

The  
*K\*I\*S\*S\**  
Exerciser



**Stephen J. Winter, Ph.D.**

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**Disclaimer**

The author is not a physician. The information presented in this report is intended to be educational in nature and is not intended as medical advice. It is designed to help you make informed decisions related to your physical fitness and should not be used as a substitute for any treatment that may have been prescribed by your doctor. If you suspect that you have a medical problem, you should seek assistance from a qualified health practitioner.

The *K\*I\*S\*S\** Exerciser by Stephen J. Winter

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For further information about the **K\*I\*S\*S\*** series of fitness and exercise programs, go to:  
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## Acknowledgement

I would like to acknowledge the assistance of Mr. Calvin Zimmerman, the owner of Zimmerman Hydraulics in Mifflinburg, Pennsylvania. Without his help, it would have been impossible to produce the K\*I\*S\*S\* Exerciser in its present form. In contrast with a number of hydraulics shops that I previously contacted and that refused to become involved with the project, Calvin willingly offered his services. I only provided him with a conceptual design for the hydraulic cylinder that is the heart of the Exerciser. A brilliant mechanic and talented craftsman, he humbly worked out all the details that led to the final design for the cylinder that you see in the following pages. Zimmerman Hydraulics is one of the rare companies that places a higher regard on competent, honest, and friendly service than on short-term profits.



Calvin at work on one of the hydraulic cylinders



## Preface

The inspiration for the development of the K\*I\*S\*S\* Exerciser was comments by my mentor, Winfield Franklin, in the early 1970s. At that time, Win operated a gym in Plainfield, New Jersey, and was around 70 years old. He had become locally (and, to some extent, nationally) famous because, to celebrate his birthdays for the previous five years or so, Win would first run a marathon and then follow it up by running and walking until the total distance he covered equaled the years of the birthday he was celebrating. This was all the more remarkable because he was ripping along at a pace which --- at least for one of his runs --- would have **beaten** an Olympic marathon time in the early 1900s. Still more remarkable, Win was not a 140-pound distance runner. Rather, he was a rather burly 180-pound strongman. In his younger days, he was a boxer and had performed such feats as doing 5,000 consecutive sit-ups and a one-arm overhead “bent press” with a 250-pound dumbbell. He was a product of the “Physical Culture” era of the early 20th century. I was privileged to have known him.

Anyway, before he opened his gym, he owned a ceramic tile business. His comment was that the pushing and pulling of the hoe to mix tile cement in a trough, along with the required twisting and turning and leg motion, was a **complete** workout. I never forgot his remarks and, knowing the guy very well and being aware of the attention he paid to the influence of just about everything a person does on health and fitness, I decided to try to make an exercise device that embodied the ideas that Win was talking about.

I have been at this for over ten years! The first Exercisers I developed used automotive shock absorbers to provide resistance. However, they had the major disadvantage that the resistance they provided was not adjustable. Next, I discovered a hydraulic cylinder manufactured in China that was specifically designed for exercise devices. This sounded like the perfect solution. Alas, although they initially performed well, these cylinders ultimately failed for an unknown reason and, due to lack of support from the manufacturer, it proved to be impossible to remedy the problem. This led me to the conclusion that I would have to design and build a hydraulic cylinder to my own specifications if I wanted to do the job right. Fortunately, I was able to link up with Zimmerman Hydraulics and the problem was solved.

A word about the term, “K\*I\*S\*S\*.” It stands for “Keep it Simple, Stupid!” This may be a bit strong. However, it emphasizes how I feel about how we should approach many issues in life, be they related to exercise, diet, or even one’s professional activities --- which in my case happens to be engineering. Why add needless complexity to the solution of a problem? You increase the probability that the “solution” might not be understood by users of the product you have come up with and/or you will increase the ways in which the product might fail. Isn’t this the case with modern motor vehicles? Yes, they are a pleasure to drive. However, you often have to attend to the maintenance of the “improvements” that make these vehicles so nice. A Model T Ford

wasn't exactly a pleasure to drive. But it was understandable to the backyard mechanic and he could fix it with a few common tools when something went wrong. The trick is to find the happy medium...

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## Introduction

The K\*I\*S\*S\* Exerciser is a simple device that enables the user to obtain a complete upper body and core strength workout by means of a **single** exercise. It is **not** a gadget! Rather, it is a serious piece of exercise equipment designed and built such that it will provide many years of trouble-free use.

In a nutshell, here are some of its main features. More will become apparent in the pages that follow.

