

DOG AND PUPPY SUPPLEMENT

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Puppy Development and What You Can Do

A great amount of time and effort is required to properly socialize puppies between the ages of 4-12 weeks. Daily socialization sessions are important in shaping the foster puppy's future personality and emotional growth.

Neonates

Neonatal puppies should be pink, firm, plump and generally healthy in appearance.

Respiration – Neonates breathe 25-35 times per minute. Their heart rate is greater than 200 beats per minute until they are 2 weeks old.

Temperature – Normal rectal temperature for newborns is 96-97 F.

Eyes and Ears – Closed, but can still hear (poorly) and respond to bright light with a blink reflex.

Muscles – Flexor muscles are stronger than the extensor muscles. Healthy puppies will curl their bodies and limbs inward.

1 to 2 weeks

Temperature – Normal rectal temperature has gradually increased to 100 F.

Eyes and ears – Open at approximately 11-15 days.

Muscles – Extensor muscles begin to develop. They can use their front legs to stand and walk shakily.

Neuromuscular – Withdrawal from pain stimuli is noticed.

What you can do – It is important that the area where the babies are kept is warm and smooth, so that the area around their umbilical cord does not become infected. You can do gentle handling and cuddling at this point. These sessions should be very short (1-2 minutes) and great care should be taken in the handling process.

- 1) Briefly, rock the baby back and forth.
- 2) Rub the coat briskly with your hands and gently finger the webbing in between the toes. Rub ears and muzzle.
- 3) Invert the baby so it is facing the ceiling and gently rock back and forth, up and down.

2 to 3 weeks

Vision – Poor even after the eyes open, but continues to develop until 3 to 4 weeks of age. If the eyes fail to open and the lids look sticky, the lids should be very gently wiped with dampened cotton and a little eye ointment (you can get this from the shelter) smeared on them to ease their opening.

The eyelids should never be pulled apart.

If the eyelids still haven't opened by 14 days, contact the shelter.

Muscles – The rear legs can now support the body. Puppies are crawling.

Temperature – Able to maintain body temperature within the normal range (100.5-102.5 F.)

Teeth – Deciduous incisors erupt at 3 weeks, followed by deciduous canines.

What you can do – Be careful not to startle the puppy with sudden movements or loud sounds. Do not overwhelm the baby at this point. Place a human-scented T-shirt in the sleeping area every day. The den area should have 2 surfaces, one for sleeping and the other for a toilet (away from the sleeping and feeding area). Provide 5 minutes of handling exercises; the purpose is to stimulate, not to scare the puppy.

- 1) Gently roll the infant over on its back for 10-15 seconds and then draw it close to you, stroking and cuddling it.
- 2) Softly pinch in between the toes and then draw the animal close to you, stroking and cuddling it.
- 3) Grooming - Softly and gently brush the puppy's coat a few strokes, touch the ears and mouth and clip nails (pages 9-10).

3 to 4 weeks

Muscles – The extensor muscles become dominant. By 21 days, puppies can walk with a fairly steady gait. Puppies can sit and have reasonable control of toes.

Eyes and Ears – Vision and hearing normal. Blink response disappears due to the development of accurate pupil control. The infant is now able to use visual clues to locate and approach the mother. Ears should be completely open by 17 days.

Respiration – Slows to 15-25 breaths per minute.

Teeth – Deciduous incisors and canine teeth erupt.

What you can do – Do not permanently remove the infant animal from its mother or littermates at this time. It is critical to the puppy's development that it continues with its social interaction.

- 1) Be careful not to frighten puppy - it is experiencing a shower of sensory stimulation and a frightening experience could make a life-long impression.
- 2) It is important to provide a stable home environment to balance the excess stimulation the puppy is experiencing. This is not a good time to move the whelping box.
- 3) The puppies will start to investigate their immediate environment. Safe, simple toys can be added for them to discover at this time.
- 4) The babies can be introduced to people, but this should be carefully controlled and limited to family members and close friends. The interaction should be limited to 5 minutes of gentle massage and cuddling.
- 5) The main caretaker should continue grooming and handling exercises: holding and cuddling.

4 to 5 weeks

Teeth – Deciduous premolars erupt.

Muscular – Puppies are walking normally. Social play is prevalent.

