Care for Orphaned Raccoons

Is This Raccoon Truly Orphaned?

When people find young raccoons, whether tiny eyes-closed infants or slightly older eyes-open (but un-weaned) babies, it is usually due to one of **6 scenarios**:

1. **The mother is gone** – trapped and removed or killed. Young can be found in a den or on the ground, or even in hard to reach places in and around our dwellings – having fallen inside walls for example, when the mother is removed, and they are left behind in an attic or tree cavity.
2. **The den site has been disturbed or destroyed** – often due to human activity such as tree cutting, or renovation/building work on sheds, garages, decks, roofs, chimneys or attics.
3. **The mother is moving** small eyes-closed babies, and one or more have fallen or been separated. Older young, big enough to be out following her can also become separated – for example by being chased by a dog or other predator or falling into something they can not get out of, such as a dumpster.
4. **The den site has become too hot** – occasionally, after a prolonged heat spell later in the season, mobile eyes-open young may be compelled to leave their den during daylight hours, if the den is in a too-warm enclosed space (such as an attic or tree cavity).
5. **Predation of the nest has occurred** – and one or more baby is left behind.
6. **The family pet brings a baby home** – this scenario can follow any of the first five, if a pet finds a baby on the ground.

The **first scenario** means the young are orphaned and in immediate, often desperate need. Eyes-closed infants will be dehydrated and starving, usually having waited for their mother for a day or more before wiggling out of the nest. Slightly older eyes-open babies may be scared and wary or they may be desperate enough to approach and follow people. Baby raccoons rely on their mother for a long time. They wean gradually after about 12 weeks in the wild, but remain with her for close to a year, and den with her over their first winter. So, a fluffy little 8 week old, eyes-open baby, although mobile, is still totally dependent.

In the **second, third and fourth (but only occasionally fifth and sixth) scenarios**, the young may still be reunited with their mother, so long as they are not injured (unless the injury is superficial). One thing to note is that eyes-open babies who have been missing their mother for only hours rather than days (i.e., mom is still nearby) will be more wary than in the first scenario, and not likely to approach people, because they will not yet be desperate.

- The reason the fourth and fifth scenarios only occasionally lead to a reunion with the mother is that predators are often attracted to unguarded den sites, where the mother has already gone missing (trapped out and removed, or killed), or predation itself has caused an injury, and an injured baby should not be returned to its mother.

CAUTION about "creating" orphans:

Raccoons choose warm protected places to have their young (usually in March, April, or May), sometimes in and around our dwellings – in attics or chimneys for example. Baby raccoons are often "created" orphans when homeowners hire pest control companies to remove the mother. The best solution for babies and usually the homeowner as well is to leave the mother raccoon alone for a grace period of a few weeks – she will move her young herself once they become mobile and start to venture out with her on her foraging rounds. At that point it is safe to exclude the entire family and make repairs so the

situation does not repeat itself the following spring. If you have found very young babies (with scant fur and eyes closed) and their birth nest has been destroyed or the mother barred entry to it, she may not be able to take the babies elsewhere. She may not have another den site safe and warm enough to keep such fragile infants alive. Therefore if this is the case, if at all possible, try to restore the birth nest in hopes the mother will be able to continue to care for the babies there. Older, mobile and fully furred youngsters are hardier, and the mother is more likely to have an alternate den site that will suffice for them in an emergency – and she will often choose to move older babies if the birth nest is threatened.

CAUTION about kidnapping raccoon babies: As mentioned above in the fourth scenario, later in the season, after a prolonged heat spell, older eyes-open young may occasionally be compelled to leave a too-hot den during daylight hours. If you think this is the case it is best to wait and watch. If the young seem at risk of straying off too far gather them into a cardboard box or pet carrier for the day – set in a safe comfortably cool place in the shade nearby. Also, baby raccoons do not venture far out of their birth den until they are about 8-9 weeks old, but at that point they start to follow their mother on her foraging rounds after dusk. They will still be un-weaned and totally dependent on her. At this stage, the mother sometimes chooses a safe tree and instructs the young to remain there while she continues to forage – and occasionally the impatient babies will come down and play around, crying for mom to come back. It will be hard for you to tell if babies are orphaned in either of the cases above, but if they look well, it is best to wait and watch for several hours before taking any action. Be very careful not to scare them away since the hope is that mom will be back for them soon.

NOTE: if the mother is still there she will take her young back, given the opportunity, even if you have touched them. If they are old enough to follow her she will encourage them and lead them and if they are small she will pick them up one at a time and carry them off to safety providing she has a safe and warm enough den site to take them to. READ ON TO FIND OUT HOW TO DO THIS PROPERLY

Steps After Finding Baby Racoon(s)

1. **Warm the Baby**
    a. Use a **soft cloth** to pick the baby up. **Wear gloves** for eyes-open youngsters – they will be scared and may put up a bit of a struggle and growl out of fear, and they have little nubs of baby teeth by about 4 weeks of age. Always take precautions to avoid being bitten while you are handling any animal, but don't be alarmed by the fuss a baby raccoon makes when first picked up, it will soon calm down when it realizes you are not going to harm it. Wrap the baby up in the cloth, snugly, head and all, and let it get warm by holding it in your hands. You want it completely warmed up, to your own body temperature. Mother raccoons do not seem to recognize a baby as their own if its body temperature is not normal, and babies cool down quickly once they lose the insulated protection of the nest.
    b. If there is more than one baby, or it is very cold you will want to put them in a **small box or pet carrier with several layers of soft cloths** while they warm up. Make sure bedding is **non-ravelling** since wiggly little animals can quickly become strangled in threads or holes. Provide **external heat** by setting the box/carrier half-on, half-off a heating pad set to low, or put a hot water bottle well wrapped in a soft cloth in the box beside them so they can snuggle against it. Make sure there is **enough room** in the box/carrier for them to wiggle away from the hot water bottle (or to the part of the box/carrier not on the heating pad) if they get too hot. Cover them over, head and all, with soft cloths. If using a box, close it securely since even young babies may escape, but make sure to punch breathing holes in the top. Place the box/carrier in a warm, dark, quiet place and **check**

them often, every 10 or 15 minutes, while their body temperature returns to normal (your body temperature).

