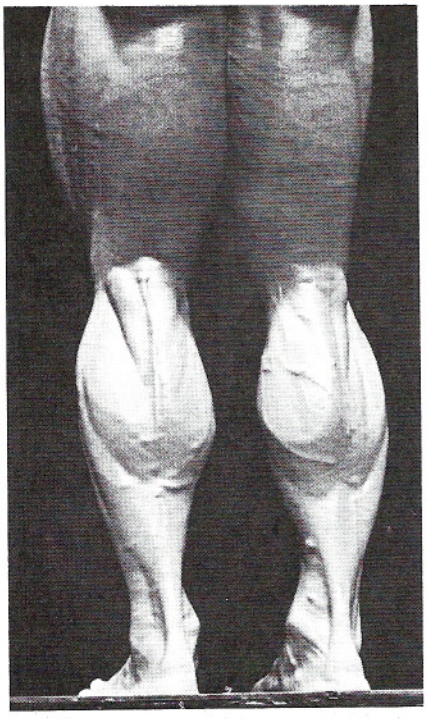


The Calves

THE MUSCLES OF THE CALF

The **soleus**, which is the larger and deeper of the two calf muscles and originates from both the fibula and the tibia

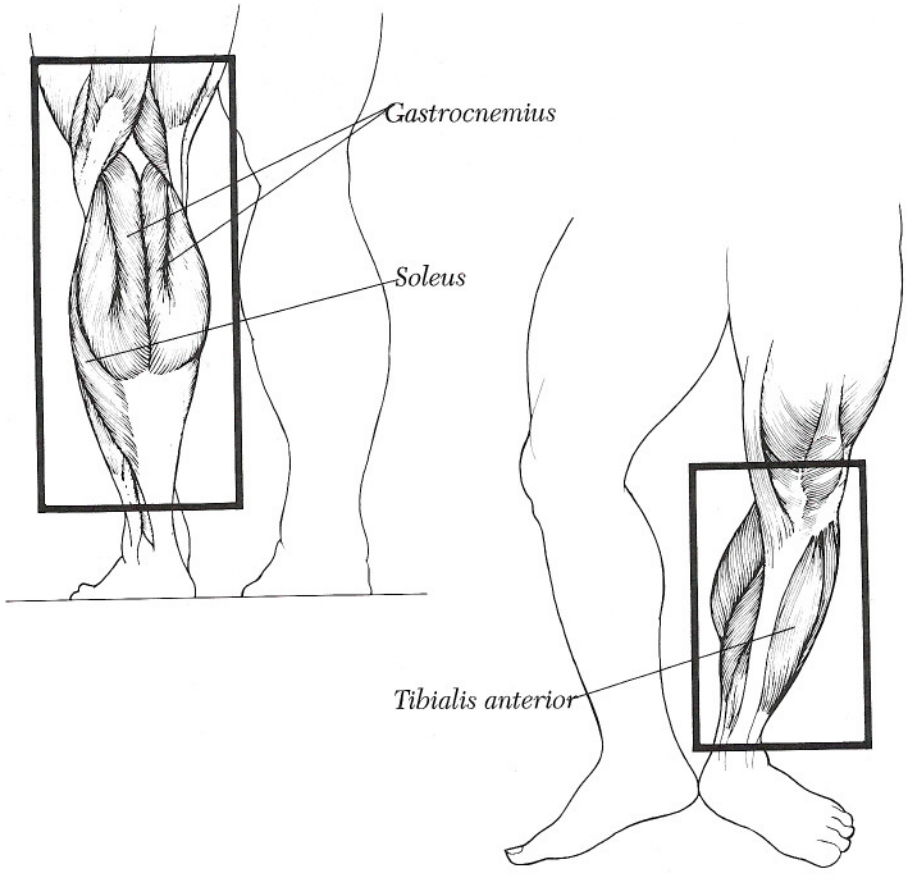
Basic function: To flex the foot

The **gastrocnemius,** which has two heads, one originating from the lateral aspect and the other from the medial of the lower femur. Both heads join to overlay the soleus and join with it to insert into the Achilles tendon, which inserts into the heel bone.

Basic function: To flex the foot

The **tibialis anterior,** which runs up the front of the lower leg alongside the shinbone

Basic function: To flex the foot



Check out Kevin Levrone, Dorian Yates, Shawn Ray, and Chris Cormier in the 1995 Mr. Olympia. As great as their backs, shoulders, traps, and arms are, if nothing happened when they flexed their calves, the entire effect would be ruined.

