

## H.I.T. AND RUN YOUR DOG TO AGILITY SUCCESS

By Bob Fritz,  
Animal Naturals

As canine nutrition emerges from the Dark Ages, today's dogs are now able to attain major improvements in health and performance. It's not an exaggeration to observe that if you study hard and do the homework, your dog can get the same enormous nutritional benefits enjoyed by today's Olympic and professional athletes.

But canine physical conditioning lags far behind these modern nutritional advances, limiting dogs from reaching their true potential. While training, like operant conditioning and obedience work, has become quite sophisticated, physical training remains rooted in myths that hold back canine performance.

New discoveries into the nature of the canine body, coupled with recent advances in human conditioning, offer an exciting new method of workouts enabling Agility dogs to attain higher levels of performance. This method is called H.I.T., short for High Intensity Training. H.I.T. empowers dogs to reach higher levels of canine fitness, increased performance and reduced fatigue. And as a side benefit, H.I.T. workouts take much less time and reduce the chance of injury.

H.I.T. is not obedience, bite or other type of training. Instead, H.I.T. is a physical conditioning program to make the other training Agility dogs do more productive and effective. H.I.T. builds high level fitness so your dog fatigues much less during training, meaning his focus and concentration are improved.

The only downside to H.I.T. workouts is that they require a little more attention to detail and observation of your dog. And H.I.T. workouts are most productive with the use of an electric treadmill, which admittedly, can be a fairly expensive purchase. But the small amount of added work and cost is far outweighed by the rapid gains in health and performance H.I.T. provides.

H.I.T. workouts are increasingly popular with serious human athletes. A recent study showed H.I.T. workouts increased metabolic rate and calorie burning for an incredible 15 hours after workouts, compared to just 2 hours for aerobic conditioning.

ANIMAL NATURALS, LLC  
4795 Industrial Way  
Benicia CA 94510

Ph 707-751-0174  
Fax 707-751-0175

www.an-nat.com



Developer of  
Nature Dog™  
Repzilla™  
Performance Horse™  
and other  
leading-edge tools  
for pets and  
working animals

## WHY H.I.T. WORKOUTS?

The dog is the ultimate land aerobic athlete. In the ability to utilize oxygen during long-term running, wild canines like wolves beat them all. And as research by the late Dr. Taylor of Harvard and others has shown, domestic dogs share this remarkable aerobic capacity. In fact, canine athletes have over twice the capacity to produce energy aerobically than even the best Olympic marathon champions.

Because of the ultra-high aerobic capacity of canines, most Agility dogs never reach their true potential. That's because dogs possess so much inborn aerobic endurance that almost any exercise increases their fitness to levels far above humans. And that's accepted as OK, even at top level Agility competition. But because canine fitness gains seem so easy, few dogs are taxed to upper the levels they are capable of, never develop their true potential.