2. **Check for Injuries**
    a. In a safe spot, with good light – in a small washroom for example, unwrap the baby and **check it all over for injuries. Wear latex exam gloves or rubber gloves.** It is handy to have a few more clean cloths and a basin of warm water and a washcloth (white is best so you can see any blood) to **clean** away dirt from a suspected injury. At this stage it is important for an adult to carefully assess the raccoon in a quiet room without children or pets present. The washcloth should be wrung out in warm water and then made to mimic the mother gently licking the baby clean – all over. Try to use a light cloth like those used for human babies so that you can feel the orphan through the cloth. Go slowly and take your time, and this will help to calm the baby and make your examination easier.
    b. When cleaning the baby, please **pay special attention to the face**, checking for dried blood in the nose, and mouth, to make sure it can breathe easily. Also **pay attention to the genital area** – try to see if the baby pees when gently stimulated with the soft warm cloth or a Q-tip or tissue, and note the colour of the urine. On males stimulate the penis – a small nub an inch or two above the anus (halfway to the navel); on females stimulate the little nub very near the anus. Stimulate for a full minute or two using light feathery strokes.
    c. **Remove any external parasites** you see (fleas, ticks), and any fly eggs. Fly eggs are whitish specks that will be stuck to the fur or inside/around wounds, eyes, ears, nose, mouth, or genitals – hatched eggs are tiny whitish larvae. If there are many such parasites it is a good indication the mother has been missing for days – and in that case you will need to carefully bathe the baby in a basin of warm water with a little diluted dishwashing liquid ("Dawn" is good) to get rid of the parasites. An old toothbrush will help dislodge sticky fly eggs. Thoroughly dry and warm the baby after its bath.
    d. **In terms of injuries to look for:** falls can result in broken legs, and head or spinal injuries. Very young eyes-closed infants will be naturally weak, so it may be harder for you to tell, but look to see that the legs are held in the right position, not twisted or dragging limply. Older eyes-open youngsters should use all four legs. Try lightly pinching each paw and the tail, since if the baby can feel the pinch it will pull away. Cat caught babies may have obvious injuries or sometimes just puncture wounds that are almost invisible to our eyes, and because cats' claws and teeth carry a bacteria that is fatal to wildlife like baby raccoons, cat caught babies should be put on a course of antibiotics right away. **An injured baby is not a candidate to try to return to its mother** – please take it to a veterinarian for an assessment.

Attempt to Reunite with the Mother

The raccoon is NOT a candidate for attempting to reunite with mom if it:

- is injured, unless the injury is superficial
- has a lot of fleas or fly eggs/larvae (which is a good indication the mother has been missing for days)
- is thin and debilitated, perhaps with urine that is dark in colour – indicating dehydration
- is an eyes-open baby that has been following people around

If you believe the mother is still around, and you attempt to return the young to her, please be patient and very vigilant. Since the mother raccoon will be most active after dark, **put them out at dusk** as close as possible to where you found them or where you know the den to be (mom will not know to look anywhere else). Improvise a way to illuminate the spot, such as an extension cord and "trouble" light or

powerful flashlight that will last for hours – so that you are able to monitor from a distance or from inside a building. **The young need to be kept safe and warm.** Place them in a sturdy box or pet carrier in a nest of soft non-ravelling cloth. Put a hot water bottle well wrapped in a cloth in the box for them to snuggle against. You will need to refill it every few hours, but if you add a couple of pop bottles filled with hot water beside it and wrap it all in an old wool sweater, the heat will last longer. Make sure there is room in the carrier for the babies to wiggle away from the heat if they get too hot. **Remember, mother raccoons do not seem to recognise a baby as their own if its body temperature is not normal.**

Prop the door of the carrier closed with something heavy enough to keep the babies in, but not so heavy that the mother can not move it to take them out. The mother may come, and check, and then leave only to come back in several hours for them. She may be off preparing a new den for them or simply anxious, cautious and scared. She can pick up and move only one baby at a time, so unless the babies are old enough to be able to follow her, the process will take hours. You will need to watch very carefully and protect the ones remaining (propping the pet carrier closed again each time after she leaves) while the mother relocates each one in turn. **Please do not leave them unmonitored**, they will be vulnerable to predation, and need you standing by to intervene if a predator discovers them. If the mother comes and takes some but leaves one or more behind, bring them inside at dawn for care and try again the next day at dusk. You can try a third night also, but after that it is unlikely the mother is still around.

If the Baby is an Orphan that Needs Care

When a wild baby loses its mother it is in desperate trouble. Its best chance for survival will be for a rescuer like you to **find a wildlife rehabilitator**. Wildlife rehabilitators are community volunteers, often licensed by government wildlife agencies, and they will know how to raise your rescued baby so that it is releasable back into the wild. They will buddy it up with other orphans of its species and provide expert care. Your search for a wildlife rehabilitator may take you several hours and many phone calls, but try not to give up – they are usually unpaid volunteers and there are not nearly enough of them to provide this service in all areas or for all orphans. Try calling local humane societies, animal rescue groups, vet clinics and pet stores for contact information in your area, or try searching the Internet by typing in “wildlife rehabilitation” or “wildlife rehabilitator” and your location.

If you need to care for the baby while you are searching for a wildlife rehabilitator, or if you are unable, despite your best efforts, to find one in your area, please read this entire article now before beginning the care. It will help you avoid simple mistakes that are easy to make, and could result in injury or death to the baby and heartache for you. It’s a good idea to also print it out, so it’s handy to check details as questions arise when you are caring for the baby.

In some jurisdictions it is illegal to keep wildlife without a license, even small babies that need care. Carefully research the situation in your area.

Please keep wild babies separate from your pets and quarantine them for at least two weeks.

Orphaned raccoons can have parasites and are susceptible to several illnesses:

- Debilitated little ones may have fleas, ticks, fly eggs or hatched larvae.
- By the time their eyes open, raccoon kits can have **intestinal roundworms** (baylisascaris procyonis) that have matured enough to start shedding eggs in their feces – eggs that if ingested can infect other species including humans. Assume for your sake as well as theirs that baby raccoons have these parasites and de-worm them once they are stable (hydrated and eating well) if their eyes are open. If they are tiny when you find them, wait and de-worm them the day after

their eyes open. **Regular de-worming during the time they remain in your care is also highly recommended.**

- Raccoons are susceptible to **Canine Distemper** and three closely related parvoviruses: **Feline Panleukopenia** (a parvovirus sometimes referred to as "cat distemper"), **Raccoon Parvoviral Enteritis** and **Mink Enteritis Virus**.
- **Raccoons are characterized as a "high risk" rabies vector species**. A baby raccoon that scratches or bites or sometimes even touches a person, can end up confiscated by your government wildlife agency to be killed for rabies testing. Like any mammal, raccoons can contract the rabies virus, but despite the **"high risk" classification given this species, rabies incidence in adult raccoons is low and in babies rare**. A raccoon must be sick with rabies to spread the disease, there is no "carrier" state. During the time it is "incubating" the virus, i.e. the time between exposure to the virus (rabies is almost always contracted via a bite from an infected animal) and onset of symptoms of illness, it is not yet sick itself, and is not infective to others. Once an animal is sick with rabies it will die within a short time.