Eyes and ears – Guided paw-placing and obstacle avoidance develop between 3 to 5 weeks. Vision is markedly improved.

5 to 8 weeks

Teeth – Entire set of deciduous teeth by 5 weeks.

Eyes – Eye color is determined by 6 weeks.

Postural reactions – Fully developed at 6 to 8 weeks.

Adult sleep patterns – Developed by 7 to 8 weeks of age.

Temperature – Normal range is 100.5-102.5 F.

Play – Play with objects and locomotor play rise markedly around 7-8 weeks of age.

What you can do – The puppy is totally dependent on the environment you provide for stimulation and development.

- 1) Introduce the puppy to as many different people as possible – people of different shapes, sizes, colors, sexes and ages. Also introduce the puppy to other animals. Supervise the visits (no more

than 5 minutes). These visits must be calm and pleasant. A traumatic incident at this stage will have a lasting effect.

- 2) Continue to add appropriate toys to the puppy's environment.
- 3) Expose the puppy to mild sounds.
- 4) Expose the puppy to different areas and surfaces, allowing it to investigate.
- 5) The main caregiver continues handling and grooming exercise.

8 weeks plus

Teeth – Change from deciduous (milk) teeth to adult teeth starts at about 3 ½ months.

What you can do – Protect the puppy from things that could have a lasting effect during the fear period.

- 1) It is important to separate littermates by 10 weeks of age. This promotes bonding with people as their “family” and less dependency on other dogs for companionship.
- 2) Introductions to people are extremely important, as the puppy develops the ability to form permanent relationships with humans at this time. Supervise the visit, but expose the puppy to as many different types of people as possible.
- 3) The puppy's environment should develop a sense of security in the animal.
- 4) There should be mild restrictions imposed on the puppy to help it better develop proper tolerance levels.
- 5) Introduce the puppy to new places, but remember that it is not fully immunized yet. Do not take it to public places where lots of dogs roam.
- 6) Introduce the puppy to a crate and begin to crate train. Puppies that are fostered without a mom can be crate trained earlier.
- 7) Introduce the puppy to the car. Spend time in the car with the animal without going anywhere. It can be in a crate/carrier or on the floor. Click and treat the puppy. If you are not familiar with this method of training, please talk with the Foster Care Coordinator. Gradually drive a short distance and then allow the puppy to leave the car.
- 8) Introduce the puppy to louder noises gradually, such as a vacuum cleaner, washing machine and/or dishwasher. Play with the puppy as you introduce the noise in the background. Encourage puppies to explore, sniff and lick these noisemakers. Exposing puppies to a variety of unusual sounds helps them become accustomed to these noises. It will also minimize fearful, nervous reactions to noises later in life.

Praise the puppy for positive reactions. Do not force puppy to approach noisemakers and do not comfort the puppy if it shows fear.

- 9) Introduce restraining exercises.
 - Gently roll the puppy on its side and hold your hand on its shoulder and hindquarters, gently restraining it. Ignore any squirming or struggling. When the puppy has relaxed for 10 seconds, click and treat and allow it to get up.
 - Elevation - gently pick the puppy up from underneath the chest and raise its front feet off the ground; back feet should remain on the ground. Ignore any squirming or struggling. When the puppy has relaxed for 10 seconds, click and treat and allow it to get down.
 - Gently roll the puppy over on its back in between your legs with its head closest to you. Ignore squirming or struggling. When the puppy has relaxed for 5 seconds, click and treat and allow it to get up.
 - Gradually increase the time the puppy accepts being restrained, by praising, petting and massaging it.
 - Introduce retrieving games, hide and seek.

- Combine simple play with restraint exercises. This familiarizes puppies to having their paws touched (front and back), mouths opened, muzzles and ears touched. Combining this with regular grooming sessions and body massages helps prevent skin sensitivity or aversion to touch.

Pre-Adolescent (13-16 weeks)

General behavior – Puppy is fully developed, needing only experience. The puppy’s mind can still be influenced. The animal’s flight instinct is developing and may cause it to run from real or imagined threats.

What you can do – Be consistent with rules, continue grooming and socialization. Continue dog’s formal training using the click and treat method.

Weaning and Feeding Puppies

Generally, it is best to start weaning puppies at 3-5 weeks of age. Weaning time depends upon the size of the litter, the condition of the mother, and the availability of mother’s milk. Weaning should be a gradual process.

How to Wean

Begin introducing 3-5 week-old puppies to semi-solid “gruel,” made from 1 part canned food to 3 parts hot water. Make sure to serve the food at body temperature (98-100 F). Offer this mixture 3 to 4 times daily. Remove the gruel after 15 minutes and discard.

Mash the moistened food well with a fork, or puree the mixture in a blender. Place the thick gruel in a shallow pan (pie tins work well). Feeding puppies in the bathtub helps ease the clean-up process when weaning them off the bottle.

Introducing Food

The mother will usually show her puppies how to eat gruel and solid foods and drink water. Feed the mother before offering gruel to her babies or she will eat it all.

Dip your finger into the gruel and let the puppy lick at it, or smear a small amount on the puppy’s lips or on the roof of his mouth. Be careful not to get any of the gruel in the puppy’s nose.

At around 5 weeks of age, the young puppies should be reducing their intake of mother’s milk and consuming more gruel. Once they are consistently eating gruel, gradually decrease the amount of water used.

Do not be alarmed if the mother dog regurgitates some food and the puppies eat it. She is offering her own version of “gruel” to help wean the puppies.

All changes in amounts and consistency of food should be made gradually for healthy digestion.

Always provide plenty of fresh water in clean bowls. **Never give cow’s milk.**

Some puppies take longer to acclimate to supplemental feedings. It is important to always watch the litter to ensure that each individual is eating healthy amounts of food. Check tummies for fullness after they have eaten.

4-6 weeks – Gruel 3 times a day. Dry food always available.

6-8 weeks – Mix canned food and moistened dry food to begin their transition to dry food. Feed this mixture 3 times a day. Dry food always available.

Helping the Mother's Milk Supply Dry Up

The mom's milk can be "dried up" by withholding food for 24 hours, then adding it back slowly, increasing it by 25% each day for four days. Many moms will dry up as they wean their puppies. It will vary with each individual dog.

We cannot place lactating moms up for adoption since they cannot be spayed until the milk is gone. When the shelter is full, this can create space issues. It is helpful if the mothers return to the shelter with their milk supply dry. Another option is to return the infants at their scheduled time and to keep the mom at your home for another 1-2 weeks as her milk dries up.

Mastitis

Mastitis is inflammation involving one or more of the mother dog's mammary glands. Mastitis usually presents 6 weeks after giving birth, if it is going to present at all.

Symptoms of mastitis include fever, listlessness, loss of appetite and neglect of the young. Affected mammary glands are usually swollen, hot and painful to the touch. You can feel firm nodules within the tissue of the teat.

The cause can be from a bacterial infection in the mammary gland and may require antibiotic treatment. If the dog will tolerate it, place damp, warm towels over the affected glands to encourage drainage.

Birth Process and Possible Complications

Impending Labor

The signs of impending labor generally include nervousness and panting. The dog will often quit eating during the last 24 hours before labor. She will also usually have a drop in rectal temperature below 100 F. The temperature drop may occur intermittently for several days prior to delivery, but it will usually be constant for the last 24 hours.

The First Stages of Labor

During this stage, uterine contractions begin. She will appear very restless and may pace, dig, shiver, pant, or even vomit. This is all normal and all an owner can do is see that the mom has water available should she want it. This stage of labor is very long, lasting 6-12 hours and culminates with full dilation of the cervix in preparation to expel a puppy.

The Second and Third Stages of Labor

The second stage is the "hard labor" stage in which the puppy is expelled. The third stage refers to the expulsion of the placenta and afterbirth. Each pup may not be followed by afterbirth; the mother may pass two pups and then two placentas. This is normal.

Puppies are born covered in membranes which must be cleaned away or the pup will suffocate. The mother will bite and lick the membranes away. Allow her a minute or two after birth to do this; if she does not do it, then you must clean the pup for her. Simply remove the slippery covering and rub the puppy with a clean towel. The umbilical cord may be tied in a knot about one inch from the pup and cut with scissors on the far side of the knot.

Expect one pup every 45-60 minutes with 10-30 minutes of hard straining. It is normal for mom to "take a rest" partway through delivery and she may not strain at all for up to four hours between pups. If she is seen straining hard for over one hour or if she takes longer than a four hour break, a veterinarian should be consulted.