- You get a **complete upper body and core workout** in 20 minutes or so. This is a useful workout that will produce noticeable improvement in the way a person looks and feels. It will also have a positive effect on a person's strength and health. Longer workouts are possible, especially by using different varieties of the Exerciser.
- The Exerciser is **safe** to use. There is little danger of injury to joints or of strained/pulled muscles and tendons. This is an especially attractive feature for older adults.
- **Anyone** can use the Exerciser. On one hand you can be young and fit --- even a competitive athlete. On the other hand, you can be a senior citizen or even someone with limited mobility. Amazingly, one size **does** fit all!
- I feel that the Exerciser is **attractive**. This is a prejudiced view, of course. However, it combines the beauty of finished wood with the precision of a piece of hydraulic machinery built to industry standards.
- If used in a certain way, the Exerciser can even provide a **leg workout** as well as aerobic benefit. Thus, it can provide a complete all-body strength workout as well an **aerobic workout**. I don't know of any other piece of exercise equipment that can do this. This potentially enables the Exerciser to provide the user with a "perfect" exercise --- an exercise that does everything you need to do to stay fit, all in one shot.

The Exerciser can be built in a form that is light and portable or it can be built in such a way that it can be rigidly attached to the floor. The former variety is more suited to **home use** while the latter is more suited to use in **gyms and health clubs**.

## Hydraulic Exercise

The term “hydraulic” refers to a fluid. So, “hydraulic exercise” is exercise where the resistance to motion is supplied by a fluid. Rowing a boat is a good example of hydraulic exercise. In this case, water --- a fluid --- is the resistance. The special thing about hydraulic exercise is that **you** choose how hard it will be. In the case of rowing a boat, you do this by trying to go faster or by slowing down. Of course, you can simply stop rowing and the resistance will go to zero.

The resistance in the Exerciser is supplied by a piston moving in a hydraulic cylinder filled with oil. When you exercise, you cause the piston to move from one end of the cylinder to the other. The two ends of the cylinder are attached to one another by means of a tube. So, when the piston moves, it forces the oil in the cylinder to move through the tube from one end of the cylinder to the other. Like rowing a boat or any hydraulic resistance, if you try to go faster, the resistance will increase. This is the reason why the Exerciser is suitable for a wide range of people. And, also like rowing a boat, if for some reason you stop moving the piston, there will be no resistance at all.

However, there is more to it than this. There is a valve in the tube that can be used to restrict the flow rate. If it is almost closed, it will be very hard to move the piston --- at any speed. If it is opened a lot, it will be relatively easy to move the piston --- again, at any speed. So, the valve setting provides a “family” of resistances for the user of the Exerciser. A comparison might be rowing a boat with small or large oar blades. The smaller blades would be easy to pull at any speed while the larger ones would be harder to pull. However, in both cases, the resistance would still vary with speed. So, the valve enables the user of the Exerciser to program it to match his strength level. An easy setting is obviously the way to go when a person is warming up, while a hard setting would make sense for the main body of a person’s workout.

## Description of the Exerciser

There are two varieties of the Exerciser. The “horizontal” Exerciser involves pushing and pulling in a horizontal direction while seated. This version exercises both the upper body and the core. The “vertical” version involves pushing and pulling in the vertical direction. This version does not exercise a person’s core. Although both versions of the Exerciser exercise a person’s upper body, they do it in slightly different ways. An equivalent difference would be the weight lifter who either does bench presses or overhead presses. Both are excellent pushing exercises. However, they hit the muscles associated with pushing in slightly different ways. We’ll get into this more deeply later on when we discuss the muscles that the Exerciser exercises.

The “horizontal” Exerciser consists of a wooden main frame with a wooden lever arm that is attached to one end of the frame at a pivot point. A wooden seat is attached rigidly to the main frame. The rod to the piston in the hydraulic cylinder is attached to the lever arm at another pivot point and the hydraulic cylinder is attached to a pivot connected to the seat support. There is a handle at the top end of the lever arm. All pivot points have metal sleeves that are pressed into and glued to the wooden frame or lever arm with epoxy cement. This prevents wear of the wood and should give the Exerciser a very long service life. In the portable version of the horizontal Exerciser, mounting feet are attached to the main frame. In the rigid version, the frame is heavier and is bolted to the floor. All wooden parts of the Exerciser are stained and varnished which gives it a furniture-like appearance.