TRAINING THE CALVES

Calves, like the deltoids and abdominals, are a very aesthetic body part. A good pair of calves look good on the beach or tennis court as well as on-stage. But more than that, outstanding calf development has historically been associated with the ideal male physique. Huge deltoids, washboard abs, and powerful calves were the qualities the Greek sculptors fashioned in their classical images of warriors and athletes.

Ideally, your calf development should about equal the development of your biceps. If your calves are smaller than your arms, then you need to give them extra attention. (One exception to this is Chris Dickerson, the only bodybuilder whose calves have always been naturally larger than his arms.)

Reg Park

Calves are considered the most difficult muscle group in the body to develop. But calves respond to training just like any other muscle—you just have to be aware that they need to be trained at many different angles and with extremely heavy weight.

Think about what happens when you walk and run: You turn your foot and ankle first one way, then the other; you push off, stop suddenly, turn and change direction, you climb upward, walk downhill. And with each different movement you make, the calf muscles bear your weight, raising you up on your toes, lowering you down onto your heels, helping you twist your feet in different directions.

Until I trained with Reg Park, I had trouble getting my calves as big as I wanted them. I was doing Calf Raises with 500 or 600 pounds, but he was using 1,000! He pointed out to me that each of my calves individually was comfortable supporting my 250 pounds of body weight, so 500 pounds of resistance was actually a "normal" amount for them to deal with. So by training with the weight I was using, I was hardly making any impression on my calves at all!

The primary mass builder for calves is Standing Calf Raises, and here extra weight is really important. This exercise, along with Donkey Calf Raises, works both the gastrocnemius and soleus muscles of the calf. Seated Calf Raises better target the soleus.

Many bodybuilders do their calf training as an afterthought. Before or after their regular workout they give them 10 minutes or so, far less than they would for any other body part. And then they complain when their calves do not respond.

I believe in treating the calves just like every other body part. Since the calves are designed for constant work and rapid recuperation, I train them 30 to 45 minutes a day. I also use a wide variety of exercises; not just some sets of Standing and Seated Calf Raises, but enough movements to work every area of the calf muscles—upper and lower, inside and outside.

The calves are tough and used to a lot of hard work, so the best way to make them grow is to constantly shock them, using every high-intensity training principle possible. For example, when doing Donkey Calf Raises, I frequently started off with three 220-pound bodybuilders sitting on my back. I would continue the set until I could not do another rep, then have one of them slide off so that I could continue until my calves were screaming in agony. Finally, I would finish off the set using only my own body weight and feeling as if my calves were going to explode.

Another shock method involves doing partial reps. About one out of four of my calf workouts involved doing half and quarter movements with extremely heavy weights, which put an enormous demand on the calf muscles. Actually, you can use virtually all of the Shocking Principles described in this book to develop your calves—Staggered Sets, Rest/Pause,

forced reps, 21s, supersets, running the rack, and so on. The more you shock the calves, the more you subject them to unexpected stimulation, the more calf development you will see as a result.

A young bodybuilder once came over to me while I was doing Standing Calf Raises and told me how much he admired my calf development. "You can have calves just as good," I told him, "if you are willing to pay the price." He looked puzzled and asked me what I meant. "Calves like this will cost you five hundred hours," I said. "Anything less and you won't get the results."

If you analyze that 500-hour figure you get: 500 hours equals more than 660 forty-five minute calf workouts; 660 divided by 4 workouts a week equals about 165 weeks, or over three years! So, unless you are genetically gifted like a Chris Dickerson and were born with magnificent calves, building them up takes a minimum of three years of brutal training.

Even with that effort, calves may not turn out to be your best body part. But I doubt there are many bodybuilders with enough physical talent to build up the rest of their bodies who will not find their calves responding well to the regimen I prescribe.

STRETCHING THE CALVES

To get a full contraction of a muscle, first you have to get a full extension. With the calves this means going all the way down when you do full-range movements, lowering your heels as far as possible before coming up all the way onto your toes to get a contraction.

