Lesson II

Dear Friend:

Do you know that the muscles of your thighs and hips are five times stronger than the muscles of your arms and shoulders? Do you know that one of the easiest places to put on solid muscular weight is in the thighs? Do you know that leg strength is one of the most important factors in all-around athletic performance? Do you know that an athlete is as old as his legs, or as weak as he lets his legs get? Do you know that when your total strength is measured at any university that leg strength is the most important thing considered? Do you know that the easiest way to judge a man's strength is by looking at the shape, definition, and massiveness of his thighs?

Perhaps you didn't know these things, and I'd like to discuss them with you, but first get your tape measure and let's check your thigh girth. I want to be sure that you know how to measure it correctly. You see the thigh is thickest right at the line of the crotch, and that's where the measurement should be taken. Some body builders tell you to take the thigh girth right at the middle of the thigh, but if you do this you eliminate the big adductor muscles on the inside part of the thigh. In measuring any muscle girth you always measure at the thickest part, and with the muscle in full contraction.

Okay, did you break 20 inches? If not, you are slightly below average, but don't let it bother you because today's lesson is specifically designed to show you how to bulk up those thighs rapidly. It is my opinion that a man's thighs, when fully developed, should be approximately 10 inches larger than his neck measure. A man with a 14 inch neck should have 24 inch thighs, 15 inch neck—25 inch thighs, and a 16 inch neck—26 inch thighs. In many cases, however, the size of the thigh is regulated by the girth of the hips. A man with a very small hip girth will have a harder time bulking up the thighs than will a man with larger hips. At any rate today's exercises will make your thighs just as big as they can possibly get.

Now to get back to the questions and answers. It is very true that the muscles of the thighs and hips are five times stronger than the muscles of the arms and shoulders. If a man can press the equivalent of his own body weight overhead with the strength of his arms and shoulders he is doing very well. And yet I have seen men pull 1000 pounds of force on dynamometer scales with just the legs alone. Even ladies have tremendous leg strength compared to their relatively weak arm and shoulder strength. This is not unusual. After all the muscles on the front of the thigh, and on the back of the hip are the largest in the body. Why shouldn't they deliver the most power?
It is true that the thigh is one of the easiest places to put on solid muscular weight. The Quadriceps Femoris muscle, which is the big four-headed muscle on the front of the thigh, is the second largest per weight and volume of any in the body. Actually it is really four muscles in one as you will see later. The bigger the muscle the more fibers we have to work on, and the more solid weight you can gain. In fact you should gain more muscular weight with this one lesson than any we have covered so far.

It is true that leg strength contributes more to all-around athletic performance than almost any other factor. A man who is good at the 100 yard dash, running high jump, standing bar vault, and the running broad jump is usually a good all-around athlete. In one study done by Dr. Franklin Reed Rogers it was found that leg strength was much more important in predicting a man's performance on these four items than was age, height, weight, vital capacity, grip strength, arm strength, or back strength. So, if you want to improve your athletic ability you must pay serious attention to developing the strength of your thighs. That added power and spring in your legs will make you a faster, more efficient performer in all sports.

It has been said that an athlete is as old as his legs. Every professional boxer will tell you that when his leg power is gone, his boxing days are over. However, in boxing, and other sports as well, you always have the ageless veterans. The fellows who go on and on, maintaining championship form, in spite of their age. These are the men who give special attention to leg development, while others who neglect these big muscles fall by the wayside. Yes, strong, well-formed thighs and calves are important in sports and they’re important in life in general. When a man loses the spring and snap in his step; when he must slow his gait; when he must walk with bent knees and dragging feet; then my friend, he’s getting old. The big muscles of his legs deteriorate early because he lets them go so. Show me a man who has cultured thigh and calf development all his life and I will show you a young man every time. Perhaps not young in years, but definitely young in physical ability.

Strength tests are today given periodically in many college physical education classes. And the thing that counts most in the total score is leg strength. Why? Because the physical education research workers know that leg strength, more than anything else reflects the total strength of a man. They use this to measure class improvement and to predict ability in sports.

Which brings us to our last question, What is the easiest way to judge the strength of a man without actually measuring it?

