

Equine Drug Testing

PRE-PURCHASE EVALUATIONS

Why Is It Important?

The purpose of a pre-purchase evaluation is to determine if a horse is physically suitable for a buyer's intended use. Communicating the intended purpose of a horse is critical for the veterinarian to do a thorough and appropriate pre-purchase evaluation. Drug screening is an important component of the pre-purchase evaluation because it offers additional information pertaining to the ability of the horse to fit the buyer's needs. When a horse takes medication that can mask pain (lameness) or injury, or alter behavior or attitude, there is no certain way to assess the horse's suitability for particular jobs, thus making the pre-purchase evaluation and the buyer's evaluation essentially void. Although some buyers do not opt for drug screening, many consider it equally important to the rest of a pre-purchase evaluation, as it helps to ensure that the horse they purchased is the horse they expect it to be.

What is the Purpose of a Drug Test?

Drug testing is used for detection of non-steroidal anti-inflammatory drugs (NSAIDs) and/or sedative/tranquilizer agents, but can also be used to detect anabolic steroids and analgesic (pain-relieving) agents. The presence of analgesics may mask current or chronic lameness, while sedatives/tranquilizers are used for behavior modification. The decision to screen for drugs is at the discretion of the buyer. When making the decision to test for drugs, buyers should consider the horse's intended use, the price of the horse, and any additional information known about the horse's history.

How Does It Work?

Blood samples (plasma or serum) are most commonly used to screen for drugs as part of a pre-purchase evaluation. In some instances, however, urine may be required. The presence of drugs in the sample is detected by ELISA (enzyme-linked immunosorbent assay) or TLC (thin-layer chromatography).

ELISA identifies substances in the blood by binding them with specific antibodies that are linked to enzymes. Next, a substrate is added that will react with the enzyme, typically causing a color change that will indicate the amount of enzyme bound and thus the presence of a drug.

TLC uses a specialized absorbent plate that will separate different substances as they move across the plate. The resulting marks will indicate which substances are present.

What Do You Test For?

The presence of NSAIDs and behavior-modifying drugs are most commonly evaluated. NSAIDs include phenylbutazone (Bute®), flunixin (Banamine®), firocoxib (Equioxx®), celecoxib, deracoxib, meclofenamic acid, ibuprofen, acetylsalicylic acid (Aspirin®), naproxen, and carprofen. The most commonly tested long-acting tranquilizers are reserpine and fluphenazine. Many other drugs can be tested upon request, including acepromazine, xylazine, diazepam, lidocaine, isoxsuprine, etc. Certain labs offer screening for anabolic steroids upon request, but this often requires submission of a urine sample. Anabolic steroids include stanozolol (Winstrol®), methandrostrenolone, boldenone, nandrolone, and testosterone.

How Long Does It Take to Get the Results?

Basic screening for NSAIDs is offered in 4-5 days. Screening for reserpine and fluphenazine takes 5-10 days. If time is limited, some labs offer 2-day turnarounds for an additional charge. Screening for anabolic steroids requires about 7 days. The need to send to outside laboratories may add a few days due to shipping.