Tom Platz carries this to the ultimate by having a partner sit on the end of a Seated Calf Raise machine to force his heels lower and lower and stretch his calves to the extreme (something other bodybuilders ought to approach with great caution if they try to copy him). What Tom is doing is using a principle that I discovered for myself many years ago: The longer the range of movement and the fuller the extension and contraction of muscle, the more it will develop. This is especially valuable in calf training, since our normal use of the calf when we walk and run involves mostly the mid-range function.

I like to use a block for Standing Calf Raises just high enough so that my heels touch the floor at the bottom of the movement. This way I know I have lowered my heels enough to get maximum stretch from my calf muscles.

BEGINNING PROGRAM

When you begin to train calves, you will probably not be able to use the amount of weight I have been talking about. The untrained calf muscle is very disproportionate in its "strength curve." Your calf muscles have carried your body weight throughout your whole life, but you rarely require them to function at the extreme ends of their range of motion—at full extension or full contraction.

Therefore, when you start doing Calf Raises you will probably find you are enormously strong in the mid-range, but very weak at the extremes. So what you have to do the first few months of training is bring up the strength of your calves at full contraction and full extension so that you acquire some balance throughout the strength curve. At this point, you can begin to pile on the weight and develop the entire range of motion of the muscles.

Still, you will find that the mid-range is disproportionately strong—due to mechanical and leverage factors—and this is why I recommend doing partial- as well as full-range movements right from the beginning. In this way, you can use enormous amounts of weight to fully stress the muscle at its strongest angles.

To get you started, I have limited the calf training in the Beginning Program to 4 sets, 15 reps each of Standing Calf Raises 3 times a week. Concentrate on these to begin with and learn to do them correctly:

1. Get a full range of motion, full stretch at the bottom, up on your toes for a full contraction at the top.

2. Use a block high enough so that your heels can drop all the way down.

3. Use a strict movement, keeping your knees straight enough so that you are lifting the weight only with the calves, not by pressing with your legs.

4. Use a "normal" foot position—that is, with your feet pointed straight ahead, so that your entire calf is worked proportionately.

5. Do not rush through your calf training to get to something else, or simply tack on some sets for calves at the end of your workout—work your calves with as much energy and concentration as any other body part.

ADVANCED AND COMPETITION PROGRAMS

For Advanced and Competition Training, I recommend working calves 6 times a week. I have heard theories that this amount of frequency repre-

sents "overtraining," but when I look at the bodybuilders who have the best calves, I usually find they are the ones who train them more frequently.

In Advanced Training, I have included both Donkey Calf Raises and Seated Calf Raises along with the mass-building Standing Calf Raises. The Seated Raises are designed to work the soleus muscle, extending your calf lower toward your ankle, and the Donkey Raises allow you to do strict repetitions against resistance centered at the hips rather than the shoulders.

Donkey Calf Raises create a kind of deep development unlike any other calf exercise. You feel different after Donkeys—not just a pump but the feeling that you have worked the muscle right down to the bone. Another thing I like about this exercise is that the bent-over position increases the amount of stretch you can get, which gives you the longest possible range of motion.

Once you advance to the Competition Program, there will be two new exercises to learn: Front Calf Raises to develop the tibialis anterior, and One-Leg Calf Raises to further isolate the calf muscles of each leg. But beyond the exercises themselves, you'll begin to work on shaping the entire area of the calves by varying the position of your toes during the exercises.

As I said earlier, most bodybuilders whose calves refuse to grow are simply not training them hard enough or with enough weight. By the time you reach the level of Competition Training, the program will include anywhere from 9 to 15 sets of calf training, and if you do this much work correctly, with the right amount of intensity and the proper amount of weight, your calves will simply be forced to develop and grow. But there is something else you can do to help ensure this response from your calf muscles: Learn to vary your program to continually surprise and stimulate the calves.

In the late 1960s and early 1970s, I began changing my calf training around constantly. I would come into the gym one day and do Donkey Calf Raises, 5 sets of 10; Standing Calf Raises, 5 sets of 10; Seated Calf Raises, 5 sets of 10; Calf Raises on a pressing machine, 5 sets of 10; One-Leg Calf Raises, 5 sets of 10 to bring up my weaker left calf (which measured only 19½ inches, while the other was 20 inches cold). The next training day I might begin with Seated Calf Raises and then do Standing or Donkey Raises afterward, the idea being to force the calves to work in unfamiliar and unexpected ways as often as possible. Sometimes I would do 20 repetitions instead of 10, or do more sets of an exercise than just 5—maybe 40 sets total for calves one day with only 10 sets of full-range movements and the rest partial-range exercises.

