

CONSULT THE EXPERT

DEVELOPMENTAL STAGES OF KITTENS

Ellen M. Lindell, VMD, DACVB
Veterinary Behavior Consultations
New York & Connecticut

Many cat owners anticipate a reciprocity in physical affection. When this expectation is not satisfied, the human–animal bond can weaken and the cat becomes at risk for relinquishment to a shelter.^{1,2}



In addition, attention to the cat's behavioral needs may be reduced, increasing the risk for stress-related illnesses.³ Further, because less-bonded owners may not notice subtle signs of disease, their cats may not receive timely veterinary care.

The veterinary healthcare team is in an ideal position to help kittens mature into content, comfortable, and healthy adult cats. Owners are often unaware of the important role they play in their cats' social development and typically do not ask clinicians for guidance on preventive behavioral care; thus, clinicians should proactively offer advice regarding the behavioral needs of kittens. By discussing normal kitten development, clinicians can be a primary source of accurate information and provide guidance when kittens exhibit problematic behaviors.

Developmental Stages of Young Kittens

Although it can be helpful to consider kitten development as progressing through stages, the timeline is not rigidly based on chronologic age. Environmental factors (eg, early handling, opportunities to observe the queen, interactions with littermates) affect both physical and behavioral development.⁴ Kittens not routinely handled until 7 weeks of age may remain tentative and less interactive with humans.⁵

Neonatal Stage

During the first days after birth, kittens experience the world mainly through olfaction and touch. Within 2 weeks, eyes are open; visual recognition becomes available, and social interactions increase in complexity. Coordinated motor skills begin to develop at this time; kittens begin to use their paws to interact with objects, and by 4 weeks of age, social play can be observed. By 7 weeks of age, play focus shifts from social play to object play.^{6,7}

At 4 weeks of age, kittens may be introduced to solid food. Weaning also typically begins around this time, when the mother may start to bring prey to teach kittens to hunt.^{6,7}

Socialization Period

Socialization refers to the process during which kittens interact with and develop appropriate social behaviors toward other members of the same species. In practice, "socialization" is used more broadly and includes learning to interact with other social species and adjusting to relevant environmental stimuli.

A sensitive period is considered to be an age range in which external stimuli are particularly likely to have a long-term effect on development^{6,7}; the sensitive period for socialization in kittens is thus considered to be the period during which kittens form social attachments most easily and during which experiences—both positive and negative—have a greater long-term effect. This period occurs when kittens are between 2 and 7 weeks of age,^{6,7} whereas the sensitive period for socialization in dogs extends from 3 to 14 weeks of age.⁸

Although the most sensitive period for kitten socialization is coming to a close by the time many kittens are adopted (ie, at ≈7 weeks of age), this does not mean that kittens should be adopted prior to 7 weeks of age. Kittens can benefit from watching the queen and interacting with littermates. Kittens raised without littermates are typically slower to learn social skills than normally reared kittens.⁶

Socialization does not stop abruptly at 7 weeks of age. Safe, comfortable exposure to important stimuli should continue regardless of when a kitten is adopted.

Adolescence

Puberty in kittens begins between 5 and 6 months of age.⁷ Cats are not socially mature until they are older than 1 year. As cats mature sexually and socially, new communication patterns (eg, mounting, marking such as urine spraying) may emerge.

Until kittens are 2 years of age, behavioral checkups should be performed every 4 to 6 months to address and recognize concerns early. These

check-ins are best accomplished by visits dedicated purely to social interaction in the clinic. Another option is to preschedule routine outreach phone calls; a brief 5-minute call may be of great value to preserve the human–animal bond.

The First Veterinary Visit

The first veterinary visit should occur when kittens are between 6 and 16 weeks of age. During this visit, it is important to conduct a thorough physical and behavioral examination while also addressing owner expectations.

Physical & Behavioral Examination

The first well-care appointment is an opportunity to start a behavioral baseline for kittens. Owners should be asked about any kitten behavioral concerns. Behavioral handouts can be used to teach owners appropriate training and management techniques.

While history is being collected, kittens should be allowed to roam the examination room. Normal

kittens will explore, engage with toys, accept treats, and interact with staff.

A kitten's response to handling should also be noted. This is a kitten's first impression of the veterinary experience. If a kitten is too nervous to eat treats or starts to struggle, it is critical that staff step back from the kitten rather than hold it tighter; a short break can often be enough to help kittens relax.

Kittens that are shy, do not play or explore, and/or are in apparent fear even with gentle and considerate handling should receive a customized socialization program and their owners given behavioral advice. Clinicians should not hesitate to refer kittens of any age to a boarded veterinary behaviorist.