The “vertical” Exerciser is similar to the ‘horizontal” one in that there is a lever arm attached to a frame. However, in the vertical exerciser, the frame is essentially a “tower” that is either attached to a heavy base or bolted to the floor.

## Exercise

### In general

The following statement is taken directly from my book, *The K\*I\*S\*S\* Fitness Program*. It's a good overview of the different types of movements that the human body is capable of doing and the types of exercise that are required for overall balanced fitness.

*There are **three general types of exercise** and it's important to be able to distinguish between them as they have very different effects on your body. If you want to increase your endurance, your "staying power," certain types of exercises should be used. If you want to become strong, other types of exercises are appropriate. Here are the three exercise types:*

- *You can perform a given movement a great number of times --- like walking or running for an extended time period. This type of exercise builds **endurance**.*
- *You can move or lift something, often with a great degree of difficulty, a limited number of times. This might only be your own body. This type of exercise builds **strength**.*
- *You can stretch, bend, or twist your body to its limit in various directions. This type of exercise builds **flexibility**.*

*If I were forced to rank the types of exercise in order of importance, I would rank endurance training --- or aerobics, as it's popularly called these days --- first, as it's related to your cardiovascular health. It doesn't matter how strong or flexible you are if you're a candidate for a heart attack. First build the **internal fitness** associated with endurance training. I would rate strength training second as it provides insurance against the strains and pains you're vulnerable to if your muscles are weak. Strength training also builds strong bones. They get strong in response to supporting heavy loads just like muscles do. Of the three types of exercises, flexibility is probably least important. However, **all are important and all should be included in a well-balanced exercise program.***

***Endurance exercises** should be directed at the large muscles in the body --- the legs, back, etc. rather than your arms. Walking, running, bicycling, and rowing (with a sliding seat) are all great endurance exercises. The chief characteristic of an endurance exercise is that it elevates your pulse rate for an extended period. This is what improves your cardiovascular health. A runner's heart is like the engine in a sports car. For normal driving around town, the engine just loafs along. However, when the need or desire arises, that engine can be called into action to move the car just as fast as the law and/or common sense will permit. So, too, with the heart of the athlete who has a firm base of endurance training behind him.*

*There are hundreds of **strength exercises**. However, there are only **a few basic movements** that are the foundation of just about all the exercises you can come up with. Here they are:*

- *You can push something.*
- *You can pull something.*
- *You can rise from a squat position.*
- *You can sit up if you're lying down.*
- *You can straighten up if you're bent over.*

*A strength building program that includes all these movements is on a solid foundation.*

*Let's take a look at the muscles that these movements bring into play. When you push something, you exercise your chest, the back of your upper arms (the triceps), and the front of your shoulders. When you pull something, you exercise your upper back (That's how you get that "V" shape.), the front of your arms (the biceps), and the back of your shoulders. When you rise from a squat position you exercise your thighs and your behind (Yes, that's a muscle too.). When you sit up, you exercise your stomach. And, finally, when you straighten up from a bent over position, you exercise your lower back. If you think about the muscles all over your body, **this covers almost everything**. About the only muscles that aren't specifically included are those in your calves and forearms. However, to an extent, they are exercised when you move adjacent muscles and need not be included in a basic exercise program.*