Expect some puppies (probably half of them) to be born tail first. This is normal for dogs.

Call Animal Services if:

- 30-60 minutes of strong contractions occur with no puppy being produced
- Greater than four hours pass between pups and you know there are more inside
- She fails to go into labor within 24 hours of her temperature drop
- She is in obvious extreme pain
- Greater than 70 days of gestation have passed (if you know the breeding date)

It is normal for mom to spike a fever in the 24-48 hours following birth. This fever should not be accompanied by clinical signs of illness.

Normal vaginal discharge after giving birth should be odorless and may be green, dark red-brown or bloody and may persist in small amounts for up to 8 weeks.

Potential Problems

Dogs may be prone to certain problems, either during pregnancy or after delivery. The following are a few conditions to be aware of, so that you can spot the symptoms if they should occur and take proper action. For any actions that require veterinary assistance, please contact the shelter first to determine when and where to take the dog(s).

- **Spontaneous Abortion** – There is not much that can be done, but a veterinary check is necessary to ensure that any remaining fetuses are still alive or that all the puppies and placentas have been expelled from the uterus.
- **Stillborn Puppies** – Sadly, this sometimes happens. All you can do is to remove the baby from the area so the mother can continue uninterrupted with birthing the other puppies. (Don't forget the placenta.)
- **Difficulty in Birthing** – If part of a puppy presents itself out of the vaginal opening, but nothing else happens, you may have to assist with the birth. As she contracts, gently tear/remove the sac from the head or feet, and then gently grasp the head or feet, using a downward direction (toward the mom's feet) and apply gentle traction to retrieve the puppy at the same exact time the mom experiences a contraction. If after two or three contractions and your attempt to manually retrieve the pup does not produce results, immediately contact your vet because this probably means that the puppy is physically lodged in the birth canal. Further or repeated attempts could damage the pup or cause the mother extreme pain and distress, so contact your vet immediately and be prepared to take the mom (and any born puppies with her) to your vet immediately for assistance.

- **Puppy Stuck in Amniotic Sac** – Gently using your fingers, tear at the sac above puppy’s nose and mouth to allow air and gently rub the pup along her backside to stimulate circulation. This must be performed continuously until the pup is responsive and starts to move or cry out. If you are confident that a puppy is breathing but his attachment to the placenta is still intact, tie the umbilical cord off tightly with a piece of thread or dental floss. Place one knot about an inch from the pup’s abdomen and a second one just a little bit beyond. Sever the cord between the two. Do not tie the cord if it is thick or irregular in diameter. A loop of intestine may have herniated through the abdominal wall and may still be inside the umbilical cord. If you're not sure, call your veterinarian rather than make a serious misjudgment.
- **Unresponsive Puppy** – If after removal of the sac and stimulation the puppy is still not breathing, you can cradle the pup in your hand, using your first two fingers to gently cradle the head and your other hand to securely but gently cradle her body (she should be laying upside down with her belly-side up). Next, perform a downward swing motion (as if you are shoveling), this allows for fluid to clear the lungs and pup should gasp for air as you perform this motion. It may be necessary to perform this procedure a few times until you hear the puppy gasp or show signs of movement. Make sure that her nose and mouth are clear of mucous or fluid as it appears by gently wiping it away with a cotton ball or soft gauze pad. Remember, these methods must be performed GENTLY, but with enough gentle force to stimulate breathing and circulation. The puppy’s mouth, gums and tongue should “pink” up. Once puppy is responsive, immediately place her next to her mother for warmth and she will take over.
- **Postpartum Hemorrhaging** – Although some bleeding after giving birth is normal, excessive hemorrhaging is an emergency and calls for veterinary intervention.
- **Purulent Discharge** – A foul-smelling discharge from the vagina or the mammary glands signifies the need for a veterinary visit.
- **Eclampsia** – Occurs either late in pregnancy or, more commonly, within the first three weeks after delivery. It is thought to involve calcium loss in the mom, either by lack of sufficient calcium in the diet, or poor utilization of the calcium present. Symptoms include restlessness, irritability, progressing to a stiff gait, poor coordination and/or vomiting. Eclampsia can be fatal if not treated in time.

This is not a complete list of things that could go wrong, but the chances are that your pregnant dog will have a completely normal pregnancy and delivery.

