

Cat Tips

The Truth Behind Your Cat's Quirky Sleep Habits

Since your cat sleeps almost all day, you get a lot of opportunities to observe them. And you've probably discovered some pretty odd habits along the way. Keep reading to discover the reasons behind their strange sleep behaviors.

Reviewed by <u>Dr. Becker</u>

STORY AT-A-GLANCE

- Everyone knows cats love to sleep ... but do they dream?
- As it turns out, cats actually DO dream, which is what yours is probably doing when he seems to be running or swatting something in his sleep
- Researchers believe that like humans, cats and other animals dream about events in their daily lives
- As cats awake slowly from a deep sleep, they follow a specific pattern of movements
- Typically, geriatric cats and very young kittens sleep more than healthy adult cats. However, all cats tend to sleep more when the weather is cold, overcast, or rainy

Editor's Note: This article is a reprint. It was originally published July 6, 2015.

If you share your life with a feline companion, you're aware that cats love to sleep. They sleep a lot ... as in, 16 to 18 hours a day.

And because Fluffy spends so much of her life sawing logs, as her naturally curious guardian you've probably found yourself asking questions like, "How can she sleep so much?" Or, "She's sleeping again? She just woke up!" Or, "What's with the twitching and hissing? Is she dreaming?"

But Seriously, Do Cats Dream?

Just like humans, cats cycle through multiple stages of sleep, from periods of slow wave sleep to REM (rapid eye movement) sleep, which is the stage of slumber during which most dreaming occurs

According to Matthew Wilson of MIT's Picower Institute for Learning and Memory, kitties dream about their daily activities just as we do.¹ The part of the brain called the hippocampus controls memory, and it is wired very similarly from one vertebrate or mammal to the next. The hippocampus of a rat contains all the same pieces as that of a dog, cat, human, and other animals.

Even more interesting is that the electrical activity pattern in a sleeping cat's brain is remarkably similar to that of a sleeping human's.

Cats Probably Dream About Daily Life Just as People Do

Dreams in the non-REM stage involve brief snapshots of the day's happenings. During deeper REM sleep, dreams last much longer and can revolve around experiences that happened days, weeks, months, and even years ago. Humans enter REM sleep about every 90 minutes; for cats it's about every 25 minutes.

When your kitty enters REM sleep, his body knows to "turn off" the large muscles that control his arms and legs to prevent him from acting out his dreams while sleeping. However, the off switch in the brain doesn't function perfectly 100% of the time, which is why animals occasionally twitch or thrash around in their sleep.

Your kitty in REM sleep may display a range of body movements and sounds that indicate he's dreaming about his day. He may twitch his tail, wiggle his whiskers, extend and retract his claws, raise his lip in a bit of a snarl, and murmur, chatter or hiss. With a little imagination, you may even be able to guess what he's dreaming about by observing the way his body moves.

As pets age, the off switch becomes less effective, resulting in more physical movement during sleep.² Sometimes the movements are so sudden they wake the animal up, causing him to be momentarily startled and confused.

In an attempt to interpret cat dreams, researchers have tinkered with the suppression mechanism (the off switch) so that motor activity was possible during REM sleep.

The result was "sleepwalking" cats that acted out behaviors they'd normally perform while awake, such as walking, swatting at objects with their front paws, and pouncing on prey.

Rats Replay Memories in Their Head as They Go About Their Day

Several years ago, MIT's Wilson used electrodes to record the brain activity of rats as they ran around a track, and also as they slept. He observed that while the rats were in REM sleep, they appeared to be running the track in their dreams. About half the time, the rats' REM-sleep brain activity repeated the same pattern as their brain activity when they ran.

According to Wilson, the rats' brain activity in both situations was so similar he could determine the location of the dreaming rats on the track, and whether they were standing still or running.³ He assumes the same thing occurs in pets.

"My guess is — unless there is something special about rats and humans — that cats and dogs are doing exactly the same thing," Wilson said.

Wilson has also examined what goes on inside a rat's brain during waking hours. He discovered that the rodents appear to replay memories in their head as they go about their daily life, whether they're eating or just resting quietly. He believes the rats are thinking about the past, and possibly contemplating the future.

"The idea that rats may actually be thinking — just as humans think when they're sitting, appearing not to be doing anything — suggests the full range of cognitive abilities that we have," said Wilson.

Cats Waking Up Slowly from Deep Sleep Act Out a Specific Sequence of Movements

According to animal behavior consultant and cat expert Amy Shojai, a cat's sense of hearing and smell remain active during 70% of her sleep time. This is so that she can react quickly to "the squeak of a mouse or smell of a rat." 4

The other 30% of the time, she's likely to wake up more slowly and with predictable sequential movements that include blinking, yawning, and stretching, followed by first flexing the front legs, then the back, and finally the rear legs. Most cats also do a bit of grooming when they first awake.

Typically, geriatric cats and very young kittens sleep more than healthy adult cats. However, all cats tend to sleep more when the weather is cold, overcast, or rainy.

As you've probably noticed if you spend any time around cats, dawn and dusk tend to be party time for felines. Fortunately, most pet cats adapt to their human's sleep schedule. Many older kitties, however, start prowling the house again in the wee hours as they get up in years.

Sources and References

- ¹ Petful, April 26, 2024
- ² The Telegraph, March 28, 2013
- ³ USA Today, June 29, 2010
- ⁴ The Spruce Pets, April 6, 2022