In addition, I would employ every one of the Shocking Principles I could, from the Stripping Method to forced reps. I would always stretch after every single exercise, keeping the muscles working all the time and forcing them to work through the longest possible range of motion.

Doing Calf Raises with as much as 1,000 pounds might seem like an

unobtainable goal if you are up to lifting only 450 pounds. But the way to reach that goal, like most other things, is by stages, a little at a time. Try increasing weight at the rate of 50 pounds per month. This gives your tendons and ligaments time to adapt and grown stronger along with your calf muscles.

Another good idea is to choose a weight that is 50 or 100 pounds higher than you can comfortably use in your regular sets and, at the end of your calf workout, try to do just 3 or 4 reps with the increased resistance. This accustoms other parts of your body—like the back, legs, and Achilles tendon—to deal with that amount of weight; but it also trains your mind to cope with the extra weight so that you will not be intimidated by it when you are ready to move up in poundage again.

Sometimes, when you are training calves for the special requirements of competition, you may find that using slightly lighter weight is actually a good idea. Working lighter, with perhaps a few additional sets, and paying extra attention to contracting the muscles through the fullest range of motion can help finish off and fully shape the calves. Ken Waller, who at one time probably had the biggest calves in the world, likes to use heavy weights for Standing Calf Raises, but feels he got much better development by using lighter weights (300 pounds) for Seated Calf Raises. This, of course, is not the way to build calf size in the first place, but it does show how an individual can learn to use what is best for him once he gets up to this level of development.

Advanced Training involves hitting the calves from every angle—toes-in and toes-out foot position as well as the normal standing and seated movements—to develop both the soleus and gastrocnemius, and not neglecting the tibialis anterior at the front of the lower leg.

Give your body every advantage by being careful with technique and wearing shoes that give you strong support. Give your mind every advantage by learning to psych yourself up and increase your motivation—by hanging a photo of a great set of calves on the calf machine, for example.

Another training technique I liked to use in calf training was supersets. For example, I would begin with a set of Seated Calf Raises, then go immediately to the Leg Press machine and do another set of Calf Raises, both movements working the lower area of the calves. I also occasionally did Staggered Sets—perhaps a set of Chins for the back then a set of Standing Calf Raises. A few back exercises later I would again do another set for calves. So by the time I was finished with the overall workout, I had already done about 8 sets for calves and I could finish off my calf training with a big head start. This is great when you find yourself getting tired of calf training and not giving it all the effort you should.

WEAK POINT TRAINING

You might find your calves are growing, but not proportionately; certain areas are lagging behind. The answer in calf training is the same as with any other body part—you choose specific exercises to help correct the imbalance:

Lower Calves

Do additional sets of Seated Calf Raises to develop the soleus muscle of the lower calf—that V look in which the muscle descends down to the Achilles tendon.

Bend the knees slightly when doing Standing Calf Raises to bring the lower calves into the movement. This works especially well if you do partial movements at the extreme bottom of the range of motion—your heels almost touching the floor.

Upper Calves

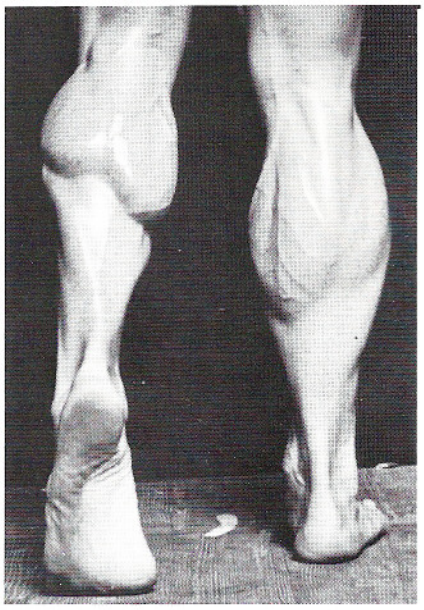
Standing Calf Raises with special emphasis on the top part of the range of motion, especially when you hold yourself in a full contracted position at the top of the movement

Emphasis on the Inside of the Calves

Do sets of every one of the calf exercises with toes turned outward.

