

B O O K T W O

Training Programs



Basic Training Principles

TO LOOK LIKE a bodybuilder you need to train like one. Athletes like football players, wrestlers, and weightlifters have a lot of muscle; but only bodybuilders have the shapely, proportioned, completely developed muscular bodies we associate with physique competition. If you want to look like a bodybuilder—or even simply want to look more like a bodybuilder than you do now—you need to learn and master the training techniques that bodybuilders have developed on a trial-and-error basis over the past fifty years or so. Just as there is a specific technique involved in hitting a tennis ball or swinging a golf club, there is also a way of doing bodybuilding training that is the most efficient and effective means of muscular training possible.

It takes hard, dedicated work to build a great physique, but hard work alone is not enough. In addition to training hard, you need to train smart, which means mastering the fundamental principles of bodybuilding. These principles should be learned and practiced right from the beginning. It is much easier to learn the proper way to do something than it is to unlearn the wrong way and have to start over. As you continue to progress, you will be introduced to more and more complex approaches to training, but there is no need to worry about this at the beginning. The encyclopedia is organized to introduce you to these more advanced training ideas on a step-by-step basis so that you will have a chance to master one level of complexity at a time.

INDIVIDUAL NEEDS

Of course, different people have many different reasons for doing bodybuilding training. Some want to build their bodies just to look and feel better. Others want to improve their performance in a variety of sports. And many are interested in developing a dramatic, high-muscular and well-proportioned physique with the goal of competing in bodybuilding contests.

When it comes to learning how to do bodybuilding properly, some basic techniques and principles will apply to *everyone*; others must be tailored to the needs of the individual, often on a trial-and-error basis over a period of time. Everyone, regardless of why they are doing bodybuilding, needs to master the fundamentals and understand what is involved in putting a training program together. Most important, everybody needs to learn the basic exercises because they continue to be important no matter how advanced you become.

But I recognize that everyone is not the same. Body type, how fast or slow a person gains muscle, metabolic rate, weak points, and recuperation time are just a few of the things that can vary from one individual to another. I have tried to cover all the significant variables in this encyclopedia so that everyone will find the information they need to create the kind of body they want.

In golf, many champions don't swing like Tiger Woods, but every first-rate swing has to bring the club face into contact with the ball in just the right alignment. Not every skier uses exactly the same style as Olympic gold medalist Hermann "The Hermannator" Maier, but certain fundamentals have to be executed or you will never make it to the bottom of the run. When you walk into a gym full of competition bodybuilders, it is apparent that many of them are using very different approaches to their training. In the gym I hear the phrase "Every body is different" all the time, and that's true. But every body is much the same as well, so set your sights on mastering the basic guidelines *and let your body tell you* over time what individual variations and techniques are required for you to realize your potential.

PROGRESSIVE RESISTANCE

Your muscles will grow only when they are subjected to an *overload*. They will not respond to anything less. Muscles will not grow bigger or stronger unless you force them to. Making your muscles contract against a level of resistance they are not used to will eventually cause them to adapt and grow stronger. But once they have adapted sufficiently, this progress will stop. When this happens, the only way to make your muscles continue to

grow is by further increasing the amount of overload to which you subject them. And the primary way of doing this is to add weight to your exercises.

Of course, this increase in resistance has to be done gradually. Using too much weight too soon usually makes it impossible for you to perform your sets using the proper technique, and can often increase your risk of injury as well.

REPS

A rep is one complete cycle of an exercise movement—a contraction of the muscle followed by an extension—that is, lifting a weight and lowering it again. A set is a group of these repetitions. How many reps you include in a set depends a great deal on what kind of set you are doing. For example, both research and experience have shown that bodybuilders get the most results using a weight in each exercise that represents about 70 to 75 percent of their *one-rep maximum*—that is, the amount of weight they could use doing one full-out repetition of that particular exercise. If you use this amount of weight you will generally find you can do sets of:

- 8 to 12 repetitions for upper-body muscles;
- 12 to 16 repetitions for the major leg muscles.

These figures are just approximations, but they work well as general guidelines.

Why can you do more repetitions for the legs than the upper body? Simply because the falloff in strength over the course of a set is slower in the legs than in the upper body—upper-body muscles just don't have the same kind of endurance as leg muscles. But in both cases the amount of weight used represents the same 70 to 75 percent of the one-rep maximum ability of the muscles involved.