Reasonable Expectations

A kitten's normal behavior should be reviewed during the examination, and expectations shared by many owners—that their kitten must eliminate only in a litter box and scratch only on a scratching

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NEONATAL STAGE

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SOCIALIZATION PERIOD

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ADOLESCENCE

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post—should be discussed. Most owners would like to be able to play with and pet their kitten without being bitten or scratched.

Owners typically choose kittens based on physical traits.⁹ Once the kitten is home, the owner will discover whether the kitten is affectionate, playful, fearful, active, and/or aggressive. Personality and behavior are strongly influenced by early environment, experiences, and genetics. By 7 weeks of age, some behavioral tendencies may not be readily changed.⁶ The owner's goals for their kitten should be determined, and whether those goals are reasonable in light of behaviors observed during the examination should be discussed.

Behavioral Program

Behaviors such as elimination, scratching, and play should be discussed during each well-care appointment. Often, behaviors are developmentally normal but undesirable. Young kittens need supervision for their safety and to prevent them from engaging in undesirable behaviors. With appropriate information, owners can understand and prevent unwanted behaviors while encouraging preferred ones.

Elimination & Scratching Behavior

Even if a newly adopted kitten has used a litter box in a prior setting, the kitten may not be committed to an exclusive elimination area. Clean boxes

should be provided in several locations. Another option for litter box training is to confine the kitten to a smaller space (eg, a single bedroom) with its litter box, especially when it cannot be closely supervised. Once the kitten begins to use the box consistently, more areas of the house can be made accessible. Large homes and multipet households need more than one litter box station.

Normal kittens scratch surfaces as they explore the environment. An assortment of horizontal and vertical scratching posts should be offered to kittens in prominent social areas. Until a substrate preference has been established, posts made from a variety of materials (eg, cardboard, sisal, fabric) should be provided.

If a kitten is caught eliminating or scratching in an undesirable location, the kitten can be distracted to interrupt the behavior; a toy or treat can be used to lure the kitten from the spot. The distraction should not be aversive. For kittens that likely need to eliminate, a food lure can be used as a guide to the nearby litter box. Shouting at or otherwise frightening a kitten, even once, can permanently destroy a kitten's relationship with the owner.

Play

Normal kittens are playful. Play can include predatory sequences directed at objects, hands, and feet. A variety of toys, including puzzle games and interactive wand toys, should be offered. Kittens should not be invited or encouraged to play with hands or feet. If a kitten playfully pounces on a person, the kitten should be directed back to a toy. It should be expressed clearly to owners that shouting and spraying the kitten with water can create fear and/or arousal and are not appropriate ways to teach proper play.

Communication & Training

Feline body language should also be reviewed during the visit.⁷ Whether a kitten is being socialized with a stranger or is playing with a family member, it is important to discontinue the interaction if the kitten shows signs of fear or emotional arousal.

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Communication can be further strengthened through reward-based training. During training sessions, kittens learn safe, predictable ways to interact with humans, and owners learn to attend to their cat's body language. Punishment should never be used when training a kitten.

Socialization Guidelines

Kittens should be introduced to friendly, calm dogs; healthy, friendly cats; and quiet children. Kittens should be brought to other homes where they can explore and encounter assorted scents and sounds. Treats and toys should be offered to make the experience positive. Kittens should remain calm and interested, not overwhelmed.

Manipulations that may be required for husbandry and healthcare, as well as a variety of foods with assorted textures, should be introduced. Young kittens may still have flexible eating habits. Encouraging kittens to explore foods with assorted textures and flavors may improve willingness to eat a limited ingredient or prescription diet in the future.

Group "kitten kindergarten" sessions¹⁰ can be used to educate owners and socialize kittens in the clinic. Owners can be taught to administer topical

and oral medications, while kittens can learn to accept a leash and harness.

For some kittens, every stimulus may seem overwhelming. Repeated exposure in the face of profound fear must be avoided, as it can lead to sensitization, which may not be reversible. It is never too early to address fear with behavior modification and, in some cases, pharmacologic intervention.

Conclusion

Clinicians are in a unique position to positively affect the social development of kittens, but the window of opportunity is narrow. Early, accurate behavioral advice increases the strength of the bond between the owner and kitten, improves the kitten's ability to accept excellent medical care, and helps create a strong clinician-owner-patient relationship. ■

RELATED ARTICLE

For a related article, please see [*Developmental Stages of Puppies*](#) on page 10.

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Suggested Reading

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