

2

2-6 months

'Exercise is vital to all animals to maintain good physical and emotional wellbeing'



which may interrupt the ossification process, and negatively affect bone development when forming the growth plates (also known as epiphyseal plates) which is necessary for skeletal maturity. In other words, over-exercise can cause a severe hiatus to bone development which could result in unevenness of bone length and growth, which could then create major lameness issues.

Joint development

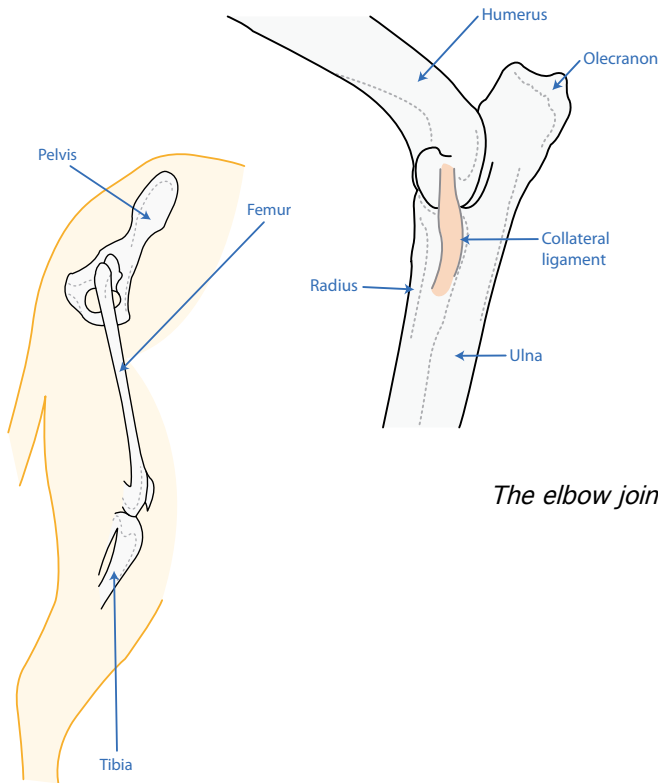
The canine skeleton is held together by joints, and these are fundamental to balance and free movement. One of the most commonly known is

The strength of the hip joint is evident here, and also how stable it is as the puppy is able to lift through his front end and move forward.

the hip joint, a ball and socket joint that enables a good variety of movement through different planes: sideways (lateral) movement, and forward and backward movement. Due to its position this joint is vital to the stability of the dog as a whole, and all of the actions that a dog might perform, including jumping. A common dysfunction of this joint is usually called hip dysplasia. (for more detail see chapter 4 and *Further reading*).

Another commonly known joint is found in the elbow, a hinge joint which is restricted to flexion and extension movement (bending and straightening) movement. This joint also endures





The elbow joint.

The hip joint.

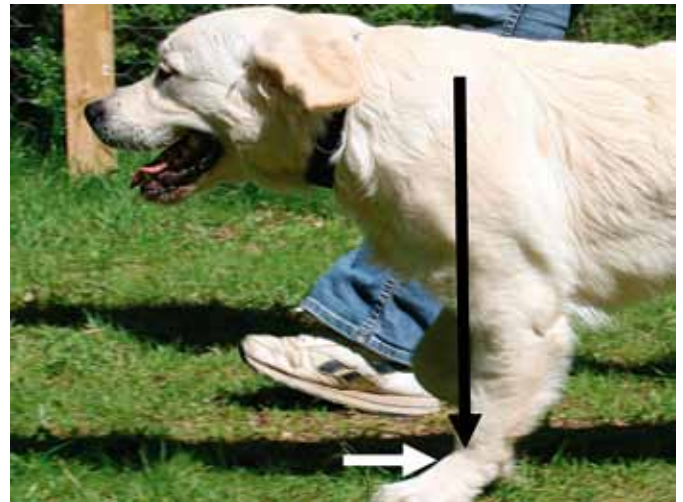
much of the concussion and impact of the dog's movements, and bears the weight of his disproportionately heavy front end (see next picture).

As can be appreciated, it's important that every owner or carer of a young puppy has a basic understanding of the development of her bones and joints. These fragile structures can be irreparably damaged or altered during the formative months of puppyhood, which could adversely impact on their dog's physical wellbeing in later life.

Hip and elbow dysplasia can now be tested for



This 4 month old puppy has all of his weight going through his shoulder, elbow and front leg.



As the weight of the movement goes through his shoulder, elbow and front leg, some of the concussion is absorbed through the wrist or carpal joint (black arrow) and the pastern (white arrow).

by radiographs (x-rays). For more information about this and other conditions mentioned, contact your vet and see also *Further reading*.

kept on a lead and under control. Lead walking is therefore a form of exercise that we all undertake.

What we would like to suggest is a way to counteract the stresses that lead walking can impose, which is easy to do and can be the start of a good habit that lasts a lifetime.

Young puppies need only the same amount of exercise they would get playing around with their littermates. When you begin to walk your puppy, you need only go out for 5-10 minutes at a time. Instead of walking your puppy on only one side of you, encourage her to walk on both your left and right side. On the outward journey, maybe have her on your left, returning home with her on your right-hand side. This simple technique will counteract any repetitive stresses that your puppy may feel by walking and looking in one direction over a distance, and will also help her to develop into a more balanced animal.

Encourage your puppy to walk freely on the lead; in other words, looking ahead and not up at you, which will put stress on her neck and have a knock-on effect on her lower back and hips.



These photos show handler and puppy being asked to stretch their heads back and up toward a treat. The handler commented that she felt the stress in her lower back, shoulders and neck, and could only hold this position for a short time. Amy assumes a similar position, with the same apparent stresses: note how she is slightly twisting her head to ease the strain on her neck.

The following exercise is for you to try to help you appreciate the potential stress that your puppy could feel.

- Stand or sit with your back straight and your shoulders relaxed. Stretch your neck and head up and back as far as you can, looking towards the sky or ceiling: can you feel the pressure on your neck and lower back? See also the accompanying photos of Amy and her handler.

A puppy that continually pulls against you will not only be compensating by using her neck

These photos show handler and puppy sitting in a natural, straight, comfortable position (the handler's position closely resembling that of her puppy).



Even though a dog walks on four legs and we walk on two, our skeletons are almost identical and therefore the stresses comparable.

inappropriately, she will also be putting huge pressure on joints both back and front, and over-developing muscles in these regions (another reason why it's a good idea to join an approved training club). A puppy who is allowed/taught to move naturally and steadily on a lead will develop appropriate muscle tone that will support the joints adequately, and provide stability and balance.

Up until six months of age, a puppy walking on a lead needs only restricted exercise, which can be incorporated into her socialisation. When out and about, don't rush, but allow your puppy to walk at her own pace.

Introducing your puppy to exercise with older dogs, and the associated potential problems

A young puppy might appear at ease exercising

with an adult dog, but it's only when they become adults themselves that the stress they endured then could begin to show. Hip dysplasia and OCD (Osteochondritis Dissecans; a disorder or inflammation of the cartilage) can be environmental as well as genetic.

A puppy left in the company of an adult dog is likely to form a good relationship with him or her, and will begin to look to the older dog for guidance on how to behave. We recognise that this can be beneficial when socialising or training; for instance, training your pup to come on command is always easier when working alongside an obedient older dog. However, a puppy will come to believe that she can do exactly as the older dog does, and easily over-exert herself which, in turn, will over-stress developing bones, joints and muscles.

A puppy will emulate an adult dog's activity.