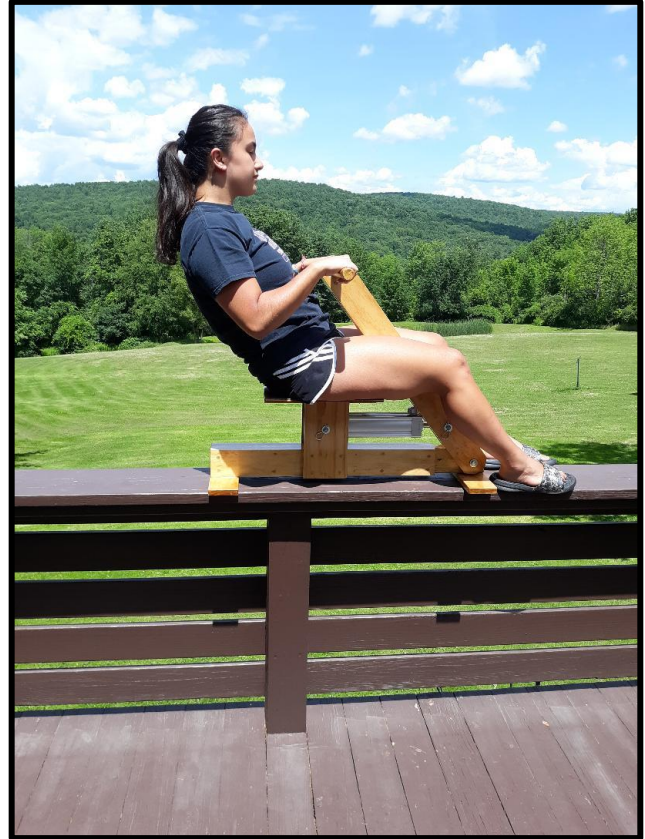
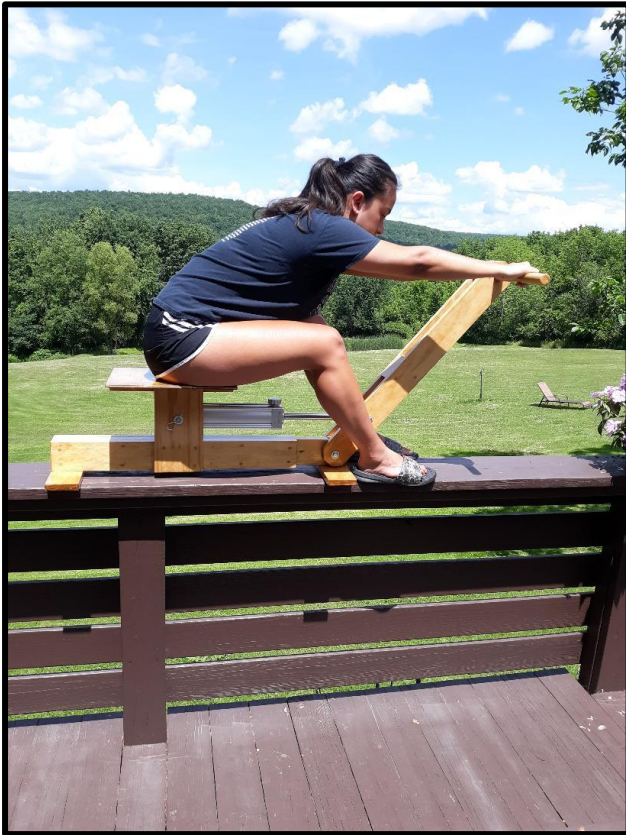
***Flexibility exercises** complete the well-balanced fitness program. It's important to be able to stretch, bend, twist, etc. without groaning every inch of the way. This limberness is an asset not only for its own sake but also in support of your strength and endurance training --- especially as part of a warm-up.*

#### As it Applies to the K\*I\*S\*S\* Exerciser

Let's take a look at how to use the Exerciser and then decide whether or not it achieves the goal of providing a complete upper body and core workout.

The use of the "horizontal" Exerciser is simple and intuitive. You sit in the seat and grasp the handle of the lever arm. Then, you alternately push it away from your chest as far as you comfortably can and then pull it toward you until it touches your chest or abdomen. However, that's not quite accurate. Very important is that, when you push the lever away from your chest, you also bend forward until your torso is roughly 45 degrees to the floor and, when you pull the lever back toward you, you bend backward until your torso is roughly 45 degrees to the floor in the opposite direction.





My daughter, Margie, demonstrating the use of an earlier version of the horizontal Exerciser that used an imported hydraulic cylinder

What types of movements have you made?

- A pushing movement (like a push-up)
- A pulling movement (in the opposite direction of a push-up)
- When you bend forward you are essentially doing a half sit-up
- When you bend backward, you are doing half of the motion of straightening your back

And, of course, all these movements are against a resistance.

If you refer to the list of the five major movements that the human body is capable of doing that I enumerated in the excerpt from my fitness book, you can see that the Exerciser takes care of the two movements associated with the upper body and the two associated with the core --- your mid-section. All this is happening at the same time with only **one** exercise! This is why you can get a complete upper body and core workout with the Exerciser in only 20 minutes or so. A typical fitness training program would require four separate exercises to do this and 10 to 20



minutes for each of them. So, you replace a workout that would take an hour or so with one that will only take 20 minutes --- without losing any of the benefit.

The use of the “vertical” Exerciser is equally simple and intuitive. However, instead of moving the handle of the lever horizontally, you move it vertically.

