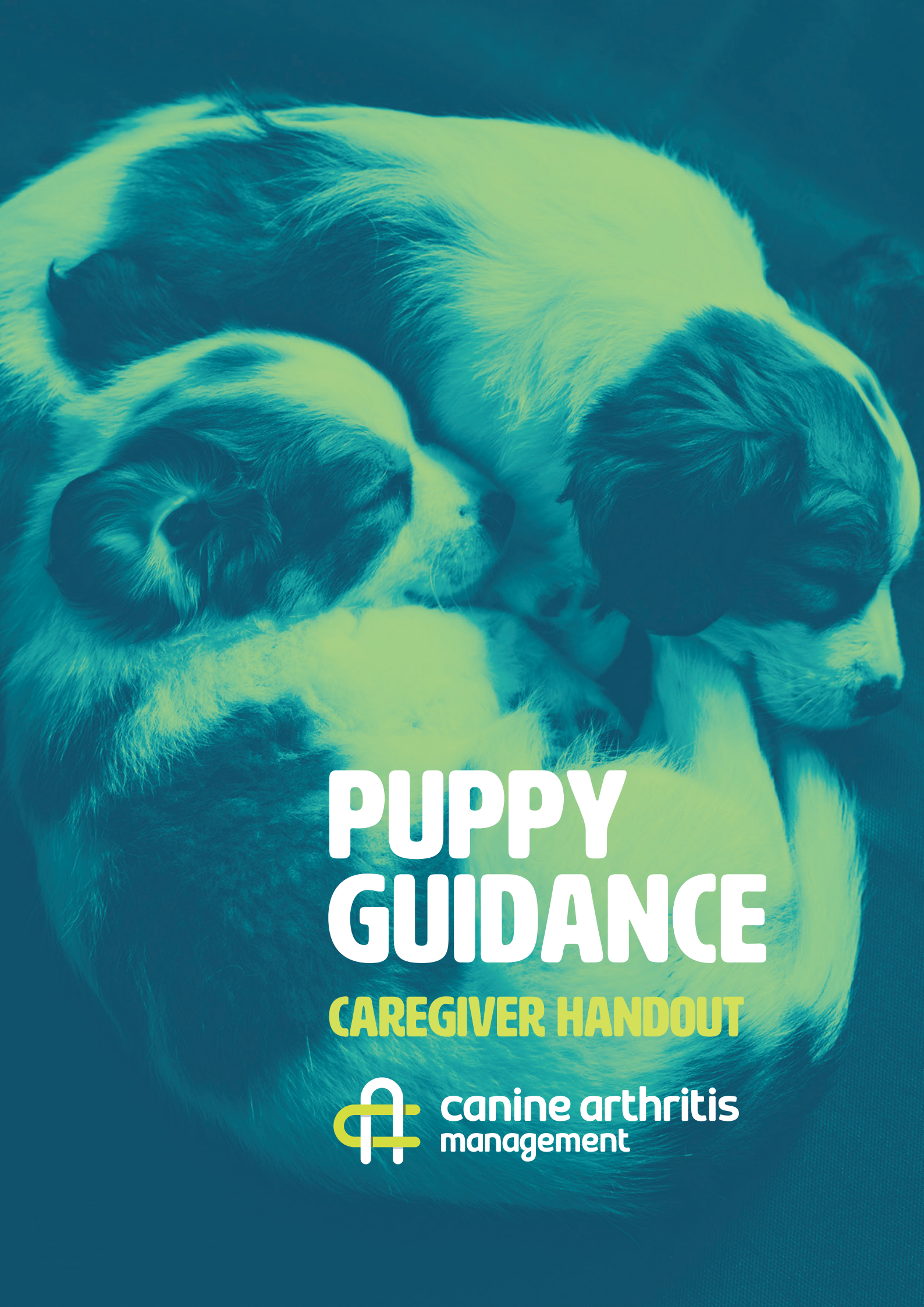

# PUPPY GUIDANCE

## CAREGIVER HANDOUT

canine arthritis management

# WHY ARE WE TALKING ABOUT ARTHRITIS IN PUPPIES? SURELY THIS IS AN OLD DOG'S DISEASE?

Wrong! We previously believed that approximately 35% of dogs over the age of 1 year and 80% of dogs over the age of 8 years have arthritis. However, recent research has suggested that 40% of dogs between the ages of 4 months and 8 years old have radiographic signs of arthritis in one or more joints, and 24% have some degree of pain related to these arthritic changes.

