

## **Bad Medicine**

*By Dr. Means, veterinary toxicologist at the ASPCA Animal Poison Control Center in Urbana, IL*

If there's one thing animal lovers agree on, it's that we don't want to see any animal in pain. Fortunately, advancements in veterinary medicine over the last few years have made it possible to better control pain in our patients. But problems arise when animal guardians take pain management into their own hands. Cats, because of the unique way they metabolize medications, can be fatally affected by over-the-counter (OTC) medications and can easily overdose on even veterinarian-prescribed treatments.

There are many reasons people give cats pain medications, and most do so with the best intentions. There may be trauma, such as a fractured limb, or a disease condition such as a bladder infection, and the guardian wants to make the cat comfortable until veterinary care can be obtained. In some cases, the pain is merely perceived, even if not actually present. For instance, many people wrongly assume that a cat in heat is in pain because she's vocalizing more than normal and engaging in odd behaviors. Many guardians also assume that medication prescribed for their canine companions is safe for their cats (it's not), or they misunderstand the veterinarian's directions. Following is a discussion of several commonly used OTC and prescription drugs and their potential effects on cats.

### **Aspirin and Salicylates**

Aspirin is one of the most commonly used pain medications. It's often prescribed for treating arthritis or cardiomyopathies (enlarged heart), as well as for pain relief. But cats have smaller quantities of glucuronyl transferase, an enzyme necessary to metabolize certain drugs, than most other animals. The small amount of this enzyme prolongs the length of time that a medication is in a cat's blood stream, and significantly decreases the amount of drug needed to produce the desired effect. Aspirin can be used safely in cats as long as the dosage prescribed specifically by a veterinarian is followed. Clinical signs of an overdose include panting and fever, increased bleeding time for wounds, vomiting – often with blood present – liver damage, seizures, coma and death. Beware of hidden dangers: any product that contains salicylate has a form of aspirin in it. For instance, two tablespoons of bismuth salicylate contain the equivalent of one aspirin.

### **Acetaminophen**

Acetaminophen (the main ingredient in Tylenol®) should never be given to cats. A single tablet can be lethal. As with aspirin, the small amount of glucuronyl transferase prevents cats from metabolizing the drug like most animals. Clinical signs of toxicity include depression, panting, swollen paws and face, anemia and liver damage.

### **NSAIDs**

Most homes have at least one product in the medicine cabinet containing ibuprofen, carprofen, etodolac, or other NSAIDs (Non-Steroidal Anti-Inflammatory Drugs). Carprofen and etodolac are approved for use in dogs and are commonly prescribed for chronic pain, such as occurs with arthritis. Although some NSAIDs can be used safely in cats, they are usually limited to one to three doses at reduced strengths. These NSAIDs are generally given after surgeries as a single injection, and then the cat is placed on other forms of medication. Clinical signs of an NSAID overdose include gastric and intestinal ulcers, which can bleed and, in severe cases, perforate. NSAIDs can also cause acute renal (kidney) failure and death.

### **Local Anesthetics**

Local anesthetics like lidocaine, tetracaine, benzocaine or pramoxine are found in many topical antibiotic ointments and suppositories made for people. Products that contain these local anesthetics may include the phrase "plus pain relief" in the product name. Concerned guardians often apply these topical medications to their cat's cuts or abscesses, not knowing the local anesthetics can be absorbed through the skin or ingested during grooming. Cats are at an increased risk for toxicity because of their unique hemoglobin structure, which is easily damaged by the anesthetic. In large amounts, seizures, tremors and cardiac arrhythmia can occur. Before

deciding which antibiotic ointment to keep in your cat's first aid kit, ask your veterinarian for recommendations and dosage guidelines.

Controlling an animal's pain is very important to veterinarians and guardians alike, but not at the risk of the animal's life. When a veterinarian contemplates pain medication, the species of animal, age, prior health, other medications the animal is taking and the length of time the medication will be needed all play a role in determining the prescription. If you feel your cat is in pain, be sure to contact your veterinarian before beginning or changing doses of any medication.

*Courtesy of ASPCA*