



TRAIN RIGHT

SHORT TRAINING TIPS

HACK SQUAT MACHINE: Keep feet out enough so that they are not hidden by your knees as you squat. If you can't see your feet, put them out more. The squat position should have legs completely bent, like they are if sitting in a chair.

QUICK TIP: VARY YOUR TRAINING PARTNERS, IF POSSIBLE, TO ADD VARIETY TO YOUR WORKOUTS.

COMPREHENSIVE TRAINING FOR HAMSTRINGS

CHANGE ANGLES DURING SETS FOR MAX RESULTS.

BY PHIL CAMPBELL

As a University speed coach, I can tell you that hamstring development is a major focus for every athlete needing running speed. Have you ever seen a really fast athlete with small, weak hamstrings? Probably not. Hamstring strength and flexibility are extremely important to athletes, and hamstring development should be equally as important for men and women of all ages as it is for athletes.

Women visiting an orthopedic surgeon for problems with ACL pain will typically hear the physician explain that women have smaller and weaker hamstrings than males, and at age 40, female ACLs begin to thin and get even weaker – unless – the muscles surrounding the knees are



MYTH TAKES

STRENGTH TRAINING IS FOR WEIGHT LIFTERS. WRONG. NO MATTER WHAT YOUR SPORT, YOUR AGE OR SEX, TRAINING WITH FREE WEIGHTS AND/OR WEIGHT MACHINES AND SOME CALISTHENICS, LIKE SIT-UPS, CRUNCHES AND PUSHUPS, WILL HELP YOU BUILD AND MAINTAIN MUSCLE AND PRESERVE BONE MASS. LIFTING WEIGHTS OR SUPPORTING PART OF YOUR BODYWEIGHT DURING AN EXERCISE SUCH AS A PUSHUP IS WHAT HELPS YOU STAY STRONG FOR ALL OTHER SPORTS. TWO TO THREE WORKOUTS A WEEK THAT INCLUDE WEIGHT WORK ARE IDEAL, WORKING IN REPS, SUCH AS 8-20 CRUNCHES IN THREE SETS, ALTERNATED WITH OTHER MOVES. WORK TO THE POINT YOU FEEL SOME FATIGUE AND YOU ARE DOING YOURSELF GOOD.

stressed with exercise so the ACLs and the other knee ligaments can adapt by becoming stronger.

This is an important point to keep in mind when training female clients, especially those who are approaching their 40s.

If you're training a runner, here's an inevitable fact. If a runner lives long enough, there's going to be knee pain that requires treatment, physical therapy or even treatment from

an orthopedic surgeon. My guess is that every trainer has had, or will have, clients with knee issues that call for comprehensive hamstring strength training to strengthen this group of muscles that support the knee ligaments.

Think through the mechanics of running with me for a moment. When sprint running intervals, the trainee is running at a pace where the mid-foot is striking the surface and then

toeing off. The runner's heel never strikes the ground when sprint running. The quads, hamstrings, glutes and calves absorb the stress of the exercise when sprint running because the skeleton is moving forward and not up-and-down.

Distance running completely changes the mechanics by changing the point of impact. Distance running places the trainee into a slower pace to endure for miles

SMART TRAINING

and miles. The slower pace means a shorter stride than sprinting, which tends to make the hamstrings very tight over time, and now, the runner is striking the surface with heel first and rolling forward to the mid-foot, before toeing off.

This means that the skeleton is taking more of the up-and-down stress of the impact. Some of this impact is positive, as distance running has been shown to increase density in the leg bones.

However, when the hamstrings, quads, calves and anterior tibialis (the shin-splint muscle in the front of the lower leg) that surround and support the knees during running become fatigued, the muscles do less to support the skeleton. And this is where negative outcomes come creeping into the picture.

With less support from the fatigued muscles, the skeleton,

or more specifically, the pads between the knee joints, and the ligaments holding the knees together, are now beginning to take the stress and absorb the shock of the up-and-down pounding of distance running. Great shoes with great padding help, but when the muscles are fatigued, the knee ligaments and joints take the brunt of the pounding.

It would be great if endurance runners knew the perfect place to stop the pounding to save their knees, but if your client is a serious long-distance runner, this means that the trainee has the mental determination to push the cardiovascular system very hard to build greater endurance.

And it also means that your client (by pushing through to take the heart muscle to a new level of conditioning) may also be wearing down the knee

cartilage and abnormally stressing and weakening the ACLs.

If your running client is built like Nelphat Bor, a college freshman from Kenya whom I worked with to win the NAIA TransSouth Conference Cross Country Championship this year, running long distances may be fine. Nelphat is 5'11" and 130 pounds, and he has worked hard at developing superior strength and flexibility in his whole body, especially his hamstrings.

At his size and conditioning, he can run cross country striking mid foot and never land on his heel, as most runners do when they run at a slower pace. Nelphat is built to run long distances, and those carrying 130 pounds on a tall frame may be too.

However, if your client is carrying 30 more pounds than

FASTLANE ALTERNATIVE WORKOUTS

DON'T FORGET ABOUT THE HUMBLE PULL-UP

There are many variations of pull-ups including over- and underhand grip, chin-ups, wide-grip and cross-grip. You can also add abdominal exercises to a pull-up by bringing the knees to the chest, or raising the legs so they are parallel to the floor as you perform a pull-up.

If you're injured or rehabbing a shoulder problem, use a tracked barbell machine with your legs on a bench or the floor to assist you. When you're performing pull-ups, remember not to swing or arch your back too much. To protect your shoulders, do not relax too much into the down/rest position.

