



# Finn Fitness & Wellness

Lose weight, increase energy, and achieve health and fitness for the rest of your life.



## THE SIX LAWS OF DEVELOPING STRENGTH AND POWER

Almost every client that walks in our doors would like to have more strength. Many office workers, homemakers, warehouse workers, and athletes feel they do not have adequate strength to perform their daily activities. I often hear complaints about the difficulty of picking things up off the ground, carrying groceries from the car to the house, lifting objects overhead, and many other problems associated with sports activities. Other common complaints people have are about muscles becoming tired quickly, joints that ache, and the inability to move the body as quickly as they used to.

Many have tried different forms of exercise to eliminate these challenges, but what they do not realize is that if they would just follow a set of six basic principles to develop the strength and power they need, they would eliminate their physical challenges and achieve their physical objectives. In this article I will briefly discuss these *six laws of developing strength and power* that I practice with my clients every day, helping them to improve their strength, power, and in the process reduce the risk of injury.

### ***LAW NUMBER ONE: Flexibility and Posture***

Our entire body must be *flexible*. We need to have a full range of motion in order to achieve and maintain optimal strength and power potential. When the muscles in a joint are tight, flexibility is limited, so the joints above or below the tight joint are made to move in ways they are not designed to. This oftentimes causes pain in the joints that are doing more work, and over time this kind of problem can lead to injury and degeneration of the joint. As an example, some of our clients have come to us complaining about knee pain. Working with them we discovered that the muscles in their ankle or the hip were tight, which had forced their knee to move more than it was designed to. Therefore it is important that we work to loosen tight muscles in order to develop the flexibility we need for to be able to perform the physical activities we want to. There are a number of simple mobilization exercises can be performed to improve joint function, such as stretching, massage, and myofascial release with a foam roller. These exercises are designed to lengthen the short muscles that are restricting the movements of our joints.

Directly linked to flexibility, our bodies work most efficiently when we can also maintain an ideal *posture*. A proper posture provides an ideal joint range of motion in all directions,

ensuring an optimal axis of rotation of the joints that are moving. This will further reduce the chance of joint injury and degeneration.

Improving flexibility and posture will increase your strength. However, the time needed to create adequate flexibility and ideal posture will vary, as it depends upon your condition when you start these exercises.

### ***LAW NUMBER TWO: Developing Tendon and Ligament Strength***

Often overlooked in training athletes, and generally not considered in the health and fitness training environment, is adequate time spent in *developing the tendons and ligaments* to prevent injury. This is a most important part of anyone's annual training program, and is one of the main reasons most top strength and conditioning specialists prefer to work with a client for at least one year. Muscles develop much more quickly than tendons and ligaments do, due to the higher levels of blood flow in muscles, so it does not matter how strong your muscles are, if your unconditioned tendons and ligaments tear under the strain of physical exercise.

As women have become more involved in sports over the last 30 years, there has been a significant increase in ligament and tendon damage in women in particular. Due to the larger joint angles of their body, women typically need to spend more time strengthening tendons and ligaments. Should one experience tendon or ligament injury without any contact with another object or person, this is a clear sign they have developed the strength of their muscles without taking into account the strength of their tendons or ligaments. This problem could also include disc injuries to the spine and neck. Proper strength training can prevent all of these problems.

For a novice exerciser, we recommend spending approximately six to ten weeks on developing tendon and ligament strength, which can be combined with flexibility and posture development. Advanced exercisers should spend a minimum of three to five weeks developing tendon and ligament strength before each strength development cycle.

### ***LAW NUMBER THREE: Core Strength***

Our limbs are only as strong as our *core*. The current buzzword "core" is just another name used to mean your entire torso, or trunk. A weak trunk is a poor support for hard-working limbs. All forces generated by the limbs are passed through the trunk. Your trunk can create forces by flexing forward, extending backwards, flexing to one side, flexing to the other side, or twisting in each direction. Your trunk can also absorb or dissipate forces from jumping, throwing, tackling, or by being tackled or pushed. Maintaining balance in the trunk muscles, ligaments, and tendons is exceedingly important in order to reduce the risk of injury and joint degeneration. A strong core will lead to overall strength in the entire body.

Developing strength in your trunk can be combined with developing tendon and ligament strength. However, beginning exercisers should add three to five weeks for core strength development.

#### ***LAW NUMBER FOUR: Developing Stability***

With every movement that we make at every joint, there are prime mover muscles moving the joint in the direction we want to move, but most body movements require the combined action of numerous muscles: there are antagonist muscles stretching so that joint can move in that direction, and there are neutralizer muscles *stabilizing* that joint so that it only moves in the direction we want it to. As an example, the internal and external hip rotators, abductors, and adductors of the hip help stabilize the leg while you run so that your leg swings forwards and backwards. Without these key stabilizers working correctly, your leg movements would be out of control, moving in many different directions, and it would be very difficult to stay on your feet, let alone run in a straight line. You can see this very distinctively in sprinters with large developed groins and outer hip muscles used to stabilize the forces of the glutes, quads, and hamstrings muscles used to propel the sprinter forward.

#### ***LAW NUMBER FIVE: Develop Basic Movement Strength***

Every activity we perform in life or in any given sport is one or more of a combination of seven *basic movement* patterns: squatting, lunging, bending, pushing, pulling, twisting, and walking. Most activities involve complex, multi-joint movements, so it is these activities we need to perform correctly in order to develop functional strength, and not focus on strengthening individual muscles as a bodybuilder would. An example of complex movement patterns is a baseball pitcher throwing a ball: he is lunging, twisting, and pushing, all at the same time. Or another: a basketball player making a jump shot is squatting and pushing. A common, everyday example is moving grocery bags from a grocery cart to the trunk of the car: we bend, twist, and then bend once again. Developing strength with complex movement patterns improves movement skill and coordination, as well as physical strength.

There are three basic steps to developing movement strength: the first step is to make sure that you can perform each of these movements correctly; the second step is to start developing strength in each of these movement patterns; and the third step is to start combining these movement patterns to create complex movement patterns. We recommend spending six to twelve weeks developing strength, however, the number of weeks required depends upon the amount of strength needed, as well as your own experience and physical condition.

## ***LAW NUMBER SIX: Converting Strength into Power***

Power is any movement that we can complete in less than one second. Strength is required to create power, and the more strength we have the more power we can create. However, we must convert the strength into power. Throwing a ball, lifting a child, swinging a golf club are all examples of power movements. We develop power by moving lighter objects at a rapid rate to where each movement is completed in less than one second. *Converting strength into power* is very stressful to the connective tissues and joints of the body so should only be done for short periods of time with plenty of rest between training sessions. For this reason, power development should be the last step in any physical training program, but unfortunately in many general exercise programs this is usually the first and only step, every used. This leads to pain, discomfort, and oftentimes injury, which discourages many people from exercise, and they quit.

We recommend that an exercise routine to convert strength into power should last no more than one to three weeks. Thereafter you can maintain your power by scheduling in power sessions with other forms of fitness training. If you cannot achieve adequate strength or power within this timeframe, we suggest you return to working on *Law Number Two: Developing Tendon and Ligament Strength*, and then continue, in order, through the rest of the laws listed above.

An exercise program that follows the *Six Laws of Developing Strength and Power* in the proper order, that develops each law for an appropriate amount of time, and that does not progress on to the next law before accomplishing adequate abilities of the previous law, will always lead to a strong, powerful, and healthy body with a low risk of injury.

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