Emphasis on the Outside of the Calves

Calf Raises with toes turned inward



Ken Waller's calves are superior to many other top bodybuilders' because he has such good lower calf development. The gastrocnemius, which underlies the more defined soleus muscle, is full and pronounced all the way down to the ankle.

For calves like mine you have to be willing to pay the price: at least 500 hours of intense, concentrated, and sometimes painful calf training.

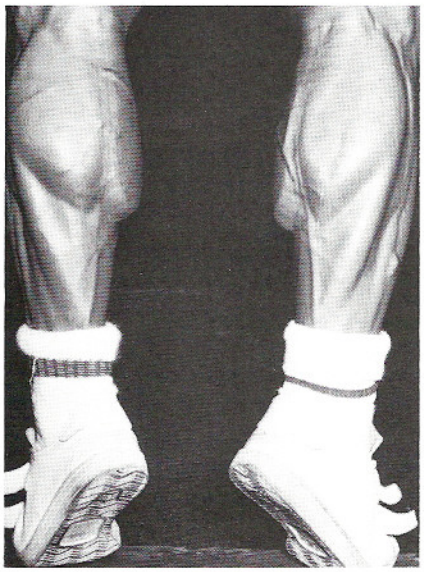
One Calf Too Small

Add on two extra sets of One-Leg Calf Raises for the smaller calf. Your two sets could be Standing Calf Raises on one leg while holding a dumbbell in your hand, and to bring up the lower calf, Seated Calf Raises performed one-legged. In fact, most calf exercises can be adapted to a one-leg movement. Just be sure to use enough weight to really stimulate the muscle you want to bring up.

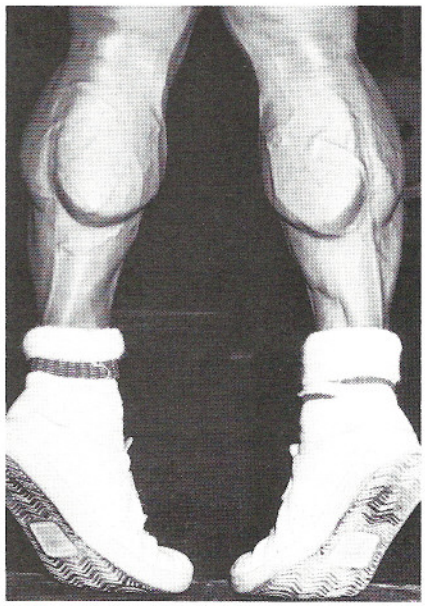
Front of the Calves

Developing the tibialis anterior creates a split that makes your calves look extra wide from the front. Doing Front Calf Raises can make the calves look an inch bigger. This exercise helps to separate the outside from the inside and creates a wide look that sheer calf size alone cannot accomplish. Therefore, this muscle needs the same attention that the others get—a full 4 sets of intense training and plenty of stretching.

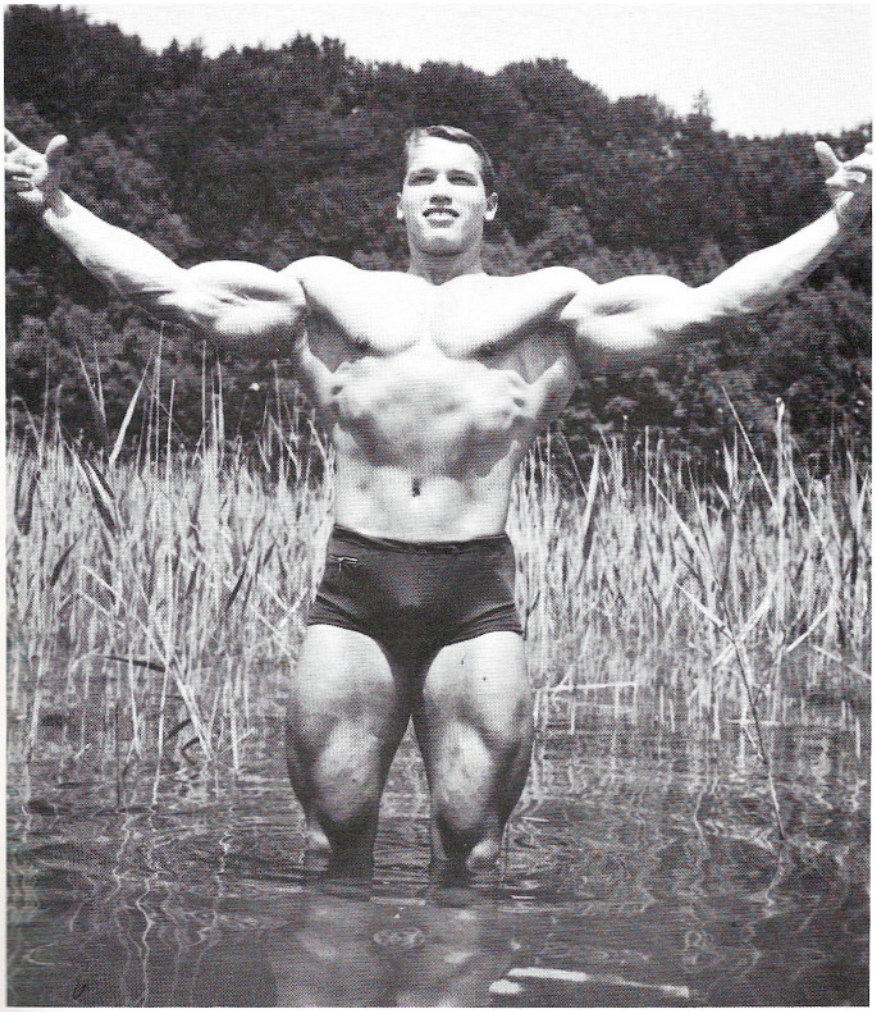
Chris Dickerson's calves are so remarkable that they look big even when viewed from the front.



