

## Blood types and Transfusions

Cats and dogs have different blood types in the same way that humans have different blood types. These are important when it comes to administering blood transfusions.

The best rule to follow is:

**DO NOT ADMINISTER AN ANTIGEN (on the red cells) TO AN ANIMAL WHICH DOES NOT ALREADY HAVE IT**

However, it is often possible to "get away" with a single transfusion, although there are important differences between dogs and cats.

**DOGS** There are 3 common blood types in the dog: DEA 1.1, DEA 1.2, DEA 7. DEA stands for Dog Erythrocyte Antigen. Antibodies to these types are rare unless the dog has had a previous transfusion. DEA 1.1 is the worst type to transfuse into a non-DEA 1.1 animal, as it is the most likely to sensitise the recipient, and so cause problems after the first transfusion. A few dogs are naturally immune to DEA 7 and so have problems even on first transfusion from a DEA 7 donor.

**CATS** Cats are very different from dogs. They have 3 blood types A, B, AB. Type AB is very rare. Most cats are type A, but it varies enormously from country to country, and particularly within pedigree breeds.

**ALL TYPE B CATS HAVE NATURALLY OCCURRING ANTIBODIES TO TYPE A (and therefore AB) GROUPS.**

This means that first transfusions in cats can be more risky than in dogs. There are also problems if a Type B mother is pregnant with type A (or AB) kittens as she will secrete antibodies to A in her colostrum, and this causes damage to the kitten's red blood cells when they begin to suckle. (Neonatal isoerythrolysis). Blood typing is therefore a good idea, and can be carried out by sending an EDTA preserved sample to a laboratory, or using in-house test kits. It is sensible for a surgery to identify suitable donors' types before hand, particularly cats.