



CITES Cheetah Trade Resource Kit

First Response Care Guide for Seized Live Cheetahs

This section gives guidance on initial care for cheetahs during and after seizures

It includes basic healthcare information and first aid treatments, as well as temporary housing requirements and dietary information.

Please note that these guidelines focus on how to care for cheetahs, however many of these steps are also applicable to other mammal species that have been confiscated from the illegal wildlife trade.

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1. First Response

The time during and immediately after a seizure is the most important for both collecting information about the seized items for law enforcement, but also for the welfare of the cheetahs involved.

The time after a cheetah is first seized is when it is likely to be at highest risk. Cheetahs are often transported in badly made cages without food or water; as a result a very high proportion of cheetahs die whilst being transported through the illegal wildlife trade.

Below are the steps that should be taken to care for the cheetah, in order to give the animal the best chance of survival. These guidelines focus on how to care for cheetahs, however many of these steps are also applicable to other mammal species that have been confiscated from the illegal wildlife trade.

1.1. Step 1 – Ensure the People Caring for the Cheetah are Safe

Do not open the cage that the cheetah is in – cheetahs do not normally attack people but when they are highly stressed (as they will be at this time) they may lash out and cause injuries. They are also very fast and could easily escape, which is dangerous for both the cheetah and any people nearby.

Check the cage is secure. Ideally the cheetah should be moved into suitable housing as soon as possible (see page 10 for *Transporting Cheetahs*, page 14 for *Temporary Housing Needs* and Section: *Long Term Captive Care and Management Guide*), however in the meantime it is important that the risk of the cheetah escaping its cage is minimised in order to protect both the cheetah itself and any people in the vicinity.

Be careful when touching or moving the cage – fingers stuck through into the cage could be bitten or scratched.

Wear gloves when touching the cage – many diseases that the cheetah could have been exposed to can be transmitted to humans. After touching the cage do not eat, drink, smoke or touch your face until you have removed the gloves and thoroughly washed your hands.

1.2. Step 2 – Ensure the Cheetah’s Basic Needs are Met to Give it the Best Chance of Survival

Give access to clean water *Dehydration is the biggest initial threat to the cheetah. Providing access to clean water is vital.* Not doing so is likely to result in the death of the cheetah.

Sometimes the cheetah(s) will be so dehydrated that giving access to drinking water is not enough – further details are given below on how to deal with severe dehydration.

Lower stress levels

Stress can kill. Move the cheetah (in its cage) to a quiet, dark area, where there are few people around.

Alternatively, cover the cage with cloth to block the cheetah’s line of sight. Make sure that air is still able to circulate into the cage.

Ensure that everyone remains completely quiet when in earshot of the cheetah. There should be no talking, except where it is unavoidable when talking should be in whispers, and all sources of noise should be minimised. The area around the cheetah should be kept as quiet as possible.

Ensure there are no other animals nearby (e.g. dogs) that may attack the cheetah or increase its stress levels

Prevent temperature shock Ensure the area the cheetah is moved to is not too hot or cold – if a person could not comfortably sit there in normal clothes for a protracted period, it is not safe to leave the cheetah there. The best temperature range is between 20°C and 25°C.

Never leave the cheetah in a car or in full direct sunlight. The cheetah should be kept in a shaded area with access to a plentiful supply of clean water.

Do not mix cheetahs that have been seized from separate groups or incidents. Mixing cheetahs will increase the chance of injury to the cheetahs from fights, and also increase the risk of disease transmission. Make sure that any equipment used for one group of cheetahs is thoroughly washed and disinfected before using it for another group of cheetahs.

Ensure the cheetah is kept in a safe and secure place, where there is no risk it may be stolen

1.3. Step 3 – Evaluate the Cheetah’s State of Health

Look through the questions below and complete the *Healthcare Checklist Form* on page 5. Then check your answers against the table of *Common Health Issues for Seized Cheetahs and First Aid Treatment* on page 6.

Is the cheetah responsive? Is the cheetah taking notice of what is happening around it and reacting (e.g. growling, snarling, watching intently)? Or does the cheetah seem lethargic, not paying attention to its surroundings? A healthy cheetah will be alert and reactive to its surroundings.

Is the cheetah drinking? Once provided with clean water, did the cheetah drink any of it? Does the cheetah seem dehydrated? Do its mouth and/or eyes look dry? Is it producing saliva? Do its eyes appear sunken?

Are there other signs of illness? Does the cheetah have diarrhoea? Has it been vomiting? Are its eyes bright or do they have a discharge? Is there a discharge from the nose? What is its Body Condition Score (see page 9)?

Does the cheetah have any open wounds? Are any of the wounds bleeding? Are the wounds fresh or have they scabbed over? Do they look infected (e.g. signs of swelling or discharge)?

Does the cheetah have any other injuries? Do all of the cheetah’s limbs look ok? Is it refusing to put weight on any of its legs? Are any of its legs or its tail bent at odd angles as if broken? Can it sit and stand, or is its back end paralysed?

If the cheetah is unresponsive, severely dehydrated or in distress then seek immediate, emergency veterinary advice. Information on first aid treatments is given on page 6 onwards.

1.4. Step 4 – Seek Advice

Seek veterinary and expert advice as soon as possible. Give them the information collected as part of step 3 as this will help them to tailor the advice they give you.