The toes-out position helps to develop the inside of the calf muscles.



The toes-in position is used to add emphasis to the outside of the calf muscles.



In the beginning my calves were a real weak point, so I did most of my early posing shots with my calves in the water!

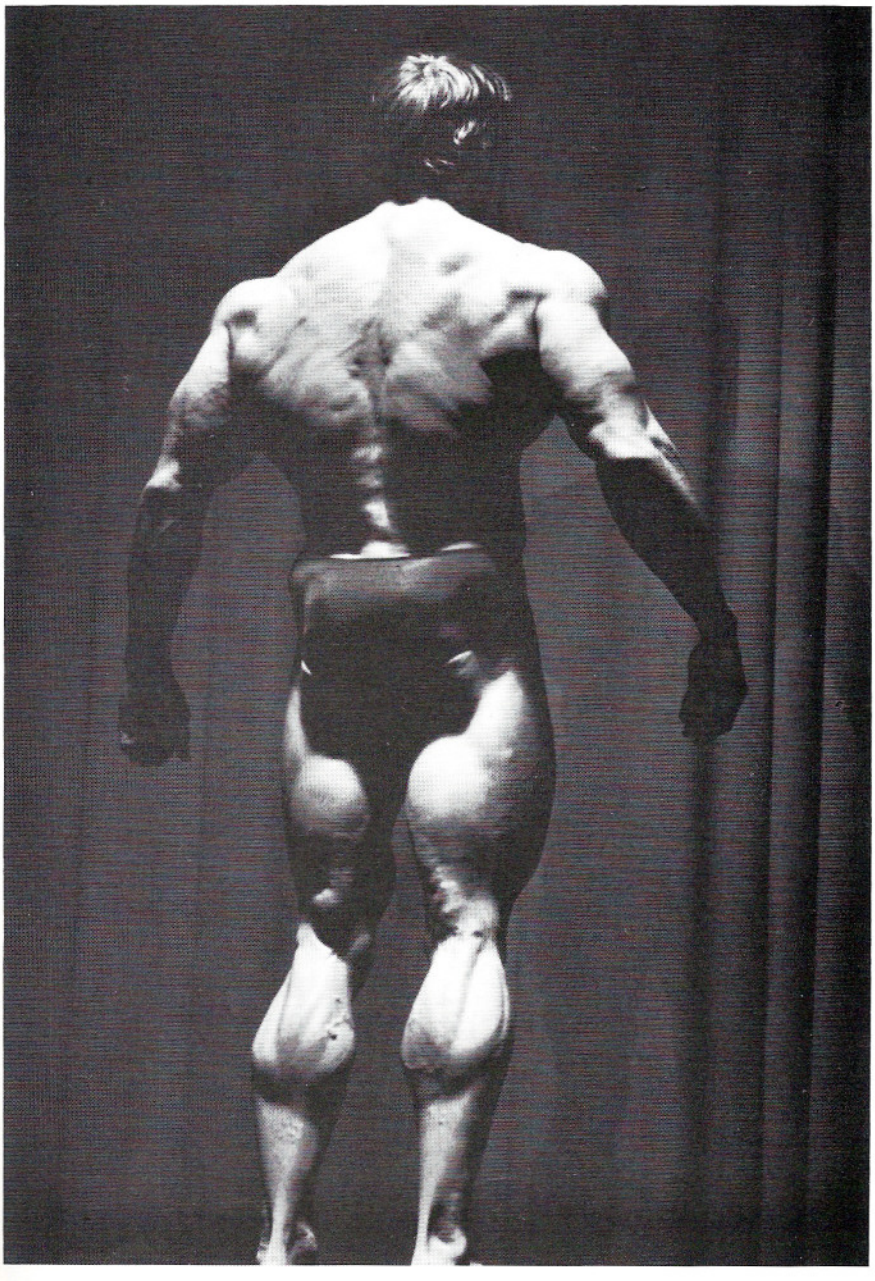
One reason that bodybuilders with weak calves tend not to develop them is that they can cover them up in the gym by wearing long pants, so they can forget about them. I used to do this myself, but once I realized my mistake I began to make really fantastic progress in calf training.

