# THE HEALTH RISKS OF SPAYING AND NEUTERING GOLDEN RETRIEVERS



Spaying and neutering are common procedures performed on dogs to prevent unwanted breeding, reduce pet overpopulation, and potentially limit certain health risks. However, recent studies, including a notable one from the University of California, Davis, have raised concerns about the long-term health effects of these procedures, particularly for certain breeds like Golden Retrievers. The UC Davis study, along with other research, suggests that spaying and neutering, especially when done early, can have significant health consequences for Golden Retrievers. This paper will explore these risks and the emerging belief that it may be beneficial for some dogs to remain intact.

#### **1. Increased Risk of Cancer**

Golden Retrievers are already predisposed to certain types of cancer, and research indicates that spaying and neutering can increase the likelihood of developing cancer. The UC Davis study from 2013 found that spayed and neutered Golden Retrievers had a higher incidence of cancers, particularly hemangiosarcoma, lymphosarcoma, mast cell tumors, and osteosarcoma. The study followed 759 Golden Retrievers and revealed that:

- Female Golden Retrievers who were spayed before one year of age had a fourfold increase in the risk of developing hemangiosarcoma, a highly aggressive cancer of the blood vessels.
- Male Golden Retrievers neutered early were more likely to develop lymphosarcoma.

## 2. Joint Disorders and Orthopedic Issues

Another major risk associated with spaying and neutering Golden Retrievers is the increased likelihood of joint disorders. Golden Retrievers are a large breed and are already susceptible to conditions such as hip dysplasia, cruciate ligament tears (especially the anterior cruciate ligament or ACL), and arthritis. The UC Davis study revealed that:

- Golden Retrievers spayed or neutered before six months of age had double the incidence of joint disorders compared to those left intact.
- Females, in particular, are at higher risk for cruciate ligament tears, a condition that can lead to chronic pain, lameness, and expensive surgical intervention.

The key reason for this increased risk lies in the role of hormones in growth plate closure. Sex hormones, such as estrogen and testosterone, are vital in regulating bone and joint development. When spayed or neutered too early, the lack of these hormones delays the closure of growth plates, resulting in abnormal joint development.

# 3. Obesity and Metabolic Changes

Spaying and neutering are also associated with metabolic changes that increase the risk of obesity. Without sex hormones, a dog's metabolism slows down, making it easier for them to gain weight even on a regular diet. Obesity in Golden Retrievers can exacerbate joint issues, reduce quality of life, and lead to secondary conditions like diabetes and heart disease. Obesity also increases the risk of arthritis and decreases overall lifespan.

# 4. Urinary Incontinence in Spayed Females

Female Golden Retrievers spayed early, particularly before their first heat, are at higher risk of developing urinary incontinence later in life. This condition, known as spay incontinence, can occur due to a lack of estrogen, which helps maintain the tone of the urinary sphincter. Urinary incontinence can be a frustrating and embarrassing condition for both the dog and the owner, often requiring lifelong management with medication.

## 5. Hormonal Imbalances and Behavior Changes

Sex hormones play a vital role in maintaining overall health and behavior. When these hormones are removed through spaying or neutering, Golden Retrievers may experience hormonal imbalances that manifest in several ways:

- Adrenal insufficiency: The adrenal glands may become overstimulated, leading to health issues such as Addison's disease (hypoadrenocorticism), in which the adrenal glands fail to produce adequate hormones.
- Behavioral issues: While many believe that neutering can reduce aggression and unwanted behaviors, some studies have shown that spaying and neutering can lead to increased anxiety, fear-based behaviors, and even aggression in certain dogs. This is likely due to the removal of calming sex hormones.

## 6. Impact of Early Spaying and Neutering on Lifespan

There is evidence that early spaying and neutering can shorten the lifespan of Golden Retrievers. In a 2004 study published in the *Journal of Veterinary Internal Medicine*, researchers found that dogs spayed or neutered before the age of six months were more likely to die younger than intact dogs. The loss of sex hormones is thought to affect the immune system and overall health, making dogs more susceptible to diseases and early death.

## 7. UC Davis Study and Its Implications

The 2013 study conducted by UC Davis, *Neutering Dogs: Effects on Joint Disorders and Cancers in Golden Retrievers*, provided compelling evidence that Golden Retrievers benefit from remaining intact. The study analyzed both earlyand late-spayed/neutered Golden Retrievers and found significant increases in health problems among those who were spayed or neutered, particularly at an early age.