For a list of experts who will be able to give further guidance see Section: *Resources and National Carnivore Coordinators*

2. Healthcare Checklist Form

Seizure reference number:	Date of seizure:	Date this form completed:
Cheetah ID number:	Sex: <input type="checkbox"/> M <input type="checkbox"/> F	Age class:
Form completed by:		
Is the cheetah responsive? <input type="checkbox"/> Yes <input type="checkbox"/> No	Is the cheetah panting a lot? <input type="checkbox"/> Yes <input type="checkbox"/> No	Is the cheetah shivering? <input type="checkbox"/> Yes <input type="checkbox"/> No
Has the cheetah been given access to water? <input type="checkbox"/> Yes <input type="checkbox"/> No	Has the cheetah drunk any of the water? <input type="checkbox"/> Yes <input type="checkbox"/> No	Do the cheetah's eyes and gums look dry? <input type="checkbox"/> Yes <input type="checkbox"/> No
For unresponsive cheetahs: when gently pinched, does the cheetah's skin immediately bounce back quickly or does it stay in a pinched shape? <input type="checkbox"/> Quickly <input type="checkbox"/> Slowly	Record how many breaths the cheetah takes in 60 seconds:	Is the cheetah wheezing when it breathes? <input type="checkbox"/> Yes <input type="checkbox"/> No
Does the cheetah's breathing sound laboured? <input type="checkbox"/> Yes <input type="checkbox"/> No	Is there discharge coming from the cheetah's nose? <input type="checkbox"/> Yes <input type="checkbox"/> No	Is there discharge coming from the cheetah's eyes? <input type="checkbox"/> Yes <input type="checkbox"/> No
Can the cheetah stand? <input type="checkbox"/> Yes <input type="checkbox"/> No	Is the cheetah putting weight on all four legs? <input type="checkbox"/> Yes <input type="checkbox"/> No	Do any of the cheetah's limbs look abnormal? <input type="checkbox"/> Yes <input type="checkbox"/> No
Does the cheetah have any wounds? <input type="checkbox"/> Yes <input type="checkbox"/> No	If the cheetah has wounds, are they shallow or deep? <input type="checkbox"/> Shallow <input type="checkbox"/> Deep	Do the wounds look or smell infected? <input type="checkbox"/> Yes <input type="checkbox"/> No
What is the cheetah's Body Condition Score? (see page 8)	Does the cheetah have diarrhoea? <input type="checkbox"/> Yes <input type="checkbox"/> No	Has the cheetah been vomiting? <input type="checkbox"/> Yes <input type="checkbox"/> No
Does the cheetah have any external parasites (e.g. ticks or fleas)? <input type="checkbox"/> Yes, a lot <input type="checkbox"/> Yes, some <input type="checkbox"/> None		
Any other notes:		

3. Common Health Issues for Seized Cheetahs and First Aid Treatments

Problem	Signs	Treatment
<p>Hypothermia Cheetah is too cold</p>	Shivering	Give clean straw and/or blankets (change regularly as they become soiled). Move somewhere warmer if appropriate. Move the cheetah away from windy areas and/or provide a wind break.
<p>Hyperthermia Cheetah is too hot</p>	Panting	Move somewhere cooler, out of direct sun with some airflow. Ensure the cheetah is shaded. Give the cheetah access to plenty of clean, cool water.
<p>Dehydration Cheetah hasn't had enough to drink</p>	<p>Low level: Slow skin elasticity Very thirsty when given opportunity to drink</p>	Give the cheetah an electrolyte solution to drink (eg sodium lactate solution or paediatric electrolyte solution). This will only work if the cheetah is drinking on its own.
	<p>Medium: Slow skin elasticity Sunken eyes Dry eyes Dry gums Lack of saliva Refusing water</p>	<p>SEEK IMMEDIATE VETERINARY ADVICE OR CONTACT AN EXPERT</p> <p>If the cheetah is not drinking on its own a subcutaneous injection of saline or sodium lactate solution can be used. This should only be attempted by someone with appropriate training and experience, using clean equipment. It is safest to anaesthetise the cheetah before administering the injection however may be possible to administer subcutaneous injections through the cage, whilst the cheetah is awake if the cheetah can be safely and effectively restrained by experienced handlers.</p>
	<p>Severe: Slow skin elasticity Sunken eyes Dry eyes Dry gums Lethargy Unresponsive</p>	<p>SEEK IMMEDIATE VETERINARY ADVICE OR CONTACT AN EXPERT</p> <p>The cheetah will need to be put on an intravenous drip of saline solution or sodium lactate solution. The cheetah should always be anaesthetised by an experienced vet before administering the drip, as otherwise (even unresponsive) cheetahs may wake up and lash out during treatment. The cheetah should be anaesthetised throughout the administration of the drip.</p>

Problem	Signs	Treatment
Respiratory Infection	<p>Wheezing breath Discharge from nose Difficulty breathing</p>	<p>Cheetah will need veterinary attention as soon as possible because it may need treatment with antibiotics or similar. Whilst waiting for a vet to attend, ensure the cheetah doesn't become dehydrated. Withhold food if the cheetah is unresponsive, vomiting or having difficulty breathing.</p>
Broken limb	<p>Cheetah reluctant to put weight on one (or more) of its legs. Leg is an abnormal shape (e.g. bent at odd angle)</p>	<p><i>SEEK IMMEDIATE VETERINARY ADVICE OR CONTACT AN EXPERT</i></p> <p>Depending on the severity of the break, the cheetah may have to be euthanised. Talk to the vet about how to care for the cheetah whilst waiting for the vet to attend. If the vet will be able to attend rapidly and is likely to need to anaesthetise the cheetah then it may be best to withhold food and limit access to water. If the cheetah is dehydrated it may need to be given access to some water to ensure the dehydration does not become worse.</p>
Spinal injury	<p>Cheetah is unable to move its rear end and unable to stand. Cheetah has no feeling in back feet or tail.</p>	<p><i>SEEK IMMEDIATE VETERINARY ADVICE OR CONTACT AN EXPERT</i></p> <p>Depending on the severity of the injury, the cheetah may have to be euthanised. Talk to the vet about how to care for the cheetah whilst waiting for the vet to attend. If the vet will be able to attend rapidly and is likely to need to anaesthetise the cheetah then it may be best to withhold food and limit access to water. If the cheetah is dehydrated it may need to be given access to some water to ensure the dehydration does not become worse.</p>

Problem	Signs	Treatment
Wounds	Fresh or shallow wound: The wound is only skin deep Wound is bleeding	Flush the wound(s) with saline solution or clean running water. This can be done while the cheetah is awake in its cage, using a syringe (without needle attached) to spray the water/saline. Keep under observation to ensure the wound does not become infected.
	Deep wound: Muscle and/or bone is visible	<i>SEEK IMMEDIATE VETERINARY ADVICE OR CONTACT AN EXPERT</i> Flush the wound(s) with saline solution or clean running water. Apply antiseptics. The cheetah may need to be anaesthetised to enable thorough cleaning and evaluation of the wound.
	Infected wound: There is pus coming from the wound Foul smell	<i>SEEK IMMEDIATE VETERINARY ADVICE OR CONTACT AN EXPERT</i> Flush the wound(s) with saline solution or clean running water. Apply antiseptic and antibiotics. The cheetah may need to be anaesthetised to enable thorough cleaning and evaluation of the wound. An antibiotic injection may be required.

4. Body Condition Score

Body Condition Scores (BCS) can be used to monitor the cheetah's condition over time.

This is an important aspect of their care, because when cheetahs are first seized they may be underfed. Recording a cheetah's BCS allows the increase in their weight to be tracked over time to assess return to full health.

Cheetah BCS can be scored on different scales, as long as the scale is used consistently. In the following pages we describe a scale from 1 to 9, where 1 is severely emaciated, 5 is ideal condition and 9 is severely obese. This is the scale used internationally by zoos to monitor the condition of the cheetahs in their care.

The cheetah's BCS should normally be evaluated once a month, however it may be appropriate to score the cheetah more frequently. For example, if the cheetah was in poor condition when it was seized then weekly or fortnightly scoring may be useful to closely monitor the cheetah's progress.

Where possible, ensure the same person scores the cheetah's body condition each time because people may interpret the descriptions in slightly different ways. If it is not always possible to have the same person scoring the cheetah's body condition, try to have two or more observers score the cheetah separately but at the same time, so that scores can be adjusted for any differences between observers.

The table below gives guidance on the features of the cheetah's physique to evaluate in order to work out its BCS:

1	2	3	4	5	6	7	8	9
Emaciated	Very underweight	Underweight	Slightly underweight	Ideal	Slightly overweight	Overweight	Very Overweight	Obese
Extremely thin. Appears skeletal. Noticeable loss of muscle mass. No visible fat covering. Ribs, base of tail, hip joints, and pelvis projecting prominently. Bone structures of neck, shoulders and back very visible. Cheek bones prominent and facial features very gaunt. Severe abdominal tuck.	Very thin. Very slight fat covering. Ribs, base of tail, hip joints, and pelvis prominent. Bone structures of neck, shoulders and back visible. Thin neck. Cheeks and face gaunt. Prominent abdominal tuck.	Thin. Thin fat layer covering ribs, base of tail, hip joints, and pelvis. Bone structures of neck, shoulders and back distinct but individual bones not visible. Thin neck. Cheeks and face gaunt. Prominent abdominal tuck.	Very lean. Slight ridge along back. Outline of ribs slightly visible. Shape of pelvis is discernible but hip joints are not. Neck and shoulders not noticeably thin. Base of tail visible but beginning to blend into hip Noticeable abdominal tuck.	Lean, muscular appearance. Obvious delineation between shoulder, stomach and pelvic regions. Back is flat – neither creased or ridged. Muscles of shoulders and thighs visible when walking. Visible abdominal tuck.	Slightly chubby appearance. Slight crease down back. Ribs well covered. Slight fat deposits around shoulders and neck. Rounded torso. Abdominal tuck less present.	Noticeable fat deposits. Shoulders rounded. Neck is thick. Fat deposits around shoulders and neck. Base of tail not visible. Abdominal tuck disappearing.	Very noticeable fat deposits. Crease along back. No abdominal tuck – cheetah constantly looks as though has just finished a meal.	Substantial fat deposits. Obvious crease along back. No muscle definition. Extremely rounded torso and rear end. Fat along inner thighs may rub together. Large fat pad in abdomen. Rounded, bulging abdomen.

5. Transporting Cheetahs

5.1. *Transporting a recently seized cheetah to temporary or long-term housing*

Suitable housing should be found for the cheetah as soon as possible after it has been seized.

It may not be immediately possible to find a suitable facility to provide long-term care for the cheetah, in which case an enclosure or cage which can temporarily house the cheetah should be found or built. Information about suitable temporary housing can be found under *Temporary Housing Needs* on page 14.

Moving a cheetah from the cage it is seized in, to a shipping container for transport carries with it a risk that the cheetah could escape, unless the operation is carried out very carefully.

Assuming the cage that the cheetah was seized in is strong and safe enough to survive the journey, it may be appropriate to leave the cheetah in this cage rather than attempting to transfer it to a transport crate.

If it is necessary to transfer the cheetah to a transport crate, then a design similar to that described on pages 12 and 13 should be used.

Extreme caution should be used when transferring the cheetah between its original cage and the transport crate to ensure there is no possible risk of escape.

5.2. *Transporting a cheetah from temporary housing*

If possible, transport crates should be made well in advance of transportation of the cheetah. Having the crate ready well in advance means that, if the cheetah's enclosure is large enough, the crate can be put into the enclosure so that the cheetah can become familiar with it before it is transported.

To help this familiarisation process, feeding the cheetah inside the crate will encourage it to enter the crate. If the cheetah becomes used to entering the crate on its own, then it means it will not be necessary to anaesthetise the cheetah in order to get it into the crate for transportation.

Having a strong wire mesh door on the end of the crate helps this process as it makes the cheetah more likely to enter the crate and allows food to be given to the cheetah through the mesh to aid habituation to the crate.

Position the crate with the wire door abutting the enclosure fence. Put some food into the crate through the enclosure fence and wire door – ensure the food is given in a way that it is possible to remove the food again without entering the enclosure. Leave the cheetah with access to the food for an hour or so and then on returning to check, if the cheetah has left the food, remove the food from the crate. Feed the cheetah as normal later that day.

