

Microchips are Safe and Proven and Do Not Cause Cancer in Pets

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Recently, there has been some concern expressed by pet owners and animal care providers that microchips may cause cancer in pets following a news article, 'Chip Implants Linked to Animal Tumors', written by Todd Lewan, an Associated Press reporter. The September 8, 2007 AP story referenced studies including a mid-1990's Dow Chemical Co. report that stated chip implants had "induced" malignant tumors in some lab mice and rats.

Microchips have been used in over 15 million American dogs, cats, horses, birds and other pets for the last two decades. These millions of chips have been injected into pets by tens of thousands of veterinarians and other animal care providers. In the last 20 years, there has not been a single report by any animal care provider of any tumors developing in any pet as a direct result of a microchip.

Additionally, Rao and Edmundson in 1990 reported a two-year study of 140 mice having no neoplastic changes observed following microchipping.

Dr. Dennis Macy of the University of Colorado, School of Veterinary Medicine, reported in his study with mice and work with cats that there is no evidence of pre-cancer lesions following microchipping. He felt that any associated lesions

would be caused by the inadvertent implantation of surface skin contaminant(s) or hair during the chip injection.

Ball, et al., in a Sandoz Research Institute study of 250 mice, reported that there was no evidence of any tumor formation two years following microchipping.

The British Small Animal Veterinary Association (BSAVA) studied approximately 1 million microchipped pets with no evidence of any confirmed associated tumor formation.

In the mid 1990's the American Animal Hospital Association (AAHA) requested members to provide information on adverse microchip reactions. Approximately 15 reports were received out of millions of microchipped pets ranging from possible chip migration to seroma formation. There were no reports of any tumor formation.

Dr. Larry McGill, of the American College of Veterinary Pathology and American Veterinary Medical Association (AVMA) Member Services Committee stated that of over 2000 cats studied in 2003, there was not a single instance of sarcoma reported to be induced by a microchip.

In a retrospective study of 53 equines by Stein, et al., 'Evaluation of microchip migration in horses, donkeys, and mules', all animals were microchipped from 1996 to 2000. When the animals were examined up to 4 years later, it was found

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that none of the microchips had migrated. No other lesions were reported.

Cheryl London, DVM, PhD, DACVIM, The Ohio State University, told the AP reporter that she had “never seen a microchip-related sarcoma and that rats and mice are not reflective of the biology of cancer.” Julie Levy, DVM of the University of Florida, School of Veterinary Medicine, stated that of any possible microchip tumor lesions the incidence would be less than one in a million and that it would not be known if concurrent immunizations were given which would be a greater etiology of tumor formation in cats. Linda Lord, DVM of The Ohio State University, College of Veterinary Medicine, stated that there is no evidence to suggest that companion animals implanted with a microchip are at a higher risk for developing a tumor.

Comments from a noted Veterinary On-line Discussion group were as follows:

“Our Humane Society puts chips into every pet that walks out of their building and has done so for years I have yet to see a sarcoma related to a chip.”

“I’ve implanted over 400 chips in the past 4 years since my facility has been open and no neoplasias have been noted.”

The fact that rats and mice are prone to skin tumors and sometimes specifically bred for predisposition to tumor formation could have complicated the scientific interpretation of the referenced studies causing this unnecessary concern. Additionally, these reports are unclear about the materials and methods used in the study including the type of microchips studied, injection techniques, sterility and related procedures. This makes it very difficult to know what inferences,

if any, can be properly taken from these studies particularly in light of the large body of evidence to the contrary developed over the last 20 years.

Avid Microchips are made of biocompatible material with an applied homogeneous coating of Parylene C, an FDA approved encapsulant, used in human catheters, pacemakers and other indwelling prosthetic devices. Avid microchips do not contain plastic or polypropylene and are truly biocompatible because they are inert, have no power source and do not emit any energy or radiation.

Microchips save lives. Hundreds of thousands of lost pets have been returned home because of the microchip. The proven benefit of the microchip far outweighs any unlikely risk of a tumor. Chand Khanna, DVM, PhD, an oncology clinician and director of the National Cancer Institute’s Center for Cancer Research Comparative Oncology Program stated “there is no direct evidence of a link between microchips and cancer in dogs.” He further stated he was “concerned that the article may prompt unwarranted fears in the pet owning community.” Contrary to the AP story, there is a much greater risk of lost pets not getting home when they are not microchipped.

References are available from the author at AvidSavesLives@AvidID.com