



Puppy Exercise

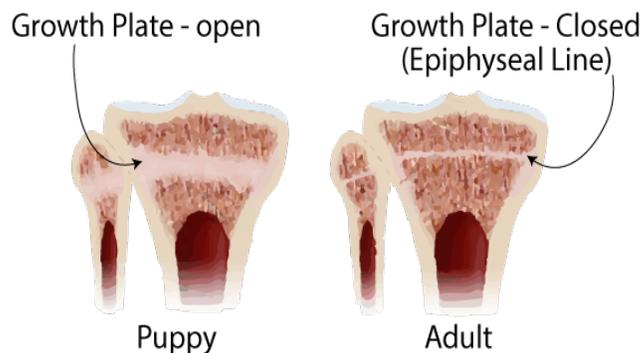
One of the most common followup questions we get when a puppy goes home involves exercise. Families who want to run with their dogs want to know how soon. Questions surrounding stairs, beds, couches and your puppies ability to play with the neighbours big german shepherd all seem to hit you as soon as you get your new dog home. We thought it would be helpful to combine our experience with the exercise protocols outlines by Puppy Culture

What's the Harm?

Exercise that's not appropriate for a puppy's age and development can cause significant and irreversible damage. Complex joints like the elbow, which consist of 3 separate bones, can easily become malformed in a young puppy because of the impact of jumping off a bed. What would be a simple sprain in an adult dog could leave a puppy with a misshapen or shortened limb. It is important to have an understanding of how a puppy grows so you can understand how much is too much!

How A Puppy Grows

All bones grow from their ends. Bones also get denser with age and with exercise. There are "caps" at the ends of a puppies bones. These caps are called "Growth Plates". Growth Plates generate the cells needed to create and lengthen young bone.



Growth plates gradually thin as hormonal changes approaching puberty signal the growth plates to close. In puppies, this closure is normally completed by at 18-24 months of age. Not all bones in the body finish growing at the exact same time. The ages for growth plate closure will also vary from puppy to puppy.

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.

This is the reason why we wait until a dog is 2 years of age before deciding if it can enter our breeding program. This is the first opportunity we have to xray their fully mature hips and elbows in order to see evidence of dysplasia.

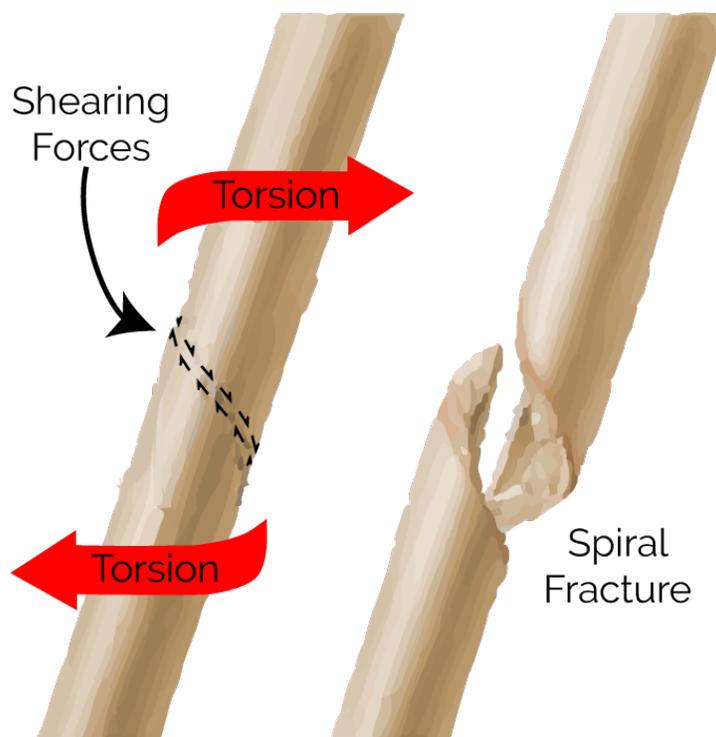
It is also why our contract asks that you wait until your puppy is 18 months of age before doing a spay or neuter. Sex hormones are what signal growth plates to close, so If your puppy was neutered before around 18 months old, he will have some delay in growth plate closure, and he will also have uneven growth in his bones resulting in joint angles that could be more liable to injury.



