

# A Comprehensive Guide To Alpaca Pre-Purchase Examinations

By Leslie Richardson, DVM

## Introduction

Considering the sizable investment of time, money and emotion that goes into purchasing an alpaca, a pre-purchase examination by a licensed veterinarian, familiar with alpacas, is essential. As purchasing alpacas “sight unseen” over the Internet becomes commonplace, pre-purchase exams are becoming more routine.

Think of the pre-purchase exam as being similar to the home inspection commissioned before buying a home. At first glance, it can appear daunting in its exhaustive nature. Of course, a similar document can be produced whether you are buying a dog, a horse or any living creature for that matter.

What you need to determine when commissioning a pre-purchase exam is which factors are deal breakers, which are important to your buying decision and which are of little or no consequence.

While not foolproof, a pre-purchase examination provides an objective evaluation of the physical and conformational condition of an alpaca. Ideally, the pre-purchase examination should be performed by a veterinarian chosen and paid for by the purchaser; however, this is not always practical. Oftentimes, the purchaser is located a considerable distance from the prospective new animal and is relying on the advice of the seller for veterinarian selection. Additionally, there may be few experienced camelid veterinarians to choose from in the area. As long as the seller, purchaser and veterinarian all agree that the veterinarian is working for the purchaser, this arrangement can be successful. If the purchaser has not visited the farm or observed the animal in person, it is advisable to obtain not only high-quality photographs, but also video footage to evaluate behavior and gait. For all these reasons, it's essential that the purchaser researches and establishes a relationship with the farm that is selling the alpaca.

## Getting Started

Since the purchaser is often not able to attend the examination in person, it is important for the veterinarian to understand the purchaser's expectations and intended use for the alpaca prior to performing the exam. The purchaser may request a copy of the veterinarian's pre-purchase form to review prior to the exam and consider any additional procedures or laboratory tests that may be appropriate, such as various blood tests and fecal analysis (detailed below).

The exam form should include the registered name of the alpaca, the Alpaca Registry Inc. (ARI) number, the microchip number and location, birth date, sex, sire and dam information, and a description of the alpaca, including weight.

# The Pre-purchase Exam

The pre-purchase exam can be separated into three categories:

1. A comprehensive history covering medical, surgical, preventative and reproductive past
2. A thorough physical examination
3. A reproductive examination

## 1. History

A complete history is important for the veterinarian and purchaser to evaluate the level of preventative care provided to the alpaca as well as any past medical, surgical, or reproductive conditions that may affect the alpaca's intended use. The preventative portion of the history should include:

- The dates of and products used for vaccination. Ideally, the location of vaccine administration and the vaccine serial number would be included; however, this information may not be available.
- The deworming history of the animal should be provided with the product name and dates administered. Results from any fecal analyses performed should be included as well; it's important to note if the farm selling the alpaca has a recorded history of liver flukes.
- The current diet fed to the alpaca may be included in the preventative history and the purchaser may even request a copy of feed labels.

A list of pertinent items on the medical and surgical history includes, but is not limited to:

- ✓ history of chronic infection
- ✓ intestinal attacks/colic
- ✓ gastrointestinal ulceration
- ✓ excessive gastrointestinal or external parasitism
- ✓ ineffective regurgitation
- ✓ tooth problems
- ✓ surgery to correct any congenital problems
- ✓ foot or foot pad problems
- ✓ behavioral problems

## 2. Physical Examination

A thorough physical examination is essential to help determine the general health of the alpaca. This exam should involve evaluation of all body systems and may start with a general assessment of the condition of the alpaca including:

- Body condition score. Common practice is to use a 1 to 9 body condition scale with 9 being obese, 4 to 6 being ideal and 1 being emaciated. (NOTE: Sometimes a breeder may wish to use a body condition scale of 1 to 5, with 1 being emaciated, 5 being obese and 2.5 to 3.5 being ideal. The 1 to 9 scale is slightly more comprehensive.)
- Leg musculoskeletal conformation, this is very important because poor leg conformation results in abnormal weight bearing and can lead to joint pathology and chronic pain. Some of the common conformational abnormalities to look closely for include:

- ✓ knock knees (carpal valgus) and calf knees (hyperextension of the carpus) of the fore limbs
  - ✓ cow hocked (tarsal valgus) (hind legs turning in, toes turned out)
  - ✓ sickle hocked (over-flexed hock) of the hind limbs
  - ✓ cocked fetlock (over-flexed fetlock)
  - ✓ down in the fetlock (hyperextended fetlock), which may affect any of the limbs
- Behavior and temperament is also included in the general assessment. Does this alpaca appear to have any vices or objectionable habits or behaviors? Does the temperament of this alpaca match what the purchaser desires in a new addition to the herd?

The remainder of the examination may best be performed in an alpaca chute for optimal restraint; the exam continues with evaluation of vital signs including temperature, heart rate and respiratory rate. A thorough auscultation (listening to the internal sounds of the body) with a stethoscope of the heart and lungs should be performed to assess for heart murmurs or arrhythmias and active lung pathology.