Going into the crate should be a choice that the cheetah makes to get a reward (the food). It should not be the cheetah's only opportunity to eat, if the cheetah does not choose to go into the crate it should not be punished in anyway. This process will take a lot of time, particularly if the cheetah is not used to being around humans.

If the cheetah is highly stressed and/or will not willingly go into the transport crate, it may be necessary to anaesthetise the cheetah for transport, see Section: *Veterinary Care* for anaesthesia guidelines.

Cheetahs should be monitored throughout the transportation process. Where possible a vet should be available, in case a cheetah becomes distressed and requires sedation.

Taking something that the cheetah is familiar with, for example a blanket which will smell of the cheetah, from its enclosure and putting it in with the cheetah in the crate can help to reduce the cheetah's stress levels and reduce the risks associated with transportation.

Transportation crates must:

- **Be made of strong, durable materials** – eg a metal frame with thick hardwood panels or a metal frame with welded steel mesh, with wooden panels on the inside floor so that cheetah has something suitable to stand on. Wire mesh on the floor will damage the cheetah's pads and claws and therefore is not suitable – if an adult person cannot comfortably stand on the flooring material for a long time, it is not suitable for a cheetah.
- **Have plenty of airholes to allow the free flow of air**
- **Have sliding doors that can be securely locked in place**
- **Be big enough for the cheetah to stand comfortably at full height** (at least 10cm clearance on all sides) although not large enough to turn around.
- **Be big enough for the cheetah to lie down comfortably**
- **Have an adequate number of securely attached handles to enable the crate to be carried** as smoothly as possible, without risk of dropping the crate.
- **Be big enough for the cheetah to travel comfortably**, but be small enough to fit through any doorways etc en route
- **Have drainage holes in the floor** so that the cheetah does not have to lie in urine

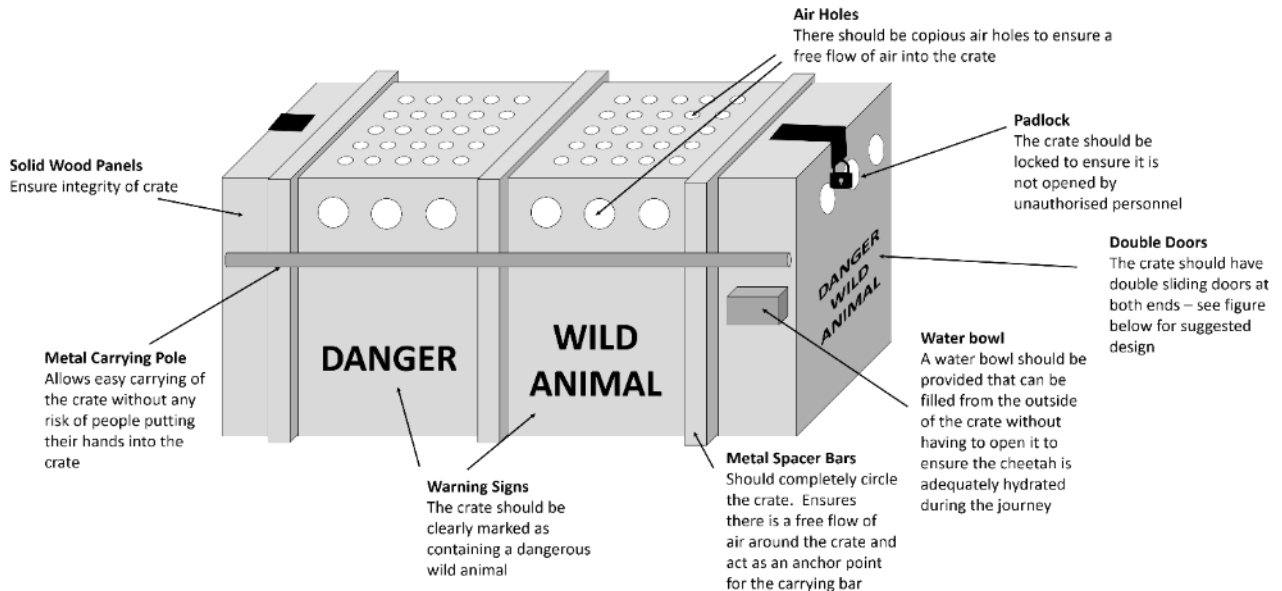
If the cheetah is being transported by air, the design of the container should comply with all International Air Transport Association guidelines (Container Requirement 72), for more information see webpage on [Transport of live specimens | CITES](#) on CITES website. Where available, strongly built pet carriers (such as those used for pet cats) can be used for the transportation of small cubs. However, it is important to ensure the carrier is robustly built and secured so that there is no risk of the cub escaping.

5.3. Suggested Design for a Cheetah Transportation Crate:

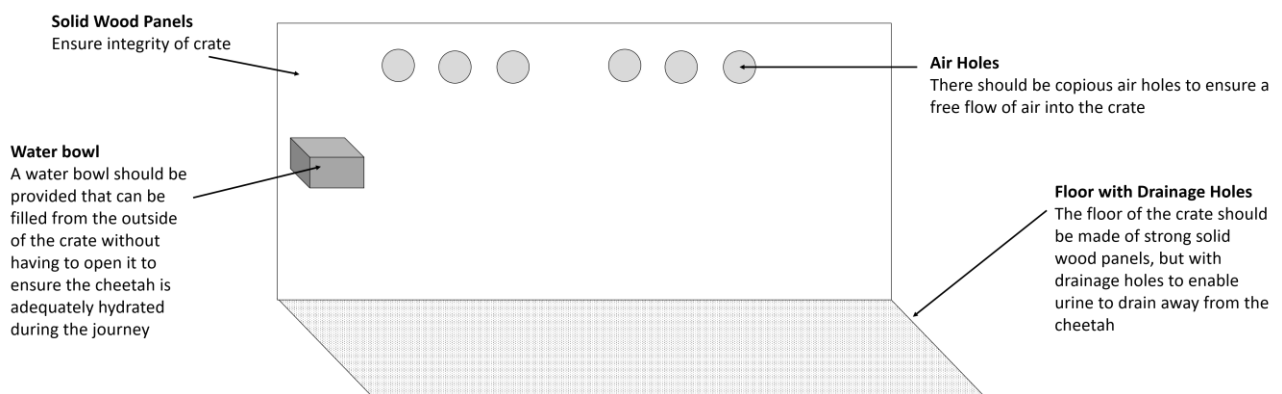
The designs given on the following pages are based on the IATA Live Animal Regulations.