You can imagine the harm that can happen to a bone if the growth plate were to sustain damage. Essentially, it would stop producing new bone cells and the bone itself would stop growing in length. Impact isn't the only concern. Your puppy's bones are held together with muscles, tendons, and ligaments. In an adult dog, stress on a joint will result in a sprain. In your puppy, however, the muscles, ligaments and tendons are stronger than the young growth plates, so instead of a simple sprain, the growth plate can be injured. 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 your puppy more prone to even more injuries as your puppy grows up.

Puppies Are Soft Core

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 and account for 50% of all fractures that 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. It's thought to be caused by the difference between the strong outside, fibrous layer of the bone (periosteum) and the softer, more elastic bone inside. Any exercise that puts torque on (twists) a bone puts the puppy at risk for a fracture.

Puppies Are In It For The Short Run

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. For any dog that you wish to enrol in a strenuous performance career, we highly recommend doing x-rays to confirm growth plate closure before proceeding with any intense training.



Bubble Puppies Don't Build Bone

After reading about growth plates and toddler fractures, you may find yourself clutching your puppy, afraid to let him move lest he breaks a limb. Relax! Not only is appropriate exercise not dangerous for your puppy, exercise has been shown to increase bone density in children.

Furthermore, those children who exercised were 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.

Self Directed Play is the overriding rule for any puppy under 18 months old. The majority of your puppy's exercise should be free play, exploring, and noodling around. If your puppy shows any fatigue, flops down, refuses to walk, you should listen to him and let him rest.

Exploring low obstacles at their own pace is great mental and physical exercise for puppies

Never 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!

Repetition Is Your Enemy

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

While long hikes are out, just tooling around in the backyard with you is great. If you don't have a backyard, short, rambling walks are perfect. Let your puppy sniff, explore and take it at his own pace. You can intersperse short training sessions in your walks to work on heeling/loose leash walking, but the majority of the walk should be at your puppy's own pace and at his discretion.

Speaking of hikes, if you're an outdoorsy type of person, you should bring your puppy along on hikes - its great socialization for puppies under 12 weeks old, and great enrichment for older puppies. But just like when you take 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 a puppy stroller to put your tyke in for most of the walk.

Kibble trails are also a great way to tire out a puppy both mentally and physically. Remember, dogs generally don't naturally go on long "marches" - they tend to noodle around and stop and sniff a lot as they go. Kibble trails allow puppies to stay outside a long time and cover a lot of ground in a very natural way. To create a kibble trail, put a piece of food (kibble, hot dog, liver) every few inches in a trail in your back yard. Your dog will spend time using its nose to discover the treats! As your puppy gets better and better at this exercise, increase the distance between treats!

Be A Puppy Matchmaker

Play with a well-matched and gentle playmate is ideal. Size is a factor, as a very large dog, especially one that likes to play with a lot of paw whacks, can inadvertently injure your puppy.

That being said, a gentle Wolf Hound may be a better playmate than a feisty Jack Russell Terrier 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 of 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. We also 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 Aren't Hip

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 down stairs 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 probably does not represent any risk to the puppy and may be a nice body awareness and 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.

Play Nice

Puppies often have more “will” than “way” when it come to chasing toys and will not stop until they are literally on top of the toy, causing both heavy impact and twisting on the bones and soft tissue. We advise rolling balls or dragging 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 surprisingly delicate! Hold toys low and allow the puppy to pull instead of you tugging on the toy.

But I Need to Tire Out My Puppy!

Worried that you won’t be able to tire out your puppy without long exercise sessions? Take heart, it’s easy to tire out your puppy when you need to. Puppy Culture has put together a handy reference chart for you for puppies from 8 weeks through adulthood.

