

## Abscesses in Rabbits/Guinea pigs

An abscess is a cavity containing pus, surrounded by a capsule of thickened inflamed tissue which is usually the result of a bacterial infection. The pus is an accumulation of dead cells as the result of the battle to fight the infection. In humans, abscesses of the skin are often caused by *Staphylococcus* infections, but in rabbits/guinea pigs, abscesses can be caused by many different aerobic bacteria (those that require oxygen to survive), including *Pasteurella multocida*, *Streptococcus*, *Pseudomonas* and *Staphylococcus* and a whole host of anaerobic bacteria (those that do not require oxygen to survive).

Rabbits/guinea pigs can form abscesses in nearly any organ of the body as well as in skin, tooth roots and bone. The most common causes of rabbit/guinea pig abscesses are bite wounds that become infected and infections in tooth roots and tear ducts. Most facial abscesses are the result of dental disease. Tear duct abscesses can be the result of an elongated upper incisor tooth root blocking the tear duct. The accumulated fluid is a perfect breeding ground for bacteria and an abscess can form easily. Abscesses that form internally can be more difficult to diagnose or manage and include areas such as the uterus, lungs, heart, liver, abdominal fat, intestine and kidneys.

Rabbit/guinea pig abscesses can be difficult to treat. One problem is that the pus found in rabbit/guinea pig abscesses is very thick, about the consistency of toothpaste, and does not drain easily when the abscess is opened. This makes it difficult to thoroughly clean rabbit/guinea pig abscesses. In addition, surgical drains should not be used in rabbit/guinea pig abscesses because they not only do not work, but they can act as a source for continued infection. The reason for the thick consistency is that there is an enzyme missing that is present in other animals, such as dogs, cats and humans that can break the dead cells into a more liquid form. In addition rabbit/guinea pig abscesses often develop finger-like projections or tracts into the surrounding tissue, which are places where new abscesses can form. If these tracts are not removed or cleaned out, the abscess will return.

There are many thoughts on how to treat rabbit/guinea pig abscesses and much depends on the location of the infection, the cause of the infection and the general condition of the pet. **It should be stressed, however, that no matter what treatment is chosen, it is vital to provide your pet with a healthy diet, daily exercise and a clean environment to enable the immune system to function at its full capacity.** It will often be necessary to perform diagnostic tests to investigate the cause of the abscess and to determine if other disease is present. These tests might include bacterial culture of the wall of the abscess, x-rays to determine the location and extent of the disease and blood tests to determine the response of the immune system and the condition of other organs.

No matter what treatment is selected, rabbit/guinea pig abscesses have a higher probability of returning than abscesses in cats, dogs or humans. This can be due to a number of factors such as difficulty in removing all the abscessed tissue due to location, the inability of antibiotics to penetrate the capsule of the abscess, the presence of draining tracts coming off the abscess, and the possibility that the underlying cause of the abscess was not treated. **Most experienced rabbit/guinea pig veterinarians feel complete surgical removal of the abscess along with treatment of the underlying cause gives the rabbit/guinea pig the best chance for a**

**complete cure.** Ideally, all abscesses should be cultured for both aerobic and anaerobic bacteria to determine the best choice for antibiotic therapy after surgical removal.

It is not always possible to surgically remove an abscess due to its location, other disease in the pet (making anesthesia or a lengthy surgery dangerous) or restraints on the finances of the caretaker. In these cases the abscess can be opened, cleaned out thoroughly and flushed with an antiseptic solution. This procedure is usually performed under anesthesia, unless the abscess is very small. The wall of the abscess should be cultured for bacteria and an appropriate antibiotic can be selected for oral or injectable use. These wounds must be left open to be flushed at least twice a day for several weeks. If the abscess closes too quickly, it will merely fill with pus again. Abscesses treated in this manner have a high rate of recurrence, but it may be possible to provide at least some measure of relief for your pet for a period of time. Please note that using oral or injectable antibiotics as the sole treatment is usually unsuccessful because these drugs cannot adequately penetrate the thick capsule of the abscess to kill the bacteria inside.

Other methods that have been used to deal with rabbit/guinea pig abscesses include injecting the wall of the abscess with antibiotics or other solutions at periodic intervals or packing caustic material or antibiotic beads into the cleaned abscess cavity to kill bacteria.

Most rabbit/guinea pig abscess cases will require oral or injectable antibiotics. If the entire abscess is completely removed, then the antibiotics might not be necessary or may be used for only a short time. If the abscess was only lanced and drained, then antibiotic therapy might continue for weeks to months.

Some rabbits/guinea pigs can live with abscesses on various parts of their body for years by having them surgically drained as needed. Rabbit/guinea pig abscesses form a thick capsule around the infection that effectively walls it off from the rest of the body. If the abscess is not causing pain, the rabbit/guinea pig may act as if nothing is wrong. However, this does not mean that if you see a lump on your rabbit/guinea pig's body that you should ignore it. Your veterinarian should investigate any unusual lumps or masses as soon as possible. The sooner an abscess can be treated, the greater are the chances of a cure. In addition, some lumps are not abscesses at all but rather tumors or cysts and may need immediate removal.

To sum it up, here are the important points about abscesses in rabbit/guinea pig:

- Feed your rabbit/guinea pig a healthy diet, provide ample exercise and a clean and safe environment to minimize the formation of abscesses
- Have all lumps investigated as soon as possible by your veterinarian
- It is important to determine the cause of an abscess, not to just treat the abscess itself
- If the cause of an abscess cannot be treated, then there is a high probability that the abscess will return
- Complete surgical removal of the abscess along with correction of the cause gives the best chance for a complete cure
- Whatever the treatment choice it is imperative to follow through with requested recheck appointments and diagnostic testing to improve the chances for abscess resolution

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