



Puppy  
Development:  
Maternal Care

# What is Maternal Care?

- Includes: nursing, licking, thermoregulation, contact, movement, punishment
- Impacted by key hormones: estradiol, oxytocin, progesterone, prolactin
- Essential for the survival of helpless newborn pups





A photograph of two puppies on a colorful, multi-colored surface. One puppy is white with brown patches, and the other is brown with white patches. They are both looking down at the surface. The background is a mix of purple, orange, and blue.

## How Can Maternal Care Differ?

- Care may differ between first-time and experienced mothers
- Behaviors can be stable characteristics of individual dams with frequency and duration of care varying




# Maternal Care Over Time

As puppies grow, overall maternal care stays relatively constant while the type shifts:

- Energy-intensive active maternal care reduces
- Passive care increases



A photograph of a small, light-brown Chihuahua mother dog lying on a light-colored, textured carpet. She is looking towards the camera with a slight smile. In the foreground, several small, white puppies are visible, some resting and some looking towards the camera. The background is a plain, light-colored wall.

## Quality of Maternal Care can Potentially Affect:

- Physiological, cognitive, behavioral, emotional, and social development
- Alters the effect the environment has on development
- Stress reactivity, anxiety-related behaviors, and resiliency in offspring
- Health and welfare (both as a puppy and later in life)
- Maternal behavior of female puppies



# Weaning

Puppies should:

- Be weaned gradually
- Stay with their mother until they are fully weaned but at least until 7 weeks of age
- Stay with their litter until at least 8 weeks of age





## Effect of Early Separation from Dams and Littermates

Negative impacts on physical health:

- Decreased body condition
- Decreased weight gain
- Increased disease susceptibility
- Increased mortality

Negative impacts on learning:

- Decreased understanding of social cues
- Increased fearfulness
- Decreased bite inhibition
- Decreased understanding of social hierarchies

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## To Learn More:

- [At-a-Glance Development Application](#)
- [At-a-Glance Developmental Stages](#)
- [At-a-Glance Development: Maternal Stress](#)
- [At-a-Glance Development: ENS](#)
- [Early Neurological Stimulation \(ENS\): Implications for canine welfare and management](#)
- [Implications of weaning age for dog welfare](#)



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