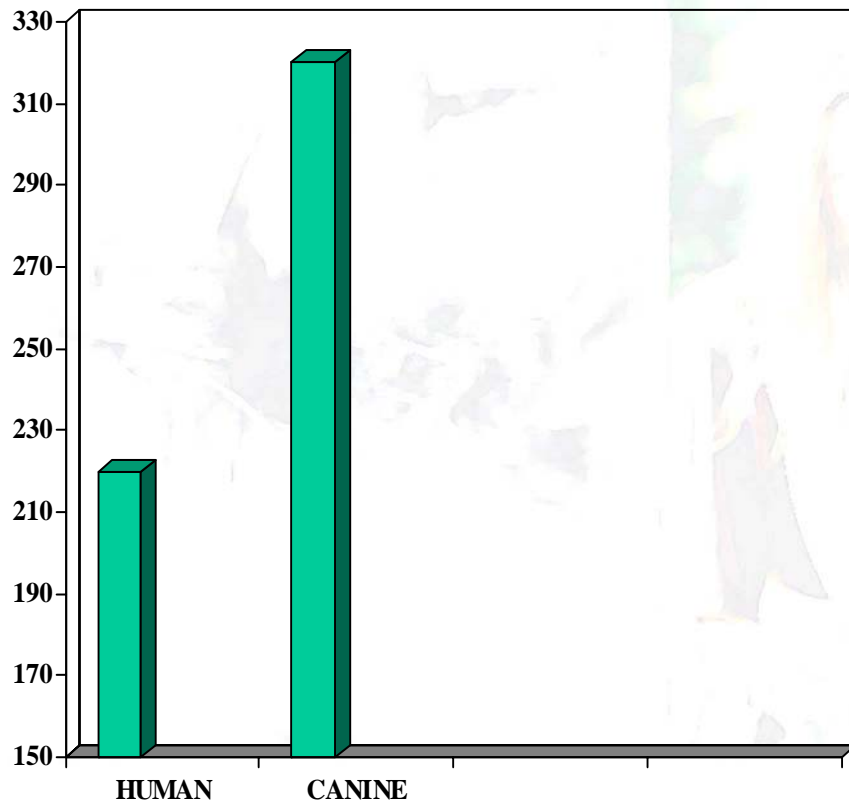


ANIMAL NATURALS, LLC  
4795 Industrial Way  
Benicia CA 94510

Ph 707-751-0174  
Fax 707-751-0175

www.an-nat.com

Developer of  
Nature Dog™  
Repzilla™  
Performance Horse™  
and other  
leading-edge tools  
for pets and  
working animals



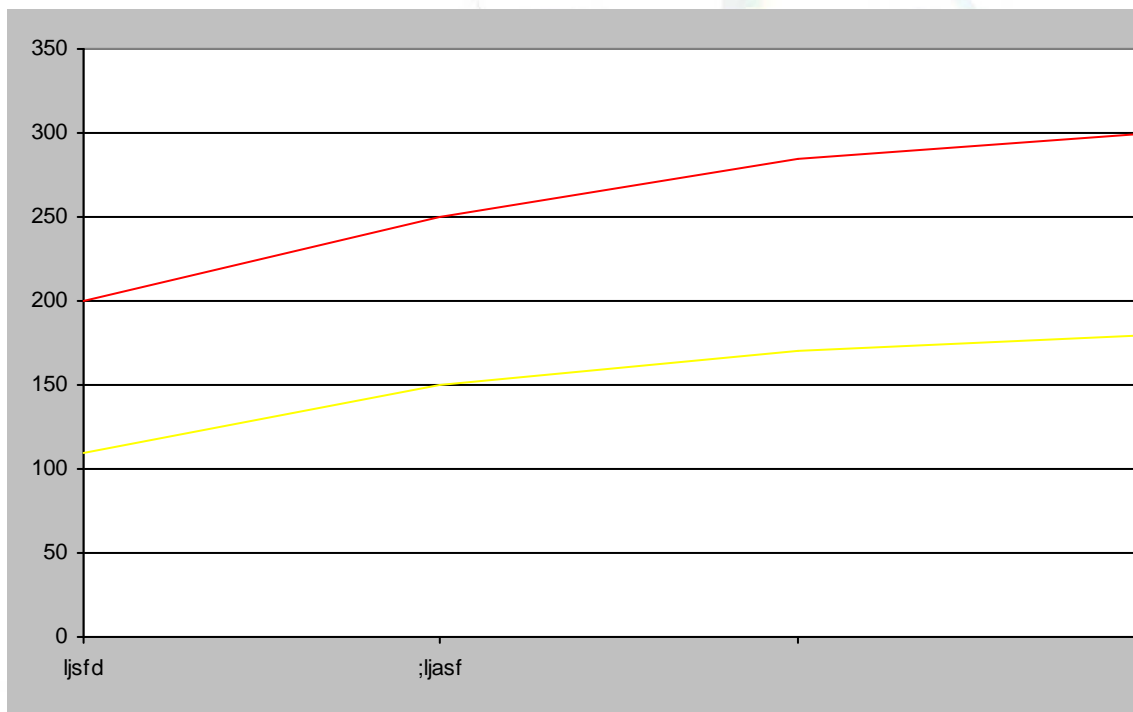
**Fig 1. Maximum Heart Rates for Humans and Dogs**

Sport scientists typically use heart rate measured in beats per minute as an indicator of how hard an athlete can and should exercise aerobically. There is an optimal "training zone" which is generally between 50-75% of the maximum heart rate. In humans, the maximal heart rate is about 220 beats per minute, so the training zone is about 150-175, depending on the age of the individual.

Problem is, dogs have maximal heart rates far above humans and far higher than most Agility fanciers are aware of. During exercise, the canine heart can beat 300 beats per minute, which would prove fatal to any human athlete. At 300 beats per minute, the canine heart pumps several times every second! By the time your own feet begin to hurt and you're running out of air, your dog is actually just getting warmed up.

In reality, dogs have to work very hard to reach the upper levels of their training heart rate zones. Workouts that are taxing for humans exert the dog much less. For example, running at a rate that exhausts humans is far below even the lower range of the canine training zone for a fit dog.