What you do with your new puppy now and throughout their life will have a significant impact on the likelihood of them developing arthritis.

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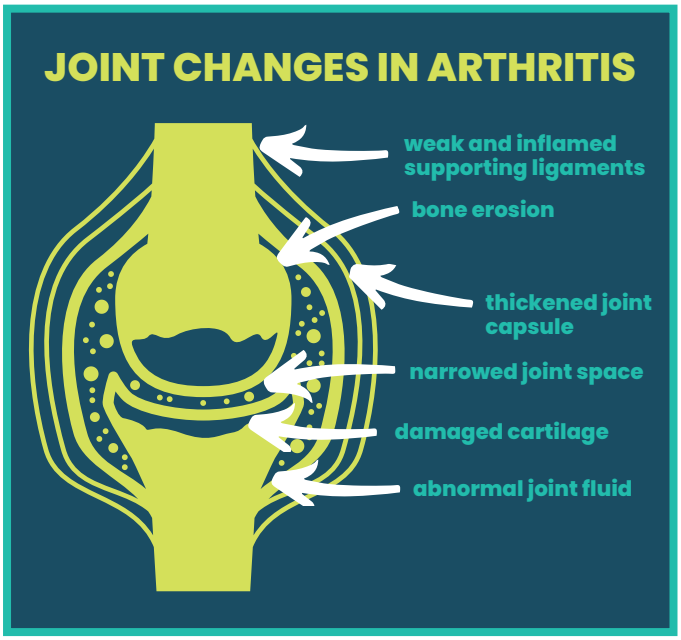
## WHAT IS ARTHRITIS?

Arthritis is a highly complex condition that affects the joints as well as the soft tissues, such as ligaments, tendons, and muscles. It causes inflammation and pain. When one part of the dog is sore, the dog compensates by changing how it moves. This can then make other parts of the dog sore. Pain also affects how your dog behaves (how it interacts with other dogs and people), how it sleeps, its posture and how it moves, walks, toilets, rests, and changes position.




## WHY IS ARTHRITIS SUCH A PROBLEM?

Until recently arthritis was associated with the older dog and was assumed to just be an inevitable part of ageing. However, the more we are learning about chronic pain, of which arthritis is a leading cause, the more we discover about its impact on the lifespan and health span of dogs both physically and emotionally.

Arthritis is often found to be a complicating factor in a variety of conditions such as soft tissue pain and disease, obesity, and behavioural issues. Arthritis is mostly caused by developmental disease, genetic or environmental factors, or a combination of these, which result in changes to the joint structures from early puppyhood. This means arthritis can haunt a dog for life. The condition is progressive and often costly to treat, leading to lifelong management for the caregiver.

Pain caused by poorly managed arthritis is one of the main reasons why dogs are prematurely put to sleep, even if they may have no other health problems. Pain in dogs often goes unrecognised by both caregivers and vet professionals until it is severe. If the dog's pain is not recognised, then it cannot be helped. The earlier joint problems or arthritis are diagnosed, the more treatment options you have and the more time you have to change the course of the disease and slow its progression.

# HOW DO I KNOW MY PUPPY IS IN PAIN? SURELY, THEY WOULD LIMP IF THEY WERE SORE?

**Yes... and no - unfortunately it's not quite that simple!**

If arthritis only affects one side of the body and/or is more advanced, then sometimes the dog may limp. Similarly, if there has been an acute injury or flare-up of pain you may see a limp.

However, a dog does not need to limp to have arthritis. When they have the disease in more than one limb, or when the disease has progressed slowly and the dog has learnt to subtly weight-shift away when loading the painful limb/s, or when the disease is present but not causing pain, there may not be an obvious limp or lameness.