Occasionally, there are reasons for using less weight than this (and therefore doing more reps) and some very useful types of sets which involve heavier weight (and fewer reps), such as low-rep sets for maximum strength and power. But these guidelines represent the majority of training bodybuilders do—and this is especially true for beginners.

TRAINING TO FAILURE

“Training to failure” in bodybuilding doesn't mean training to a point of complete exhaustion. It simply means continuing a set until you can't do any more repetitions with that weight without stopping to rest. What causes this failure? Basically it results from the gradual fatiguing of the muscle fibers involved and the inability of the muscle to recruit any more

fibers to take their place. The process of contracting a muscle involves the process of oxidation—in effect, a form of burning, which is why we say you burn calories (create heat by the release of energy) when you exercise. Oxidation requires both a source of fuel (in the muscle, this is ATP) and oxygen. Whenever fuel or oxygen is in too short supply, the muscle fibers can't contract until they are replenished as you rest and recuperate.

Another limiting factor is the buildup of waste products that result from the release of energy due to muscular contraction. That burning sensation you feel in a muscle as you continue to pump out reps is due to the accumulation of lactic acid in the area. When you stop to rest, the body removes the lactic acid from the area and you are able to do more reps.

Aerobic exercise (which means “with oxygen”) involves high-repetition effort at sufficiently low intensity so that the body can pump enough blood and oxygen to the area to keep the muscle supplied—running a marathon, for example. Or an aerobics class. Weight training is anaerobic (“without oxygen”) and the muscular contraction involved is just too intense for the oxygen supply to keep pace. So your muscles run out of oxygen, you fatigue, and have to rest while the body pumps more blood and oxygen to the fatigued area.

Why is training to failure important? When you are doing reps with a weight less than your one-rep maximum, all the muscle fibers available don't come into play all at once. You use some, they become fatigued, and the body recruits others to take their place. Continuing a set to failure is a way of demanding that *all* the available fibers are recruited. At what point failure occurs depends on the weight you use in a particular exercise. If you are doing an upper-body exercise and want the muscles to fail at, say, 8 to 12 repetitions, you pick a weight that causes this to happen. If you find you are able to do 15 reps in that movement, you add weight to the next set to bring the failure point into the desired range. If you can do only 5 reps, you know you need to lighten the weight slightly so you can do a few more reps before your muscles fail. But you never just stop a set because you've counted off a certain number of reps.

One of the ways you gauge your bodybuilding progress is the change in where failure occurs during your training. As your individual muscle fibers get stronger, you are able to recruit more of them and your body increases its ability to deliver oxygen to the muscles during exercise (all components of the overall training effect). As a result you will find you can do many more reps with the same weight before hitting the failure point. This is a sign you need to use more weight.

Of course, you aren't a machine, so the way you actually do your sets is not that mechanical. Some sets need to be more demanding and more intense than others. Here, for example, is a typical upper-body set for an experienced bodybuilder:

FIRST SET: a warm-up set with a lighter weight; 15 repetitions or slightly more.

SECOND SET: Add weight so that the muscles fail at about 10 to 12 repetitions.

THIRD SET: Add more weight to bring the failure point down to 8 to 10 repetitions.

FOURTH SET: For maximum strength, add enough weight so your muscles fail after only 6 repetitions (power set).

OPTIONAL FIFTH SET: Use the same weight, try to get another 6 reps; get some help from a training partner if necessary to complete the set (forced reps).

Training this way gives you the best of all possible worlds: You start out relatively light, which gives your muscles time to fully warm up for that particular exercise; you go on to do slightly fewer reps with a heavier weight, which forces lots of blood into your muscles and gives you a great pump; and finally, you add more weight so that you are training relatively heavy for power and strength.

SETS

Generally in the Basic Training Program I recommend doing 4 sets of each bodybuilding exercise, except where otherwise specified. I believe this is the best system for several reasons:

1. You need to do at least 4 sets in order to have the volume of training necessary to fully stimulate all the available muscle fiber. If you do more sets per exercise, your total training volume will be so great that you risk overtraining.
2. Doing 4 sets per exercise, for a total of 12 sets per body part (for the larger muscle groups) in the Basic Training Program and 20 sets in Advanced Training, enables you to do a sufficient variety of exercises to work all the areas of a body part—upper and lower back, for example, the outside sweep of the lats, and the inner back.
3. The experience of five decades of bodybuilders has proved that the maximum amount of weight you can handle that allows you to just make it through 4 sets of an exercise will stimulate the muscles and make them grow.