	8-12 Weeks	12-16 Weeks	4-6 Months	6-12 Months	12-18 Months	18 Months to 2 years
Sustained and Continuous Walking	<ul style="list-style-type: none"> • 50-200 feet at a time • Break up with sniffing and noodling around • Formal heeling/leash walking training limited to 2 minutes 	<ul style="list-style-type: none"> • Gradually increase duration and length of walks - Probably going to be between 100-200 feet by the time the puppy is 16 weeks old. • Let the puppy volunteer to keep going and stop if he shows reluctance to go further. • Keep formal training under 2 minutes per session. 	<ul style="list-style-type: none"> • Gradually increase duration and length of walks - Probably going to be between 200-400 feet at a time by the time the puppy is 6 months old. • Let the puppy volunteer to keep going and stop if he shows reluctance to go further. • Keep formal training under 2 minutes per session. 	<ul style="list-style-type: none"> • Walks on pavement should be kept short, but duration of walks on dirt or turf can be increased and more “hiking” type activities can be introduced. • Again, best to keep do these walks as “sniff and strolls” but you can increase sustained walking to up to 20-30 minutes on a relatively level, soft, surface by the time the puppy is a year old IF the puppy volunteers to go that far. 	<ul style="list-style-type: none"> • Walks on pavement should be kept short, but duration of walks on dirt or turf can be increased and more “hiking” type activities can be introduced. • Again, best to keep do these walks as “sniff and strolls” but you can increase sustained walking to up to 20-30 minutes on a relatively level, soft, surface by the time the puppy is a year old IF the puppy volunteers to go that far. 	Hikes and walks can be gradually increased to as long and as rigorous as you and your dog both like, but remember that a dog’s soft tissue is still maturing through about three years old. Increases should be gradual and you should back off if your dog appears tired or reluctant.
Sniff N Stroll	Informal “sniff and stroll” sessions can be up to about 10-15 minutes.	Can be increased to 15-20 minutes	Can be increased to as much as 45 minutes by the time the puppy is 6 months old, provided you are moving at a very slow pace with lots of opportunity for the puppy to stop and noodle around.	Can be increased to as much as 60 minutes by the time the puppy is 12 months old, provided you are moving at a very slow pace with lots of opportunity for the puppy to stop and noodle around.	OK to do 60 minutes provided you are moving at a very slow pace with lots of opportunity for the puppy to stop and noodle around.	Sniff and strolls can be gradually replaced with more sustained “walks” but remember that sniffing is the primary way dogs relate to the world, so be a sport and continue to give your dog to stop a sniff from time to time.
Noodling and Kibble Trails	Puppy can go out in a safe yard and explore at his own pace or do a “Kibble Trail” as long as he likes.	Puppy can go out in a safe yard and explore at his own pace or do a “Kibble Trail” as long as he likes.	Puppy can go out in a safe yard and explore at his own pace or do a “Kibble Trail” as long as he likes.	Puppy can go out in a safe yard and explore at his own pace or do a “Kibble Trail” as long as he likes.	Puppy can go out in a safe yard and explore at his own pace or do a “Kibble Trail” as long as he likes.	Your dog can go out in a safe yard and explore at his own pace or do a “Kibble Trail” as long as he likes.
Running	<ul style="list-style-type: none"> • No directed running except for very short spurts in play • Puppy can run as much as he likes on his own 	<ul style="list-style-type: none"> • No directed running except for very short spurts in play • Puppy can run as much as he likes on his own 	<ul style="list-style-type: none"> • No directed running except for very short spurts in play • Puppy can run as much as he likes on his own 	<ul style="list-style-type: none"> • No directed running except for very short spurts in play • Puppy can run as much as he likes on his own 	<ul style="list-style-type: none"> • No directed running except for very short spurts in play • Puppy can run as much as he likes on his own 	Running and endurance training can gradually be introduced at this time