Crate Training

Crates provide safe havens and dens for dogs. They calm them and can help prevent destructive chewing, barking and housetraining mistakes. Puppies should not be crated for more hours than they are months old, plus one. For example, a four month old should not be crated longer than 5 hours. Adults can be crated for up to 9 hours - but keep in mind this is stressful, physically and mentally for the dog. After 4 hours in a crate, dogs and puppies must be let out for a potty break!

Rigorous exercise should be given before and after such a long period in the crate, and good chew toys should be in the crate at all times. You may want to crate your new foster dog for the first few nights in your bedroom - most of them feel more secure in their crate and it protects your house from accidents.

Crates are not to be used as a means of punishment for your foster dog. If used for punishing, the dog will learn to avoid going in the crate. Crates are not to be used for keeping puppies under six

months out of mischief all day either. Crates should be thought of as dog play rooms - just like kid play rooms, with games and toys. It should be a place dogs like to be.

Introducing the Crate

Place the crate (with a blanket inside) in a central part of your home. Introduce your foster dog to the crate after a good walk, when he's tired and sleepy. Keep all chew toys in the crate so that he can go in and out as he pleases, selecting toys to play with. Feed your dog in the crate with the door open. If the dog hesitates going in, place the bowl inside the door so that their head is in and their body is outside.

If your foster dog still refuses to go near the crate, put the smelliest, tastiest wet food (or a steak!) in the crate and shut the door. Let the dog hang outside the crate for a while, smelling the food inside. Soon he should beg you to let him in!

Now that the dog is familiar and willing to go near the crate, throw some of his favorite treats in the crate. Let him go in and get them and come right out again. Do this exercise 3 or 4 times. Then, throw more treats in and let him go in and get them. When he is in, shut the door and give him another treat through the door. Then let him out and ignore him for 3 minutes. Then, put some more treats in the crate, let him go in, shut the door and feed him 5 bits of treats through the door, and then let him out and ignore him for 5 minutes.

Next time, place treats and peanut butter or freeze dried liver, frozen food and honey in a Kong ball, so it is time-consuming to get the food out of the ball, and put the Kong ball in the crate. After your foster dog has gone in, shut the door and talk to him in a calm voice. If the dog starts to whine or cry, do not talk to him or you will reward the whining/crying/barking behavior. The foster dog must be quiet for a few minutes before you let him out.

Before he's finished removing all the treats from the Kong ball (about 10 minutes), let him out, take the Kong away, and ignore him for 5 minutes. The dog learns that all good things happen to him in the crate. It's the only place he gets treats, toys, his favorite human and praise. His favorite human ignores him when he is outside the crate. Soon your foster dog will love his crate and want to hang out in it with the door open all the time.

Gradually increase the time in the crate until the dog can spend 3 to 4 hours in the crate. We recommend leaving a radio (soothing music or NPR talk radio) or TV (mellow stations: educational, art, food...) on while the dog is in the crate, alone in the house. Rotate the dog's toys from day to day so that he doesn't become bored with them. Don't put papers in the crate - the dog will instinctively not go to the bathroom where he sleeps/lives. Instead, put a blanket in his crate to endorse the fact that this is his cozy home.

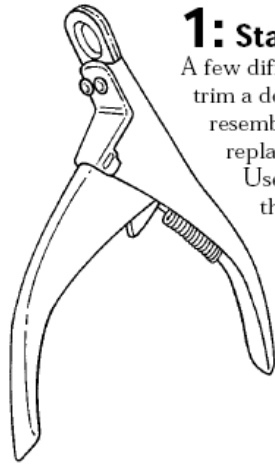
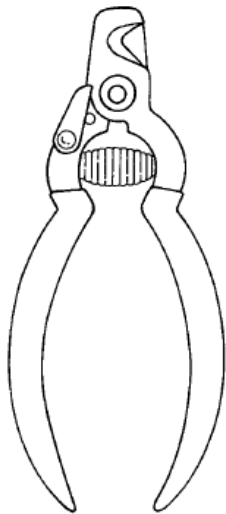
Bedding for the Crate

To help your foster dog get accustomed to the crate, place his favorite bed inside the crate and place it in your bedroom. If you're fostering a puppy, you can try placing a warm hot-water bottle wrapped in a towel next to him. Warmth makes puppies sleepy. Make sure the sides of bedding are tucked in firmly so the puppies don't get lost or suffocated in a fold of the bedding. Be wary of dog crates during hot weather - a dog may want to lay on the cool floor, instead of the crate. Make sure the crate is not in direct sun.