A lot of caregivers assume that if their puppy plays, they can't be in pain. However, a puppy's drive to play and have fun will often override any pain it feels at the time. This is because play is associated with the release of neurochemicals such as endorphins (happy chemicals) and adrenaline. These encourage the puppy's engagement in play and can mask any pain. Remember that more than one emotion, which drives behaviours, can be triggered at the same time. We can enjoy a piece of cake whilst suffering back ache! The behaviour seen is the result of whichever emotion is predominant at the time (for example the enjoyment of a nice cake), but this does not mean that the other emotion(s) linked to pain do not exist. In this situation they are just masked by the predominant emotion. In puppies, pain may be masked by the motivation to play.

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canine arthritis management

## SO, HOW DO I TELL IF MY DOG IS IN PAIN?

**Early signs of pain are:**

- Changes in behaviour - do they greet other dogs more hesitantly or do they show signs of hostility or confrontation? Do they shy away from certain parts of their body being touched or lick their lips, yawn, or widen their eyes when touched?
- Developing sound phobias - have they become fearful of loud or unexpected sounds?
- Changes in the way a dog moves - do they hesitate to get into or out of the car? Have they slowed down on walks?
- Have you noticed any other changes in behaviour? Have they changed the position they toilet in? How do they sleep? Do they have any new favourite parts of the house or places they avoid?
- Changes in their coat pattern (although be aware it is normal for a puppy coat to change into an adult coat in the first year)

Below is a CAM Members-Only Blog that explains more about recognising the signs of pain.

**CLICK HERE TO READ BLOG**

**Not a CAM Member? JOIN TODAY!**

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## WHAT CAUSES ARTHRITIS AND HOW DOES THIS AFFECT MY PUPPY?

1. Abnormal joint structure which a puppy may develop at an early age. This is often genetically influenced and common examples are:
   - Elbow and hip dysplasia (where the joint does not develop into the perfect fit it needs to be, leading to abnormal wear and early degeneration).
   - Patella luxation (where there is instability of the kneecap within the knee joint).
   - Osteochondritis dissecans (OCD) (where an area of cartilage does not form appropriately and partially or fully separates from the underlying subchondral bone).
   - Cruciate disease (where the stabilising ligaments within the knee prematurely deteriorate and fail to stabilise the knee joint).
2. Trauma to the joint through accidents, or surgery that is employed to correct an underlying issue.
3. Abnormal forces through the joint - this may include:
   - Repetitive stressful activities that lead to damage to the joint or its surrounding structures. Little is known about the influence of activities such as sudden acceleration deceleration and twisting on the development of arthritis (for example repetitively chasing a ball). However, anecdotal evidence, translation from human work, and common sense suggests it has a role. This includes environmental factors such as early access to slippery floors and stairs, jumping on/off furniture and in/out of cars.
   - Excess weight which includes "puppy fat" will place added stressors in the form of weight and inflammation on the joint.

## SO, WHAT CAN I DO TO REDUCE MY PUPPY'S CHANCE OF DEVELOPING ARTHRITIS?

LOTS AND LOTS of things! There is so much you can do to help your pup live a comfortable life for as long as possible.

1. Use your veterinary team
   - Ask your vet to do a full orthopaedic health check at every check-up starting when your dog is a puppy. If you have concerns, you can also ask for additional check-ups and further diagnostics such as imaging (X-rays and CT scans).
   - Use your vet nurse team for regular weight checks and help with learning to body condition score your dog (more coming on this later!).
   - Consider regular musculoskeletal checks with a veterinary physiotherapist or certified canine rehabilitation professional to identify any problems early on. This is particularly important if you are considering an active lifestyle with your dog, such as participating in flyball, agility or canicross. Dogs can be stressed in vet appointments, making pain identification difficult. Physiotherapists and rehabilitation professionals will focus more in depth, on the movement, strength and pain a dog may have. They also have more time to assess a dog, building up a relationship often in a more comfortable and less stressful environment for the dog.