Now, it is necessary to digress a bit and get into the finer points of pushing and pulling movements. The Exercisers provide three options:

1. You can push away from your chest and then pull back toward it. This is what you’re doing when you use the “horizontal” Exerciser. In barbell terms, this is like doing “bench press” and “bent over rowing” exercises successively.
2. You can push overhead from your shoulders and then pull down. This is one pair of movements that is possible with the “vertical” Exerciser. In barbell terms, this is like doing an “overhead press” and a “pull-up” successively.
3. You can pull upward to shoulder height starting with your arms extended at your sides and then push down. This second pair of movements is also possible with the “vertical” Exerciser. Again, in barbell terms, this is like doing an “upright rowing” motion and a “dip” successively.

Referring to pushing, you can see that the horizontal Exerciser involves pushing forward (between up and down). So, whereas there is significant difference between the muscles that are activated when pushing up or down, the muscles that are activated when pushing forward are a sort of midway compromise. In other words, if a person only does **one** pushing exercise, the horizontal Exerciser is probably the best choice. This is one reason why I **always** use the horizontal Exerciser and, after using it, do additional sets on the vertical Exerciser either pushing up or pushing down --- as sort of extra credit. The second reason why I always use the horizontal Exerciser is that it also provides a good core workout. The vertical Exerciser doesn’t.

Referring to pulling, the same logic holds. Here, again, pulling toward your body is a midway compromise position between pulling up or down. In the case of pulling, there are large differences between the muscles that activated when pulling up or pulling down. The difference is less when comparing pulling up or down with pulling toward you. Again, I recommend always using the horizontal Exerciser and, after that, if you would like to do more, to add using the vertical Exerciser, either pulling up or pulling down.

The vertical Exerciser is very important in that it can add **variety** to a workout whether or not it is used in addition to the horizontal Exerciser or instead of it.

But what about a person's legs? We need them to get from place to place and one can easily argue that they are the most important muscles in our body. A way to address this problem that won't lengthen your workout is simply to do a number of free squats (deep knee bends) during the rest periods **between** sets on the horizontal Exerciser. I find that a convenient way of doing them is to lightly hold onto the lever handle for stability and to squat up and down over the seat of the exerciser. For older folks, this adds safety to the exercise as there is little danger of falling or of squatting so low that you can't get up. This also adds cardio benefit to the workout as, even though the muscles of your upper body and core are resting between sets, your heart will continue to beat at an elevated rate while you are squatting. This, of course, is what an aerobic workout is all about. And, the length of the workout isn't increased at all. You are just making use of "rest" time.

Another way to exercise your legs is to take a walk, go for a run, or ride a bicycle. However, this implies two workout sessions. Although I prefer this and recommend it, many people won't have the time to devote to this second exercise session. Seniors might be lucky in this regard as, typically, they aren't burdened with a job to go to according to a preset schedule. I try to do two workouts per day with cardio before breakfast and strength before supper.

## Applications of the Exerciser

Knowing how the Exerciser works and what muscles it exercises, it is probably easy to understand how to use it. However, to make everything crystal clear, I'd like to say a few words about its use by four classes of potential users...

### The general fitness enthusiast

This person would probably like go get in shape and stay that way as efficiently as possible. The Exerciser is ideal for this person because it is possible to get a serious upper body and core workout in a minimal amount of time. If, as discussed previously, this person adds some free squats to his routine in the "rest" periods between sets on the Exerciser, he will also be exercising his legs. In addition, he will obtain serious cardiovascular benefit. All this in 20 minutes or so. There is certainly nothing wrong with working out for longer. However, a half hour is probably enough.

### Senior citizens

The Exerciser is ideally suited to the senior citizen --- almost no matter what his age or physical condition. My major motivation for designing the exerciser is that I am now a senior citizen myself and I feel the need for an exercise device that is effective and that takes into account the unique limitations that a senior will sooner or later face. I don't know of any other device that does the job this well.

There are many reasons why the Exerciser is ideal for the senior citizen:

- First, a psychological reason. For better or worse, seniors are doomed to go downhill physically as the years go by. The best that probably can be hoped for is to keep the slope of the hill as flat as possible. No one likes to get weaker and I feel it's discouraging to quantify this for the older adult by keeping track of weights lifted or by other means. All that is important is that the senior exercise on a regular basis as hard as is safely possible. If a person exerts his maximum effort, that's the most important thing. It doesn't matter if the maximum effort that a person is able to exert decreases over time. In this regard, the Exerciser is perfect. An exercise session "to the max" is possible --- but exactly what this "max" is remains unknown.
- The Exerciser is suitable for use by almost anyone, including the physically impaired. Even if an individual requires assistance to get into the seat of the Exerciser, once he is there, he can get to work at a pace that makes sense for his condition. This makes it possible for almost any senior citizen to use the Exerciser.

