



*The Golden Retriever Club
of America, Inc.*

Pigmentary Uveitis Alert

For Breeders, Potential Buyers, and Owners

An eye disease called pigmentary uveitis (also called Golden Retriever uveitis or GRPU) has been an emerging concern in the breed since the early 2000s. While evidence shows that this is an inherited condition, at this time there are no tests that breeders can use to be certain to avoid producing affected puppies. **However, nearly two decades of research supported by the Golden Retriever Foundation, the GRCA, and the AKC Canine Health Foundation has given breeders and owners tools to help reduce the impact of GRPU in our dogs.** Yet many breeders and owners are not using these tools, which unfortunately, is likely to result in producing more affected dogs and worse outcomes for some of those dogs. We can do better!

What is Pigmentary Uveitis?

Early stages of this eye disease are usually very mild, and there may not be any outward signs. As pigmentary uveitis progresses, signs such as redness, tearing, and irritation (rubbing or pawing at the eye) may appear, and over time the disease may progress to glaucoma and blindness. In some dogs, pain from glaucoma may necessitate surgery to remove the affected eye(s).

Too often, pigmentary uveitis is not diagnosed until after the appearance of outward signs, typically in middle-aged or senior Goldens. Unfortunately, about half of those eyes will lose vision in a matter of months. However, yearly screening by a veterinary ophthalmologist may detect the disease years earlier, providing an opportunity to save vision when treatment to delay progression is initiated in the earliest stages. Additionally, such screening may detect early warning risk factors that inform breeders of potentially elevated heritable risk for GRPU.

Part I. What Should Breeders Be Doing?

1. The GRCA Code of Ethics requests that OFA eye certifications remain current for the lifetime of any dog that has been bred. That's because GRPU is often a late-onset disease that may not be diagnosed until dogs have become grandparents and great-grandparents. So even as older dogs, findings from eye examinations (normal, uveal cysts, and GRPU) remain highly relevant to subsequent generations that are currently being bred. It's a breeder's responsibility to make sure that information remains available as their dogs age, and **this is at least equally as important as eye exams in younger dogs.**

a. Breeders should adhere to the COE standard of lifetime eye exams not only with their own dogs, but also when selecting other lines to bring into breeding programs. **Expired eye exams on older dogs in the pedigree should be viewed with suspicion,** and hopefully peer pressure from the breeding community will help to improve compliance.

b. In support of this important health initiative, the Golden Retriever Foundation pays the OFA fee for Goldens over the age of 8 years.

2. A landmark research study¹ has now identified uveal cysts as a significant risk factor for the development for GRPU. The study noted, **“Eyes with multiple uveal cysts on the first examination had a significantly higher percentage of PU (58%) [on a second examination] than those with a solitary cyst (10%) or without cysts (1%).”** Yet because “multiple uveal cysts” is a “breeder option” diagnosis, many breeders are not taking it as seriously as they should. In fact, some breeders appear to consider multiple uveal cysts as a variation of normal. **It is not!** Prior to 2000, multiple uveal cysts were uncommon and GRPU was uncommon, and it’s not a coincidence that both have become common over the short span of 20 years. It is true that not all dogs with multiple uveal cysts develop GRPU, which is the reason for the “breeder option” designation (and note that uveal cysts are not required for a GRPU diagnosis). However, it’s also true that a finding of **multiple uveal cysts can be an early warning caution flag, and should be weighted heavily in breeding decisions.**

3. Research is also showing that early diagnosis of GRPU prior to the appearance of outward signs provides an opportunity for treatment that may control or delay progression of the disease. Further, according to GRPU expert and primary researcher Dr Wendy Townsend, **“initiating treatment in dogs that do not yet have GRPU, but have multiple uveal cysts (particularly if there is a family history of GRPU) may prevent or delay the onset of GRPU.²”** Therefore, it’s important for breeders to advise and assist their puppy owners to begin eye exams by an ophthalmologist in early adulthood (about 2-3 years old). Following up with owners when the pups turn two, and assisting them in locating eye clinics, will help facilitate compliance. **Results from these offspring will also provide important information that is relevant to future breedings of related dogs.**

4. When GRPU or multiple uveal cysts are diagnosed in a dog that has produced puppies, the owner of that sire or dam should notify the other, and the breeder of the litter should notify the puppy owners. This is not explicitly stated in the Code of Ethics, but it’s the ethical thing to do because it may save the vision of at-risk offspring by reinforcing that the puppy should be checked regularly, providing the opportunity to initiate early intervention if necessary.