Women should not be afraid of the pull-up; as the lats become more defined (and even larger), the waist appears to be smaller. Men should take notice of this, too. Who among us would mind a smaller-looking waist?

CONTINUED

TRAIN RIGHT

SHORT TRAINING TIPS

IF YOU NORMALLY PEDAL A STATIONARY BIKE OR ELLIPTICAL MACHINE, forget the "fat burning zone" setting. The real fat burning zone is high intensity interval training. The concept is simple: Every few minutes during your time on the machine, blast off with your hardest effort for 30 to 60 seconds. Then go at a casual pace for a few minutes to catch your breath. Then charge up again at the high intensity.

QUICK TIP: SLEEP IN EVERY NOW AND THEN TO HELP REJUVENATE YOUR BODY.



dorsiflexed



plantarflexed

Nelphat and needs 10K and marathon competition for motivation to train consistently, you may need to explain to your trainee that some heel-strike running is great for bone density, but there is an extremely important need to develop extra strong muscles that support the knee ligaments to avoid permanent, long-term damage.

THE WORKOUT

Here is a method to work hamstrings that will help you accomplish this for your running clients of both gender and all ages. Three sets of leg curls done a certain way will get the job done. If you have a single-leg, leg-curl machine, this will work.

If you don't, it will be necessary to use a standard unit, but only use one leg at a time.

Here's why: If your trainee is right-handed, the right, dominant side will pull much more than the left side, and your client will never feel the difference. The left leg will not get the same work as the right side. I recommend showing the strength differential to your clients so they can see and feel for themselves the difference in strength between the left and right hamstrings.

For the single-leg curl, do the first five reps with the toes pointed straight back (plantarflexed, or away from front of ankle), and then follow with the last five reps dorsiflexed (toes up towards front of ankle), which is the traditional and natural way of positioning the foot for this exercise. It helps to hold and position the foot of your client for the first rep or two because this is a foreign movement for most.

Give this a try yourself. It's almost awkward to do this exercise with your toe pointed out plantarflexed, but you'll feel this foot positioning target one of the weakest parts of the body, the upper hamstrings.

Directly in the center of your hamstrings, 5 inches down below your glutes, is the place that gets the description of a "high hamstring" injury by commentators describing why a fast football athlete will be sidelined for six weeks, rather than two weeks with a "low hamstring" injury.

Traditional foot positioning for leg curls does not target the high hamstring area. Making this

simple adjustment in foot positioning during this exercise can mean the difference between comprehensive hamstring training and only working the lower hamstring area.

Once your client's hamstrings become stronger, three sets of 10 reps with single-leg, leg curls once a week may be adequate to

maintain strength, but since hamstrings are seemingly weak for most people, training hamstrings as a prehab situation needing extra attention to avoid a rehab situation later, I recommend training hamstrings with leg curls twice a week until the upper hamstrings become stronger. 🏋️

MYTH TAKES

ILL-FITTING SHOES ARE THE CAUSE OF BUNIONS. SOMETIMES, BUT USUALLY NOT. LOW-ARCHED OR FLAT FEET, WHICH ARE INHERITED, ARE PRONE TO BUNIONS, WHICH ARE BONY OUTGROWTHS ON THE OUTSIDE OF THE FOOT AT THE BASE OF THE BIG TOE. WEARING SHOES THAT ARE TOO SMALL CAN ALSO CAUSE THEM, AS THE BIG TOE MOLDS INTO THE SHAPE OF THE SHOE. ORTHOTICS CAN HELP SLOW THE PROGRESSION. AND WHILE BUNIONS INHERENTLY HAVE NOTHING TO DO WITH MORTON'S TOE, A CONDITION WHERE THE SECOND TOE APPEARS LONGER THAN THE FIRST, THEY EXACERBATE THE CONDITION. THE FIRST TOE DRIFTS Laterally, TRANSFERRING BODY WEIGHT FROM THE FIRST METATARSAL HEAD ONTO THE SECOND, CREATING HAMMER TOES (TOES THAT LIFT OFF THE FLOOR INTO A HAMMER SHAPE). AFTER A WHILE THEY CAN'T BE FIXED.

REHABBING A HAMSTRING TEAR

BY JILLIAN SARNO

Hamstring injuries are common among athletes who use sprinting in their sport. Less common, though more severe, is the hamstring rupture. Surgical repair of hamstring tears has a great track record for restoring strength and function to the athlete or fitness enthusiast, and success rates become even higher when an appropriate rehabilitation program is initiated after surgery.

The core of a functional hamstring tear rehabilitation program is going to include stretching and slow movements of the hamstring and associated muscle groups, progressive strength training and nutritional support. After surgery, patients are often on crutches for four weeks and use a brace for six weeks. Traditionally, rehabilitation is broken into several phases that correspond to a post-operative timeline.

PHASE I (1-4 WEEKS POST-SURGERY): Weight bearing exercise is not recommended for

the first two weeks following surgery. After this time, gentle, limited range-of-motion exercises and strengthening of associated muscles can begin.

Calf raises, hip abduction and adduction, and seated leg extensions with body weight only can be performed daily, for 2-3 sets of 12-15 repetitions, as long as there is no pain. If you have access to a pool, walking in a pool can also be started 3-4 weeks post-operatively.

Phase I is the most powerful phase to use nutrition to support your body's healing process. Eating a wide variety of brightly colored vegetables and fruits will help keep inflammation at a proper level. Adequate daily protein (0.8 g per pound of body weight) will enable your musculoskeletal system to heal, and incorporating spices like turmeric, rosemary and cayenne pepper will give you a natural painkilling boost. Avoiding sugar, which is depressing to the immune system, and trans fats, which are pro-inflammatory and irritating, can also be of benefit.

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