**Fig 2 Effective Training Zones of Dogs and Humans. (score plot)**



ANIMAL NATURALS, LLC  
4795 Industrial Way  
Benicia CA 94510

Ph 707-751-0174  
Fax 707-751-0175

www.an-nat.com



Developer of  
Nature Dog™  
Repzilla™  
Performance Horse™  
and other  
leading-edge tools  
for pets and  
working animals

H.I.T. is the ideal method of achieving the higher heart rates needed to induce higher level fitness in Agility dogs. Ordinary conditioning techniques fall short of achieving the upper levels of heart rate and subsequent fitness gains that H.I.T. provides. In the 21<sup>st</sup> century, H.I.T. will become a common conditioning strategy for entering the winner's circle.

## H.I.T. WORKOUTS

H.I.T. basics are simple. The opposite of aerobics, which are done at a constant speed, H.I.T. workouts involve periods of hard running, immediately followed by a recovery period sufficient to let the dog "catch his breath". Then, the dog runs very hard again, rests again, runs, rests, etc. This work and recovery cycle is repeated multiple times during the workout, raising the heart rate in the high canine training zone where real improvement occurs.

H.I.T. workouts are ideally done no more than 3 to 4 times per week. Any more than this, overtraining tends to occur.

How hard and how long each run lasts, coupled with the amount of rest time taken to catch his breath between each run, is what makes H.I.T. different from other types of conditioning.

### PART 1: HOW HARD AND LONG A DOG RUNS

There are two main factors of how intense the running is. First, is the rate-in other words, how fast the dog runs. Second, how long this speed is kept, the duration. Generally, H.I.T. running speed ranges between 2 to 12 miles per hour. The greater the speed, the faster the dog fatigues.

### PART 2: THE REST INTERVAL BETWEEN RUNS

The length of the rest period is important. The time must be sufficient to recover enough for the next run. Generally, rest intervals range from 30 seconds to 5 minutes, depending on the intensity of the run (above) and the dog's physical condition. As dogs become fitter, they recover faster.

Human athletes increasingly use electric treadmills for H.I.T. workouts, and these machines are also ideal for Agility conditioning. Today's electric treadmills enable you to control speed and rest intervals exactly, so you precisely tailor workouts to your dog's current ability and goals. Electric treadmills are useful during bad weather, offer safety advantages and are durable and well made.

ANIMAL NATURALS, LLC  
4795 Industrial Way  
Benicia CA 94510

Ph 707-751-0174  
Fax 707-751-0175

www.an-nat.com



Developer of  
Nature Dog™  
Repzilla™  
Performance Horse™  
and other  
leading-edge tools  
for pets and  
working animals

## SAMPLE H.I.T. WORKOUT

<b>General Warm-Up</b>	5 minutes	2 mph
# 1 Run	2 minutes	8 mph
Recovery walk	2 minutes	2 mph
# 2 Run	2 minutes	8 mph
Recovery walk	2 minutes	2 mph
#3 Run	2 minutes	8 mph
Recovery walk	2 minutes	2 mph
# 4 Run	2 minutes	8 mph
Recovery walk	2 minutes	2 mph
# 5 Run	2 minutes	8 mph
Recovery walk	2 minutes	2 mph
<b>Cool-Down</b>	5 minutes	2 mph



So there's an effective Agility H.I.T. workout. In about 30 minutes, your dog reached the heart training zone needed to build higher levels of power, endurance and performance. In the process, you've helped develop an enhanced ability to clear lactic acid, stimulated hard to reach explosive fast twitch muscle fibers, to burn fat and accelerate metabolism.

- **H.I.T. is best done at end of training session, after obedience and other work.**
- **3 times per week of H.I.T. is sufficient, more leads to over-training.**
- **As the dog's fitness increases, increase the speed and/or time of the runs, or shorten the rest interval.**

**Use H.I.T. to gradually build fitness over time-do not rush it.**

### SUMMARY

Almost any performance-bred dog beginning with good health and reasonable fitness can make major gains from H.I.T. H.I.T. is increasingly popular with human athletes because it augments aerobic and other training, while taking little time. Yet, H.I.T. delivers enormous payoffs. After you use this scientific conditioning program, you'll see why you can now H.I.T. and run your dog to Agility success.

ANIMAL NATURALS, LLC  
4795 Industrial Way  
Benicia CA 94510

Ph 707-751-0174  
Fax 707-751-0175

www.an-nat.com

Developer of  
Nature Dog™  
Repzilla™  
Performance Horse™  
and other  
leading-edge tools  
for pets and  
working animals