	8-12 Weeks	12-16 Weeks	4-6 Months	6-12 Months	12-18 Months	18 Months to 2 years
Jumping and Impact activities	<ul style="list-style-type: none"> • Bars on the ground to wrist height • No more than one or two obstacles in a row • Wobble boards and unstable surfaces, but but very low • Carpet all indoor stairs and never allow puppy to go up and down stairs unsupervised • Put up gates at top/ bottom of stairs • Consider carrying puppy if your he needs to do more than one or two stair steps 	<ul style="list-style-type: none"> • Bars on the ground to wrist height • No more than one or two obstacles in a row • Wobble boards and unstable surfaces, but but very low • Carpet all indoor stairs and never allow puppy to go up and down stairs unsupervised • Put up gates at top/ bottom of stairs • Consider carrying puppy if your he needs to do more than one or two stair steps 	<ul style="list-style-type: none"> • Bars on the ground to wrist height • No more than one or two obstacles in a row • Wobble boards and unstable surfaces, but but very low • Carpet all indoor stairs and never allow puppy to go up and down stairs unsupervised • Put up gates at top/ bottom of stairs • Consider carrying puppy if your he needs to do more than one or two stair steps 	<ul style="list-style-type: none"> • Jumps can be gradually raised half way to elbow height between 6 and 12 months old, with correspondingly more challenging ramps, wobble boards, and teeters • Platform work for rear end awareness can be introduced at this time very carefully and slowly • This is also the time when we see the most spiral fractures happen because the puppies have the wherewithal to get up on high couches and beds - be extra vigilant about not letting puppies up on high furniture without very close supervision! • Stairs are always a hazard and should have good traction - carpet indoors, non-skid surface outdoors • Although the puppy may start doing stairs with good traction at this time, you should still supervise and don't let him run down the stairs with other dogs 	<ul style="list-style-type: none"> • Jumps can be gradually raised half way to elbow height between 6 and 12 months old, with correspondingly more challenging ramps, wobble boards, and teeters • Platform work for rear end awareness can be introduced at this time very carefully and slowly • This is also the time when we see the most spiral fractures happen because the puppies have the wherewithal to get up on high couches and beds - be extra vigilant about not letting puppies up on high furniture without very close supervision! • Stairs are always a hazard and should have good traction - carpet indoors, non-skid surface outdoors • Although the puppy may start doing stairs with good traction at this time, you should still supervise and don't let him run down the stairs with other dogs 	<ul style="list-style-type: none"> • Gradually raise jumps and contact obstacles to full competition height between 18-24 months old • Stairs are always a hazard and should have good traction - carpet indoors, non-skid surface outdoors
Swimming	<ul style="list-style-type: none"> • Puppy should ALWAYS wear a life jacket • Wading and playing on the shoreline • Climbing on and off low platforms and rafts in shallow water • Retrieves/tossing toys in shallow water parallel to shoreline, never into deep water • Normal puppies should be allowed to swim if they volunteer to do so, but never forced 	<ul style="list-style-type: none"> • Puppy should ALWAYS wear a life jacket • Wading and playing on the shoreline • Climbing on and off low platforms and rafts in shallow water • Retrieves/tossing toys in shallow water parallel to shoreline, never into deep water • Normal puppies should be allowed to swim if they volunteer to do so, but never forced 	<ul style="list-style-type: none"> • Puppy should ALWAYS wear a life jacket • Wading and playing on the shoreline • Climbing on and off low platforms and rafts in shallow water • Retrieves/tossing toys in shallow water parallel to shoreline, never into deep water • Normal puppies should be allowed to swim if they volunteer to do so, but never forced 	<ul style="list-style-type: none"> • Puppy should ALWAYS wear a life jacket • Wading and playing on the shoreline • Climbing on and off low platforms and rafts in shallow water • Retrieves/tossing toys in shallow water parallel to shoreline, never into deep water • Normal puppies should be allowed to swim if they volunteer to do so. Limit swimming to a few minutes at a time. • Very short swim out to retrieves in the water. • Keep the toy close to shore. High toy-drive dogs will swim further after a thrown toy than they can or should. 	<ul style="list-style-type: none"> • Puppy should ALWAYS wear a life jacket • Wading and playing on the shoreline • Climbing on and off low platforms and rafts in shallow water • Retrieves/tossing toys in shallow water parallel to shoreline, never into deep water • Normal puppies should be allowed to swim if they volunteer to do so. Limit swimming to a few minutes at a time. • Very short swim out to retrieves in the water. • Keep the toy close to shore. High toy-drive dogs will swim further after a thrown toy than they can or should. 	<ul style="list-style-type: none"> • Competition swimming behaviors can be introduced and dog can swim for as long as he volunteers to • Life jackets are always a must