A design similar to these would ideally be used to transport a cheetah, regardless of whether it is being moved by air or land, however if that is not possible the most important features to include are listed above.

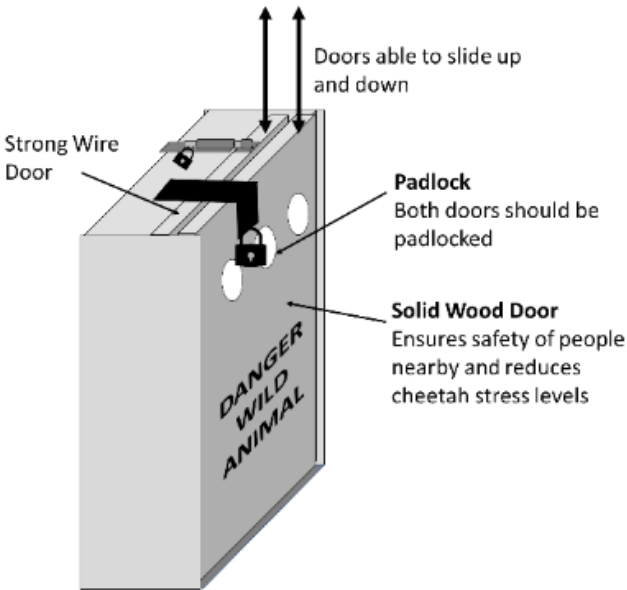
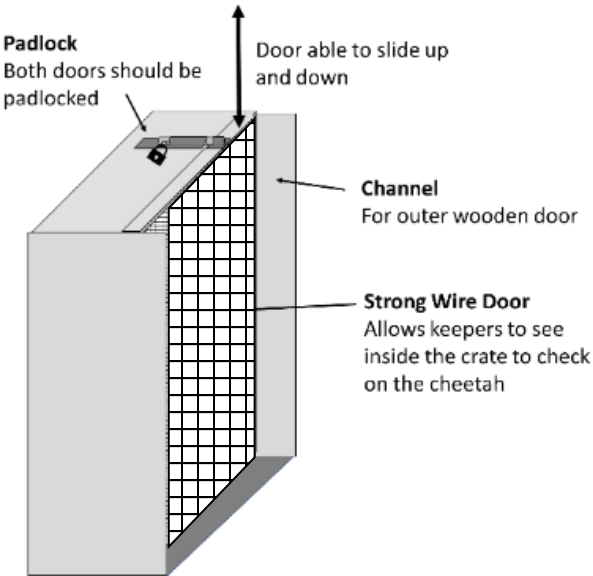
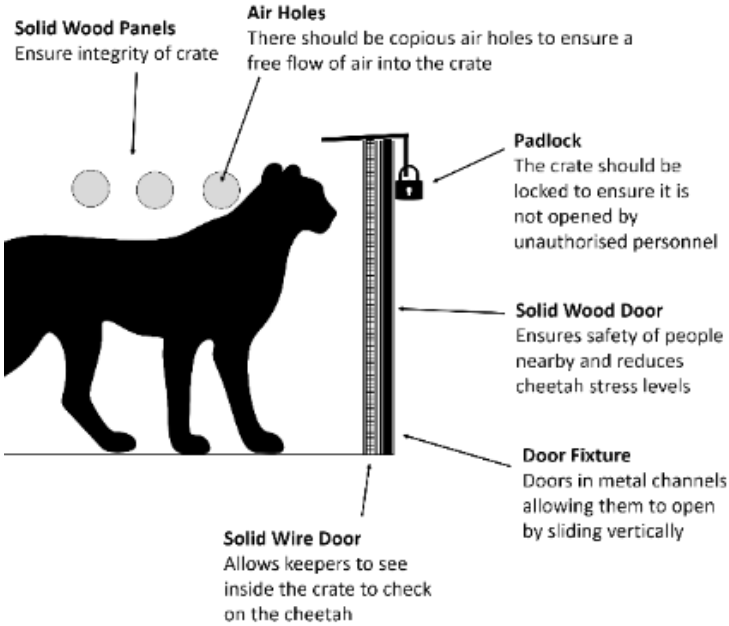
Exterior



Interior



Doors



6. Temporary Housing Needs

The first few weeks after a cheetah has been seized are very important to its long-term welfare.

During its time being trafficked, the cheetah will likely have experienced periods of extreme stress, as well as dehydration and starvation.

The first few weeks of care need to focus on rehabilitating the cheetah to a good level of health.

However, it is also at this time decisions will be being made over the long-term management of the cheetah and there may not be direct access to suitable facilities with expert staff.

These guidelines are designed to ensure that cheetahs that have recently been seized are kept in conditions that will ensure they have a good standard of welfare whilst a decision is made about their long-term management.

These are not guidelines for long-term captive management of cheetahs – see Section: *Long-Term Captive Care and Management*

These guidelines are designed for short-term care up to a maximum of four weeks.

