## CONGENITAL DISQUALIFIERS

## PART III- EARS

What are fused ears and gopher ears? Both conditions result in a shortening of the ear and are often overlooked by breeders. Happily they are not a common occurrence in the Canadian alpaca and llama population but fused ears (tip or base) and short ("gopher") ears are

recognised heritable defects and are listed as congenital disqualifiers by the CLAA.

A fused ear is a condition where the tips of the ears are deformed, resulting in short ears. They may occur on a gradient from very slight to pronounced (Hoffman 2003). Look for fleshy material at the top and inside of an otherwise normal looking spear shaped ear (alpacas) or banana ears (llamas). In extreme cases the ear will look pinched on the top third. In a 1997 study by Ponzoni et.al. fused ears were observed in a female alpaca imported to New Zealand from Chile and in some of her descendants. Records from 19 descendants suggested that this defect was passed from mother to all daughters, but was not expressed in males and was not passed from sires to daughters. The inheritance pattern, the authors concluded was consistent with a sex-limited trait.

Friends,
Romans,
countrymen
lend me your ears
.... just not those
short, stubby
gopher ears or fused ears

Gopher ears are easier to spot. This defect can result in the absence of a normal external ear, or a very short ear, rather than the normal spear shaped ear (alpacas), or banana ear (llamas). Although no studies have been done on the inheritance pattern of gopher ears it is believed to be highly heritable. Hoffman (2003) has reported isolated herds in the highlands of South America where gopher-eared animals were very common. While, as stated, gopher ears are relatively easy to spot they can occasionally be confused with the effect of frostbite.

With close visual inspection however, frostbite can be relatively easily differentiated from congenital shortening of the ear. Frostbite usually produces a squared tip rather that a tapered tip of a congenitally shortened ear (Fowler 1998). Also the healed margin produced by the frostbite is scar tissue, devoid of hair. The margins of congenitally shortened ears are haired. The ears are the

primary site of frostbite in alpacas and llamas and neonates are most frequently affected.

Occasionally, at the time of birth, the ears of llamas or alpacas may seem to be a little floppy or have the ends tipped over. This is not a genetic condition. Floppy ears are more commonly seen in crias born prematurely and may also be linked to position of the cria in the uterus. Although the ears normally strengthen and stand up straight after a few days, you can give them some helpful support by taping them to assure correct development. Cut a support and fit it into the inside of the ear. Apply vet wrap around the ear to hold it in place. Be very careful that the tape is not so tight as to cut off blood circulation in the ear. Leave this support in the ears and check after about a week. If they still need a little help, you can insert the supports again for as long as necessary.

Disqualifying camelids with ear deformities from registration should not be a controversial issue. The position of the ear, together with the tail and head is a primary form of visual communication – more so than in other livestock - and helps to maintain order in a herd. Alpacas and llamas use a continuum of ear positions to express degrees of alertness, contentment, displeasure and aggression and deformities in the ears prevent appropriate and necessary communication signals.

## Congenital Disqualifiers

## PART IV-LUXATING PATELLAS

This article is the fourth in our series of identifying and explaining congenital disqualifiers. A congenital disqualifier is a serious defect and will impair the quality of life and use of an animal. Many of these defects are suspected of being genetically transmitted and animals exhibiting these faults at birth are disqualified from being registered.

Luxating is a veterinarian description for dislocating. Patella is your llama or alpaca's "knee", the joint on the front of her hind leg or if you want the front of the convergence of the femur and tibia of the back legs. So a luxating patella is a dislocating knee, a knee that keeps slipping out of its socket or one that can be dislodged from its normal position.

There are generally four recognised degrees (grades) of luxation:

- 1. The knee only slips out when the vet manipulates it.
- 2. The knee luxates occasionally when the camelid is walking or running but usually slides back by itself as the animal continues moving.
- 3. The knee luxates frequently and causes chronic lameness. Even when you put it back manually, it doesn't seem to last long.
- 4. The knee luxates, stays that way, and you can't put it back into its socket. This grade is very rare.

"a luxating patella is a dislocating knee, a knee that keeps slipping out of its socket or one that can be dislodged from its normal position"

The defect is most easily identified by palpating the patella. A patella that is easily rotated from its correct position indicates the leg is unsound. Both medial (sideways) and lateral (up and down) patella luxations have been identified in camelid crias. Luxation may occur in one knee, or in both. Lameness caused by pain or mechanical impairment is present. Congenital bilateral (both knees) patellar luxation causes the cria to assume a crouched position (Fowler 1998) making walking difficult. Heat and swelling may also be present. Suspect congenital luxating patella if your llama or alpaca cria sometimes lifts one hind leg while it is running or moving quickly, or if it often moves both rear legs at the same time. Sometimes the knee slips only for a few moments, then slides back into place. Sometimes the knee slips out and stays out, and your llama or alpaca cria will hold

its leg off the ground and limp, perhaps tucking her thigh into her body.

Occasionally a luxating patella can become "locked. When this happens the back leg will be fixed in extension and the llama or alpaca will drag the leg if forced to move. This can be an acquired condition in older animals with a predisposition towards a congenital conformational weakness (straight rear limbs – post legged – and laxity of the tendons and ligaments.

Acquired (not congenital) medial and lateral patellar luxation usually follows a traumatic incident that ruptures the ligaments holding the kneecap in place. Such trauma may occur by failed attempts to jump a fence, slipping on an icy patch of ground or rearing and chest butting by males. However, in the absence of such proof of trauma, the weak tendons and/or shallow kneecap groove of luxating patella in a new cria is considered hereditary. While in some cases defect can be repaired by surgery remember fixing the knee doesn't fix the genes that caused the problem and the cria exhibiting congenital luxating patella is unable to be registered.

CANADIAN LLAMA AND ALPACA ASSOCIATION