

# Adequate Analgesia for Ear Procedures

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## In the Literature

Layne EA, de Miguel Garcia C. Clinical techniques in veterinary dermatology: regional anaesthesia of the canine ear. *Vet Dermatol.* 2019;30(6):470-e138.

## FROM THE PAGE ...

This study describes a technique for performing regional anesthesia in canine ears, which is particularly important during otoscopy and deep ear flushing. Otoscopic procedures can be painful and require profound sedation or anesthesia. Regional nerve blocks with lidocaine and bupivacaine block sensation to the affected area and allow for decreased anesthetic doses. These blocks may also be useful in dogs undergoing total ear canal ablation and bulla osteotomy. The 2 nerves that provide sensory innervation of the ear canal and pinna are the great auricular nerve and auriculotemporal nerve.

To block the great auricular nerve, the transverse process of the atlas (C1) should be palpated. A 22 g × 3.5" spinal needle is inserted at the skin caudal to C1 and aimed toward the deep fascia at the level of the transverse process of C1. Needle insertion is superficial, with the tip of the needle pointing rostrally. Negative aspiration of blood should be ensured. The total dose is injected in 3 equal amounts along the transverse process as the needle is retracted.

To block the auriculotemporal nerve, the temporomandibular joint (TMJ) is first localized by opening and closing the mouth while palpating the area over the TMJ. After locating the TMJ, a 22 g × 1.5" spinal needle should be inserted perpendicular to the skin toward the TMJ. The needle should be held in contact with the zygomatic arch at the level of the masseteric margin. After negative aspiration of blood is ensured, the drug can be injected.

Lidocaine or bupivacaine can be used. The upper dose limit is 5 mg/kg for lidocaine and 2 mg/kg for bupivacaine. The desired total volume for injection for the great auricular nerve is 0.2 mL/kg; the volume for the auriculotemporal nerve is 0.04 mL/kg. The dose can be diluted with saline to achieve total volume in cases in which the upper limit of the dose prohibits using the desired volume of the drug by itself (eg, in smaller dogs).

## ... TO YOUR PATIENTS

Key pearls to put into practice:

**1** Deep ear flushing in dogs with severe otitis can be painful and thus requires significant sedation or anesthesia. The ear blocks described can allow for lower doses to be administered; as a result, recovery can be improved and anesthetic depth can be lighter.

**2** Ear flushing is an underused tool to treat chronic otitis and should be considered in any patient that has chronic otitis or suspicion of otitis media.

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