¹ Golden retriever pigmentary uveitis: Challenges of diagnosis and treatment. Townsend WM, Huey JA, McCool E, King A, Diehl KA. Vet Ophthalmol. 2020 Sep;23(5):774-784. doi: 10.1111/vop.12796. Epub 2020 Jul 8. PMID: 32639654

² Additionally, dogs with multiple uveal cysts should have eye exams more frequently to monitor for development of GRPU, with exams every 6 months instead of yearly.

Part II. What Should Buyers Look For?

1. An article titled “Health Certifications for the Parents of a Litter” <https://grca.org/about-the-breed/health-research/health-screenings-for-the-parents-of-a-litter/> is a broad overview of health testing that is expected prior to breeding, and OFA eye certification is one of those examinations. However, there are nuances to “normal” results that buyers should take the time to understand and verify at <https://ofa.org/> (Search is easiest using each parent’s AKC registration number.)

a. **Eye exams are valid for only 1 year**, which is important in the context of GRPU because the risk of a dog developing GRPU increases with age. **Expired eye exams should be viewed with suspicion.**

b. Onset of GRPU may not occur until the grandparents’ and even great-grandparents’ generations, so these ancestors contribute valuable information to predicting the risk of GRPU. For that reason, the GRCA Code of Ethics requests that eye exams continue for their lifetime, and these also should be current within one year. **Expired eye exams for these ancestors should also be viewed with suspicion.** Verify ancestors’ current eye certifications using “Combined Health Pedigree” search option on a parent’s OFA page.

c. As noted previously, a landmark research study has now identified uveal cysts as a significant risk factor for the development for GRPU. The study noted, “Eyes with multiple uveal cysts on the first examination had a significantly higher percentage of GRPU (58%) [on a second examination] than those with a solitary cyst (10%) or without cysts (1%).” Yet because dogs with “multiple uveal cysts” can obtain an eye certification, many breeders are not taking this as seriously as they should. As a potential buyer, be aware that **multiple uveal cysts occurring in the parents’ or grandparents’ generations can be an early warning caution flag, and should be weighted heavily in purchasing decisions.**

Part III. What Can Owners Do for Their Dog?

Too often, GRPU is not diagnosed until after the appearance of outward signs, typically in middle-aged or senior Golden Retrievers. Unfortunately, about half of those eyes will lose vision in a matter of months. However, yearly screening by a veterinary ophthalmologist may detect the disease years earlier, providing an opportunity to save vision when treatment to delay or prevent progression is initiated as early as possible. Therefore, **it is recommended to begin yearly screening eye exams at about 2-3 years old.**

These exams are performed by board-certified veterinary ophthalmologists, sometimes in a specialty practice setting; or more commonly, at an “eye clinic,” which is a gathering of many owners and breeders at which screening eye exams are performed at a discounted (group) rate. These clinics are frequently sponsored by dog clubs and held at dog shows, and are widely available in the US throughout the year. Typically, eye clinics are held yearly at approximately the same location and time frame so that owners can get on a regular yearly schedule.

Breeders following the GRCA Code of Ethics should be able to help their puppy owners find convenient local eye clinics, and eye clinics are also listed at <https://ofa.org/health-clinics/> Additionally, veterinary ophthalmologists can be located using the American College of Veterinary Ophthalmologists website, www.acvo.com and many also participate in some form of “eye clinic.”

It is suggested that owners share the information provided here with their veterinarians, along with copies of the ophthalmologist’s report if there are any abnormal findings.

Finally, please know that while this can be a serious disease for affected dogs, the majority of Golden Retrievers do not develop GRPU. However, when a dog is diagnosed, there are two steps that owners can take to help other Golden Retrievers. First, it’s important to notify the dog’s breeder, so that he/she can make informed breeding decisions going forward. And second, please ask the ophthalmologist to report the diagnosis on an OFA form so that GRCA and researchers have accurate data to guide efforts to reduce the prevalence of GRPU in the future.

*By Rhonda Hovan, GRCA Research Facilitator
On behalf of the GRCA Health & Genetics Committee*

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