

## Abscesses

An abscess is defined as a collection of pus that is localized by a zone of inflamed tissue. Abscesses can be visible and accessible externally or a mass (which might be a tumor or an abscess) may be detected on an x-ray. Diagnosis and treatment of an abscess depends on its size and location.

Abscesses can occur almost anywhere and can have a number of causes including (but not limited to):

- External puncture wounds
- Food impacted alongside the tooth or in longitudinal tooth fractures
- Systemic infections resulting in abscesses

Abscesses in rabbits are particularly hard to cure. They require persistent and aggressive treatment. Even with the best treatment by a skilled veterinarian, the recurrence rate is very high.

Treatment of abscesses in rabbits is more difficult than in other species for the following reasons:

- Pus in rabbits is **very** thick, making it difficult, if not impossible, to drain the abscess. The consistency of rabbit pus is often likened to cream cheese or toothpaste.
- Rabbits tend to wall off abscesses, preventing or limiting appropriate antibiotic levels from being reached within the abscess.
- Rabbit abscesses often form finger-like extensions, making the abscesses **much** larger than original appearances. These “fingers” often make the abscess difficult to remove completely.
- The number of relatively safe antibiotics is much smaller for rabbits than for most other species, limiting treatment options.

Treatment of an abscess depends on its location and size. Surgical removal is usually indicated unless the abscess is located where it cannot be easily accessed, where its removal might endanger vital organs, or if the rabbit’s general health is too compromised for surgery. The steps normally taken to treat an abscess include:

1. Surgically remove the entire abscess, including the capsule and all extensions. Surrounding tissue (sometimes bone) may also need to be removed to ensure removal of all the infection.
2. Collect a sample of the capsule wall (not the pus itself, which is usually sterile) and submit for culture and sensitivity. It is critical to identify the pathogen that caused the abscess and the antibiotics that will be effective against it.
3. Clean the area thoroughly.
4. Depending on the location of the abscess, your veterinarian may pack the area with antibiotic beads or medicated gel foam.
5. The wound is often left open allowing the area to heal from the inside out. Some veterinarians accomplish this by suturing the wound shut around a drain. Others use a wet-to-dry dextrose bandage (which must be changed daily) to pack the wound and keep it from closing.
6. Rabbits are usually put on systemic antibiotics for weeks or months following abscess surgery. The antibiotic is normally started immediately after surgery and changed if necessary when the culture and sensitivity results are available.
7. Depending on the location of the abscess, you may need to perform daily cleaning or flushing of

the area. It is critical that you diligently follow your veterinarian's instructions even though the procedure may be stressful for both you and your rabbit.

If your veterinarian feels that surgery is not an option, either because of the location of the abscess or because of your rabbit's general health, she may choose to simply try antibiotic treatment. If possible, she will probably try to obtain a sample for culture and sensitivity to improve the probability that the antibiotic will be effective. Bicillin (a combination of two forms of penicillin-G) has been successful in treating many abscesses that could not safely be removed surgically or cultured or in some cases limiting further growth. Note, however, that bicillin will only be an effective treatment **if** the abscess is caused by a type of bacteria that is sensitive to penicillin. The bicillin treatment protocol is available online at

<http://morelab.sbs.umass.edu/~mrosenfield/bicillin/>

Another technique that has been successfully used when surgery wasn't an option is to inject a low dose of antibiotics such as gentamicin or amikacin directly into the abscess. Again, this treatment will only work if the abscess is caused by bacteria that is sensitive to the antibiotic used.

Curing an abscess requires diligent care from both you and your veterinarian. You may want to ask your veterinarian to outline a complete treatment plan. If there is any part of the plan that you don't understand or have concerns about — or if important steps (e.g. culture and sensitivity tests) are missing from the plan, speak up. If you are not comfortable with the treatment plan, ask your veterinarian if she would consult with one of the experts listed in the *Resources* section before proceeding — or seek a second opinion yourself.



*Samson and Xena enjoyed each other's company throughout Samson's long battle with jaw abscesses.*  
(Photo by Kristi Cole)