

# Why Do Cats Purr?

By Comfort for Critters

Is there anything more soothing, more relaxing, more all-around wonderful than the sound of a cat's purr? It's interesting that despite all the research, scientists really don't know how cats actually make the "purr" sound, and have even less of a clue why they do it. For many though, the speculation is half the fun, and boy, there's a lot of speculation.

Most experts agree that when a cat purrs, it all starts in the brain. A message is sent to the laryngeal muscles causing them to vibrate anywhere from 25 to 100 times per second. It's thought that the separation of the vocal cords, when a cat breathes in and out, combined with the twitching, causes the purring sound. Most scientists would back this up, but certainly not all. Some suggest that a small "hyoid bone" located between the larynx and base of the skull actually makes the sound. So the anatomy at the root cause, remains debated.

Why a cat purrs is even more interesting, and more misunderstood. Every cat owner has seen their cat purr as a reaction to love, comfort and a general feeling of "oo, la, la". However, cats also purr when they are ill, in pain or frightened! They will also purr when approaching another cat, to say "hey, I'm friendly."

Researchers compare a purr in a cat, to a smile in humans. We smile when we're happy for sure, but we may also smile when nervous, or even grimace in pain. The same holds true for a cat's purr. Of course a big smile, or purr, is a great way to greet someone new.

It's also quite interesting that besides expressing emotion, cat's may be actually easing their pain and promoting healing in their body. Ultrasounds given to humans, at the same frequency as a cat's purr, have shown to increase the healing of bone fractures. Additionally, some research suggests that cats do indeed heal faster than comparable animals who do not purr, and that purring releases endorphins which help reduce pain.

So as your cat relaxes and purrs they may be both conserving energy, while engaging in low-intensity workouts which heal. The purring stimulates muscles and bones, without any heavy lifting at the gym. I wonder if people can learn that trick! The answer is "probably not," though many other animals have mastered the technique. Rabbits, guinea pigs, squirrels, mongooses, hyenas, raccoons and lemurs have all been known to purr. Even elephants and gorillas sometimes purr while eating.

If you're wondering about your kitty's big cousins, the lions and tigers, that's where it gets even more intriguing. It seems for these cats, there's a tradeoff. The ability to roar, changes the anatomy of the larynx slightly, and makes it impossible to purr.

Big cats that can purr, like bobcats and mountain lions, can't roar. Lions and tigers, which are known for their roar, never purr. Experts see the development of the roar, as a way to claim the large territory of these big cats. Smaller cats simply "mark" their much smaller territory using their own scent. No roaring required.

The most telling part of a cats purr is the fact that humans 'feel it' as much as hear it. Studies have shown that cats do a great job of relaxing people, as they lower their stress levels, and yes, even blood pressure. They seem to do this better than most other pets (sorry, doggies). Since humans naturally relate purring to happiness (right or wrong), this brings calmness into our lives or at least into the moment. A cat purring on your lap can be your own mini-massage in its vibrations. It's a singularly wonderful feeling of comfort we can all get from our "critters".

So despite all the research, experimentation and theories, the how and why of purring remains as much a mystery as how they know it's "get up time" in the morning, long before the alarm sounds. Maybe it's better to simply relax and enjoy the sound, rather than diagnose and dissect it!

**Your turn:** *What does your cat's purr mean to you?*

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