



Rethink Your Strength Training Program

My work station looks out over the fitness center at the Lake Anna YMCA. I really enjoy observing people train, trying their best to get as fit as they can. Sometimes though, more often than not, it can drive me a little crazy to witness the training errors that may lead to injury or make an exercise program ineffective. Some exercise is usually better than no exercise. All exercise has a risk, but not all exercise has a benefit. What I am seeing in the gym is often too little or too much. People using such light exercise loads that the neuromuscular system is not challenged enough to adapt. Complicated lifts and loaded movements poorly executed. If you see an exercise on YouTube you don't necessarily know how to perform it or understand how it can effectively fit into your exercise program design.

An effective strength training program requires planning and the *skill of strength*. The skill of strength...how to set your posture, generate enough force efficiently in the right direction, redirect force, and breathe while under tension. The skill of functional strength requires you to pull force through your body by pushing into the ground. The skill of strength demands that you focus on executing a loaded movement with the appropriate tension throughout your body. I don't see many people doing that in the fitness center, especially those that train exclusively on weight machines.

To enhance the effectiveness of your strength training program I suggest that you evolve your thought process about how and what you are doing.

1. Train movements not muscles. Functional human movement requires that muscle groups across multiple joints move you for an intended purpose. Training this way allows transfer of strength from your exercise program to daily activities or performance on the field. Learn how to perform the key functional movement patterns from different positions and at varying angles with body weight first, then external resistance:

Pushing	Carrying
Pulling	Resisting rotation
Pressing	Controlling rotation
Squatting	Double leg movements
Dead lifting	Single leg movements

The majority of the exercises in an effective strength training program need to be ground based, multi-joint, and multi-directional; not *isolated single muscle movements on weight machines*. Performing the basic human movement patterns against resistance allows you to use greater load safely, activating more muscles to stimulate a more robust training adaptation.

2. Train structural strength to build your foundation. A crane can't move heavy loads if it is not set on a solid foundation or if its structural elements buckle under strain. Some people call this core strength. I like to think of it as pillar strength. The concept of pillar strength helps you visualize forces applied in

at least two directions, through the ground and down from the top. By developing structural pillar strength you are able to transfer force from the ground through your body and out your arms or vice versa. Reactive pillar strength allows you to move fluidly under a load with less chance of your spine buckling. If your spine doesn't buckle under a load it is less likely to be injured. A great way to do this is by carrying loads in different positions and setting your posture by bracing like you are about to take a punch to the gut while walking. In kettlebell training we prepare for more aggressive lifts by activating the pillar with kettlebell rack walks, farmer's walks, and waiter's walks. (see fig. 1)



Figure 1

3. Learn how to gauge your training intensity. Research shows that most adults select a weight that is too light to stimulate significant strength gains. Exercise loads need to be challenging to *overload* the musculoskeletal system. Selecting the specific load for a particular exercise is beyond the scope of this article, but if you want to get stronger you need to feel pressed under the load you are training with. A sense of local muscular fatigue by the end of a resistive exercise set tells you that you have overloaded the system adequately to make strength gains. On the Borg Rating of Perceived Exertion Scale a healthy, uninjured individual should spend most of their strength training time between an exertion rating of 13 (somewhat hard) to 17 (very hard).

Borg Rating of Perceived Exertion

6	
7	very, very light
8	
9	very light
10	
11	fairly light
12	
13	somewhat hard
14	
15	hard
16	
17	very hard
18	
19	very, very hard
20	

Get back to the fundamentals of strength training. The high technology gyms with pretty machines do not produced better results. A well designed high intensity strength training program using basic movement patterns is more efficient than training on equipment that stabilizes you and allows you to move only along its axis of motion. Learn the *skill of strength* by observing how you move and how you produce force in your environment. Think about pushing into the ground, generating tension throughout your body, moving loads fast and slow and controlling momentum. Make your strength training program more efficient by selecting no more than 4 exercises...full body exercises like squats, dead lifts, pull ups, dips, cable pulls/pushes. These exercises can be modified to accommodate any current difficulty. Train the movements with perfect form, focusing on what you feel *through* your body. It is difficult to design and carry out a truly effective exercise program by yourself. I see people struggle in the fitness center daily. If you would like to find out how you can learn the skill of strength and apply it to your program and your life, call us at Summa Health Center at Lake Anna YMCA 330-615-5020. I have spot in the Kettlebell level I class open for you.

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