Like a puppy or kitten, your rescued **baby raccoons may become sick if they are not vaccinated and treated for parasites**, so it is important to try to find a veterinarian who is willing to cooperate with you while you care for them until they are big enough to release back into the wild. Veterinarians will have de-worming medications and vaccinations formulated to protect pets against distemper, parvovirus and rabies, and these vaccines can be administered "off-label" to raccoon kits to protect them as well. At the end of this article you will find a list of vaccines and de-worming medications that wildlife rehabilitators have used for raccoons, and links to on-line sources.

Baby Raccoons Need to be Raised with Other Baby Raccoons

If you determine that the raccoon is orphaned, it will have littermates that also need help so please continue to check the area frequently for a week or more. If no siblings are found contact local humane societies, animal rescue groups, vet clinics and pet stores to try to find a baby raccoon buddy. Please make every effort to search out a buddy, but when introducing a new baby raccoon to ones you have already quarantine it for two weeks first in case it is incubating an illness. **Young raccoons are very social, hate to be alone**, and readily accept other baby raccoons, even if their ages are not exactly matched. Baby raccoons raised with other baby raccoons bond to each other, learn from each other, and rely on each other for warmth, play and companionship not only during rehabilitation but after release as well – young raccoons in nature will stay together and den with their siblings and mother until they are about one year old. **Please understand that it is vitally important to the raccoon's proper socialization and eventual release into the wild that it be raised with other raccoons.** It must learn the social "etiquette", the "language" of being a raccoon. A baby raccoon that is raised alone without other baby raccoons has a greatly reduced chance of a successful release, and will be very difficult for you to keep happy. It will feel insecure and cry when left alone.

Raccoons are NOT Pets

Please think ahead and focus on the fact that by the end of the summer or early in the fall the small baby you have rescued will need to be set free into the wide world. **Raccoons belong in the wild**, and do not make pets. Once they are no longer babies, they are active, and independent – and yes, if their natural independence is thwarted they will become very destructive and bite the hand that feeds them. Spend a few minutes thinking about the deprivation of a life in a cage or a house for such a wild animal.

Raising a Single Raccoon

If it seems impossible to find a buddy – try not to give up, but continue looking, because even older youngsters will still accept other young raccoons without much fuss, and it is **very important to release hand-raised raccoons in late summer or early fall in small groups of 3-6 animals** to mimic a family size unit, so that they can den together for warmth over their first winter. While continuing to search for buddies, make every effort to raise a single orphan (as you would a group of orphans) so that it retains a healthy fear of pets (particularly dogs) and other humans. When it is released its very life will depend on such natural wariness.

On the other hand, a **single orphan will bond to you** as its mother substitute because like other species of mammals, a baby raccoon's psychological well being depends on the feeling of security it will get from loving attentive care. Thus you will need to handle, cuddle and play with it, to provide comfort and some of the tactile stimulation it will miss from not having a mother or siblings to sleep and play with every day. Interaction with other people should be minimal – the ideal being that only one person ever handles it.

A single baby raccoon is nothing if not demanding and needs lots of care. **Raccoon kits hate being alone** and a single will cry a lot if left on its own. For them it is a deprived situation, because as noted above, in nature they would spend their first year of life constantly in the company of their mother and siblings. However, please remember that if the baby scratches or nips someone it could end up paying with its life. Therefore, except for the times when you interact with it, keep it confined safely in a room away from high traffic human activity. Do not treat it like a pet, in the sense of getting it used to free run inside the house, or habituating it to other people or species it should fear (such as dogs) since this will increase the likelihood it will get into trouble with people or pets once it is released.

Initial Feeding and Rehydration Solution

Orphans that have been without their mother will be suffering from **chill and dehydration**.

Required Rehydration Formula

- Pedialyte

They must be thoroughly warmed first, and then, although they are starving, they must be **given warmed rehydration solution before any milk formula** is offered. Their dehydrated little body is simply unable to digest food (i.e. the milk solids in formula) and if given formula or other food before they are rehydrated it can kill them, or cause debilitating diarrhea. **Pedialyte** is a rehydration solution made for human babies, and is available in drug stores – it often comes fruit flavoured, but if you can find the **unflavoured kind that is best** for wildlife babies. It should be heated to body temperature and offered frequently: every 30 minutes to babies that will take only a small amount, or every 2 hours to those that take a larger amount. Feed only Pedialyte for the first several feedings– as much as the baby wants until it is rehydrated and producing lots of light yellow urine when you stimulate it. Stimulate it at each feeding using light feathery strokes.

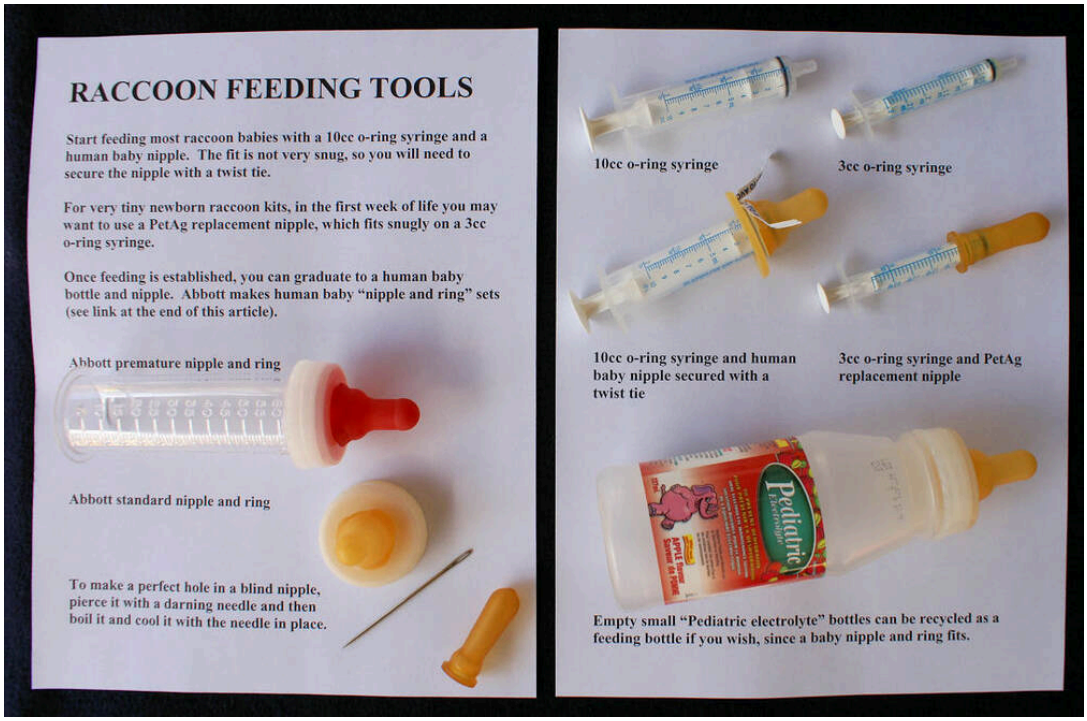
In an emergency, a **homemade rehydration solution** can be made by mixing: ½ teaspoon salt + ½ tablespoon of sugar + 2 cups of water – warm slightly to dissolve sugar and salt. Use this homemade solution only until you can get to a drug store. Pedialyte is a balanced electrolyte solution, much better for the baby. Once Pedialyte is open refrigerate between feedings, and discard any unused portion after 72 hours. It can be frozen in an ice cube tray and the cubes stored in the freezer for use within a couple of months.