Dr. Benjamin Hart, the study's lead researcher, concluded that female Golden Retrievers who remain intact for their entire lives have lower rates of cancer and joint disorders compared to those spayed early or even later in life. This research challenges the traditional belief that spaying females helps prevent cancer, showing instead that the removal of ovaries may lead to increased health risks.

## Alternatives to Traditional Spaying and Neutering

Given the significant health risks associated with spaying and neutering, some owners are exploring alternative sterilization methods that maintain some of the benefits of intact hormones.

- 1. Ovary-Sparing Spay: Also known as a partial spay, this procedure involves removing the uterus while leaving one or both ovaries intact. This allows the female dog to maintain her natural hormone production, which can protect against some of the health risks associated with traditional spaying, such as cancer and joint disorders. The dog will no longer be able to reproduce, but will still go through heat cycles, though without the risk of pregnancy.
- 2. Vasectomy: A vasectomy is a sterilization procedure for male dogs that involves severing the vas deferens, preventing sperm from reaching the semen. The male dog will remain intact and continue to produce testosterone, which helps protect against joint disorders and some cancers. This procedure is an alternative to neutering for owners who want to prevent reproduction but retain the health benefits of natural hormone production.
- **3.** Delaying Spaying or Neutering: For owners who prefer traditional spaying or neutering but want to minimize health risks, delaying the procedure until the dog is fully mature can reduce the likelihood of joint issues and some cancers.

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# Conclusion

The decision to spay or neuter a Golden Retriever should be made carefully, considering both the potential long-term health risks and the benefits of preventing unwanted litters. While spaying and neutering have been standard practice for decades, emerging research—especially breed-specific studies like those from UC Davis—has shown that early removal of reproductive hormones can increase the risk of serious health issues, including cancer and joint disorders.

For owners who are concerned about these risks, alternatives such as ovary-sparing spays and vasectomies, or delaying traditional procedures, offer promising ways to maintain the health of their Golden Retrievers while still addressing reproductive concerns.

### AKC Canine Health Foundation

#### References

• Hart, B.L., Hart, L.A., Thigpen, A.P., Willits, N.H. (2013). *Neutering Dogs: Effects on Joint Disorders and Cancers in Golden Retrievers*. UC Davis.

#### ADDITIONAL STUDIES:

- The Golden Retriever Lifetime Study: Sponsored by the Morris Animal Foundation, this ongoing study aims to track 3,000 Golden Retrievers over their lifetime to better understand the health impacts of various factors, including spaying and neutering. This study is particularly focused on identifying risk factors for cancer and other diseases that disproportionately affect Golden Retrievers.
- 2. Studies by Dr. Benjamin Hart and UC Davis (2020): In addition to the well-known 2013 study, UC Davis researchers, including Dr. Hart, have continued to examine the long-term health effects of spaying and neutering. Their more recent work emphasizes that the age at which spaying or neutering is performed significantly influences the risk of orthopedic disorders and cancers.
- **3.** AKC Canine Health Foundation Studies: Since 2010, the AKC Canine Health Foundation has funded multiple studies to investigate the breed-specific impacts of spay/neuter procedures. These studies have confirmed that Golden Retrievers and other large breeds face a higher risk of joint disorders and cancers when neutered or spayed early, and they suggest that hormone exposure plays a crucial role in a dog's development.

These additional studies affirm that while spaying and neutering can prevent certain reproductive health issues, the removal of reproductive hormones—especially when done early—can lead to significant health risks in Golden Retrievers. Researchers are continuing to gather more data on breed-specific risks to better inform decisions about the timing and method of sterilization. Since High Desert Goldens and our new puppy owners are all about natural rearing, we must draw inspiration from nature to discover the healthiest lifestyles for our dogs. In the wild, dogs have thrived for thousands of years without human intervention, relying on their instincts and the resources of their environment to maintain their well-being.

While human and medical intervention can have its place in certain situations, it's essential to recognize that excessive interference can sometimes do more harm than good. Over-vaccination, overuse of antibiotics, and unnecessary medical procedures can disrupt a dog's natural immune system and microbiome, leading to various health issues.

Nature provides a wealth of knowledge and wisdom that we can apply to our dogs' care. A natural rearing approach emphasizes a holistic view of health, encompassing physical, mental, and emotional aspects. It involves providing a species-appropriate diet rich in whole, unprocessed foods like raw meat, bones, and organs.

By embracing natural rearing principles, we can help our dogs live longer, healthier, and happier lives. It's about respecting their natural instincts, minimizing unnecessary medical interventions, and providing them with the environment and resources they need to thrive.

