

The Chips on Our Shoulders

Study indicates ongoing issues with microchipping—
but some scanners do better than others

BY CARRIE ALLAN

A recent study published in the *Journal of the American Veterinary Medical Association (JAVMA)* found that none of the tested scanners had a 100 percent sensitivity for implanted chips.

Ongoing efforts to improve the efficacy of scanners have resulted in big improvements to the identification method. The U.S. market has been gradually transitioning toward the 134.2 kHz chips, which meet the International Standards Organization (ISO) standard and are widely used in other countries. But chips that operate at different frequencies are still available, and many animals were implanted with them.



HOMEAGAIN

The animal welfare field has long clamored for a “universal” scanner that would pick up chips of all frequencies and help shelters and veterinary offices locate the owners of lost pets. Several scanners that pick up multiple frequencies have become available in the last decade.

Researchers had six animal shelters test four commercially available microchip scanners (three universal scanners, distributed by Bayer Animal Health, HomeAgain, and the AKC CAR; and one single-frequency scanner distributed by Avid) on six brands of microchips of varying frequencies that had been implanted in 2,632 animals. The study’s control group consisted of 1,317 animals who were left unchipped, so that the staff scanning wouldn’t know for certain if

a chip was present—replicating the circumstances that exist on intake at a shelter.

“Overall,” the researchers write, “the HomeAgain scanner had the highest sensitivities,” ranging from about 94 percent for a brand of 125-kHz microchips to 98 percent for a brand of 134.2-kHz microchips. The Bayer scanner had sensitivities of about 97 percent for four microchip brands, but lower sensitivities for two brands of 125-kHz microchips (88 and 92 percent). The AKC CAR scanner had sensitivities of about 95 percent for the 128-kHz microchips and both brands of the 134.2-kHz microchips, but its sensitivities for the three brands of 125-kHz microchips ranged from 66 percent to 75 percent. The Avid scanner had sensitivities of about 97 percent for the three brands of 125-kHz microchips—the only frequency it reads.

“Although microchipping provides a permanent form of animal identification, it is not an infallible system,” the researchers write. “... To enhance pet-owner reunification in the event that a pet is lost, microchipping should be regarded as just one component of a comprehensive pet identification program, complementing other types of visual identification, such as tattoos and personal identification, license, and rabies tags.”

The authors recommended that animal shelters and veterinarians use a universal scanner that can read chips of all frequencies with a high level of sensitivity. “Particularly in a shelter environment, animals should be scanned more than once to increase the likelihood of detecting a microchip ...” they write.

To read further recommendations and learn more about the study’s methodology and results, see the report “Sensitivity of commercial scanners to microchips of various frequencies implanted in dogs and cats,” in *JAVMA* (Vol. 233, No. 11). AS

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