# Dog Bites in Humans

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# In the Literature

Westgarth C, Brooke M, Christley RM. How many people have been bitten by dogs? A cross-sectional survey of prevalence, incidence and factors associated with dog bites in a UK community. *J Epidemiol Community Health*. 2018;72:331-336.

## FROM THE PAGE ...

A comprehensive understanding of how often humans are bitten by dogs is lacking, as most research into this topic has been based on hospital-admission records. Although not all dog bites are severe enough to warrant hospitalization, even minor dog bites can impact physical and psychologic health and can therefore be a burden on public health.

The authors of this study recognized the limitations of hospital-based data and aimed to survey the population of a semirural town in northwest England. Of the 694 participants representing 30.1% of households in the town, almost one quarter (24.78%) reported having been bitten by a dog at least once. Medical treatment was required in 33.1% of cases; only one bite resulted in hospitalization.

The authors further investigated human-related factors associated with dog bites and the relationships between humans and the dogs that bit them. It was determined that men were more likely than women to be bitten, and dog owners were

# Loxicom® (meloxicam) 1.5 mg/mL Oral Suspension

Non-steroidal anti-inflammatory drug for oral use in dogs only

Warning: Repeated use of meloxicam in cats has been associated with acute renal failure and death. Do not administer additional injectable or oral meloxicam to cats. See Contraindications, Warnings, and Precautions for detailed information.

**Brief Summary:** Before using Loxicom Oral Suspension, consult the product insert, a summary of which follows.

**Caution:** Federal law restricts this drug to use by or on the order of a licensed veterinarian.

**Description:** Meloxicam is a non-steroidal anti-inflammatory drug (NSAID) of the oxicam class.

Indications: Loxicom Oral Suspension is indicated for the control of pain and inflammation associated with osteoarthritis in dogs

Contraindications: Dogs with known hypersensitivity to meloxicam should not receive Loxicom Oral Suspension.

Do not use Loxicom Oral Suspension in cats. Acute renal failure and death have been associated with the use of meloxicam in cats.

Warnings: Not for use in humans. Keep this and all medications out of reach of children. Consult a physician in case of accidental ingestion by humans. For oral use in dogs only. As with any NSAID all dogs should undergo a thorough history and physical examination before the initiation of NSAID therapy. Appropriate laboratory testing to establish hematological and serum biochemical baseline data is recommended prior to and periodically during administration.

To report suspected adverse reactions, to obtain a Material Safety Data Sheet, or for technical assistance, call Norbrook at 1-866-591-5777. Precautions: The safe use of Loxicom Oral Suspension in dogs younger than 6 months of age, dogs used for breeding, or in pregnant or lactating dogs has not been evaluated. As a class, cyclo-oxygenase inhibitory NSAIDs may be associated with gastro-intestinal, renal and hepatic toxicity. Sensitivity to drug-associated adverse events varies with the individual patient.

Patients at greatest risk for renal toxicity are those that are

dehydrated, on concomitant diuretic therapy, or those with existing renal, cardiovascular, and/or hepatic dysfunction. Concurrent administration of potentially nephrotoxic drugs should be carefully approached. NSAIDs may inhibit the prostaglandins that maintain normal homeostatic function. Such anti-prostaglandin effects may result in clinically significant disease in patients with underlying or pre-existing disease that has not been previously diagnosed. Since NSAIDs possess the potential to induce gastrointestinal ulcerations and/or perforations, concomitant use with other anti-inflammatory drugs, such as NSAIDs or corticosteroids, should be avoided or closely monitored. The use of concomitantly protein-bound drugs with Loxicom Oral Suspension has not been studied in dogs. Commonly used protein-bound drugs include cardiac, anticonvulsant and behavioral medications. The influence of concomitant drugs that may inhibit metabolism of Loxicom Oral Suspension has not been evaluated. Drug compatibility should be monitored in patients requiring adjunctive therapy

Adverse Reactions: Field safety was evaluated in 306 dogs. Based on the results of two studies, GI abnormalities (vomiting, soft stools, diarrhea, and inappetance) were the most common adverse reactions associated with the administration of meloxicam. Of the dogs that took meloxicam (n=157), forty experienced vomiting, nineteen experienced diarrhea/soft stool, five experienced inappetance, and one each experienced bloody stool, bleeding gums after dental procedure, lethargy/swollen carpus, and epiphora. Of the dogs that took the placebo (n=149), twenty-three experienced vomiting, eleven experienced diarrhea/soft stool, and one experienced inappetance. In foreign suspected adverse drug reaction (SADR) reporting over a 9 year period, incidences of adverse reactions related

to meloxicam administration included: auto-immune hemolytic

anemia (1 dog), thrombocytopenia (1 dog), polyarthritis (1 dog), nursing puppy lethargy (1 dog), and pyoderma (1 dog).

Effectiveness: The effectiveness of meloxicam was demonstrated in two field studies involving a total of 277 dogs representing various breeds, between six months and sixteen years of age, all diagnosed with osteoarthritis. Both of the placebo-controlled, masked studies were conducted for 14 days. All dogs received 0.2 mg/kg on day 1. All dogs were maintained on 0.1 mg/kg oral meloxicam from days 2 through 14 of both studies. Parameters evaluated by veterinarians included lameness, weight-bearing, pain on palpation, and overall improvement. Parameters assessed by owners included mobility, ability to rise, limping, and overall improvement. In the first field study (n=109), dogs showed clinical improvement with statistical significance after 14 days of meloxicam treatment for all parameters. In the second field study (n=48), dogs receiving meloxicam showed a clinical improvement after 14 days of therapy for all parameters; however, statistical significance was demonstrated only for the overall investigator evaluation on day 7, and for the owner evaluation on day 14.

### How Supplied:

Loxicom Oral Suspension 1.5 mg/mL: 10, 32 and 100 mL bottles with small and large dosing syringes.

**Storage:** Store at controlled room temperature 68-77°F (20-25°C).

Excursions permitted between 59°F and 86°F (15°C and 30°C). Brief exposure to temperature up to 104°F (40°C) may be tolerated provided the mean kinetic temperature does not exceed 77°F (25°C); however such exposure should be minimized.

Made in the UK.

Manufactured by: Norbrook Laboratories Limited Newry, BT35 6PU, Co. Down, Northern Ireland

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more likely to be bitten than were non-dog owners, with further increased risk to owners of more than one dog. Personality indicators such as insecurity, fear, and instability were also associated with an increased risk for being bitten. More than half of the surveyed respondents were bitten by a dog they had never met before.

It is important to note that this survey was conducted in a limited geographic region and that these results may not be generalizable to a wider population. However, this study does provide the first investigation of dog bite incidence and risk factors at the community level rather than through hospital-admission records. The increased frequency of dog bites reported combined with the low proportion of bites requiring hospital admission lend credibility to the hypothesis that dog bites occur more commonly than reported.

# ... TO YOUR PATIENTS

Key pearls to put into practice:

- Pet owners should be informed that although severe dog bites occur relatively infrequently, less severe bites may occur fairly commonly.
- Owners should be educated about the risk for dog bites from unknown dogs, as owners may be likely to come in contact with unknown dogs while participating in activities with their dog or in public spaces frequented by other dogs (eg, dog parks).
- Owners with multiple dogs in the household should be informed about the increased risk for being bitten, as owners of multiple dogs may be up to 27 times more likely to be bitten than non-dog owners.