There is a difference in how much training small muscles require compared to large muscles or muscle groups. For example, if I'm training

my back, that doesn't involve just one muscle—there are many different muscles in the back—such as lats, rhomboids, traps, spinal erectors of the lower back—and each of these areas has to be trained specifically. The same is true for the thighs. The thighs consist of four powerful quadriceps muscles, as well as the adductors at the inside of the upper leg. To fully train this area, you need both power and isolation movements, you have to hit the different heads at different angles, and you aren't going to accomplish this with just a few sets.

In training smaller muscles like the biceps and triceps, on the other hand, fewer total sets are needed because those muscles are just not that complex. You can get a complete biceps workout doing a total of about 9 to 12 sets, for example, whereas most bodybuilders would do 16 to 20 total sets to work the thighs. The rear deltoid is an even smaller muscle, and generally 4 to 5 sets for the posterior deltoid head is enough. However, muscle physiology also comes into play. The biceps are the fastest recuperating muscles, so if you feel like training them using higher sets (as I always did) they are still able to recover. And the calf muscles, which are relatively small, are designed to do virtually endless repetitions when you walk or run, so you can get great results training them with a relatively high number of sets.

But don't worry about trying to remember exactly which muscle should be trained with how many sets right off the bat. I've taken all of this into consideration in the exercise program recommendations coming up in later chapters.

FULL RANGE OF MOTION

For most purposes, bodybuilding exercises should take any muscle through its longest possible range of motion. (There are some specific exceptions which I'll talk about later.) You should take care to stretch out to full extension, and then come all the way back to a position of complete contraction. This is the only way to stimulate the entire muscle and every possible muscle fiber. So when I'm suggesting you do 8 reps, or 10 reps or more, in each case I am assuming you are going to be doing full-range-of-motion repetitions.

THE QUALITY OF CONTRACTION

Bodybuilding is about training muscles, not lifting weights. You use the weights and proper technique in order to target certain muscles or muscle groups. Weights are just a means to an end. In order to do this effectively, you have to isolate the muscles you are targeting. Remember how

often you have been told to lift something with your legs and not your back? This technique deliberately brings as many muscles into play as possible to protect you from injury. This makes sense if you are a piano mover or a construction worker. But the task of the bodybuilder is very different. You don't want to make the lift easier, you want to make it harder! You want the target muscles to do all the work, with little or no help from other muscle groups.

Good technique helps you to do this. So does choosing the right amount of weight. Once you are using a weight that is too heavy for your target muscles to handle, your body will automatically call other muscles into play. That's the way your nervous system is designed. So the fact that you can lift a weight doesn't mean you are doing the exercise correctly. You also need to choose a weight that ensures that the target muscles alone are responsible for lifting that weight.

How do you do this? One way is to start out lifting very light and concentrate on how the muscles feel during the movement. Gradually increase the weight. But if and when you get to a point where you can no longer feel the muscles working as they did when the weight was lighter, chances are you are working too heavy and need to back down a few pounds until that "feel" is reestablished.

WARMING UP

Often when people talk about warming up, they don't understand how literally that should be taken. Remember, oxidation in the muscle is actually a form of burning. Because of this, when you use a muscle, the temperature in the area rises and the ability of the muscle to contract forcefully becomes greater.

Warming up also pumps fresh, oxygenated blood to the area, raises the blood pressure, and increases the heart rate. This provides a maximum oxygen supply to the body and helps to eliminate the waste products of exercise from the working muscles.

Finally, warming up properly helps to protect the body from becoming overstressed, prepares it for the demands of heavy training, and reduces the chance of injury, such as a sprain or strain.

There are lots of ways to warm up. Some do a short session of cardiovascular training prior to their workout (treadmill, exercise bicycle, running, etc.), enough to get the heart going but not enough to deplete the body of energy. Calisthenics and other light exercises also give you a warm-up without putting any great stress on the body. But the most popular method of warming up is with the weights themselves. First, spend some time stretching and then do some moderately light movements with a barbell or dumbbells, hitting each body part in turn until the body is ready for something more strenuous.