This is a difficult question to answer because strength is oftentimes deceiving. It is not unusual to see a man with smaller muscle girths outperform a man with larger muscle girths on a specific test. You see it is possible for a muscle girth to be large merely because the inside and outside of the muscle are infiltrated with fat. Fat has no contractile power and adds nothing to strength. If we knew that two men had exactly the same amount of fat in a muscle then, and only then, might we say that the man with the bigger girth would be the stronger. But even then the power of the muscle has to be exerted through the leverage of the skeletal system, and here again there are individual differences in the length of the different bones which account for advantages or disadvantages on strength tests. Short bones always having an advantage if the lever is 3rd class.
But in spite of all these factors I would still say, "Show me a man with massive, well-formed, muscular thighs and I will show you a man of powerful strength."

How many times have you shaken hands with men who had strong, crushing grips. And how many times has it given you the impression that these men had great total strength. Let me tell you right now that grip strength men can be very deceiving. I have seen many men with strong, powerful grips whose underdevelopment in the upper arms, pectorals, and deltoids indicated pronounced weaknesses in these areas. Men whose flabby, spindle thighs would make them score low on any total strength test.

Or how many times have you seen weight lifters trying to outdo each other in curling contests? They compare biceps strength in an effort to see who is the strongest. Now you and I both know that even in the arm itself the biceps is not the biggest muscle. The triceps is far more important. And when you compare the biceps with the more massive muscles of the body it's strength is a mere trifle.

Far more important as the test of a man's strength would be to see how rapidly he could push an automobile for a given distance. Or better yet, put two men on opposite ends of a rope in a one-man tug-of-war contest.

When two men start jostling with each other the superior leg strength of one becomes immediately evident. And quite often it is the little fellow who manhandles the bully. I am thinking now of the situation where one man tries to throw the other fellow into a body of water. They grip at each other's bodies and use the legs for driving, balancing movements. Here the sheer total strength of one man against the other comes forth with complete disregard for any learned skills of combat.

It is this same type of total body strength that makes an outstanding lineman in football. I recall running one All-American guard from the University of Illinois through an extensive battery of physical fitness tests to determine what made him tick. His scores were good on most of the items, but the test that he really stood out on was leg strength. In fact, he pulled more pounds with his legs alone than anybody we had ever tested. He wasn't an exceptionally big man (185), but still ranks as the greatest linebacker the University ever had, and still holds the record for the greatest leg strength of any man tested in the University of Illinois Physical Fitness Laboratories.

One of my main objectives today is to impress upon you the importance of having strong, muscular thighs. In most big muscle movements the Gluteus Maximus of the hips works with the Quadriceps Femoris of the thighs. These two great muscle masses operating together give you the most formidable source of power and strength that it is possible for you to attain. If you're weak in the greatest muscles you own, then you are weak in total strength. Foolish is the man who concentrates all his effort on building an 18 inch arm while he sadly neglects his legs. You notice I have held the calf, hip, and thigh lessons until last. Mainly, because I want to impress you with their importance.

Now, turn to today's anatomy chart and take a look at these massive thigh muscles.
THE QUADRICEPS FEMORIS

Vastus Lateralis
Vastus Intermedius
Vastus Medialis

Vastus Lateralis
Vastus Intermedius
Vastus Medialis

Biceps Femoris
(Note the fiber pattern)

Well developed Quads

"Riding Pants Thighs"
The quadriceps femoris is really made up of four individual muscles, all having a common point of insertion at the knee cap. Three of them have their "origins" on the upper two-thirds of the thigh bone (femur), while the other originates from the hip bone. The first three are called the Vastus muscles. The Vastus Lateralis being on the outside, Vastus Intermedius in between, and the Vastus Medialis on the inside. The Rectus Femoris is the one coming from the hip. In body building parlance all four muscles are often called the "Quads" for short.

The Quads occupy almost twice as much space in the thighs as the muscles on the back of the leg which are called the Hamstrings, and they are therefore much more important in thigh development. If you will recall, the anatomy chart for the Hamstring muscles accompanied your last lesson. Take a look at it right now so you know what they look like. They are made up of the Biceps Femoris, the Semi-Membranosus, and the Semi-Tendinosus. They are smaller cord-like muscles, but are capable of tremendous strength.

Now, here is the way to acquire massive, shapely thighs while increasing your total strength at the same time:

EXERCISE 1.