6.1. Temporary Enclosure Design

Temporary enclosures must have:

- **Secure fencing** – Subsection *Enclosure Fencing* in Section *Long-term Captive Care and Management* gives detailed information on fence design. Fences should be at least 2.5m tall with an overhang (or 3.5m without an overhang) to prevent animals (particularly cubs) from climbing or jumping out. If tall enough fencing cannot be sourced then the enclosure can be covered overhead to prevent animals climbing out, although this should still be at least 2 m tall. The bottom of the fence should be close to the ground, ideally with 10-20 cm buried below ground level (to avoid holes caused by burrowing animals).
- **Space** – the cheetah needs to have as much room as possible to move around in. Long enclosures are better than square ones as it gives the cheetah greater room for exercise.
- **Shelter** – the enclosure should have a shelter so that the cheetah has an area which provides shade from the sun and protection from wind and rain (suggested shelter designs are given in Subsection *Shelters* in Section *Long-term Captive Care and Management*).
- **Constant access to clean water** – the cheetah must have access to clean water at all times. Water bowls should be cleaned daily and the water replaced with fresh, clean water.
- **Refuge** – the cheetah will be highly stressed, it is important to provide it with somewhere within the temporary enclosure that it can retreat to and feel safe in. Minimise the number of people nearby and ensure the area is kept quiet to help keep the cheetah's stress levels low.
- **Straw, mulch or other organic bedding materials** – for the cheetah to lie on. Not giving the cheetah anything comfortable to lie on could cause it to develop sores, which could then become infected. Blankets or towels should be used with caution; if they are used, they should be checked regularly to ensure the cheetah is not chewing and eating them (this could cause a blockage in the intestines which would require surgical removal).

6.2. Diet – Cubs and Adults

(The following recommendations are based upon AZA and EAZA guidelines – for further details see *Further Reading* on page 23)

Cheetahs are carnivores and so **should be fed meat**.

Cheetahs are particularly prone to gastric problems – feeding them properly is vital for their health.

Cheetahs that do not have an appropriate diet are likely to become very ill, very quickly.

Cheetahs must only be fed very fresh meat – cheetahs that are not fed fresh meat will develop digestive problems.

Cheetahs should be fed a diet which mimics, as closely as possible, their natural diet.

Where it is available, fresh wild game meat is a good choice (ideally giving whole carcasses), otherwise whole rabbits or chickens (that still have their skin, fur/feathers and their internal organs intact) can be fed.

If wild meat, rabbit or chicken are not available, camel, goat, donkey or horse meat are also suitable, however it is important that cheetahs are regularly (though not exclusively) given organ meat – ideally >50% of their diet should consist of whole carcasses.

Cheetahs will not survive if they are only fed muscle meat – this is why it is important not to remove the internal organs from the wild game, rabbits or chicken before giving them to the cheetah. There are nutrients that are vital for the cheetah's health that are not found in muscle meat, but that are in the internal organs (particularly the heart, liver and kidneys) of prey animals. This makes feeding whole carcasses, including internal organs, an easy way of helping to ensure that cheetahs get all the nutrients they need.

If only muscle meat (regardless of whether on or off the bone) is available, then the cheetah MUST be given additional nutritional supplements or it will develop vitamin deficiencies and may die.

Rather than feeding the cheetah exclusively from one animal species, it is helpful to vary meat from different animal species to ensure cheetahs receive a variety of nutrients.

It is a good idea to leave the skin and fur/feathers on carcasses as this provides them with additional fibre and helps maintain a healthy gut and promotes dental hygiene.

If animals being fed to the cheetah were shot, ensure all pellets are removed from the carcass before giving it to the cheetah.

If there is any chance that the cheetah may eventually be released into the wild where there may be issues around human-wildlife conflict, the feeding of goats, sheep or other livestock that the cheetah could attempt to attack should be avoided. Where these are the only types of meat available, then it is important to skin the meat, as this may reduce the association between eating the meat and live goats and sheep etc. In this case it is important to leave cartilage and tendons etc intact to provide some fibre.

Ensuring that cubs get the correct diet is also extremely important for their long-term health. There are many disorders that cubs can develop due to not getting the correct nutrients, and some of these will affect the cheetah for the rest of its life.

Cubs are even more prone to gastric issues than adults, and because they are growing, they are particularly prone to nutrient deficiencies.

It is important to monitor the amount that cubs are eating, this may be difficult if cubs are fed together but it is vital in order to ensure that each cub gets sufficient nutrients.

Young cheetah cubs (2 – 6 months old) should be fed the same types of meat as adults (see above) however, they may not be familiar with how to open a carcass – in this case it can be helpful to partially open the carcass for the cubs to allow them to more easily access the meat inside.

If young cubs have trouble feeding, even when carcasses are opened for them, it may be helpful to try mincing their food before giving it to them, as this can make it easier for them to eat (particularly when they are very young). When mincing food it is VITAL to include the bones and internal organs of the carcass.

The amount of food a cheetah requires varies between individuals and across ages.

Guideline amounts are given below, however it is important to monitor the weight and/or condition of the cheetah – if the cheetah is losing condition it may require additional food.

Males and females usually need similar amounts of food. However, females that are pregnant or lactating will require additional food – increase the amount provided by approximately 10% in the first instance and monitor the female's condition, then adjust as required.

As well as monitoring weight and body condition, it is important to monitor the cheetah for other signs of ill health. In particular, faeces should be monitored for signs of diarrhoea or constipation (indicated by a lack of faeces). If the cheetah vomits multiple times this is also a sign of illness and veterinary attention should be sought.

The diet guidelines given here are designed as short-term guidance – full details on the nutritional needs and necessary supplements are given in Section *Long Term Captive Care Guide for Seized Live Cheetahs*

The table below gives guidelines on how much to feed cheetahs at different ages.

These guidelines may need to be adjusted for different individuals.

If you are not sure how old the cheetah is, use the Cheetah Cub Ageing Guidelines in Subsections: *Cheetah Cub Ageing Guidelines* and *Adult Cheetah Ageing Guidelines* in Section: *Identification Guides* to estimate age.