When I was young and growing fast, getting up to 230 and then 240 pounds, I was very proud of my flaring back and powerful arms. So I loved to train wearing a tank top or no shirt at all. I would see the reflection of my muscles in the mirror and this would inspire me to train even harder so as to build greater and greater mass and quality. But one day it occurred to me that I wasn't treating the calves as seriously as the other muscles. So I made up my mind to rectify this situation.

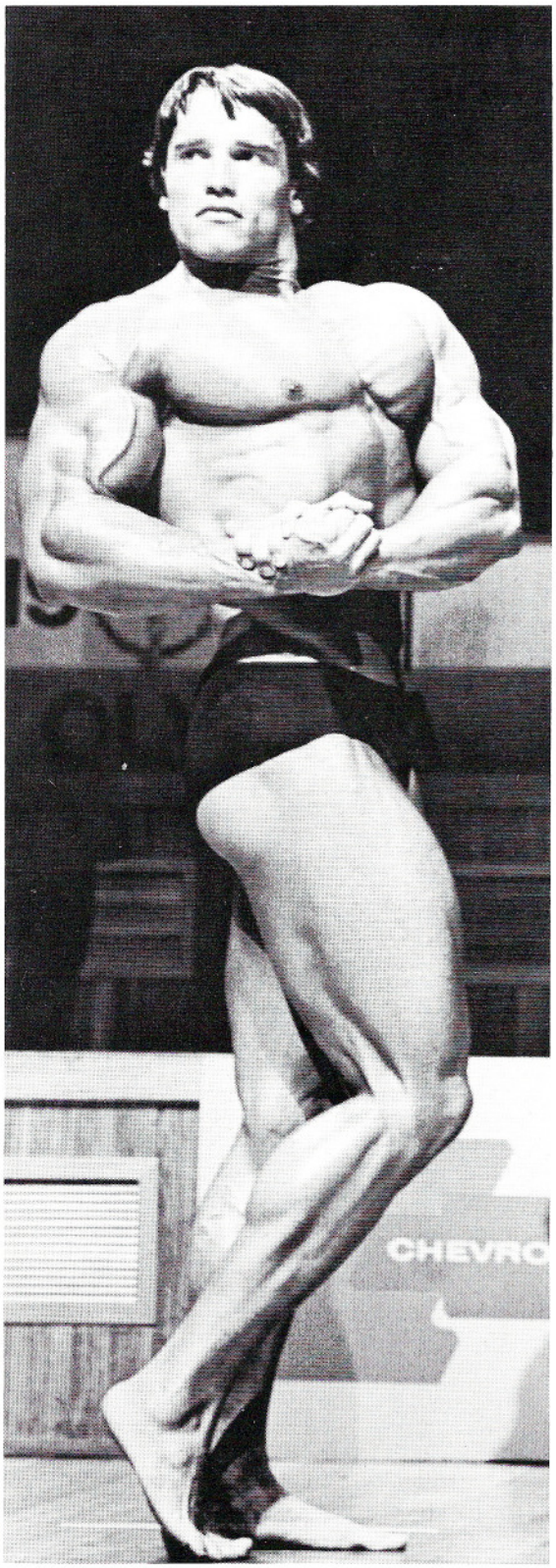
The first thing I did was to cut off the bottoms of my training pants. Now my calves were exposed for me and everyone else to see. If they were underdeveloped—and they were—there was no hiding the fact. And the only way I could change the situation was to train my calves so hard and so intensely that the back of my legs would come to resemble huge boulders.