After obtaining the vital signs and performing the cardiac and pulmonary auscultation, it is common practice to continue the exam working from the front end of the alpaca to the back end:

- Thorough oral examination should be performed, including evaluation of the bite, dentition, lips and gingiva.
  - ✓ Common malocclusions of the bite include overbite (brachygnathism), underbite (prognathism) and cross bite.
  - ✓ The incisors and fighting teeth, if present, should be evaluated for overgrowth. Some alpacas require regular reduction of overgrown incisors due to a moderate to severe underbite. This trait may be passed on to offspring; a prospective owner should be aware of its existence.
  - ✓ If possible, the cheek teeth should be evaluated for any abnormalities; perform a thorough palpation of the mandible (lower jaw) and maxilla (upper jaw) to look for any soft or firm swelling that may indicate a tooth root abscess.
  - ✓ The lips and gingiva are evaluated for any lesions that may inhibit intake of feedstuffs.
- A complete external ophthalmic examination is performed to assess for entropion (upper or lower eyelid rolls into the eye), ectropion (typically lower eyelid rolls out or droops), evidence of excessive tearing, conjunctivitis and evidence of blindness. An internal ophthalmic examination, referred to as a fundic exam, is performed to assess for corneal opacities or scarring, cataracts and retinal abnormalities.
- An otic (ear) exam is performed to evaluate size and shape of ears, to look for any discharge, and to look for evidence of mite infestation, which may be characterized by hair loss on the pinna of the ear. An otoscopic examination can be performed if warranted, however not every animal will allow this procedure and generally a very small otoscope is necessary.
- Nasal examination ensures that air moves through both nostrils (airflow may be obstructed with a partial choanal atresia) and looks for nasal discharge or nasal mucosal lesions.

- Examination of peripheral lymphnodes and glands is performed to assess for inflammation or abscesses.
- Skin and fiber is examined for evidence of external parasitism, including mites and lice, as well as for any fiber breaks or areas of fiber loss. Skin is also carefully evaluated (usually palpation is necessary if in full fiber) for evidence of cutaneous masses, including tumors, hernias or abscesses.
- A general neurologic examination may be performed to assess the animal's ability to intake, chew, swallow and regurgitate food. This may be completed during the general assessment. A neurological exam may also include evaluation of vision and palpation of musculature to assess for atrophy.
- Examination of the alpaca's gastrointestinal tract includes auscultation of gastrointestinal noises and evaluation of quality of stool.

Additional tests that the veterinarian should offer during the examination include:

- ✓ baseline bloodwork (complete blood cell count and biochemical profile)
- ✓ bovine viral diarrhea virus blood test
- ✓ mycoplasma haemollama blood test
- ✓ trace mineral nutrient and electrolyte blood test
- ✓ fecal analysis for parasites

### 3. Reproductive Examination

The reproductive portion of the examination will include a thorough reproductive history as well as examination.

#### Female:

Pertinent questions that should be addressed for the female reproductive history include:

- Has this female ever been bred?
- Has she had difficulty becoming pregnant?
- How many cria has she had?
- Has she ever had a premature cria?
- Have any cria died prior to one year of age?
- Has she had any cria with congenital defects?
- Have any cria required supplemental feeding?
- What was her last breeding date?
- What was her last birthing date?
- Have IgG (immunoglobulin G) levels been performed on previous cria?
- What were the IgG levels?
- Have progesterone levels been performed on the female when she was pregnant?
- What were those levels?
- Has she ever suffered a dystocia (difficult) birth?

The extent of the female reproductive examination will depend on the age and reproductive history of the female, and the desires of the purchasers. For example, a maiden female alpaca has not proven her ability to become pregnant and maintain a pregnancy to term; therefore, the exam may include tests not included for a proven female.

The minimum exam for a maiden female should include examination of the external genitalia and mammary glands for normal conformation. If the female is of appropriate age, the examination may include digital vaginal exam for persistent hymen and vaginal speculum exam for vaginal and

external cervical conformation. Additionally, there are some congenital abnormalities that can prevent a female from becoming pregnant, including chromosomal abnormalities and developmental abnormalities of the reproductive tract; advanced diagnostics including blood tests and ultrasound exam may be necessary to rule out these conditions.

If the female is multiparous (has given birth multiple times) and is not pregnant at the time of exam, and especially if there has been a history of difficulty getting the female pregnant, more advanced diagnostics, including uterine culture and cytology can be performed.

### **Male:**

Pertinent questions to be addressed for the male reproductive exam include:

- Has this male ever bred?
- What is the number of offspring for this male?
- Have any of his cria had congenital defects?

The male reproductive examination will also vary depending on the age of the male and the desires of the purchaser. The minimum exam for any male should include evaluation of both testicles for descent into the scrotum as well as size, shape and texture. Additionally, palpation of the sheath and prepuce should be performed on all males. If the male is mature, extension of the penis outside the sheath may be performed to make sure there are no adhesions of the penis to the prepuce. This procedure will likely require sedation and adequate restraint as the male will likely resist it. Semen evaluation may be performed if requested by the purchaser; however, collection of semen can be difficult and often requires the male to breed a female at the time of examination.

## **Summary**

The alpaca pre-purchase examination should include a thorough history, physical examination, and reproductive examination with advanced testing optional and at the discretion of the examining veterinarian and the purchaser. A thorough pre-purchase exam can aid in identifying problems that may prevent the alpaca from performing its intended purpose.

As previously stated, the exam is not infallible and should not be considered as a warranty or guarantee on the alpaca; after all we are dealing with living, dynamic organisms!

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**Dr. Leslie Richardson** is a licensed veterinarian in the state of Oregon. She is based at Crater Animal Clinic where she has a special interest in camelid medicine. Leslie graduated from Oregon State University's College of Veterinary Medicine, which enjoys an outstanding track record and reputation in camelid medicine.

### **Authors note:**

This discussion of pre-purchase examinations is based on my own camelid veterinarian knowledge and experiences. None of the information is refereed by academic clinicians. The document is a work in progress and may well be revised over time.