

Puppies Taken from Litter Too Soon Develop Behavior Problems as Adults

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By Dr. Becker

Here's more proof puppies need to stay with their *families of origin* (their litters and the mother dog) for at least the first two months of life ...

A study done in Italy and just reported in *Veterinary Record*, the official journal of the British Veterinary Association provides yet more evidence puppies should not be separated from their mother and littermates too early.

The study, titled *Prevalence of owner-reported behaviours in dogs separated from the litter at two different ages*, involved 140 adult dogs. Half were taken from their litters at 30 to 40 days of age and half were removed at 60 days.

Half the dogs were purchased at pet shops, a third came from a friend or relative, and the rest came from breeders.

The study results indicate the puppies separated early from their litters were *significantly* more likely to develop behavior problems as adults than puppies who stayed with their littermates for at least two months.

The 'Sensitive Period' in a Puppy's Development

There is evidence certain behavior tendencies in dogs -- anxiety, fearfulness, noise phobia, aggression, obsessive-compulsive disorder, for example – have a genetic component.

However, researchers and experts in the field of canine behavior believe it is a combination of genetics, environment and experience (nature *and* nurture) that contributes most significantly to behavioral development.

We know for a fact puppies pass through a sensitive stage during which it is critically important they be [well socialized](#) to other dogs, humans, and a wide variety of stimuli in their environment.

During this important period, generally agreed to be from around 2½ to 3 weeks through 12 to 14 weeks, a puppy's brain is primed to accept new experiences with minimal fear. The experiences the pup has during this sensitive time actually have the capacity to modify the brain. What your puppy experiences (or doesn't experience) during this stage of development has a profound impact on his adult character, temperament and behavior.

Since part of a pup's socialization is learning appropriate dog-to-dog interaction, it is in the best interests of puppies to remain with the mother and littermates until they are at least 8 to 8½ weeks old.

Research suggests many of the social and behavioral problems seen in adult dogs have their roots in too-early separation from the litter.

Purpose of the Italian Study

The intent of the study was to determine if and how early separation from the litter plays a role in undesirable behavior in adult dogs.

The measured behaviors:

Aversion to strangers	Toy possessiveness	Stranger aggression	Paw licking
Excessive barking	Food possessiveness	Owner aggression	Shadow staring
Fear during walks	Attention-seeking	Play biting	Pica
Reactivity to noises	Destructiveness	Tail chasing	House soiling

The dogs in the study ranged in age from 18 months to 7 years, and the information about their behavior came from a questionnaire their owners completed.

Intriguing Results

Two behaviors were the most frequently reported among all dogs (those removed early from litters and those removed at 60 days) according to their owners:

- 68 percent of the dogs were attention seekers – they nuzzled, pawed or jumped up on family members looking for attention and physical contact
- 60 percent showed signs of fear when exposed to loud noises

Also in terms of the entire group of dogs, age played a factor in two behaviors. Dogs under 3 years of age were significantly more prone to tail chasing and destructiveness than older dogs.

A much larger proportion of early separated dogs demonstrated all listed behaviors with the exception of pica (eating non-food material), owner directed aggression, shadow staring and paw licking.

Also, dogs separated early and purchased from a pet shop showed much greater tendency toward toy possessiveness, fearfulness on walks, attention-seeking, stranger aversion, excessive barking, destructiveness and play biting. Dogs from pet shops not separated early from their litters had fewer of the same behavior issues, which leads to one to conclude early separation combined with temporary housing at pet stores is particularly inhibiting to a puppy's social development.

What It All Means

The conclusion we can draw from the Italian study is that early separation from the litter sets the stage for behavior problems in adult dogs. And if the early separated puppy is also moved directly to a pet store-type environment, the problem can be exacerbated.

To illustrate the significance in a puppy's life of time-sensitive, appropriate socialization, the study authors offer the following:

Much of what is learned during the sensitive period results in stimulus-specific and long-lasting behavioural changes, potentially providing a foundation for many adult behaviour patterns and problems (Fox 1978, Godbout and others 2007), aversions, social responsiveness (Scott 1958), patterns of active and passive agonistic behaviour (Fox 1966), general activity levels (Wright 1983), reactions to separation (Pettijohn 1977), approach-avoidance patterns (Fox 1966), the development of social hierarchical relationships (Scott and Fuller 1965), anxiety (Ramos and Mills 2009) and functional fear responses (Melzack and Scott 1957).

As you can see, the 'sensitive period' is a powerful molding process for puppies.

There's enormous benefit to be gained or potentially lost in how a very young puppy is handled – whether she's old enough to leave the litter, her first environment away from her mother and littermates, and how and to what degree she's socialized by her human family to a new life full of unfamiliar people, animals and other stimuli.

The Dam Provides a Secure Base from Which Her Puppies Can Explore the World

When a puppy remains with her mom and siblings during the earliest part of socialization (2½ - 4 weeks to 8 weeks), she is able to learn dog-to-dog social development from them.

According to study authors:

During the socialisation period, puppies are normally exposed to novel environmental stimuli within the context of the guidance and reassuring presence of their dam. From about three weeks of age, puppies become extremely distressed if they are placed in a strange situation without their dam, littermates and nest sites (Elliot and Scott 1961).

The authors go on to say that absent the security of their mother and siblings, the early separated dogs were much more likely than the other group to exhibit avoidant and fearful behaviors. Specifically they were:

- 15 times more likely to be fearful on walks
- 7 times more likely to have attention-seeking behaviors and noise reactivity
- 6 times more likely to bark excessively

Study authors also found behavioral problems were more likely to develop in dogs obtained from shelters and [pet shops](#), as well as in strays.

It can be reasonably assumed puppies in these groups aren't adequately socialized. They are also often the result of poor breeding practices. In addition, the pet shop or [shelter experience](#) may have lasting effects, as would being homeless.

How We Can Use These Study Results

Some important potential benefits of this study:

- It provides further evidence that early separation from the litter influences specific problem behavior patterns in adult dogs.
- With this knowledge, we can continue to stress the importance of keeping litters together with the mother until the puppies are at least 8 weeks of age.
- It may generate 'early behavior intervention' information and ideas for owners of early separated puppies.

- It re-emphasizes 1) the potentially harmful effects of housing puppies in pet shop and shelter environments, 2) the critical importance of appropriate and time sensitive socialization of puppies, and 3) the need for behavioral intervention for early separated dogs and those who've spent time in pet shop and shelter environments.