This exercise develops the Vastus Lateralis, Vastus Intermedius, Vastus Medialis, and Rectus Femoris muscles.

Assume the position as shown in Exercise 1. This should be quite familiar to you as it is the same position that we used in lessons 9 and 10, but again the muscular emphasis is changed. With the hands resting on an object about the height shown, lean slightly forward, rise up on the toes, and straighten the legs as hard as you can at the knee joint. Straighten them so hard that all the muscles on the front of the thigh tighten up on almost cramped position, then harder, harder, and harder. Hold it for six seconds and then relax. All during this exercise you must think about nothing else except making the big muscles on the front of the thigh just as hard as a rock. In fact they may get so hard that they will cramp on you, requiring you to "walk them out."

This is the only exercise we do that 'flushes' all four muscles of the Quadriceps Femoris at one time. Even the Rectus Femoris comes strongly into play here as an extensor of the lower leg because the hip is not flexed.

EXERCISE 2.

This exercise develops the "Hamstring" muscles on the back of the thigh, namely the Biceps Femoris, the Semi-Membranosus, and the Semi-Tendinosus.

Again we notice a familiar exercise position, as this is the same position we used to develop the calf muscles in the last lesson. In fact, doing this exercise just once will suffice for both the calf muscles and the Hamstrings too. The important thing as you lift the elevated leg as hard as you can is to be sure that the upper part of the body is bent forward. This brings the Hamstrings more strongly into play. You can feel these cord-like muscles really stand out as you flex the leg harder, harder, and harder, for 6 seconds, and then relax. The more you can decrease the angle between the thigh and lower leg the harder these muscles pull. Repeat on the opposite leg.
EXERCISE 3.

This exercise develops the Vastus Lateralis, Vastus Intermedius, and Vastus Medialis. The Rectus Femoris is left out of this exercise due to the slight flexion of the hip.

This one exercise will give you more thigh development than anything else you can do. It emphasizes mainly the Vastus Lateralis, which is the biggest muscle of the thigh and the one which gives that full, sweeping curve to the outside of the thigh. Notice that I have made two drawings so that you can see both the front and side positions.

Assume the position shown with your body weight resting on the rear foot. The extended leg will have the toe resting lightly on the floor, with the knee in a straight, locked position. The rear leg will be bent slightly. The arms are in a flexed, side-horizontal position. Now straighten the knee of the extended leg as hard as you can, then harder, harder, and harder, making the muscles on the front of the thigh extremely firm. Notice how the leg is pointed slightly to the outside, instead of being straight forward. This gives the Vastus Lateralis more emphasis. When the thigh muscles are as hard as you can get them clenched your fists and flex your biceps as we did in Lesson 1. This should cause the thigh muscles of your extended leg to go into a partial state of cramp. Please understand that there is nothing harmful in cramping the big muscles of the thigh. This is known in physiology as putting the muscle in the "Delta" state. After the exercise you merely "walk out the cramp." and the muscle quickly returns to normal. In fact, you will get the most benefit from this exercise when you do cramp the muscles. Hold the position as hard as you can for 6 seconds, then walk-it-out, and repeat with the opposite leg. This is the most important thigh exercise of them all and you will be mightily pleased with the super results it gives you.

EXERCISE 4.

This exercise is not pictured.

It develops the large adductor muscles which are located on the upper, inside part of the thigh, namely, the Adductor Magnus, Adductor Longus, and Adductor Brevis.

This exercise can be done in either a standing, or lying position. Place several pillows, or one thick cushion between your thighs and literally "squeeze the daylight out of it" by bringing the thighs together harder, harder, and harder, for 6 seconds, and then relax. If you do this in a standing position throw all of your weight on one foot, but be sure to exert equal pressure with both legs. I find this an easy exercise to do in bed when I wake in the morning. This one exercise will add much to your thigh girth as the adductor group of muscles occupy considerable space in the upper portion of the thigh.

Next week I'm going to show you how to "lock-in" your new found strength and massiveness so that you never lose the gains you have made. This will be the most important lesson of the series. You will be pleasantly surprised when you see the new training schedule, and easy-to-follow routines I have worked up for you. So until then,

Yours for great total strength through sensitive, muscular thighs,

Tom Buckley