Feeding Tools

Required Tools

- 10cc o-ring syringe
- 3cc o-ring syringe and PetAg replacement nipple (if the 10cc and human baby nipple is too big)
- Human baby nipple and bottle (bottle used later)

At first, **use a human baby nipple, pushed onto the end of a 10cc syringe**. Once feeding is well established, graduate to a human baby bottle and nipple (see photo). Please **do not use the small pet nursing bottles** available at pet stores. It is **critical** for YOU to control the flow of fluids, and with the little pet nursing bottles you cannot do that – nor will the baby raccoon be able to nurse from them anyway. The short stubby nipples on these little bottles seem to look "right" to our eyes but they are next to useless for feeding baby raccoons. For the first few feedings it is best to use a 10cc oral feeding syringe (graduating later to a human baby bottle). You can find syringes at a vet clinic or drug store – ask for o-ring syringes rather than the single use ones which will stick after only a few uses. A human baby bottle nipple (try to find the ones made for premature babies since they are a little softer) works well for baby raccoons, and can be pushed onto the end of the 10cc syringe. If the fit is not tight enough you can use a wire twist tie to hold it on more securely (see photo).



If you find that a human baby nipple is too big for a very tiny newborn raccoon, **PetAg makes a replacement nipple** that is about the size of a woman's baby finger, and although it fits their little pet nursing bottles, please use it instead, pushed on the end of a **3cc oral feeding syringe** (see photo). To

make a perfect hole pierce the nipple with a darning needle and then boil it and cool it with the needle still inserted. If the resulting hole is too small do this again with a larger needle or toothpick. If the hole is a little to large, it will shrink slightly if you soak the nipple in boiling water again briefly.

Practice with the syringe and nipple by expressing liquid into a cup before trying to feed the baby. For the first few feedings when the baby is debilitated or desperately hungry it may be difficult to establish a smooth, gentle feeding regime. The baby may fight against accepting the nipple or be frantic and want to suck the fluids too quickly (risking inhaling fluid into its lungs, which must be avoided), or weak and need you to slowly drip small amounts of rehydration fluid into its mouth. The first feedings may feel a little like a raccoon wrestling match. You will likely have to clamp your hand gently but firmly around the baby's muzzle holding its mouth over the nipple at first while you drip formula into its mouth, until it understands what this new feeding regime is all about. Some baby raccoons are very opinionated and need a lot of encouragement to start nursing from the nipple while others catch on easily. Try massaging its back from its neck down to the base of the tail to stimulate its "purr" and sucking reaction.

KMR or Esbilac (Milk Replacement Formulas)

KMR is a kitten milk replacement formula, and **Esbilac is a puppy milk** replacement formula that you should be able to purchase at a vet clinic or pet store (both products are made by PetAg). KMR is closer in terms of fat-protein ratio to the mother raccoon's milk. Even if staff at a clinic or store claim they have a product that is "just as good" (for example, those little boxes of cat milk for adult cats) to substitute **please do not accept it**, but call around until you find either KMR or Esbilac. **Get the powdered product rather than the liquid, and keep it refrigerated after opening.** Cow's milk, goat's milk, soymilk, human baby formulas, and most other pet products are **not suitable** and will likely cause severe diarrhea/dehydration, malnutrition or death for the baby, and a great deal of heartache for you. Likewise, the homemade recipes for wildlife formulas that are posted to the Internet are often referred to as "death formulas" by experienced wildlife rehabilitators, so please do not use them. Again - your baby raccoon's life depends on you getting the right formula - if you get the wrong formula both the baby and you will undoubtedly suffer.

Gradual Introduction of Milk Formula, Following Rehydration

After the baby has had several feedings of rehydration solution introduce milk formula gradually using the following 4 steps:

1. Mix 3 parts rehydration solution with 1 part milk formula for one or two feedings
2. Mix rehydration solution and milk formula half and half for one or two feedings
3. Mix 1 part rehydration solution with 3 parts milk formula for one or two feedings
4. Go to full strength milk formula

One easy way to do this is to draw up one syringe of KMR or Esbilac (reconstituted according to the directions below) and express it into a coffee mug, then draw up 3 syringes of Pedialyte and express that into the mug. Mix and then feed with that solution, warmed to body temperature, for the first introduction of formula feeding . . . and so on. Some wildlife rehabilitators advise using plain water instead of Pedialyte to dilute formula in this 4 step gradual introduction. Important mixing instructions for PetAg

formula (Esbilac): See www.ewildagain.org (!!) for detailed information on mixing Esbilac. PetAg changed the manufacturing process for Esbilac in 2008, resulting in a powder that does not dissolve as readily - the powder particles apparently have a hard 'shell'. So, it is important to follow these mixing directions carefully. The milk powder must be **dissolved fully** for your baby raccoon to be able to digest it.