At first, this was embarrassing. The other bodybuilders in the gym could see my weakness and they constantly made comments. But the plan eventually paid off. No longer able to ignore my calves, I was determined to build them into one of my best body parts. Psychologically, it was a brutal way to accomplish this, but it worked, and that is what I really cared about. Within one year my calves grew tremendously, and the comments I got in the gym were complimentary rather than critical.

If calves are your problem, use the Priority Principle to really attack them. Put calf training first in your workout, when your psychological and physical energy is at the highest. Another thing you can do is work on your calves even when you aren't in the gym. For example, when you are walking, make an effort to go all the way up onto your toes to make the calves work through a longer range of motion. If you are on a beach, do the same thing in the sand. After a half hour of walking in the sand, digging in with your toes, you will feel a fantastic burn in your calf muscles.



This photo is a great example of how effective using the Priority Principle and zeroing in on your weak points can be. When I stepped onstage at a competition two years after I first began trying so hard to bring up my calves, and I turned my back to the audience, my calves were so huge that I got an ovation even before I flexed them.

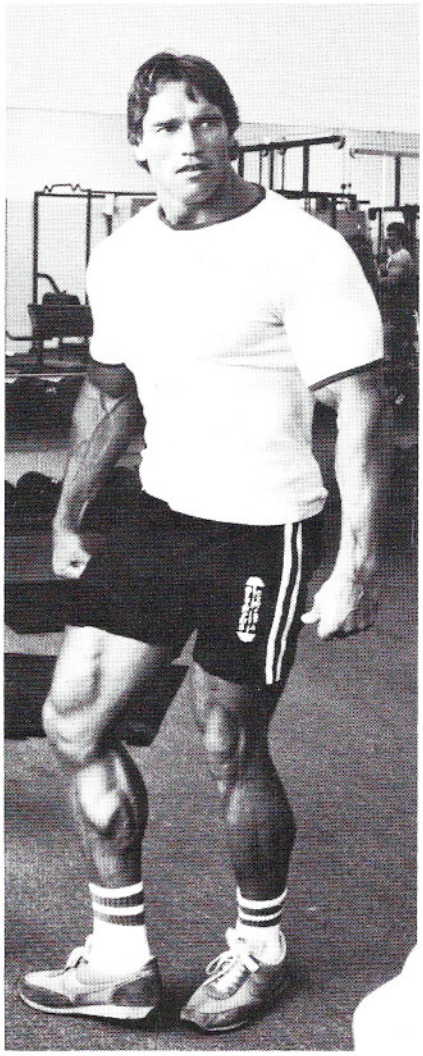


POSING THE CALVES

In every pose you do onstage, you need to flex the calves. Bodybuilders usually learn to pose from the ground up—set the feet, flex the calves and legs, then the upper body. But most bodybuilders don't spend time learning to flex and pose the calves by themselves. The ability to do this comes in handy when you are standing relaxed in round one and you want to hit your calves, fanning them out to impress the judges.

To learn to do this, I recommend posing and flexing the calves be-

Even when you are doing side poses, calf development plays an important part. When you are doing a side chest shot, for instance, and concentrating on your upper body, a good judge will also take your calves into consideration.



You can create a stronger visual impression if you can keep your calves flexed while "standing relaxed" in the first round of competition. But you must practice flexing or you will lack the endurance to stand this way for more than a few minutes. I've seen a lot of competitors develop leg cramps because they failed to work hard enough at this.

tween each set of calf training, developing the connection between the mind and muscle so that you gain absolute control over how the calf looks. This also makes the muscle harder and more developed, since the flexing is itself a kind of isometric exercise.

Remember, you will want to be able to show off your calf muscles in poses in which your feet are flat on the floor as well as when you are up on your toes, so you should practice flexing in order to get the kind of muscle control you need to accomplish this. While leaning against a machine or a wall, go up on your toes as far as possible, to get maximum contraction of the calf muscle.