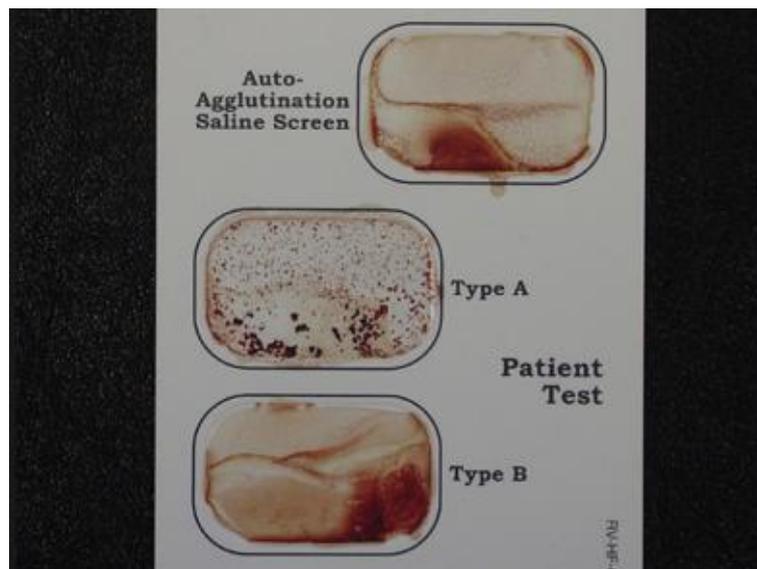


Health and welfare information about your cat from Vetlexicon Felis.



Blood groups and incompatibilities

As in humans, cats can have different blood groups, determined genetically. The type of blood group is important if your cat requires a blood transfusion or if your cat has been mated with a cat with a different blood type.

Why does it matter which blood group my cat has?

The major blood groups for cats are Type A and Type B but a very small proportion can be Type AB (sometimes referred to as Type C). Type A is a dominant gene and B is recessive. Type AB is recessive to Type A but dominant to Type B. Another subtype has also been discovered; some type A cats carry a “Mik” gene.

If a cat has a Type A blood group, it has antibodies against Type B blood (and vice versa). Type AB cats do not have anti-A or anti-B antibodies. Blood group types are important in blood transfusions and a condition in kittens known as neonatal isoerythrolysis.

Blood transfusions

Transfusion reactions can occur if a cat is given a blood transfusion from another cat with a different blood type (ie when a Type a cat is given Type B blood). The immune system thinks the new red blood cells are 'foreign' and will destroy them. This can result in the death of the cat or, at the least, the blood transfusion will not be very effective as the red blood cells may have a shorter lifespan.

Your veterinarian should test your cat to determine its blood type prior to a transfusion to prevent a severe transfusion reaction occurring. Cross-matching can also be carried out to detect more minor incompatibilities such as those caused by the presence of Mik.

Neonatal isoerythrolysis

This condition can arise following the mating of a Type A or AB tom with a Type B queen. Some of the resulting kittens will have a different blood type to the mother, and in these, anti-B antibodies transferred with the first milk (colostrum) can cause destruction of the red blood cells in the Type A (or Type AB) kitten; this is neonatal isoerythrolysis.

How will I know which blood type my cat has?

Your veterinarian can blood type your cat using a simple and quick in-house method (a card or test strip). Veterinary laboratories can also test blood type on blood. Additionally, owners and breeders can submit cheek swabs from cats to determine if they are Type B. This test cannot distinguish between Type A and the rarer Type AB.

In most countries Type A is the most common blood group. The percentage of Type B cats is very variable and may be more than 20% in some countries and in some regions. In the UK, most non-pedigree cats are Type A with a smaller percentage being Type B and even fewer Type AB. However, the percentage of Type B amongst non-pedigree cats does appear to be increasing.

In pedigree cats, there is a higher prevalence of Type B. Breeds such as Devon Rex, British Shorthairs, Ragdolls and Birmans have a higher prevalence of Type B along with Persian, Somali and Abyssinian breeds. In some countries, in certain breeds (eg Ragdoll, Birman, Bengal) there may be an unusually high percentage of Type AB cats.

What will happen if a kitten develops neonatal isoerythrolysis?

Affected kittens may appear healthy at birth but fade rapidly within the first couple of days (fading kitten syndrome). Kittens with neonatal isoerythrolysis will develop anemia and a blood transfusion may be required along with intensive therapy to survive. Kittens that recover after treatment may be left with tail tip necrosis (the very end of the tail dies off).

How can neonatal isoerythrolysis be prevented?

If the blood types of the tom and queen are known, then any potential problems can be predicted and avoided. If an incompatible mating has taken place, the kittens should be removed from the queen before suckling and hand reared or fostered for the first 48 hours after birth so that they do not receive the queen's colostrum which contains antibodies. If the blood type of the kittens is checked after birth and found to be the same as the queen, then the kittens can be returned to the queen.