Then, for each different exercise during your workout you begin with one light warm-up set in order to get those specific muscles ready to do that specific movement. When you do a set or two with higher reps and less than maximum weight, your muscles are then prepared to deal with the greater intensity generated by heavier weights and 6-rep sets.

Warming up is even more important before heavy training sessions because you are about to subject the body to still greater stress. The best idea is not to do really heavy movements until your body gets into gear by doing the less stressful bodybuilding sets first.

The time of day is also a factor in determining how much warming up you need. If you are training at eight o'clock in the morning you are likely to be tighter and more in need of stretching and warming up than at eight at night, so adjust your preliminaries accordingly.

Always take care that you warm up thoroughly. If you are about to do heavy shoulder presses, for example, remember that you are going to involve more than the deltoids and triceps. The muscles of the neck and the trapezius will also contract intensely during the movement, and they should be given time to get ready as well.

Injuries in the gym generally happen for two primary reasons: Either the person used sloppy technique (used too much weight or failed to keep the weight totally under control) or didn't stretch and warm up properly.

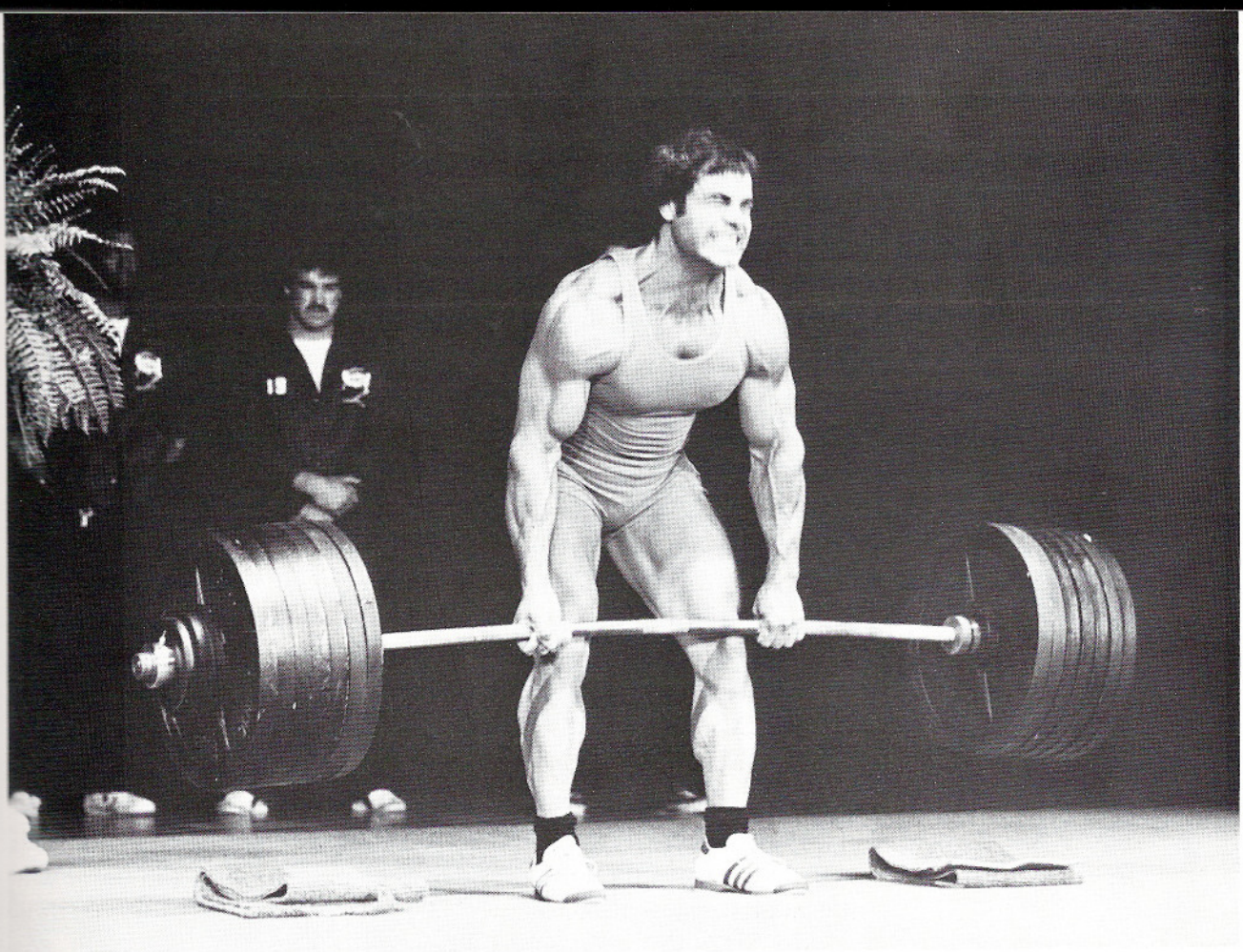
I should also point out the effect of age on the physique and athletic ability. It is commonly known that the older you are, the more important protecting your body with warm-ups and stretching becomes. Young athletes can get away with things that older competitors can't. Nonetheless, learning proper technique, stretching, and warming up are good for *all* bodybuilders, regardless of age, and the sooner you make this a lifelong habit the better off you will be in the long run.