- **Keep powdered formula refrigerated after it is opened.**
- Turn the can over several times to mix powder before measuring out what you need because some nutrients (the heavier solids) may settle to the bottom.
- Mix up enough formula for **24 hours at a time** and keep it refrigerated.
- Mix 1 part powder + 2 parts water.
- Use very hot water (about 175F), but not boiling because boiling may destroy some nutrients.
- Add half of the water and stir thoroughly for at least a minute to make a smooth thick liquid, then add the other half of the water and again mix thoroughly.
- If it is lumpy when you mix it, strain it, but push the lumps through the strainer so you retain all the nutrients.
- Try not to incorporate air into the formula as you mix it, and always let the reconstituted formula rest for several hours in the fridge (at least 4, preferably overnight) before using it to feed the baby. This will allow the milk powder particles to fully dissolve.
- At feeding time stir the formula again lightly and then remove only what is needed for that feeding. Warm the serving and stir again before feeding.
- You may add a tiny bit of plain unsweetened full fat yoghurt (or probiotics such as lactobacillus acidophilus from a drug store) at feeding time to the warmed formula, once or twice a day. If using yoghurt add about 1 teaspoon (5 ml) to each 1/3 cup of warmed formula.

Another Option but it must be ordered: Fox Valley Animal Nutrition makes milk replacement formulas specifically for wild orphans, including baby raccoons. If you have more than one baby raccoon and, if they are very young and will require formula feeding for some time, you might want to look into this option. It is available online at **Fox Valley Nutrition or call 800-679-4666 (in the U.S.) or 815-385-6404 (outside the U.S.).** You will save on the cost of formula by ordering it because pet store prices are usually higher. The Fox Valley formula for baby raccoons is 40/25. If you order the Fox Valley formula, once it arrives it is a good idea to gradually change over from the Esbilac or KMR you have been feeding: Mix 3 parts Esbilac or KMR with 1 part Fox Valley for a few feedings, then mix the formulas half and half for another few feedings, then 1 part Esbilac or KMR with 3 parts Fox Valley for another few feedings, and then go to full strength Fox Valley.

How Much Feed is Based on the Baby Raccoons's Body Weight

Make every effort to weigh baby raccoons in **grams** so you will know how much formula to feed them. Many people have kitchen scales that will weigh in grams, or postal scales, and certainly vet clinics would be able to weigh your baby raccoon for you. An underfed little one will be deprived of enough calories to thrive or sometimes even survive, whereas overfeeding can lead to a host of problems, including digestive upset, diarrhea, bloat, and in some cases, death. Carefully measuring the amount of formula your baby raccoon should take at each feeding will also give you insight into whether it is doing well or not. If its appetite is poor, or it obviously wants much more than you calculate it should have,

please take it to a veterinarian for an assessment. Keeping a record of its weight gain over the weeks of formula feeding will help you feel assured that it is gaining appropriately.

One way to temporarily estimate gram weight: A human body (and presumably a baby raccoon's body as well) has a density very similar to that of water. In an emergency, in case you are unable to find a gram scale right away you can temporarily estimate the baby raccoon's weight by comparing it to the weight of water. To do this you will need two identical light plastic containers. Place the baby raccoon in one and fill the other one with water. Hold the container with the raccoon in one hand and the container with the water in the other, and add or delete water until you judge that both containers are the same weight. Tip: close your eyes, and switch containers back and forth between your left and right hands a few times. Then measure the amount of water in ml's by drawing it out with a syringe (1ml = 1cc). Since 1ml of water = 1 gram, the number of ml's of water you draw out will give you an estimate of the raccoon's weight in grams. You can do this exercise a few times and average your results if you wish.

The 5% "rule": Please **do not over-feed** formula to baby raccoons! A good rule of thumb is to feed eyes-closed baby raccoons 5% of body weight at every feeding, with eyes-open babies comfortably taking between 5% and 7% of body weight at each meal. If the baby is weighed in grams, to calculate number of cc **(1cc = 1ml)** of formula per feeding, simply **divide the weight by 100 and multiply by 5 to get 5%, and by 7 to get 7%.**

Examples of formula amounts for each feeding, calculated at 5-7% of body weight:

- 60 gram (eyes closed baby): 3cc per feeding
- 100 gram (eyes closed baby): 5cc per feeding
- 200 gram (eyes closed baby): 10cc per feeding
- 300 gram (eyes closed baby): 15cc per feeding
- 400 gram baby: 20 – 28cc per feeding
- 600 gram baby: 30 – 42cc per feeding
- 800 gram baby: 40 – 56cc per feeding
- 1000 gram baby: 50 – 70cc per feeding
- 1250 gram baby: 63 – 80cc* per feeding

*By the time baby raccoons are taking 80cc of formula they should be eating some solids, and you should not continue to increase formula amounts past 80cc per feeding.

Be very careful not to allow baby raccoons to take too much formula! Once feeding is well established and your baby raccoon is doing well, after its eyes are open, it can usually take a bit more formula than the 5% rule dictates, and you can be a little flexible at that point, going to 7%. However, baby raccoons have a strong need to suckle, and many will continue to suck if allowed to do so, long after they are full, taking much more formula than they should. **It is safer to slightly underfeed than to overfeed.** After a feeding, a baby should be comfortable, with a little plump tummy, soft and round, not a tight, bloated or distended abdomen. Overfeeding can be a very serious problem with nursing baby raccoons that can lead to death, so is it important to always measure formula at each feeding.

Baby raccoons love to suck, and what they really want, much like human babies, is more sucking rather than more formula. In nature they would have their mother with them almost all the time and would spend long periods of time nursing, much more than the few minutes it takes them to finish a bottle. Most will not accept a human pacifier, (occasionally they will however, so try if you wish by sewing one or two onto their bedding or a plush soft toy you give them in their nest). However they will often readily suck on their surrogate mother's thumb and fingers. If you wear latex exam gloves over the light little cotton gloves you can find in drug stores (made to keep cream on hands overnight), it will allow you to spend 10 or 15 minutes after each feeding, comfortably satisfying the baby's need to suck. The gloves protect your hands and also protect the baby's pallet from your hard fingernail.

Note: Because young babies love to suck, they will sometimes suck on each other's ears or other parts of their bodies, even another baby's penis. If this happens watch closely for any redness or swelling and be prepared to separate the babies if need be, until they are a little older and this need to suckle lessens. Try feeding baby raccoons that are sucking on each other smaller amounts more frequently – and allow them to suck on your fingers after each feeding for as long as you can spare the time.

