

**Cattle Warts – and show cattle**  
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Warts may not result in severe losses to the beef industry; their presence is a real problem for purebred producers and those showing cattle.

An infectious and contagious virus that spreads by direct contact from infected cattle to non-infected cattle causes bovine warts. If an animal has warts, it cannot be considered free of disease and a health paper cannot be issued on the animal. Papillomatosis (Warts) usually occur in younger cattle as cattle generally develop resistance to the virus that causes warts as they mature. Warts are caused by species-specific viruses. People do not get warts from cattle; cattle only get warts from other infected cattle. The papillomas are usually dry, white to tan colored growths that protrude from the skin and may have a horny surface. There are several strains of bovine papilloma virus (BPV) and each strain has an affinity for different regions of the body: BPV1 on nose, teats and glands penis, BPV2 on head, neck and brisket, BPV3 on head, neck and possibly intra-digital, BPV4 on alimentary track and bladder, BPV5 on teat and BPV6 on teat. Most of these strains are mildly pathogenic and only cause minor problems to the animal.

As cattle mature, they develop an immune response to the virus and the wart regresses leaving little or no scarring. Problems with cattle warts usually arise with show cattle or young purebred bulls ready for sale. Their immune system is at the developmental stage between losing their maternal immunity from colostrum and developing their own immunity to bacteria and viruses in their environment. Since the virus that causes warts tend to be isolated in the wart and not circulating in the blood stream, the animal's immune system is poorly stimulated. Therefore, it may take an extended length of time to develop immunity to the wart virus and see regression of the wart. Virus may also be transmitted indirectly by getting on feeders, waters, halters and even pen walls and non-infected cattle then come into contact with the virus.

Treatment for bovine warts involves surgical removal and/or crushing the wart. The immediate result is that more virus enters the circulation and stimulates the calf, increasing its immunity to bovine papilloma virus. The success of this procedure varies depending on the animal's ability to develop an immune response. This process will not remove the possibility of the wart virus spreading to other cattle.

Vaccination for bovine warts is often not effective in causing the rapid regression of warts. Commercial vaccines are more effective if they contain the specific strain that is involved in the infection. If commercial vaccines are used, they should be administered three to four times at two-week intervals and the last vaccination should be given 30 days before any show. Autogenous vaccines can be made by your veterinarian and involve removing the wart to produce a specific virus sero-type vaccine.

The key to wart control on cattle is to examine the calf early and often for warts. At the first sign of warts, they should be crushed and/or removed. This process may need to be

repeated numerous times before the calf is old enough to develop immunity to bovine warts. Multiple vaccinations with commercial vaccines should start 100 to 120 days before the show season or sale. In addition the use of bleach for halters, feeders and waters and isolation of clinically affected cattle may help slow the spread of this disease.