POWER TRAINING

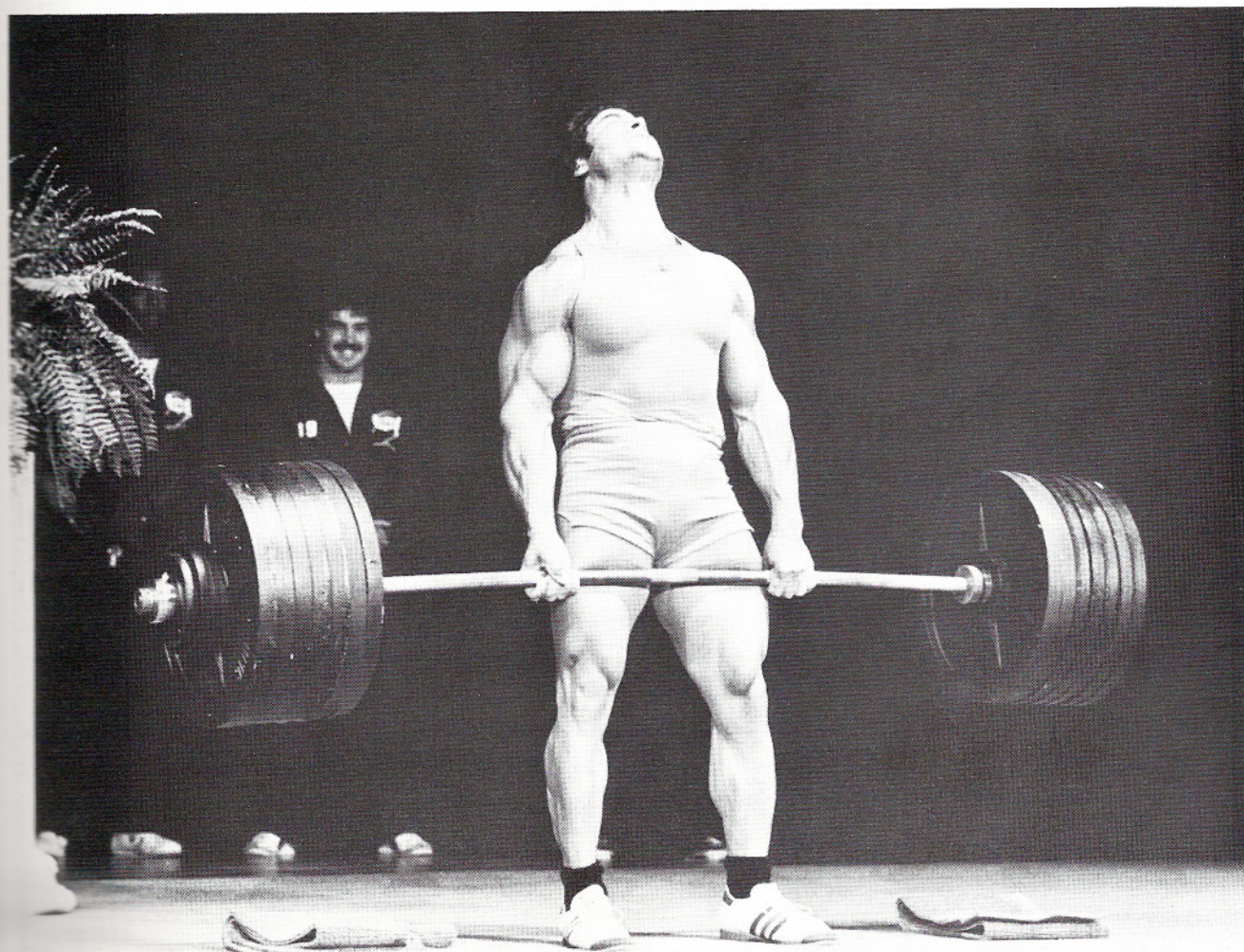
There are various ways of assessing strength. If I can lift 300 pounds and you can lift only 250, I am stronger than you in one-rep strength. However, if you can lift 250 pounds ten times and I can lift it only eight times, that is a different kind of strength; you would be surpassing me in muscular endurance—the ability to continue to be strong over a series of movements.