If your baby raccoon is not taking the amount of formula you calculate it needs:

- check to be sure it is comfortable and warm
- wash its face and genitals with a warm cloth, stimulate it to pee
- make sure it is not dehydrated – try a feeding or two of rehydration solution
- make sure you are feeding in a quiet room with no distractions
- try wrapping the baby snugly in a soft cloth, covering over its eyes to reduce its stress
- hold the baby in an upright position, not on its back, let it push its forepaws against the syringe or bottle
- check again that the formula is the right temperature and stays so all through the feeding
- allow it to suck on your fingers for 10 or 15 minutes after every feeding
- aim for feedings to be a smooth, gentle and unrushed experience for both you and the baby

How Often to Feed will Depend on the Raccoon's Age

Raccoons have one litter of young a year, usually born in the spring, in March, April or May – but there are exceptions and wildlife rehabilitators have seen young baby raccoons from early March to the end of August. Newborns are small and helpless, weighing about **60-70 grams at birth**, with eyes and ears tightly closed. They can not walk or stand, but wiggle around with all 4 limbs spread-eagled. They are very vocal babies, making lots of noise from happy purrs and churrs to anxious squeals and alarm cries. **Eyes open at about 3 weeks of age (19-24 days)**, and the first baby **teeth erupt at about 4 weeks**. If eyes are open but the baby has no teeth or you can just feel teeth beginning to erupt, then it is not much more than 4 weeks old. By **6 weeks they can walk, and climb,** and are becoming very playful. Number of formula feedings per day decreases while amounts fed at each feeding increase as the baby gets older. Weighing your baby in grams and consulting the chart below as a guide to stage of development will help you decide how old your baby raccoon is, and how often to feed it.

There is a geographic difference in size for raccoons in North America. Body mass increases as you go further north, so young born in the north will likely be bigger on average than those born further south – although features of each age (for example time when eyes open, or teeth erupt) will be the same. The chart below uses weight data based on the experience of wildlife rehabilitators in the northern part of raccoon habitat. Weights for young at the same stage of development will vary not only between individuals but across regions as well. Therefore it is best to decide how much formula to feed based on individual weights using the chart below as a general guide only. At the end of this article you will find links to several Internet sites. One will take you to a manual written by a California wildlife rehabilitator that has pictures of raccoon babies at each stage of development, to help you determine how old your orphan is.

Feeding a Baby Raccoon

Choose a quiet room with no distractions. Hold the baby raccoon in an upright position (not on its back). Allow it to push against the end of the syringe or bottle with its forepaws.

A hungry baby raccoon can sometimes suck very quickly and take too much formula if you are not in total control. If this happens it will bubble formula out of its nose. Immediately **STOP** feeding, lower the baby's head to allow formula to run out of the nose, and gently wipe the excess formula from its nose. Repeat this for about 5 minutes or until the nose is clear and breathing returns to normal. If this aspiration problem is severe and fluids get into the lungs, it can cause immediate death or pneumonia on a longer-term basis. That is why it is so important for you to control the flow of fluids for the baby, and why using a feeding syringe and nipple is best at first. Make sure the hole in the nipple you use is small and does not allow rehydration solution or formula to flow too quickly. Take your time, and go slowly, carefully watching both the raccoon and the feeding syringe. If air bubbles appear in the syringe it is an indication the baby is sucking fluid more quickly than you are depressing the syringe plunger. If the baby is doing fine and just wants the formula a little faster, then try to accommodate, (perhaps even graduating to the human baby bottle at that point), but if it is bubbling fluid from its nose, stop feeding, and expel the air from the syringe before continuing. When you resume feeding if the baby continues to suck too strongly, try to hold the syringe plunger back a bit rather than depressing it. You should also fit a new nipple to the syringe – one with a smaller hole.

NOTE: After every feeding thoroughly wash the baby raccoon's face, neck and under its chin with a warm washcloth. Formula dries like glue and turns hard, sticking the fur to the skin, which must be very uncomfortable, and results in fur loss. In nature the mother raccoon would lick her babies clean all over many times a day.

Bathroom Information

Stimulation

It is critical that baby raccoons are **stimulated to urinate at every feeding**. They may be peeing a bit on their own, but this can simply be overflow from a distended bladder, and if they are not stimulated the bladder can rupture. Inside their den **they do not pee on their own**, the mother raccoon licks away the urine and thus keeps the nest clean. **To stimulate a baby raccoon** hold it over a small bucket, and dip your finger, a Q-tip or soft cloth in warm water and then light feathery strokes over its genital area will cause the baby to urinate and/or defecate. On **males** stimulate the penis - a small nub an inch or two above the anus (half way to the navel); on **females** stimulate the little nub right near the anus. Once the raccoon starts to pee don't stop stimulation until it is finished or it will stop without finishing emptying its bladder.

Stool Information

The first stool you see from a rescued orphan will usually be dark in colour, but once the baby is digesting milk formula, the stool should be firm and a golden brown colour. **Always wear latex exam gloves or rubber gloves** to handle feces and practice proper hygiene since as noted above, raccoons can carry intestinal parasites. **Overfeeding can cause stool to be loose and paler** in colour. If the baby has **loose stools or diarrhea**, dilute the formula half and half with plain water for a few feedings and try to feed smaller amounts more frequently. Work back up to full strength formula gradually as the problem resolves.

Overfeeding and other digestive upset can also lead to bloat. Bloat can sometimes be relieved by massaging the abdomen while holding the baby with the bottom half of its body submerged in a basin of warm water. Sometimes a small dose of a **human pediatric colic medicine** (symethicone) will help relieve bloat in a baby raccoon, and sometimes a dose of **stool softener** (such as lactulose syrup or docusate sodium “Colace”) will help. Do not feed the baby formula if it is bloated, offer Pedialyte instead, and if your best efforts do not resolve the problem within a day, please take the baby to a veterinarian for an assessment. **Digestive upset is often a feeding problem** (wrong or too much formula, or formula feeding before the baby is fully rehydrated), but occasionally it results from intestinal parasites or a coccidia infection, and your vet will be able to treat these conditions.

First Housing - Birth to 6 weeks

Housing requirements change as baby raccoons grow and develop. Keep very young eyes-closed orphans in a **warm room away from drafts and noise in a small enclosed box** (with breathing holes) or a pet carrier with a towel draped over it to keep it cozy. **Create a nest** with several layers of soft cloth, flannel or polar fleece bedding. Make sure this bedding has no holes and is **non-ravelling** since wiggly little animals can quickly become strangled in hanging threads. Avoid using terry cloth towelling with very small or weak babies because their claws are easily snagged and stuck in the fabric loops – which can result in twisted limbs. **Change the bedding twice a day and launder it without using fabric softener or softening sheets** in the dryer since these leave scents that are hard on the babies’ respiratory system. Likewise, **wood chips release aromatic oils, and are thus not good to use for bedding**, nor do they provide insulation and warmth in a nest.

