A microchip is a glass bead about the size of a grain of rice which is implanted between an animal’s shoulder blades. It contains a radio transmitter, an antenna, and a computer chip with a 10-digit code. The information contained in a microchip has to be read by a scanner -- it is not a GPS system that will allow you to track and locate your pet.

Most humane societies and rescue organizations require that adopted pets be microchipped, so if your pet came from a shelter there’s a good chance he or she already has one.

For those of you who are still considering a microchip for your pet, there are a few important items you should first consider.

**With or Without Anesthetic?**

Most veterinarians will likely tell you that microchipping your pet is painless. But at my practice we would never even consider microchipping without some local anesthetic.

And I highly recommend that if your pet gets a microchip, you insist on anesthetic. No matter what you have been told, the procedure hurts -- the chip is inserted with a really big 12-gauge needle!

**Potential Microchipping Problems**

Pet microchips are inserted underneath your pet’s skin right between his shoulder blades.

This poses some problems because on occasion the microchip can migrate under the shoulder blade or up to the back of the neck -- or even all the way down to the belly.

So if your pet has been microchipped, make sure you have a vet scan to identify exactly where it is. Once you know where it is, check it once a week to make sure there are no changes, at that it doesn’t feel any different.

If you can feel your pet’s microchip, it will feel like a grain of rice under your pet’s skin.

**Are Microchips Necessary and Safe?**

These are the two major questions that most everyone asks about microchips. One, are they necessary and, two, are they safe.

As with any medical procedure, you have to weigh the risks versus the benefits, and in this case it’s often a very individual decision.

If your pet has a high chance of being separated from you, for instance he bolts out your door every chance he gets and doesn’t come back when called, a microchip may be a good idea.

Millions of animals do escape or get lost from their owners every year, and less than 10 percent are ever reunited. Even if your pet has a microchip, however, its ability to help you find your pet depends on whether or not it can be scanned.

There are four types of microchips used in the United States, and unfortunately most facilities do not have a universal scanner that can read all the different chips. Then, the person must be sure to scan your entire pet, not just between the shoulder blades, in case the chip has migrated.

Further, if your pet is microchipped make sure the microchip is registered and that your registered contact information is up-to-date. Otherwise, even if a facility finds your pet and reads the microchip, they will not be able to contact you.

So if you cannot commit to updating your contact information with the appropriate registration facility, getting a microchip for your pet is not a good idea, as you’re getting none of the benefit and only the risk.

What is the risk?

**The Major Risk of Microchips**

The major concern any time you implant a foreign body into your pet, whether that’s a microchip, a metal plate for a fracture or any other material, there’s the potential for your pet’s body to reject the substance.

There have been two documented cases in veterinary medicine where sarcoma or fibrosarcoma, two types of soft tissue tumors, occurred at the site of the injection.

While two cases are not very many, I believe there are likely many more cases that have not been documented. Research shows that between 1996 and 2006, up to 10 percent of laboratory animals had some type of reaction to being microchipped, ranging from a localized inflammatory response to tumor formation at the site of the injection.

Needless to say, it’s important to realize that implanting any foreign material into your pet’s body is a risk.

So if you believe that your pet is safe in your home, such as an indoor housecat or a dog that’s appropriately trained (which in my opinion would *eliminate* the need for chips!) or pets that are always kept on a leash outdoors -- and most importantly, is a dog that knows his name and comes when he’s called -- there’s a very good chance that you do not need a microchip. And in these cases the risks do outweigh the benefit.

However, if your dog doesn’t know to “come” or you let her outdoors off-leash and just hope she comes back, these are high-risk situations. Ideally, you should rearrange your lifestyle to keep a closer reign on your dog or get some obedience training.

If this isn’t a possibility, then microchipping your pet may be an option. But do remember that microchips carry the risk of an autoimmune reaction or a degenerative reaction where your pet’s immune system becomes aggravated or chronically inflamed, which can in turn lead to tissue degeneration and abnormal cell growth, or cancer at the site of implantation.

**Are There Other Options?**

The decision of whether or not to microchip is highly dependent on your individual circumstances and pet. However, if you’d like an alternative one way to mark your pet without implantation under the skin is tattooing.

For example, your phone number can be tattooed onto your pet’s thigh while he is already under anesthesia for spaying or neutering. Be aware, if you do this, that phone numbers can change! You’ll have to commit to the same number for the life of your pet.

This continues to be a highly debated topic in veterinary medicine, and it’s really important that you weigh risk versus benefit when deciding on microchipping. This will help you make the best decision for the pets in your care.

http://healthypets.mercola.com/sites/healthypets/archive/2009/11/14/How-Safe-are-Pet-Microchips.aspx