The virus that causes this problem is called Caprine arthritis-encephalitis virus (CAEV or CAE). It is an important viral disease of goats and in laymen's terms is commonly referred to as "Big Knee" or "Hard Bag."

CAEV infection causes economic losses due to decreased productivity and increased removal rates from herd rates due to CAE associated arthritis.

Prevalence of the infection in the United States is reported to range from 38 percent to 81 percent in dairy goats. Meat breeds, such as Boer goats, may not be clinically affected as frequently by the virus and, therefore, the prevalence of infection in these goats is not known at this time.

CAEV can result in five clinical presentations, all of which are characterized by chronic inflammation. These are: arthritis, neurologic disease, pneumonia, mastitis, and chronic weight loss.

Weight loss can be seen as the sole manifestation or in conjunction with other forms of the disease. Some infected goats may show one or more of the clinical manifestations at the same time.

Arthritis is usually seen in adults and most commonly affects the knee. These animals have swollen, painful knees and eventually results in severe lameness that is referred to as "knee walking."

Brain inflammation or encephalitis is most often seen in young animals (2-8 months of age) but can be seen at any age. This manifestation begins with weakness in the rear limbs, which then progresses to paralysis, seizures and death.

Unfortunately, there is no current treatment for CAE, but supportive care can aid in animal comfort.

CAEV transmission occurs predominately through the ingestion of colostrum and/or milk from CAEV positive does. Approximately 78-100 percent of the kids become positive for the virus after consuming infected milk or colostrum.

The practice of utilizing dairy goat females for embryo recipients or surrogates may expose meat goats to the virus and lead to infection in this group of goats, which is not commonly affected by this disease.

Transmission can also occur in adults if they have prolonged direct contact to an infected group of goats. Another mode of transmission is milking infected does and then using the same equipment, such as needles or dehorning instruments, on a non-infected goat without cleaning the equipment between goats. Once goats are infected with CAE they remain infected for life.

There are two blood tests which detect antibodies to the virus that are commonly used to diagnose CAE. These are referred to as the AGID and cELISA tests.

Kids may test positive for the first 2-4 months of life if they have received heat-treated colostrum from an infected doe but yet not truly be infected. In this situation, the kid should have a negative test by 6 months of age.

Unfortunately, no test is 100 percent accurate and some goats which are infected may have a negative test.

The interval between onset of infection and the ability to detect the virus varies greatly. It may take up to 4-6 months post-infection for antibodies to be detected by one of the two tests.

It is also important to isolate and test all newly purchased animals and not to mix them with your herd until the test results are obtained.

Prevention strategies are primarily based on decreasing doe to kid transmission, reducing contact between positive and negative animals, and the elimination of infected goats from the herd.

The recommended five step strategy program to prevent transmission to kids includes: 1) immediate removal of the kid from the dam at the time of birth, 2) a minimum distance of 2 meters should be kept between kids and infected animals 3) use of CAEV-free or heat treated colostrum (56˚C for 1 hour) 4) or use of CAEV-free or pasteurized milk and 5) testing at 6 month intervals and separating or removing positive goats from the herd.

Currently there is no effective vaccine available for CAEV and we must rely on prevention as the vital key in reducing disease prevalence.

As with any disease, it is important to work closely with your veterinarian so that he/she can oversee a herd management program for you.

This column is provided by the faculty of the OSU Boren Veterinary Medical Teaching Hospital. The large volume of questions does not allow us to directly respond to specific email questions so please watch for your answer in the column. Email your questions for the column to dvmon call@postoffice.cvhs.okstate.edu
and watch for your answer.

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