Provide external heat by setting the box or pet carrier half-on, half-off a heating pad covered with a towel, and set to low, or put a hot water bottle well-wrapped in a soft cloth in the box beside the babies so they can snuggle against it. Make sure there is enough room in the box/carrier for them to wiggle away from the hot water bottle (or to the part of the box/carrier not on the heating pad) if they get too hot. Cover them over, head and all, with soft cloths. **Refill the hot water bottle at every other feeding** (or when it is no longer warm enough) and also check that it is not too warm for them and does not leak. Some wildlife rehabilitators use a **"rice sock"** instead of a hot water bottle – made by half-filling a cotton sock with dry uncooked rice, tying the top, and then heating it in the microwave for a few minutes, reheating it at every feeding.

Litter Training

After baby raccoons have had their **eyes open for a week or two**, they will be peeing on their own sometimes, and you can start to **litter train them to paper towels in their carrier**. Stimulate the baby to pee over paper towels and then use the paper to line the front section of the carrier **(or a cat litter pan if it will fit in the carrier)** – to give them the idea this is where they should go. Once they are using the paper, monitor often, and if you **notice any feces remove it promptly**, since you do not want it tracked around. Some wildlife rehabilitators start to use sand or kitty litter in a litter pan, once baby raccoons are trained to know where to go. Wear rubber gloves to clean the carrier and litter pan, and **always wash hands thoroughly**.

Group feeding

When you are raising a group of raccoon babies, they will cry mightily when you take one out for its bottle and leave the others behind. After they have all learned to nurse well from the bottle, you may want to improvise a way to hold all the bottles at once and allow them to **nurse together, since it will be much less stressful for you and for them**. See photo on the right of one such **improvised bottle holder**, made by attaching a strip of plastic mesh to a small piece of wood trim, and then threading thick elastic through the mesh, creating loops to hold several bottles.

Intermediate Housing - 6 to 12 Weeks of Age

By about **6 weeks of age baby raccoons become more active** and need more space to play and exercise. Housing should **still be kept in a quiet room,** but you will now need to provide them with **more space**. If you can give over a little room to them for a few weeks at this point, (small bathroom, laundry or utility room) you can use a **very large dog-size pet carrier (33" x 22" x 28" high)** as their nest, but remove the door so they can come and go from it. Start to **remove their supplemental heat source** gradually now, (except with single babies or those that are not well) starting with a few hours a day – removing their night heat last. Use a well wrapped hot water bottle in the carrier under their bedding if they are allowed out in the room since it will no longer be safe to use a heating pad; they could damage it and hurt themselves.

As they get more playful they **will appreciate toys**. **Natural items are best** – acorns, pinecones, small branches, bark, limestone pieces, stones/pebbles, shells, maple keys, flower seed heads, etc., but sturdy dog chew toys, cat toys, human baby toys and empty boxes are also good. Be careful to provide natural objects from areas that have not been sprayed with pesticides. The housing and litter pan will need to be cleaned often, and the bedding washed daily.

Teach Respect for Surrogate Mother

As raccoon kits become more mobile and start to play rambunctiously, they need to be taught to treat you (their mother substitute) with respect. **Encourage them to engage in their rough-house playing with each other rather than with you** (much as their own mother would do in the wild – she has little time for play). If raised in litter-size groups of 3 – 6, which is best, this will be easier for you to accomplish than if you are trying to raise a single kit. You should always be **gentle but consistently firm** about the fact that they are not allowed to play rough with you – i.e. no biting, nipping or scratching the "mother". When one of them does play fight with you just **scruff** them (by the fur and skin at the back of the neck) and hold him off the ground briefly in a firm no-nonsense way and then put him down directing him and his energy off to a sibling. Most youngsters will go limp while held this way, and then comply. Raccoon kits are very intelligent and if you are consistent in this approach it will usually work. Of course it only works with your own hand raised babies; do not try it on wild youngsters or adults!

Weaning Baby Raccoons

Raccoon kits are demanding, and do not fully wean in the wild until they are **12-16 weeks old** (permanent teeth do not erupt until about 14 weeks of age), but at about **8-9 weeks they start to venture from the den** with their mother on her foraging rounds, and thus **start to eat some solid food**. In captivity they can be hard to wean, since most love their bottle, so it is best to start **introducing solids a bit earlier, at 6-7 weeks**. Start with a **good quality puppy chow and chopped fruit** (grapes and bananas are favourites). At first, you can **moisten the kibble** with formula and mix mashed banana into it to entice them. If you **microwave this dish for about 5 minutes** it will allow the kibble to soak up the fluids (so the youngsters do not just lick the yummy stuff off the kibble). **Do not use an adult dog or cat chow** since an adult diet will not be rich enough in some of the nutrients young growing animals need. Once the babies are weaned, fresh fruit and some vegetables should make up about 1/3 of the diet, and puppy chow the other 2/3. Raccoon kits have a sweet tooth, so you must limit sweets for the same reason you would do so with a human child. They can have an occasional arrowroot cookie or fig Newton, but will be happy with treats such as: berries, nuts (almonds are a favourite), eggs, cheese, and dog biscuits.

At the same time as you introduce solids, **add a source of fresh drinking water** to their housing as well. Water bowls are problematic for raccoons since they will often pee in them, or spill them while playing in the water. Some wildlife rehabilitators have success keeping drinking water clean in water containers made for pigs or lick bottles made for dogs or rabbits (much larger, sturdier versions of the familiar hamster water bottle) affixed to something solid. Others provide water in a small bucket (too high and not comfortable for babies to perch on to pee in) with a big rock in it to weigh it down so it does not spill. Bacteria multiplies surprisingly quickly in water, especially in warm temperatures, so always keep drinking water fresh and clean by **emptying, washing, and refilling the container often** – several times a day.