2. Understand the influence of genetics
   There are genetic factors that influence arthritis. Different breeds have different risks and are prone to different conditions:
   - Be aware of what conditions are prevalent in your breed, and make sure both parents have been health tested. A good breeder should show you copies of these checks.
   - If you're getting a crossbreed, make sure you look at risk factors in both breeds.
   - Be aware that certain breeds may also have a genetic predisposition to obesity. Breeds with a predisposition to both arthritis and obesity need extra vigilant care throughout their entire life.

3. Monitor your dog's weight and act accordingly
   - 63% of all dogs are overweight - this means it is more normal to see an overweight dog than a healthy weight dog!
   - 90% of caregivers cannot see their dog is overweight!
   - Overweight dogs live an average of 2 years less than a healthy weight dog.
   - Overweight dogs show arthritic changes 6 years earlier than dogs of a normal weight.
   - Learn to body condition score your puppy and dog. Do this every week - if you find it hard to be objective, ask a friend or vet nurse to help you. Aim for a lean 4.5 out of 9. Below is a CAM Member-Only Blog about weight management and how to body condition score your dog.
     **CLICK TO READ THE BLOG**

**Not a CAM Member? JOIN TODAY!**


Provided courtesy of the World Small Animal Veterinary Association (WSAVA). Accessed 10.01.23.

You can download this WSAVA Body Condition Score graphic by clicking **here**. The WSAVA Global Nutrition Committee Nutritional Toolkit website is available **here**.

# CAREGIVER HANDOUT

canine arthritis management

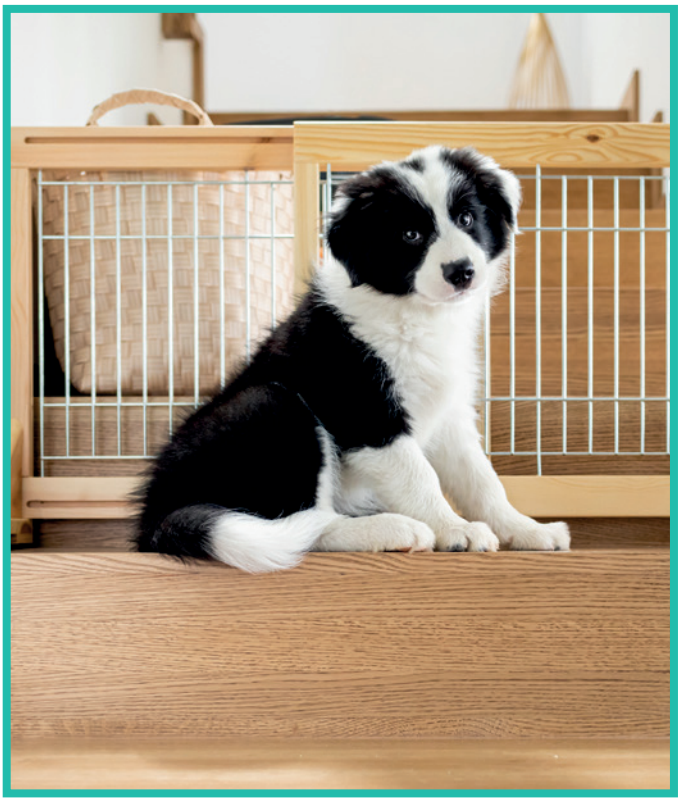
## GET GUIDANCE ON WHAT AND HOW TO FEED YOUR PUPPY

- There is no evidence that any type of food (e.g., kibble or raw) prevents arthritis.
- Buy the correct food for the age and stage of development of your puppy - your vet or vet nurse can advise you.
- If you choose to feed homemade foods, it can be incredibly difficult to get the correct balance of nutrients, vitamins, and minerals. Ensuring the correct nutritional balance is important for the health of your puppy both now and growing up. If you go down the home-made feeding route, please consult with a veterinary nutritionist to ensure you are meeting the nutritional needs of your dog.
- Don't forget puppies that are overweight can be predisposed to musculoskeletal and joint problems in the future, so learn to body condition score as mentioned above.
- Whilst you think about what you feed your dog, consider also how you feed them. Slowing down their mealtime, adding some brain work or physical activity as part of their mealtime can extend one of the best parts of their day! Learning tactics like these are very useful for when they are older.