- As indicated earlier, there is little danger of damage to joints and of strained or pulled muscles and tendons. This is because, at even the slightest sign of discomfort, the effort being exerted can instantly be reduced or stopped completely. As is true of any form of hydraulic exercise, the use of the Exerciser is very safe.

### Runners and Bicyclists

Serious long-distance runners and bicyclists can spend a number of hours per day training. And, when they are finished with a training session, they are ready to rest. However, they are athletes and are likely aware of the fact that their sport does little or nothing to strengthen their upper body and core other than the fact that it will probably keep them slim and trim. So, they might be interested in doing something that would provide a fast and effective means of getting a complete upper body and core workout. The Exerciser is exactly what these athletes need! They can simply exercise for 20 minutes or so on the Exerciser while watching TV in the evening and the problem is solved. What could be simpler than that?

### Cross Training

Similar to the situation with runners and bicyclists wherein their sport provides little of no exercise for their upper body and core, there are other sports wherein certain muscle groups aren't hit by the activities of the sport. Even rowing (with a sliding seat), that I feel is almost a perfect exercise, fails to provide exercise for the pushing muscles. Oarsmen are known to have broad backs, but may even be slightly slumped due to hypertrophy of the pulling muscles of the back and the neglect of the pushing muscles of the chest. Swimmers are in a similar situation as their main upper body effort is involved in pulling themselves through the water. Again, the pushing muscles are neglected. Athletes in these two sports in particular, and maybe in others, would benefit by devoting 20 minutes per day to work on one of the Exercisers. Such a brief workout would not only fill in "holes" in the exercise they receive in their chosen sport, it might even improve their athletic performance in their sport. A small investment in time with potentially a large return.



The hydraulic cylinder and control valve

## Sample Workouts

The workouts that a person can dream up for the Exerciser are probably limitless. However, there are a few basic principles that should be considered. To begin with, the workout should include a **warmup**. This applies to any exercise regimen, not only when using the Exerciser. For the Exerciser, I feel that a good warmup would consist of a number of sets, starting with a low resistance and high reps, gradually increasing the resistance while decreasing the reps. Then, when the warmup is finished, you would do a number of sets at whatever might be a fairly high resistance for you --- one that will make you work fairly hard --- but at fairly low reps. I recommend that the number of warmup sets equal the number of hard sets. This might seem to be a long warmup and younger folks might want to jump into higher resistances sooner. However, in addition to the inherent safety that the Exerciser provides against injury, a good warmup is also very important --- especially for the older person.

Here are three workouts for three different groups of people:

### Workout #1 (for runners and bicyclists and anyone seeking a quick and effective upper body and core workout)

The first workout might be for the person who has a solid aerobic program in place that also takes care of his legs. This workout would provide a complete upper body and core workout. It is especially suitable for bicyclists or runners whose normal training emphasizes legs and cardio. It would also be great for other athletes for whom some sort of cross training might be advisable. Finally, it would be good for the person who is able to exercise twice per day, perhaps running or bicycling in the morning and using the Exerciser in the late afternoon. Although one of the three workouts that are presented here is aimed at seniors, this one, although it is very serious, is also great for seniors because they typically have a lot of time on their hands. I am in this category and do exactly what I have just suggested. I run or ride a stationary bike in the morning before breakfast and then I work out on the Exerciser before supper. Aside from the possibility of doing more exercise per day than would probably otherwise be the case, this approach adds to a person's feeling of well-being, something that is important for everyone and, especially so, for the senior.

Do 50 reps on the Exerciser at a very easy setting. Rest 1 minute  
Do 40 reps on the Exerciser at a slightly harder setting. Rest 1 minute  
Do 30 reps on the Exerciser at a slightly harder setting. Rest 1 minute  
Do 20 reps on the Exerciser at a slightly harder setting. Rest 1 minute

You might say that these four sets are the warmup. By now the resistance should be such that movement of the lever arm of the Exerciser is becoming somewhat difficult.

Do 10 reps on the Exerciser at a hard setting. Rest 1 minute  
Repeat this 3 more times.

So, half the sets are devoted to warmup and half are devoted to serious strength building. This workout will take around 20 minutes and is a very effective upper body and core workout. This is the type of workout I had in mind when I previously indicated that the Exerciser can provide a good workout in 20 minutes.

