

# Frequently Asked Questions about Seal and Sea Lion (Pinniped) Bites

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## **Why do pinnipeds bite humans and what factors are associated with bites?**

This remains unknown. Animal illness is a possibility, as is simply playful behavior. No associations were found between encounters and water temperature, salinity, average rainfall, or other factors. No pups were seen during any encounter. Many bites occurred at low tide, but there was no clear association. To quote the late great Lou Marcelli, “They don’t need a reason...it’s their backyard!”

## **What should I do if I have an encounter with a pinniped?**

It’s probably best to swim away as quietly as possible – with as little splashing as possible – and exit the water as quickly as possible. Making yourself “uninteresting” to the pinniped seems to be the best course of action. One swimmer felt the need to defend himself from a particularly aggressive sea lion. This should be done only as a last resort.

## **Is there a difference between seal and sea lion bite behavior?**

Although the numbers from our cases are small, sea lions appear to be more “aggressive” and seals more “playful”. This general observation, however, is far from certain. For both, not encouraging further interaction (swimming away quietly) seems best.

## **Do pinnipeds always “bump” before biting?**

No. Bumping can occur, but not always.

## **Is it okay to pet pinnipeds if they seem playful?**

No. We know of an encounter where a swimmer intentionally reached out and touched a seal on the head. The seal promptly dove and bit the swimmer on the foot. Further, intentionally touching or petting a pinniped is counter to the Marine Mammal Protection Act.

## **Can pinniped bites be life-threatening?**

Yes. A serious bite can do damage to major blood vessels and cause extensive bleeding.

## **Is rabies possible after a pinniped bite?**

Possible, but unlikely. There has never been a case of rabies documented in a harbor seal in California or in a California sea lion. Rare cases of rabies have been described in other pinnipeds in other countries.

### **Alcohol vs. soap and water – which is best?**

There are many theories and protocols for local wound care. Research shows warm soapy water seems best for washing minor wounds. Alcohol has the potential to kill beneficial immune cells and might inhibit natural immunity. Wounds that are severe and need surgery will undergo presurgical treatment at a hospital.

### **Should I receive antibiotics after a minor pinniped bite or scratch?**

This is a medical judgement call. It is always safest to see a medical provider after any bite. Because pinniped bites can develop particularly nasty infections, some experts recommend antibiotics for all bites or scratches, no matter how minor. On the other hand, several superficial “bites”/scratches healed without antibiotics. For the most part, these minor cases were in the category of a “tooth scratch” or “tooth abrasion” rather than a true “bite” to deeper skin tissue. Again, an exam by a medical provider is safest.

### **Should all serious bites be treated with antibiotics?**

Yes. Definitely. Because of the potential for very serious infections, all true bites should be treated with antibiotics.

### **What is the organism that causes pinniped bites to become infected?**

Several bacteria exist in the mouths of pinnipeds and can potentially cause an infection. In particular, *Mycoplasma* organisms have been implicated in serious infections after pinniped bites. *Mycoplasma* can cause serious tissue damage – loss of fingers, joint infections, severe deep tissue infections and other serious consequences.

### **Which antibiotic is best to treat pinniped bites?**

Choice of antibiotic is a matter of medical judgment. In general, Doxycycline/tetracycline has long been the treatment of choice for pinniped bites. Doxycycline/tetracycline is highly effective against *Mycoplasma* organisms. Levofloxacin/Levaquin is also generally effective against *Mycoplasma* and is a potential alternative. However we have seen a possible treatment failure with levofloxacin/Levaquin. Because of the longstanding historical success with doxycycline/tetracycline in pinniped bites, we cautiously (and in very general academic terms) recommended doxycycline/tetracycline as first-line therapy. Again, choice of antibiotic is a matter of medical judgment. Many factors influence the choice of antibiotic and this should be discussed with your individual medical provider.

**Can I just simply use the same antibiotics that are used after dog or cat bites?**

No. Dog and cat bites are typically treated with antibiotics that are not effective against *Mycoplasma*. In one case, where a swimmer was initially treated with antibiotics typically used for dog or cat bites, he later developed a serious infection but improved rapidly when the treatment was changed to doxycycline/tetracycline.

**Is tetanus infection a possibility? Should I get a tetanus shot?**

Yes. Even after superficial pinniped bites and scratches, tetanus infection is possible. If not up to date, a tetanus vaccine is always advisable.

**Should I call 911 if the bite seems serious/life-threatening?**

Yes. A tourniquet could be needed to stop bleeding after a severe pinniped bite. If there is any doubt, 911 should be called.