Age	Type of Meat	Total Quantity of Meat to be Fed	Number of Feeds per Day
2 months	Carcass / Ground	150g – 180g	3 (i.e. 3 x 50 – 60g)
3 months	Carcass / Ground	180g – 210g	3 (i.e. 3 x 60 – 70g)
4 months	Carcass / Ground	300g – 350g	2 (i.e. 2 x 150 – 175g)
5 months	Carcass / Ground	450g – 650g	1
6 months	Carcass	600g – 750g	1
7 months	Carcass	1kg	1
8 months	Carcass	1.2kg	1
10 months	Carcass	1.4kg	1
12 months	Carcass	1.5kg	1
18 months	Carcass	1.5kg – 1.7kg	1
2 years and over	Carcass	1.5kg – 2.5kg	1

These amounts are approximate guidelines only, the amount that a cub will eat will vary between individuals and they may require larger quantities of meat at a younger age than suggested above. Monitor the cub's weight gain and behaviour, and offer additional meat as appropriate.

6.3. Diet – Newborn and Very Young Cubs

If cubs are seized together with their mother then they should always be left together – if the mother cheetah is cared for appropriately then she will produce milk and feed the cubs herself.

This will give the cubs all the nutrients they need in their early weeks. As the cubs get older (around 2 months) they will begin to eat some solid food, however they will continue to suckle until they reach weaning age at between 4-5 months.

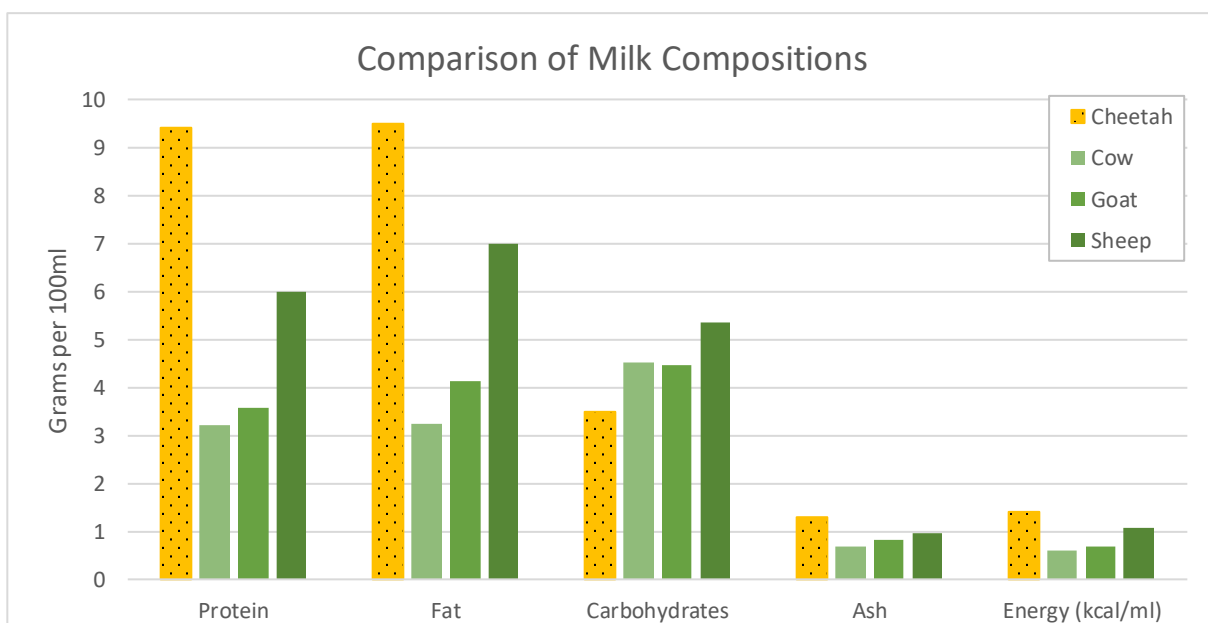
If newborn or very young cubs are seized on their own, without their mother, they need specialist care and a specialist diet. At this age, cubs are not able to survive on meat alone, they require milk, as it is easier for them to digest and extract nutrients from (see Section 6.3.b).

6.3.a. What Not to Feed

Newborn and very young cheetah cubs should only be fed specialised milk replacements, designed for carnivores.

Milk from cows, goats or sheep is not suitable – it is likely to cause them serious gastric problems which may result in the death of the cubs.

This is because the nutritional make-up of these milks is not suitable – the protein and fat, and therefore calorie contents are too low (meaning that the cubs will not take in enough energy to grow properly) and the carbohydrate concentrations are too high, which will give the cubs diarrhoea.



6.3.b. What to Feed

There are commercially available milk replacement formulations that have been used to hand-rear cheetah cubs. However, there is no milk replacement currently available that exactly mimics the composition of cheetah milk, therefore modifications are required to make existing milk replacements suitable for cheetah cubs. Three milk replacement options are:

1. KMR® (42/25) + Multi-Milk® (30/55) + water

1 part KMR + 1 part Multi-Milk + 2 ½ parts water

Calorie content: 1.26 kcal/ml

KMR® (Kitten Milk Replacement) is a product manufactured by Pet Ag™, designed for the hand-rearing of domestic cats. As such the carbohydrate concentration is higher than that found in cheetah milk, and so feeding KMR® on its own could cause gastric problems in cheetah cubs. Multi-Milk® is also manufactured by Pet Ag™ and has a low carbohydrate concentration – combining the two replacements, according to the formula above, results in a milk that has a composition closer to cheetah milk.

2. Esbilac® (33/40) + Multi-Milk® (30/55) + water + Taurine supplement

1 ½ parts Esbilac + 1 part Multi-Milk + 3 parts water + taurine (250mg per cub per day)

Calorie content: 1.4kcal/ml

Esbilac® is designed for domestic dog puppies but has been used to feed cheetah cubs – however it MUST be supplemented with taurine. Esbilac does not contain taurine and this is a vital nutrient for cheetah cubs, without it they will go into rapid decline. Esbilac should be combined with Multi-Milk, with the taurine supplement, according to the formula as indicated above.

3. Zoo Matrix (33/40) + water

1 part Zoo Matrix + 3 parts water

Recommended by Cheetah Conservation Fund vets as suitable for cheetah cubs.