I have been referring to the horizontal Exerciser. It provides a more complete workout than the “vertical” Exerciser because it involves bending and therefore hits a person’s core as well as the pushing and pulling muscles. The vertical Exerciser does not exercise a person’s core but it does hit a person’s shoulders and back from a different angle than the “horizontal” Exerciser as we have described before. If a person would like to have a really good workout, I recommend using **both** the horizontal and vertical Exercisers. I do this and it makes my workout roughly twice as long --- around 40 minutes. This is still minimal when compared to the time that many people spend at the gym running around doing exercises on a wide assortment of pieces of equipment.

Here's the workout that I use on the vertical Exerciser. It’s essentially the same as the foregoing workout for the horizontal Exerciser except that all the sets are 10 reps, the reason being that a person will be thoroughly warmed up beforehand as a result of his workout on the horizontal Exerciser.

Do 10 reps on the vertical Exerciser at a very easy setting. Rest 1 minute  
Do 10 reps on the vertical Exerciser at a slightly harder setting. Rest 1 minute  
Do 10 reps on the vertical Exerciser at a slightly harder setting. Rest 1 minute  
Do 10 reps on the vertical Exerciser at a slightly harder setting. Rest 1 minute

These four sets can still be regarded as a warmup even though only 10 reps are done. By now the resistance should be such that movement of the lever arm of the Exerciser is becoming somewhat difficult.

Do 10 reps on the Exerciser at a hard setting. Rest 1 minute  
Repeat this 3 more times.

This entire workout will take around 40 minutes.

### Workout #2 (a complete workout for anyone)

This workout is designed to provide both full body strength exercise as well as cardio exercise.

Do 50 reps on the Exerciser at a very easy setting followed immediately by a set of 10 free squats (as described previously). Rest 1 minute.

Do 40 reps on the Exerciser at a slightly setting followed immediately by a set of 10 free squats (as described previously). Rest 1 minute.

Do 30 reps on the Exerciser at a slightly harder setting followed immediately by a set of 10 free squats (as described previously). Rest 1 minute.

Do 20 reps on the Exerciser at a slightly harder setting followed immediately by a set of 10 free squats (as described previously). Rest 1 minute.

Like workout #1, these four sets are your warm up. By now, the resistance should be such that movement of the lever arm on the Exerciser is becoming somewhat difficult.

Do 10 reps on the exerciser at a difficult setting, followed immediately by a set of 10 free squats. Rest 1 minute.

Repeat this 3 more times, the last set of squats being the **maximum** number that you can do.

The preliminary sets of 10 squats make the entire workout aerobic. The final set to your max will increase your leg strength. It should make your legs burn --- just like pedaling a bicycle up a hill.

### Workout #3 (a complete but less strenuous workout aimed at seniors)

This is a “watered down” version of Workout #2. The idea is to again obtain a complete workout, but one that is not as strenuous as workout #2. For this workout, we skip the high repetition squats, rest more, and decrease the number of sets and reps on the Exerciser.

DO 40 reps on the Exerciser at a very easy setting. Rest 1 minute, do a set of 10 free squats, Rest 1 minute.

DO 30 reps on the Exerciser at a slightly harder setting. Rest 1 minute, do a set of 10 free squats, Rest 1 minute.

DO 20 reps on the Exerciser at a slightly harder setting. Rest 1 minute, do a set of 10 free squats, Rest 1 minute.

These three sets are your warmup. By now, the resistance should be such that movement of the lever arm is becoming somewhat difficult.

Do 10 reps on the exerciser at a fairly hard setting. Rest 1 minute. Do a set of 10 free squats. Rest 1 minute.

Repeat this 2 more times.

This workout has more rest built into it than workout #2. It has a total of 6 sets rather than 8. Like workout #2, it will still provide a complete workout for all major muscle groups. Because of the additional rest periods, it will not have as much aerobic benefit as workout #2. A person following this workout might find that, as the weeks go by, he will be able to add more sets and/or decrease the number of rest periods between them. For anyone, no matter what his age, the goal is always to get the best workout possible in the time allotted. So, if you have time on your hands, and are doing well, do more!