## CAN MY HOME ENVIRONMENT INCREASE THE RISK OF ARTHRITIS?

1. Limit access to stairs - studies show puppies that have had access to stairs under 3 months of age have an increased risk of developing hip dysplasia. It would be sensible to include jumping in/out of the car, on and off the sofa etc with this risk. Stairs are dangerous for dogs at any age, so take care on the stairs and consider whether your puppy really needs to use them at all at any point in their life.
2. Slippery floors - puppies living on slippery floors have 1.6x the risk of developing hip dysplasia. Playing and skidding on slippery floors is just not fun! Make sure slippery floors are covered with non-slip rugs, carpets, or matting, especially around play areas, feeding bowls and next to beds, as well as thresholds (into and out of the house) and corridors.

**Check out our CAM HOME ASSESSMENT TOOL!**



# CAREGIVER HANDOUT

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## HOW MUCH SHOULD I EXERCISE MY PUPPY?

- For many years, guidance has suggested restricting the amount of activity a puppy should do each day. This has recently been called into question.
- Research shows that the type of exercise a puppy or dog is exposed to is more important than the duration of exercise.
- Avoid trauma to the growing joints - especially high impact, sudden starts or stops, twisting and repetitive movements.
- Start with a warm up before exercising - this might include a few minutes of gentle lead walking, massage and/or stretches.
- Never exercise to the point of fatigue - consider buggies or carriers on longer distances.
- Consider the type of environment you exercise on - you want your puppy to have lots of experience of different surfaces and proprioception enrichment (proprioception means how your dog knows where its limbs and body are in space - particularly important for puppies whose limbs are constantly growing and their centre of gravity continually changing).

Ball throwing (especially with a ball chucker) in a repetitive manner may risk trauma to joints and soft tissues at any age. Check out our infographic on the next page!

# CAREGIVER HANDOUT

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# WHAT IS BALL CHASING REALLY DOING TO YOUR DOG?

## THE BRAIN BIT

Repetitive ball chasing can lead to prolonged adrenalin release

Cortisol release can lead to frustration, frantic behaviours and even be detrimental to long term health

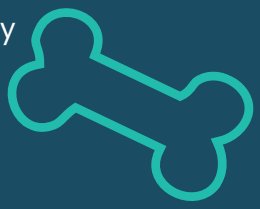
A high drive dog with significant joint disease may continue to perform reward-based tasks like ball chasing despite pain

## WHAT ABOUT THEIR JOINTS?

Repeated micro-trauma to muscles and cartilage is a cause of long-term damage

Chasing or even carrying items like a ball can shift your dogs weight distribution to their front legs, putting excessive weight though the joints of the front legs

Joints weakened by arthritis will be especially prone to further damage



## HOW ABOUT THE MUSCLES?

Unpredictable actions such as breaking, twisting and landing can result in muscles being put under stresses they aren't designed for

High speeds can double the forces generated in the muscles

Braking is thought to be the most dangerous part of ball chasing and often responsible for shoulder injuries

## WHAT CAN YOU DO INSTEAD?

Make sure to have a short warm up period before more intense exercise

Only ever throw the ball a short distance, on surfaces that avoid slipping and sliding, throw below waist height so as to avoid jumping and don't do it repetitively

Consider alternatives like scent work, varying location of the walk to keep things exciting or playing hide and seek with the ball rather than playing fetch

info@caninearthritis.co.uk

www.caninearthritis.co.uk

# CAREGIVER HANDOUT

canine arthritis management

## SHOULD I NEUTER MY PUPPY?

There is some evidence that early neutering can increase the risk of developing arthritis in certain larger breed dogs and the risk may be greater in females than males. Unfortunately, though it is not that clear. Researching your dog's breed is invaluable as there are pros and cons of neutering different breeds at different ages, so speak to your vet who can advise you further.

