



Winter Newsletter 2016

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## Meet our Nurses

When you come in to our practice you will often be helped by one of our nurses. Often they have more time to explain things in detail than our vets do.

So do they know what they are talking about?

Well, yes they do!

To become a qualified veterinary nurse they have had to complete a minimum of 1 year full time study (or part time equivalent) as well as extensive work placements and on going professional development.

In many cases nurses providing information and performing minor procedures can allow them to spend more time with you and your pet, as well as saving you money.

So next time you have any questions about your pets give our nurses a ring. You may find it much easier than consulting Dr Google!



What is a recessive gene?

Look at the picture above. There is a gene on each strand. One from the mother and one from the father. A recessive gene is weaker than its partner on the opposite strand, so the stronger (dominant) gene will be expressed.

University of Sydney genetic disease register for dogs and cats.



[www.vetsci.usyd.edu.au/lida/](http://www.vetsci.usyd.edu.au/lida/)

## Inherited disease

Most pure breed dogs and cats have some diseases that are more common for the breed than they are for the species as a whole. For example Labradors, German Shepherds and St Bernards are affected by hip dysplasia more commonly than Poodles. Poodles however get avascular necrosis of the femoral head (another hip disease) more commonly than these breeds. This is because they have a fault in their DNA which makes these diseases more likely to occur.

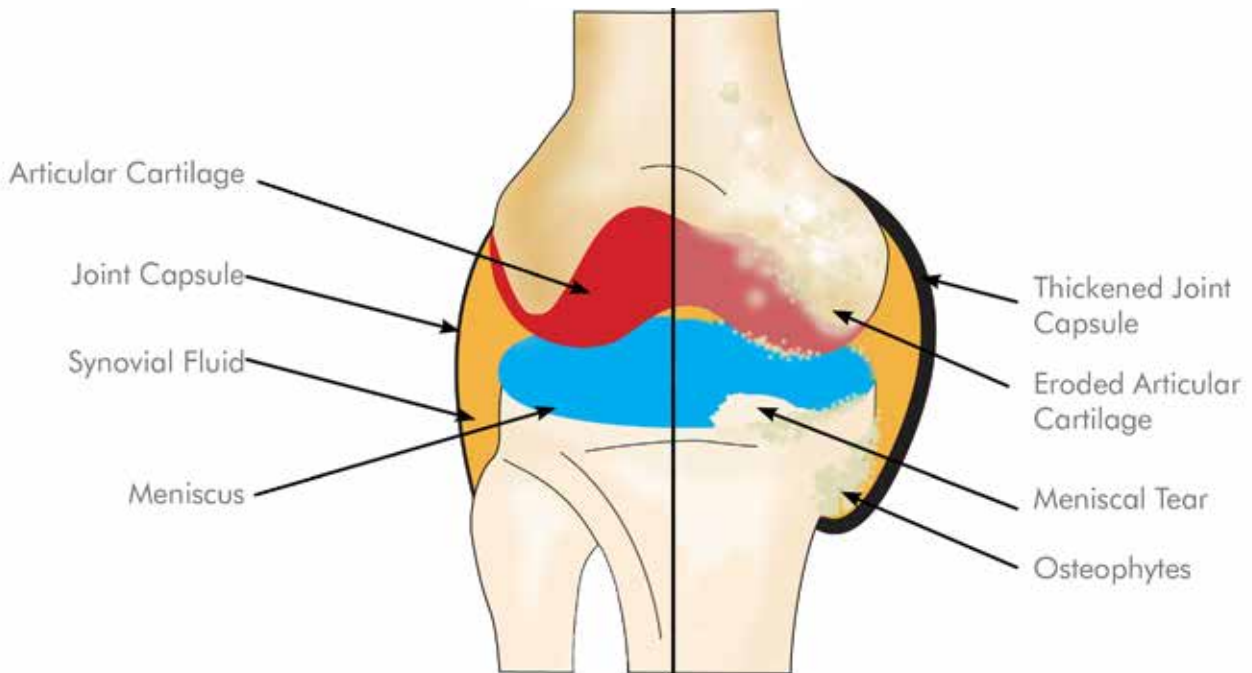
Cross bred animals (bred from 2 or more distinct breeds) are less prone to some diseases as the DNA gets 'diluted'. Technically most of these diseases are recessive genes so that if there are 2 genes, one good and one bad, the good gene often wins. This is a concept called hybrid vigor.

However pure breeds have the advantage that their behavioural profile is more predictable than that of cross breeds. With inherited disease, as we know it is more likely to occur in some individuals, we can often test the parents for these diseases before breeding to reduce the risk for their offspring.

The University of Sydney is compiling a list of genetic disease in Australian dogs and cats. If you are thinking of getting a pure breed pet check them on this site so you don't get any nasty surprises.

Normal Knee

Arthritic Knee



### Signs of Arthritis

- Reduced ability to exercise
- Difficulty getting up from rest
- Less jumping (especially cats)
- Crying or whimpering
- Loss of muscle mass
- Stiff gait
- Limping or bunny hopping (except Bunnies)
- Cats may stop grooming

Treatment options for arthritis can include special diets, anti-inflammatory medications, injections to improve joint repair, and stem cell therapy.

## Arthritis: the winter blues.

Well it looks like winter has arrived. With the welcome rain, also comes the less welcome cold weather.

As dogs and cats live longer than ever before they, like their human counter parts develop more joint disease and arthritis. This can be exacerbated by cold weather.

See the box to the left detailing some of the signs to look out for in your pet's that indicate they may be suffering from arthritis.

Arthritis not only interferes with your pets ability to exercise but can be a source of chronic pain, significantly compromising quality of life.

Luckily these days we have lots of treatment options to improve quality of life for our arthritic pets.

In general however it is very important to ensure your pet is not overweight.

Regular exercise also improves muscle mass and decreases the amount of work the joints have to do. Good exercises include regular walking and swimming (provided you dry your pets well afterwards).

Make sure your pet's bed is in a warm dry area and is deep enough to provide protection from hard surfaces. Specific beds are now available for pets with arthritis that form around damaged joints to protect them.

Please ask us for more information if you think your pet may have arthritis and we can discuss the best treatment for you.



- Some animals can see part of the UV spectrum so can see light invisible to us
- In general carnivores have less developed colour vision than many herbivores: especially those that eat fruit.
- Many species of animal cannot see red only blue and green.

- In many Monkeys only females can see red.
- Most birds, fish, and some reptiles and insects can see a greater range of colour than primates.

## The fascinating history of colour vision.

Dogs and cats can only see in black and white, right? Well no probably. Dogs and cats probably see a washed out version of the colour world we see. Dogs are essentially red/green colour blind with less perception of the other colours than humans.

So why did colour visions evolve anyway and how? Colour vision is very important to insects and fruit eating animals. In the former case to help identify pollen bearing flowers and in the latter case to help determine what they are eating. Bees and some other insects have better colour vision than mammals and can see part of the UV spectrum of light. Some flowers actually radiate in UV to help attract bees and other insects as well as in the normal colour spectrum. Carnivores (meat eating animals) have much less need for colour vision, but a much greater need for motion detection. As such some of the colour vision has been lost, as there is no particular advantage in retaining it.

During evolution the genes for colour vision were lost by most mammals so birds and insects see by a different mechanism to us. That is why their colour vision is better than ours and some can see part of the UV spectrum. This mechanism was never lost by The Platypus or Echidna who see light invisible to all other mammals.

The other mammals like dogs, cats and humans developed a new gene for colour vision and 'reinvented the wheel'.

# COLOURING PAGE

