If this persists or you are otherwise concerned, then speak to your mentor or veterinarian.
- Do not be alarmed if an animal does not produce urine/faeces at every feed, particularly when first admitted. If no faeces are produced over 24 hours, then speak to your mentor/veterinarian.

WEANING

At approximately 8 weeks old a palatable food item can be left in with the badger cub(s), e.g. a custard cream to ascertain interest in solid food, although natural foods are preferred. Once they show an interest in this, you can start to introduce solid food. If they seem reluctant to eat any solid food you may need to limit the amount of milk at each feed or decrease the frequency of feeds, but seek advice from your mentor.

Badgers can be gradually weaned onto puppy milk mixed with puppy food. You can also use mashed sausages, soft scrambled eggs, cooked chicken, and dried fruit. Try to avoid 'unnatural' foods such as custard creams and honey/jam sandwiches once the cubs are eating well. At a later stage, they also like day-old chicks (beaks and legs removed), dried and fresh fruit, peanuts and puppy biscuits. During weaning, the milk feeds should be reduced in both frequency and quantity. Each cub will wean differently and the process should not be rushed. Badgers will not give up their bottle easily. Once weaned and lapping, withdraw the bottles. Their weight should then still keep increasing.

Badger cubs can suffer from hair loss, through sensitivity to the milk or through stress, but the hair will typically grow back and requires no treatment. If concerned seek veterinary advice.

WEANING BADGER CUBS: FEEDING CHART

For neonates, see neonatal feeding chart above and for juveniles see below.

8 - 12 WEEKS OLD

Daily Food	Frequency of Feeding
Puppy milk Puppy meat/Puppy milk Cooked sausage Cooked chicken Scrambled egg Dried fruit	AM and PM

12 - 14 WEEKS OLD

Daily Food	Frequency of Feeding
Puppy meat Cooked sausage Cooked chicken Scrambled egg Dried fruit	AM and PM AM and PM PM Only PM Only PM Only

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EQUIPMENT & CLEANING

All equipment should be clean and sterile prior to feeding.

- Milton Sterilising Fluid is recommended for all equipment and items should be left in the solution for 15 minutes.
- Brooders and incubators should be cleaned using warm soapy water first, then disinfected with an appropriate veterinary disinfectant (e.g. Safe4) for the correct required contact time.
- Food bowls should be washed in soapy water and then disinfected with disinfectant as directed and then rinsed.
- Do not reuse cotton wool or cotton buds when toileting, always use sterile materials.

Cub rehabilitation must only be undertaken when fully trained. Always seek guidance from an experienced rehabilitator in the first instance. If you have any problems or concerns caring for a neonatal or juvenile badger, please speak to a mentor, another experienced Wildlife Rescue Centre or a Veterinary Surgeon straight away. A delay in the correct advice and treatment could be life-threatening for the animal.

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