	8-12 Weeks	12-16 Weeks	4-6 Months	6-12 Months	12-18 Months	18 Months to 2 years
Chasing	Roll balls and drag toys on the ground in gentle circles	Roll balls and drag toys on the ground in gentle circles	Roll balls and drag toys on the ground in gentle circles	Roll balls and drag toys on the ground in gentle circles	Roll balls and drag toys on the ground in gentle circles	Gauge your play style by your dog's common sense. If you throw a ball and your dog tumbles head over heels to get it, don't throw the ball, roll or lob it
Tugging	<ul style="list-style-type: none"> Keep the toy low so the puppy's neck is in a straight line Don't pull on the toy - allow the puppy to tug against you 	<ul style="list-style-type: none"> Keep the toy low so the puppy's neck is in a straight line Don't pull on the toy - allow the puppy to tug against you 	<ul style="list-style-type: none"> Keep the toy low so the puppy's neck is in a straight line Don't pull on the toy - allow the puppy to tug against you 	<ul style="list-style-type: none"> Keep the toy low so the puppy's neck is in a straight line Don't pull on the toy - allow the puppy to tug against you 	<ul style="list-style-type: none"> Keep the toy low so the puppy's neck is in a straight line Don't pull on the toy - allow the puppy to tug against you 	You can start to hold the tug toy higher but generally it's best to let the dog tug on the toy rather than you pulling on it
Fast Turns	<ul style="list-style-type: none"> No fast turns or sudden stops No fast weaves or lure coursing We do begin slow shaping of weave poles but discontinue if the puppy shows any signs of speeding up or really "weaving" through the poles 	<ul style="list-style-type: none"> No fast turns or sudden stops No fast weaves or lure coursing We do begin slow shaping of weave poles but discontinue if the puppy shows any signs of speeding up or really "weaving" through the poles 	<ul style="list-style-type: none"> No fast turns or sudden stops No fast weaves or lure coursing We do begin slow shaping of weave poles but discontinue if the puppy shows any signs of speeding up or really "weaving" through the poles 	<ul style="list-style-type: none"> No fast turns or sudden stops No fast weaves or lure coursing We do begin slow shaping of weave poles but discontinue if the puppy shows any signs of speeding up or really "weaving" through the poles 	<ul style="list-style-type: none"> No fast turns or sudden stops No fast weaves or lure coursing We do begin slow shaping of weave poles but discontinue if the puppy shows any signs of speeding up or really "weaving" through the poles 	Full weave pole training and other activities that involve twisting and turning can be introduced.
Free Play With Other Dogs	<ul style="list-style-type: none"> 10-15 minutes for formal "play dates," Puppy can have free access to other puppies and adults in the household (so long as the puppy is not harassing the adults.) Keep bags of small dog treats on hand and throw handfuls of food down to interrupt rough or overly fast play You may have to enforce rest periods by putting puppy away for naps 	<ul style="list-style-type: none"> 10-15 minutes for formal "play dates," Puppy can have free access to other puppies and adults in the household (so long as the puppy is not harassing the adults.) Keep bags of small dog treats on hand and throw handfuls of food down to interrupt rough or overly fast play You may have to enforce rest periods by putting puppy away for naps 	<ul style="list-style-type: none"> Up to 20 minutes for formal "play dates," Puppy can have free access to other puppies and adults in the household (so long as the puppy is not harassing the adults.) Keep bags of small dog treats on hand and throw handfuls of food down to interrupt rough or overly fast play You may have to enforce rest periods by putting puppy away for naps 	<ul style="list-style-type: none"> Your puppy's increased body mass can make him more liable to injury if he engages in body-slamming play or a lot of fast sprints and turns. Keep bags of small dog treats on hand and throw handfuls of food down to interrupt rough or overly fast play Up to 20 minutes for formal "play dates," Puppy can have free access to other puppies and adults in the household (so long as the puppy is not harassing the adults.) You may have to enforce rest periods by putting puppy away for naps 	<ul style="list-style-type: none"> Your puppy's increased body mass can make him more liable to injury if he engages in body-slamming play or a lot of fast sprints and turns. Keep bags of small dog treats on hand and throw handfuls of food down to interrupt rough or overly fast play Up to 20 minutes for formal "play dates," Puppy can have free access to other puppies and adults in the household (so long as the puppy is not harassing the adults.) You may have to enforce rest periods by putting puppy away for naps 	Always be vigilant when your dogs are playing and intervene by throwing handfuls of food down if there's a lot of body slamming or the play just gets to crazy.

The right activity is healthy and enriching for both you and your puppy!
With a few easy precautions, you can enjoy your time outdoors with your pet and not indoors with your vet!!



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Appendix

For a complete program on age appropriate fitness for performance puppies and dogs,
see Chris Zink, DVM, and Janet Van Dyke's book, Canine Sports Medicine and Rehabilitation.

Chart of average closure times of different epiphyseal plates in dogs:
<http://www.provet.co.uk/health/diagnostics/growthplatedogs.htm>

Explanation of Toddler's fracture:
http://en.wikipedia.org/wiki/Toddler%27s_fracture

Article on the effects of growth plate injuries in puppies:
http://www.vetsurgerycentral.com/growth_plate.htm

Prevalence of spiral fractures in puppies:
<http://www.animalmedcenter.com/faqs/category/management-of-tibial-shaft-fractures>

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