How to Trim a Dog's Nails

W

hen you think about grooming a dog, you probably consider bathing him, brushing his coat, even cleaning those floppy ears, but it's a good idea to give dogs a pedicure every few weeks as well. If you've never trimmed a dog's nails, ask for some help from a more experienced person, and keep these instructions nearby.



1: Stay Sharp

A few different tools are available to help you trim a dog's nails, including those that resemble miniature pliers and those with replaceable sliding "guillotine" blades.

Use whichever model makes you and the animal most comfortable, but be sure to replace the blade frequently to make the job easier and prevent the dog from feeling any discomfort.

2: Pull Their Legs

Dogs are often pretty cooperative when it comes to having their nails trimmed, and those who were handled often as puppies are even more likely to comply. Still, you may need to work a little to keep the animal still. If you're working alone, have the dog sit or lie down on the floor or examining table, then trim the nails, one paw at a time.



Illustrations by Susie Duckworth

Although dogs are less likely than cats to injure someone with their claws, timely nail trimmings help ensure that a dog can walk without pain or discomfort. The nails of very active dogs may not require any trimming, since they're continually worn down by contact with concrete and other rough surfaces. But it's still a good idea to check the nails occasionally to make sure none of them are torn or split.

HOW TO TRIM A DOG'S NAILS *continued*

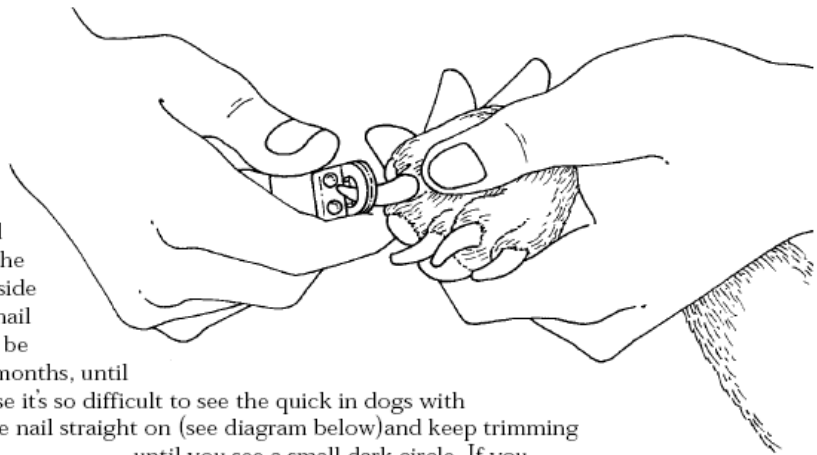


3: Pull Their Legs, Part II

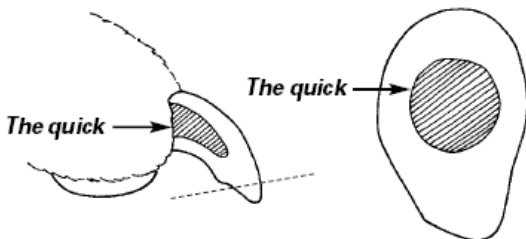
If you're grooming a larger dog or if the animal is apprehensive, have someone sit him down and hold out his paw, then get to work with the clippers. Have your helper scratch behind the dog's ears to reassure the animal and help move things along a little more quickly.

4: Take the Edge Off

Remember that you should only remove the very end of the dog's nails. You may be tempted to trim off all of the excess, but that would be a mistake. In dogs, the quick—the nerve endings and blood vessels inside the nail—continue to grow as the nail grows. That means long nails must be trimmed bit by bit, over weeks or months, until the quick gradually recedes. Because it's so difficult to see the quick in dogs with dark nails, you'll need to look at the nail straight on (see diagram below) and keep trimming



until you see a small dark circle. If you accidentally clip too far and the nail begins to bleed, apply pressure to the tip of the nail or dip the nail in a bit of styptic powder, then make sure the animal is kept inactive for a short time.



5: Thank Them Very Much

Give the dog a treat or a pat on the tummy to thank him for his cooperation, and things should go at least as well the next time around.