

Ophthalmic Abnormalities on Pre-Purchase Examination

Pre-Purchase Examination (PPE) is often a thorny and anxiety-inducing examination for the consulting vet. Ophthalmic abnormalities are frequently a source of concern when identified on PPE.

We will discuss some of the more common abnormalities seen, and their impact on vision and likelihood of progression.

Purpose

The ocular examination is a critical component of the PPE to assess vision and detect any ocular abnormalities that may impact the horse's suitability for its intended use.

Examination Components

1. History and Clinical Context

- Any history of previous ocular disease or trauma
- Performance issues that may suggest vision impairment (e.g., spooking, reluctance to jump)

2. Distant Examination

- Assess for symmetry of the eyes
- Observe for signs of pain (blepharospasm, epiphora)
- Evaluate pupil size and response in ambient light

3. Close Examination

○ Periocular Structures

- Eyelids: Check for entropion, ectropion, masses, or scars
- Lacrimal system: Assess tear production and drainage
- Third eyelid: Inspect for abnormalities (e.g., prolapse, masses)

○ Anterior Segment Examination

- Cornea: Assess for ulceration, scarring, vascularization
- Anterior chamber: Check for clarity, depth, and presence of inflammatory changes (hypopyon, hyphaema)
- Iris: Inspect for abnormal pigmentation, atrophy, or adhesions, noting also the appearance of the granula iridica.
- Lens: Evaluate for cataracts or lens luxation

○ Posterior Segment Examination (Fundoscopy)

- Clarity and stability of the vitreous
- Optic nerve, retina, and choroid evaluated using an ophthalmoscope
- Look for signs of Equine Recurrent Uveitis (ERU), retinal degeneration, or haemorrhage

4. Functional Testing

- **Menace Response** (tests vision and facial nerve function)
- **Pupillary Light Reflex (PLR)** (assesses pupil response to light)
- **Dazzle Reflex** (indicates retinal and optic nerve function)

- **Obstacle Course** (in low light conditions if vision impairment is suspected)
5. **Ancillary Tests (if needed)**
- **Fluorescein Staining** – Detects corneal ulcers
 - **Schirmer Tear Test** – Assesses tear production
 - **Tonometry** – Measures intraocular pressure (for glaucoma or uveitis)

Common Ocular Abnormalities Affecting Purchase Decisions

- Equine Recurrent Uveitis (ERU)
- Cataracts (may impact vision and performance)
- Corneal scarring or chronic keratitis
- Retinal degeneration or detachment
- Lens luxation

Conclusion

- Findings should be correlated with the intended use of the horse.
- Some ocular abnormalities may not affect performance but should be documented for informed decision-making.
- Severe or progressive conditions (e.g., ERU) may warrant reconsideration of purchase.

A horse should be **failed** or deemed unsuitable for purchase based on **ocular issues** if the abnormalities present a risk to its intended use, performance, or long-term soundness. The decision should be based on **severity, progression, and functional impact** of the condition.

Final Considerations

- The **intended use** of the horse is key. A minor defect may be acceptable for a pasture companion but not for a high-performance athlete.
- Some buyers may accept certain **stable conditions** if they are well-informed about potential risks.
- If in doubt, referral to a **veterinary ophthalmologist** for a second opinion may be advisable.

What a purchaser is usually looking for from the veterinary ophthalmologist is:

- impact on vision (currently, and with intended use in mind)
- likelihood of progression (cost implications, incurable or blinding disease)

If you're not sure of progression likelihood, then a careful approach is to advise re-examination in a few months (e.g. 6) so you have more objective evidence supporting your opinion. Some purchasers will negotiate a period of loan with subsequent purchase, or a price negotiation to factor in this risk, others will walk away.

Examples of ocular abnormalities identified at PPE for our discussion:

