

## Exercise Tips for Appenzeller Puppies

“Exercise not only builds puppies' bodies, but it also helps build their minds” is the motto that has been ingrained in us, though exercise that’s not appropriate for a puppy’s age and development can cause significant and irreversible damage.

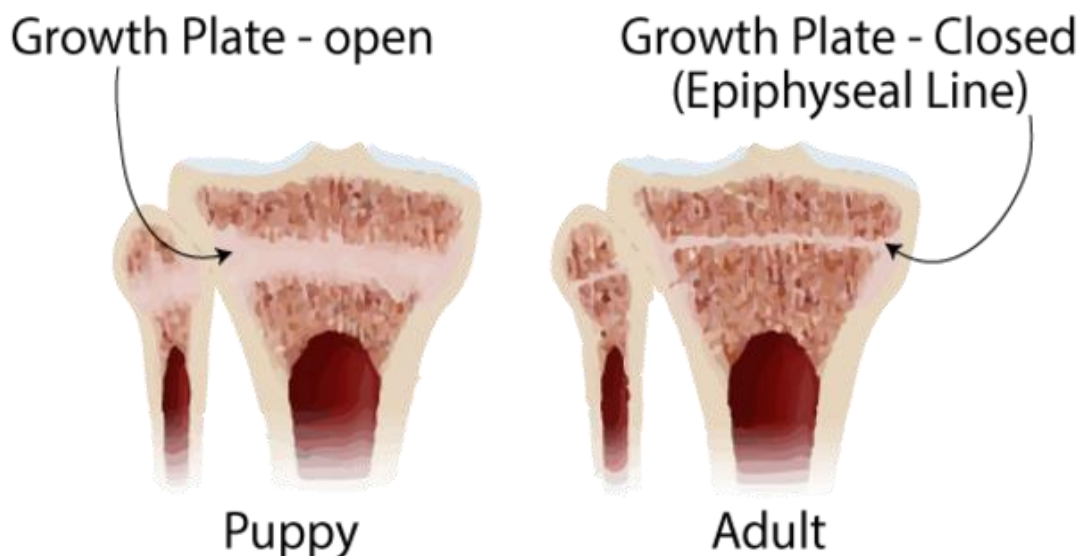
An exercise that resulted in a simple sprain for an adult dog could leave a puppy with a misshapen or shortened limb, so the subject of age-appropriate exercise is one that should be taken seriously.

Hip Dysplasia, Elbow Dysplasia and Patella Luxation are breed-specific orthopedic concerns for Appenzellers. Although these concerns can be inherited, they are more likely to develop in a puppy because of its environment. So, understanding puppy growth and its physical orthopedic limitations is critical in preventing permanent and possibly debilitating orthopedic issues.

### Understanding Puppy growth

The first concept to understand when it comes to puppy exercise is “growth plates.” Growth plates are soft areas that sit at the ends of the long bones in puppies and young dogs. They contain rapidly dividing cells that allow bones to become longer until the end of puberty.

Growth plates gradually thin as hormonal changes approaching puberty signal the growth plates to close. In puppies, this closure is normally completed by approximately 18 months old.



Until the growth plates close, they’re soft and vulnerable to injury.

After sexual maturity, the growth plates calcify and the rapid cell division ends. The growth plate becomes a stable, inactive part of the bone, now known as an epiphyseal line.

A study published in the UN National Library of Medicine found dogs who were spayed and neutered at less than a year of age were significantly taller than those de-sexed after age 1.

Furthermore, the bones of pups spayed and neutered before puberty continue to grow. Dogs spayed or neutered at a younger age often have longer limbs, lighter bone structure, narrow chests and narrow skulls. This results in altered body proportions of certain bones relative to others. But it isn't just a cosmetic issue.

This disproportion often results in increased stress on ligaments, which can later easily cause injury. Another study published in the UN National Library of Medicine found that dogs spayed or neutered before 5 1/2 months of age were much more likely to develop hip dysplasia than those spayed or neutered after 5 1/2 months of age.

Also, dogs spayed or neutered younger than 24 weeks were more likely to develop infectious diseases than dogs who were spayed or neutered at ages older than 24 weeks. As for female dogs, there has been an increase in urinary incontinence in those spayed too early.

Early de-sexing can also have unwanted behavioral effects. A further study published in the National Library of Medicine showed that dogs neutered before 5 1/2 months of age had an increased incidence of noise phobias and unwanted sexual behaviors.

Also, recent research by the American Kennel Club Canine Health Foundation found that when females were spayed too young, they were more likely to develop fearful behaviors while their male counterparts were more likely to show aggression.

Obviously, if you decide to delay your spaying and neutering of your newly adopted puppy, please be responsible if they have reached sexual maturity and are able to reproduce. Make sure they are under your control at all times and don't breed. We are in huge support of not contributing to the pet over-population crises but also strongly believe that dogs should be kept intact until they are physically mature.

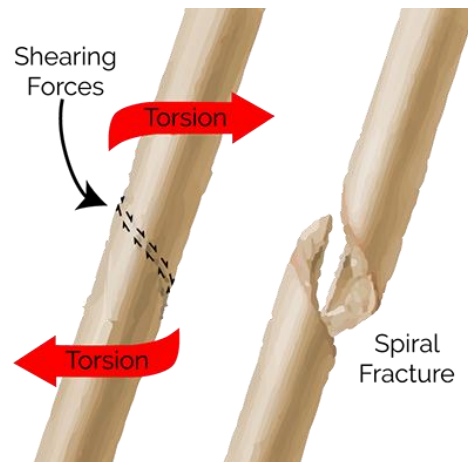
A dog's bones are held together with muscles, tendons, and ligaments - soft tissue. In an adult dog, if a joint experiences a stress such as bending the wrong way or rotating too much, the bones will hold firm and a soft tissue will be pulled, resulting in a sprain.

In a puppy, however, his muscles, ligaments and tendons are stronger than his growth plates, so instead of a simple sprain, his growth plate is liable to be injured - the puppy's own soft tissue can pull apart his growth plate.

Why this matters so much is that, unlike a sprain, injuries to the growth plate may not heal properly or not heal in time for the puppy to grow up straight and strong. Injury to a growth plate can result in a misshapen or shortened limb which, in turn, can create an incorrect angle to a joint which can make the puppy more prone to yet more injuries when he grows up.



## Puppies have Soft Bones



In addition to having soft growth plates at the end of long bones, a puppy's bones in general are "softer." Dogs, like people, don't reach their maximum bone density until after puberty.

Spiral fractures of the tibia (lower leg bone) are very common in puppies - 50% of all fractures occur in puppies under 1 year of age. A spiral fracture is where the bottom half of the bone twists in one direction and the top half twists in the other.

This kind of juvenile injury is known as "Toddler Fracture" in humans, and it's thought to be caused by the fact that the outside, fibrous layer of the bone (periosteum) is relatively strong in relation to the elastic bone inside. So, any exercise that puts torque on (twists) a bone puts the puppy at risk for a fracture.

## Puppies are fit for short runs

Puppies don't have the cardiovascular system for endurance. Furthermore, until they mature, they're probably not able to build much endurance no matter how much they exercise.

In human children, sustained exercise only increases aerobic capacity by up to 10%. In adults, that kind of exercise can increase aerobic capacity by up to 30%. Long walks and exercise sessions increase risk of injury and yield few benefits for puppies, so endurance training is better left until the puppies have grown up.

Puppies naturally exercise in small bursts of activity, not sustained walks.

## Correct Exercise Increases Bone Density

After reading about growth plates and toddler fractures, you may find yourself not allowing your puppy to move, let alone run and play. Relax! Not only is appropriate exercise not dangerous for your puppy, but exercise has also been shown to increase bone density in children. Furthermore, those children who exercised were a whopping 50% less likely to fracture a bone. There's every reason to believe the same holds true for dogs, so appropriate exercise is key to building strong bones in your puppy and preventing adult fractures. So, let's talk about guidelines for puppy exercise.



Exploring rock walls and gardens at their own pace is great mental and physical exercise for puppies.

## Guidelines for Puppy Exercises

Self-directed play is an overriding rule for any puppy under 18 months old. The majority of his exercise should be free play, exploring, roaming around. If he shows any fatigue, flops down, refuses to walk, you should listen to him and let him rest.

Do not underestimate the value of a good digging session. Consider digging up a soft patch in a corner of your yard and burying “doggy treasures” in it - great natural exercise for your puppy!



‘No’ to repetition exercises

Probably the biggest cause of growth plate and soft tissue injury is repetitive exercise with a young puppy. So, until they are about 18 months old, long hikes and walks are out and lots of free-play sessions are in.