Demonstration of the use of the vertical Exerciser by the author

Standing



Beginning of pushing motion



Beginning of pulling motion

Sitting (could also be done standing)



Beginning of pushing motion



Beginning of pulling motion

## How Much Is Enough?

The question is always asked, “how often should I exercise?” I have a common-sense answer that is based on what I feel is “natural” for human beings. A long long time ago, we had to work to survive. This included lifting and carrying heavy loads, climbing, walking long distances, and, at least occasionally, running as fast as possible to avoid becoming an animal’s next meal. It must have been a hard life. However, it was also one in which physical exercise --- both strength and cardio --- were a normal part of it. Physically, we are the same human beings as we were tens of thousands of years ago.

So, to answer the question, I feel that, just as we eat and sleep every day, we should also exercise --- both to develop strength and our cardiovascular ability --- on a daily basis. As I have suggested a few times already, the ideal situation is to separate these activities into two workouts. This might also be similar to the way our distant ancestors lived in that they must have undoubtedly been active at various times of the day, rather than only during a brief prescribed activity period. At the risk of getting extreme, this is the way many Olympians train, typically in the morning and in the afternoon or early evening. I am familiar with the training schedule of college swimmers that often involves two 2-hour sessions (or thereabouts) per day.

Let’s state a **goal** based on the foregoing discussion and that I think is the ideal we should aspire to. Human beings should have separate strength and aerobic exercise sessions **every day**; anything less than this is not the ideal.

Alas, from a practical perspective, this is probably not doable. I even suspect that Olympians take one day off from their training per week! So, as to the number of days per week a person should use the Exerciser, in order of priority, here are the options:

- 6 days on, 1 day off
- 5 days on, 1 day off
- 4 days on, 1 day off
- 3 days on, 1 day off
- 2 days on, 1 day off
- 1 day on, 1 day off

The last option is essentially equivalent to exercising on the Exerciser three times per week, say, on Monday, Wednesday, and Friday or on Tuesday, Thursday, and Saturday. This is OK. I don’t think a person should do less than this. However, it is certainly possible to do more.

This discussion also applies to cardio. If one adopts the three day per week frequency, the possibility of doing strength on three days per week and cardio on the other three days presents

itself. This still leaves one day per week that can be a rest day. I have a younger brother who has used this approach on a very regular basis for decades and he remains in good condition as a result of it.

The final question is, “how long should each exercise session be?” I feel that everyone should aim for an hour or so of exercise per day. Half of this should be strength and half of it cardio. It is probably easy to accomplish this objective if a person exercises twice per day as it implies a half hour each of strength and cardio exercise. If a person exercises only once per day, it will probably be only a strength **or** a cardio workout. A full hour workout doing either strength or cardio exercise might be too much for many people. All that can be done is to do the best you can. Probably the minimum amount of exercise that will have significant benefit is one half hour per day of strength or cardio exercise.

## Conclusion

The “horizontal” K\*I\*S\*S\* Exerciser provides an efficient and safe means of exercising a person’s upper body and core with a single exercise. The “vertical” version of the Exerciser provides an additional means of exercising a person’s upper body that can add to the benefit provided by the horizontal Exerciser by hitting muscles from different angles.

The K\*I\*S\*S\* Exerciser is ideally suited for certain groups of people:

- Runners and bicyclists who need upper body and core exercise to round out their exercise program.
- Fitness enthusiasts who seek a means of exercise that takes a minimal amount of time.
- Senior citizens who need to exercise in a safe manner.

It is even possible to use the horizontal Exerciser for leg (and cardio) exercise.



## About the Author



Stephen J. Winter, Ph.D. has been a fitness enthusiast since his teens. He has excelled in weight-lifting and distance running and has done well at other sports including rowing, swimming, and bicycling. Now, at over 80 years old, he continues to run and exercise, primarily with the K\*I\*S\*S\* Exercisers he has developed. He is a good example of the effectiveness of the type of exercise program described in this report. Dr. Winter is a certified personal trainer and lives with his family in Norwich, NY.

An engineer by training, Dr. Winter is now retired and has embarked on a second career as a fitness instructor and writer of fitness books. In addition to this report, he has written three other books: *The K\*I\*S\*S\* Fitness Program*, *The K\*I\*S\*S\* Fitness Program for Kids*, and *The K\*I\*S\*S\* Weight Training Program*. The central theme of all his books is simplicity. Whether you are doing bodyweight exercises or training with weights, he believes it's of highest importance to keep your training program as simple as possible. Both in his engineering work and in his fitness endeavors, Dr. Winter has found that this approach most often leads to long term success.

For further information about the books and reports Dr. Winter has written, please visit: [www.kissfitnesssolutions.com](http://www.kissfitnesssolutions.com).