6.3.c. Introducing the New Food

Introducing a very young cheetah cub to a new diet is difficult and should be done slowly using oral electrolytes to maintain hydration.

If a new diet is introduced too rapidly then the cub is likely to develop diarrhoea and gastric distress which can lead to death.

A suggested introductory period would be:

Initial 2-3 feedings: oral electrolytes only (no milk) e.g. sodium lactate solution or paediatric electrolyte solution

Day 1: 1 part mixed milk formula (using formula 1 or 2 above) : 4 parts water

Day 2: 1 part mixed milk formula : 3 parts water

Day 3: 1 part mixed milk formula : 2 parts water

Day 4: 1 part mixed milk formula : 1 parts water

Day 5: 2 parts mixed milk formula : 1 part water

Day 6: 3 parts mixed milk formula : 1 part water

Day 7: Mixed milk formula only

The cub's faeces should be monitored throughout this process. As the dilution changes, the cub's faeces may become looser, however they should return to normal within 2 feeds.

If they stay the same or improve then continue to change the diet as planned.

If the consistency become runnier, or the faeces become pale in colour then do not give milk for the next 2-3 feeds, instead just give the electrolyte solution.

Reintroduce the mixed milk formula after this, but at a lower concentration (e.g. if the cub was being fed at a 1:1 ratio, reduce to 1 mixed milk formula: 2 water). Once the cub is producing normal faeces again continue to the next step.

The volume of electrolytes that should be given depend on the cub's stomach capacity. How to calculate the cub's stomach capacity is described in the next subsection.

6.3.d. How Much to Feed

How much to feed a cub depends on how big the cub is.

It is very important to never attempt to feed a cub more than its stomach capacity.

The cub should be weighed every day so that its growth can be monitored and to allow adjustment of the size of its feeds.

Ideally, weight gain should average about 5% of the cub's body weight per day (i.e. a cub weighing 1kg should be gaining about 50g per day).

Keep records of the cub's weight and how much it has been fed so that its progress can be monitored over time.

There are four steps for calculating how much to feed a cub – these are:

Step 1 – Calculate how many calories the cub needs

This is done using the formula:

$$(\text{Cub's body weight in kilograms} ^{0.75}) \times 210 = \text{kcal the cub needs}$$

Step 2 – Estimate the cub's stomach capacity

This is done using the formula:

$$\text{Cub's body weight in grams} \times 0.05 = \text{cub's stomach capacity in millilitres}$$

Step 3 – Calculate how much milk the cub needs each day

This is done using the formula:

$$\text{Calories needed by cub (from step 1)} \div \text{calorie content of the mixed milk formula per ml}$$

Step 4 – Calculate the number of meals the cub needs each day

This is done using the formula:

$$\text{Mixed milk formula needed (from step 3)} \div \text{cub's stomach capacity (from step 2)}$$

For example – these are the calculations for a cub that weighs 600g and is going to be fed on the KMR milk formula:

$$\text{Step 1: } (0.6 ^{0.75}) \times 210 = 143 \text{ kcal}$$

$$\text{Step 2: } 600 \times 0.05 = 30 \text{ ml}$$

$$\text{Step 3: } 143 \div 1.26 = 113.5 \text{ ml}$$

$$\text{Step 4: } 113.5 \div 30 = 3.78$$

It is very important never to attempt to feed a cub an amount that exceeds its stomach capacity. Therefore always ensure each feed is less than the cub's stomach capacity in Step 2. This means you will need to round up the number of feeds in a day – in this case 4 feeds should be given, of 28.5 ml each.

Feeds should be given at regular intervals. The minimum time between feeds: 3 hours; maximum time between feeds: 8 hours.

If milk can be kept refrigerated until it is needed then milk can be mixed up to 24 hours in advance of feeding, if refrigeration is not available then it needs to be mixed up fresh each time prior to feeding.

When using powder mix, it is important to ensure the powder is very thoroughly mixed and no lumps are left. If lumps of powder are left and fed to the cub then this can cause gastric distress and diarrhoea.

6.3.e. How to Feed

Warm the milk (or electrolyte solution) to 38°C before feeding it to the cub. It is the right temperature if you can put a drop of the milk on the underside of your wrist and not feel it.

Cheetah cubs normally lie on their stomachs with their necks extended to feed.

6.3.f. Feeding Behaviour

If a cub finishes its entire meal, it is common for it to eat less of the subsequent meal. However, if the cub does not finish several meals in a row then this needs close monitoring, as it may be a sign of gastric problems.

If a cub does not entirely finish one meal, do not add the remaining amount to the next meal. The volume a cub is fed should never exceed its stomach capacity.

6.3.g. After Feeding

Newborn cubs (less than two weeks old) need to be stimulated to make them produce urine and faeces. This is an extremely important part of their care. To stimulate the cubs, use a cotton wool ball or cloth which has been dampened with warm water to massage the anogenital region. **This should be done before or after every feed.**

Cubs will usually urinate every time they are stimulated. They will usually produce faeces 2-3 times per day. If no faeces are produced for 24 hours the cub is likely to be constipated. Gently massage the cub's belly to encourage it to produce faeces. If the constipation continues, contact a vet.

7. Further Reading

Captive Care and Husbandry Guidelines

EAZA Best Practice Guidelines Cheetah (*Acinonyx jubatus*) <https://www.eaza.net/assets/Uploads/CCC/EAZA-Best-Practice-Guidelines-FINAL-SM.pdf>

AZA Husbandry Manual for the Cheetah *Acinonyx jubatus*

Body Condition Scoring

Dierenfeld E, Fuller L, Meeks K. Development of a standardized body condition score of cheetahs (*Acinonyx jubatus*). In: Proceedings of the 7th Conference on Zoo and Wildlife Nutrition 2007.

Reppert A, Treiber K, Ward A. Body condition scoring in cheetah (*Acinonyx jubatus*): advancements in methodology and visual tools for assessment. Proc Nut Adv G. 2011:40-8.

Transportation of live specimens

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