## Sniffing and Strolling (great for pups)

While long hikes are out, strolling around in the backyard with you is great. If no backyard, short, rambling walks are great. Let your puppy sniff, explore and take it at his own pace. You can use short training sessions in your walks to work on heeling/loose leash walking, but the majority of the time should be at your puppy’s own pace and discretion.

If hiking, you could bring your puppy along - great socialization for puppies under 12 weeks old & older puppies. But just like a small child on a walk, be prepared to carry your puppy a good portion of the way. If you’re jogging or walking on a manicured trail or paved park road, consider investing in a puppy stroller to put your pup in for most of the walk. Long walks with a nice stroller are great for everyone.



### Treat Trails

Kibble trails are also a great way to tire out a puppy both mentally and physically. Kibble trails allow puppies to stay outside a long time and cover a lot of ground in a very natural way. You can start with treats/ kibbles, etc. only a few inches apart initially and later 2-3 m apart.

Always remember to deduct the amount of treats given from their daily feed so as not to over-feed.



## Puppy Mates



Play with a well-matched and gentle playmate. Sometimes size can be a factor, as a very large dog, especially one that likes to play with a lot of paw whacks, can inadvertently injure a young or small breed puppy.

That said, a gentle giant may be a better playmate than a feisty small breed dog who likes to body slam. Keep a very careful eye out and be prepared to throw handfuls of cookies down to interrupt any overly physical play. Body slams and crazy rolls are spiral fractures waiting to happen!

A gentle giant may be a better playmate than an over-the-top small dog.

## Soft Landings

Jumping off beds and couches are major causes of spiral fractures in puppies - we are constantly on guard until our puppies reach two years old and keep them off furniture and beds unless we're there to help them off. Use heavy carpet pads and carpets around all furniture and beds to cushion impact, should a young (or old) dog slip by and get up on a high piece of furniture.

You can start training in agility but no jumping higher than wrist height until 6 months old, no jumping higher than elbow height until 18 months old.

## Stairs are not great for young hips



Going up or down stairs can damage growth plates and cause hip dysplasia

A study of 500 Newfoundland, Labrador, and Leonberger puppies found that puppies who climbed flights of stairs daily before they were 3 months of age had an increased risk of developing hip dysplasia. Although these breeds were selected for the study because of their relatively high incidence of hip dysplasia, the study seems to indicate that stairs represent a strain on any puppy's joints, so consider ramps or carrying your puppy downstairs if possible.

Although climbing flights of stairs on a daily basis represents an inappropriate strain on puppy joints, doing one or two not-too-steep steps with a non-slip surface would not represent any risk to the puppy and may be a nice body awareness, coordination exercise.

Interestingly, the same study found that off-leash, self-directed exercise on gently rolling, varied, and moderately soft ground for puppies under 3 months old decreased the risk of developing hip dysplasia.

And it's important to get that exercise early! Free play after 12 weeks old, while certainly beneficial in general, was not shown to decrease the risk of hip dysplasia in the study. So, once again, self-directed play in your backyard or garden is the best exercise for young puppies.



## Ground only toys and playing nice

A puppy chasing a toy will not stop until they are literally on top of the toy, causing both heavy impact and twisting on the bones and soft tissue. Roll balls or drag toys on the ground for all puppies. Tug toys should be held low and steady - don't pull up or back on your puppy's neck!



Puppy necks are delicate! Hold toys low and allow the puppy to pull instead of you tugging on the toy.

## Tiring Puppies out

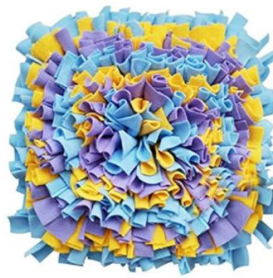
Worried that you won't be able to tire out your puppy without long exercise sessions? Try 15 minutes of mental exercise such as walking over poles. Have your dog work for their food - place your pup's meals inside a toy and they have to roll it around in order to get the food to come out of the hole. Or you can use a puzzle toy or teach him a new trick like 'sit' etc. or a 'follow your nose' game! This will wear out your pup more than constant exercise, which can get them more excited and increase the chance of injury.



Kong Treat Toy



Food Puzzle Dish



Snuffle Mat



Teething & Treat Ball