

## What Disease Does This do to Goats?

From this



to this, 12 month later



There is NO treatment and NO vaccine.

It is mentioned in the National Goat Health Statement that should go with each NVD and in the National Kid Rearing Plan.

But,

it is not Johne's Disease nor gastrointestinal parasitism (although it wasting is a common sign and these goats could have these conditions as well as their resistance is reduced)

## CAPRINE ARTHRITIS ENCEPHALITIS

CAE is caused by a slow virus and a member of the retrovirus family (like HIV-AIDS). It is from the subgroup, lentivirus, the same as the sheep disease Maedi Visna (also called Ovine Progressive Pneumonia), which is exotic to Australia. MV/OPP and CAE are so similar that it is suggested both must be controlled at the same time for either eradication programs to succeed. CAE viruses are attached to monocytes and macrophages.

Large numbers of viruses are in inflamed brain, spinal cord, lung, joints, & mammary gland cells of CAE positive goats. Smaller numbers are in uterus, lung, liver, spleen, lymph nodes, lining the vessels of brain, joint linings, intestines, kidneys & thyroid.

Transmission is via bodily fluids. Milk and colostrum are the main sources of infection. Horizontal transmission between dry goats is less likely, but still possible. Positive goats must be kept separate behind solid or double fences. There is very high risk if goats are milking or kidding. A single tiny intra-mammary dose can transmit CAE, so CAE positive goats should be milked last and milking machines well maintained. Overseas, sheep have acted as carriers.

***The key message to goat producers is NEVER feed pooled milk to goat kids (unless it is pasteurised first).***

Clinical signs take one or more of these following forms:

- Chronic Arthritis which starts as a peri-arthritis and progresses to deformed limbs and wasting
- “Hard Udder” - udder feels like a smooth stone under the skin with only a small amount of milk produced
- Chronic interstitial pneumonia with wasting and difficulty breathing
- Nervous signs (generally in kids)

Clinical signs can be very slow to show up and initially can be very mild e.g. just swollen carpus joints as shown in next photo. Signs increase with increased viral load in a herd.



### **Further Information**

Facebook page – Let’s Eradicate CAE from Australian Goats see <https://www.facebook.com/EradicateCAEinGoats?ref=hl>

National Goat Health Statement

<http://www.farmbiosecurity.com.au/wp-content/uploads/2012/10/Goat-Health-Statement-Final.pdf>

National Kid Rearing Plan

(<http://www.animalhealthaustralia.com.au/national/kid/rearing/plan> )

Slideshare presentations on CAE

(<http://www.slideshare.net/SandraBaxendell>)

These US sites:

<http://www.goatbiology.com/caereferences.html> and  
[http://www.dairygoatjournal.com/issues/90/90-1/cae\\_prevention\\_and\\_management.html](http://www.dairygoatjournal.com/issues/90/90-1/cae_prevention_and_management.html)