## HAVING READ THIS, I'M NOW SCARED MY DOG MIGHT HAVE JOINT PAIN

**Don't panic!**

Firstly have a read of **"Is my Dog in Pain"** blog in the CAM Member Zone. Write down the signs you think your puppy may be in pain or moving differently. CAM has created an easy to use **guidance sheet** to help you explain to your vet what you are observing that leads you to consider underlying pain.

Take some videos. It is well known that dogs often enter the vet clinic room full of adrenaline - hence the vet may not detect any signs of pain on palpation alone, so videos and observations can be extremely helpful. There is an excellent guide on videoing your dog on the Canine Arthritis Management website, download **here**.

If you are unsure if your dog is in pain, many vet practices also have nurse clinics where you can discuss any worries.

CAM has an excellent **education centre** which has everything from a free course called "Is My Dog in Pain?" to courses written specifically for caregivers on the essentials of arthritis, or professionals looking at canine arthritis in more depth.

Don't forget, always monitor your dog's behaviour, posture, physical self and movement. If signs are infrequent or inconsistent, it is better to get them checked out with a good clinical examination which may help find more evidence of any problems, than wait. An early diagnosis of arthritis means more treatment options, and more time to slow down the progression of the disease, so don't be afraid to see your vet.

If your dog does have arthritis, have a look at the **Canine Arthritis Management website**, a vet-led initiative to help early identification and management of arthritis. Consider joining the **CAM Member Zone** which costs £25/year (less than a vet consult). For this you get free access to CAMEssentials, a course written specifically for caregivers of arthritic dogs (worth £20), all the digital booklets (worth £10), discounts in the CAM shop, an exclusive Member Zone Facebook group with guests and lives only for members, as well access to all the CAM Youtube videos, blogs and so much more.

What we do know is "arthritis isn't the end of the road; it's the start of a new direction". Please do not fear having a veterinary health check, because with good multi-modal management, many dogs with arthritis go on to live long, comfortable, happy and active lives.

# CAREGIVER HANDOUT

canine arthritis management

## TAKE-HOME MESSAGES!

- Be aware of what is normal for your puppy in terms of posture, movement and behaviour - then you will notice any changes.
- Be aware of the subtle signs of early pain and discomfort which can be hard to pick up and discuss what you see with your vet team.
- Regularly video your puppy walking, standing and sitting as well as moving between these positions, so you can look back and see changes.
- Keep your puppy a healthy, lean weight throughout their life - learn to body condition score.
- Think about the environment the puppy grows up and lives in - avoid slippery surfaces and stairs.
- Consider regular health checks with a qualified physiotherapist, especially if you take up sports or activities with your dog when they are older. A veterinary physiotherapist can also help you learn what is normal for your dog.
- Seek help early if you are concerned.
- Enjoy! Enjoy! Enjoy your new puppy!


# FURTHER INFORMATION

### CANINE ARTHRITIS MANAGEMENT (CAM) LINKS

**CAM Website** For a huge amount of free, independent, evidence-based information.

**CAM Downloads** Useful downloads including this handout for personal use.

**CAM Facebook Page** Where you find our Facebook Lives and other up-to-date posts.

**CAM YouTube**

### BREED TESTS

https://www.vetlessons.com/

http://ofa.org/chic-programs/browse-by-breed/



### WANT TO READ MORE?

Housing and exercise-related risk factors associated with the development of hip dysplasia as determined by radiographic evaluation in a prospective cohort of Newfoundlands, Labrador Retrievers, Leonbergers and Irish Wolfhounds in Norway. Krontveit et al., 2012

https://pubmed.ncbi.nlm.nih.gov/22620698/

Incidence, risk factors, and heritability estimates of hindlimb lameness caused by hip dysplasia in a birth cohort of boxers. Van Hagen et al., 2005

https://pubmed.ncbi.nlm.nih.gov/15757132/

Assisting Decision-Making on Age of Neutering for 35 breeds of Dogs: Associated Joint Disorders, Cancers and Urinary Incontinence. Hart et al., 2020

https://www.frontiersin.org/articles/10.3389/fvets.2020.00388/full