Walks in the woods

After raccoon kits are mobile, if you are able, they will benefit greatly from **daily walks in the woods or other secluded safe places outside**, where you can point out edibles such as raspberries, help them dig for grubs under fallen logs or let them wade at waters' edge. Raccoons do not have to be taught to eat natural food items, they are very adaptable and opportunistic foragers and if something tastes good they will eat it (live food in their cage is inhumane to the prey, and teaches them nothing about finding such food in the real world). Although classified as carnivores they are really omnivores, eating more plant than animal food in the wild: fruits, berries, nuts, acorns, corn, seeds, shoots and buds, insects, carrion, crayfish, snails, frogs, turtles, fish, small rodents, and birds' eggs – not to mention human leavings such as garbage and outdoor pet food. **Tip:** take a couple of pet carriers with you on these walks because although baby raccoons happily follow you out to the woods, they often want to stay out longer than you have time for on any given walk, and then you will have to gather them up into the carrier and tote them back home. Raccoon kits hate to be alone so if only one is lagging back, or has decided the tree he has climbed still needs more exploring, he will come down in a hurry if he thinks you and the other babies have left him behind – so faking an exit will usually do the trick. If there are two or more brave ones up the tree though, you will usually have to just wait them out – they will come down in due time, don't worry. **Pack some treats to take on these walks if you wish to use as bribes.**

Pre-release Caging - 12 to 16 Weeks of Age

After raccoon kits are weaned they should be **housed outside in a large pre-release cage before being released at about 16 - 18 weeks of age.** The cage should be as spacious as you can manage, but at least 8ft x 8ft x 6ft high and made of 1" welded wire mesh on a wood frame. **Do not use "chicken wire"** because it is much too light and easily torn by predators or the raccoons themselves. The floor can be patio stones or a plank "deck". Provide a secure wooden nesting box (24" x 24" x 20" high) or a larger version (24 x 30 x 20) if you have more than three raccoons and have to over winter them, attached to a top corner platform, and accessed by ramps. Give them clean straw or dried grass in their box as bedding, and check it daily to make sure it is staying dry – you do not want any mold inside their box. The cage should **have a roof** to protect it from the elements and large tarpaulins can be draped around most of it – to provide the youngsters with the feeling they are hidden and safe. Some wildlife rehabilitators construct **very large outdoor cages for juvenile raccoons, with kiddie wading pools, trees, toys and other enrichments** – at the end of this article you will find an Internet link to some photos.

The size of the outside enclosure you need will depend on your situation. If raccoon kits must be caged all the time, try to make the enclosure as large as possible and add as many interesting climbing opportunities

as you can think of. **Furnish it with fresh hardwood branches** with leaves and as many natural elements as you can gather, such as rocks, pebbles, acorns, maple seed keys, pine cones, flower seed heads, bark, mosses etc. **Create hanging "hammocks"** from tough fabric and thick rope, provide a tire swing, and put a big hardwood stump or large hollow log in the bottom of the cage. If you are able to take them out for daily walks (even for one hour a day) where they can exercise and climb trees, you may be able to make do with a smaller outdoor cage – but it still **must be big enough to provide some play/exercise room, and comfortably house their food and water containers, litter pan and a wooden nest box.** Raccoon kits are extremely active in this 6 – 8 week period and need to exercise and grow strong. This is a very messy stage, so the **cage will need to be hosed out and the litter pan cleaned at least twice a day**. Empty any play pools you use after a few hours to prevent raccoons from getting water borne illnesses, and pay special attention to keeping their drinking water fresh and clean.

Feed juvenile raccoons all they want to eat, twice a day – your goal is to help them put on weight to see them through their first winter. In the northern part of raccoon habitat they will likely lose 50% of their body weight over winter so you want them going off to den nice and fat. In these regions baby raccoons born in the spring (March – May) should weigh about **15 lbs by the time they are 16 - 18 weeks** old and ready for release in late August or September.

Release Where They Were Raised/Housed Outside

Your raccoon kits will have bonded to you as their main caregiver, and to the place where they have been housed in their outdoor cage before release. They should therefore be **released on your property** near where they have been raised, where you can monitor their post-release integration into the wide world. **This will improve their chances of survival.** However, if that is not possible (your property is unsuitable or neighbours are trapping or harming raccoons), they will need to be placed with another willing caregiver who has a suitable property, and can accommodate their pre-release cage. The placement would need to be for at least three weeks before their release so they can become accustomed to the new site, and their new caregivers. If necessary they can be kept an extra few weeks (until they are about 20 weeks old) to accomplish this, so long as release is not delayed past the end of September. They need time after release to integrate into the wild population and establish a good den site before going off to den in November.

If you have been able to take them for walks, release will be a "soft" gradual process whereby time inside the cage becomes less and time outside the cage more . . . until finally the cage door is secured open all the time. **After release the cage simply acts as a backup shelter for them if they need it**.

In some situations (for example with late born kits that are not old or big enough for release in the fall) it **may be necessary to keep raccoons over their first winter**, with release the following spring. In that case they will need a well insulated nest box, and their outdoor enclosure should be set up inside a garage, barn or shed to protect them from the elements. They will need food and water (prevented from freezing) provided daily. They do not hibernate in winter, but slow down, eat and drink less, and sleep a lot.

After Release

For raccoon youngsters, **released in late August or September**, provide food and water every day until they go off to den in November. A good staple to **provide post-release is the puppy chow** they are used

to. At first, provide their food within sight but some distance from their familiar cage and nest box. **Do not leave food inside the cage since you do not want to attract other animals** into it – however you can **continue to provide fresh drinking water** there, as usual, until you are sure your youngsters have scouted out a source for themselves. Once post-release feeding is established, your feeding "station" can be slowly moved to any convenient place – perhaps to a spot that is visible from your kitchen window so you will see them when they arrive in the early evening. This way you can go out with food when they arrive, and target feed them. Some **youngsters will disappear for several days or even a week or two** when they are first released, as they explore their new world, and some are wilder and more wary and you will not see them after release. **Please continue to religiously stock a feeding station daily even if you do not see them**, because they need your support over their first fall of life to attain a body weight that will see them through their first winter.

Immature young raccoons are "boss" in the raccoon social world, and your hand raised youngsters will likely not encounter any serious aggression from the resident raccoon population – especially since they have already gained their acquaintance through the outdoor caging. Mother raccoons are fiercely protective of their young and when an adult raccoon encounters a youngster they usually defer to it, assuming its mother is right there ready to rush to its defence.

Since transitional care is required, especially in northern climates, the raccoons must be released on private property, where caregivers they recognize are present

Basic Care Guide

There is a geographic difference in size for raccoons in North America. Body mass increases as you go further north, so young born in the north will likely be bigger on average than those born further south – although features of each age (for example time when eyes open, or teeth erupt) will be the same. This chart is based on the experience of wildlife rehabilitators in the northern part of raccoon habitat. Weights for young at the same stage of development will vary not only between individuals but across regions as well. Therefore it is best to decide how much formula to feed based on individual weights using this chart as a general guide only.

**In some jurisdictions it is illegal to care for wildlife and you should consult your government wildlife agency.