To shape and develop the body, it is necessary to do a lot of endurance training—that is, the appropriate number of sets and reps. But I also believe that, unless you include low-rep strength training, you will never achieve the hardness and density necessary to create a truly first-class physique.

In the days of John Grimek, Clancy Ross, and Reg Park virtually all bodybuilders trained for power. Being strong was considered as important



Franco Columbu deadlifting 730 pounds



as having a physique that looked good. But keep in mind that there were then and are now different kinds of strength. The legendary Jack La Lanne could never compete with a Reg Park in a one-rep strength contest, but Jack could continue Chin-Ups and Dips, back and forth without stopping, long past the point where the bigger guys at Muscle Beach had collapsed with fatigue.

Although the bodybuilders of the 1940s and 1950s generally lacked the total refinement that top bodybuilders have today, they were extremely strong, hard, and impressive physical specimens. In the 1980s it seemed to me that the pendulum had swung too far and bodybuilders were overlooking the benefits of including traditional power moves in their overall programs. Nowadays, with so many competitors coming into pro shows weighing a solid 230, 240 pounds or more, there seems to have been a rediscovery of heavy power training. Certainly, you don't get to be as dense and massive as Dorian Yates without working with a lot of mind-bendingly heavy poundages.

"If you don't do heavy lifts," my friend Dr. Franco Columbu explains, "it shows immediately onstage. There is a soft look that shows itself clearly." There is abundant scientific and physiological evidence for why this is so. Power training puts tremendous strain on relatively few fibers at a time, causing them to become bigger and thicker (hypertrophy), and they also become packed much tighter together. This contributes enormously to that hard, dense look of the early champions.

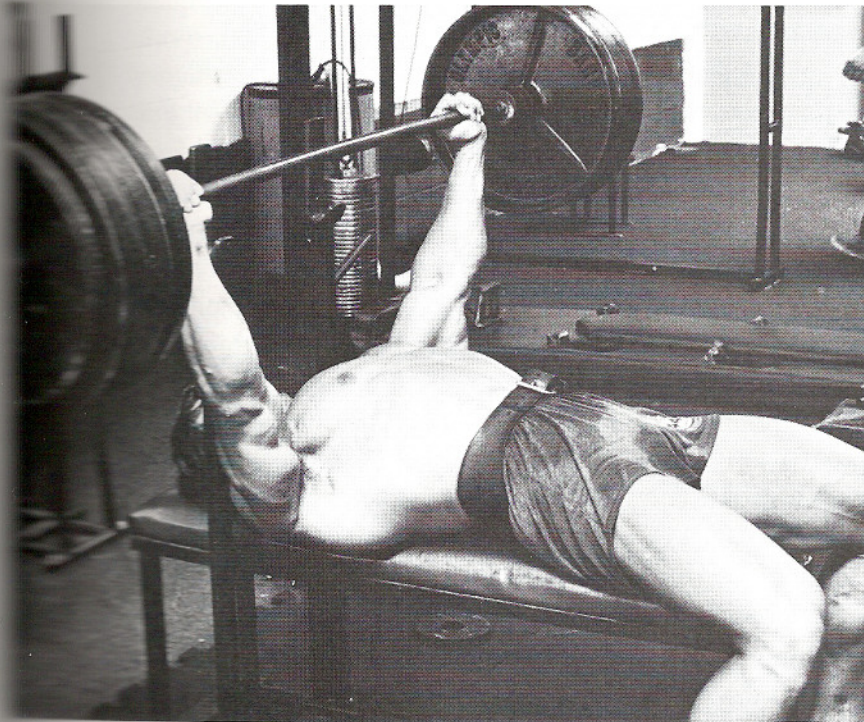
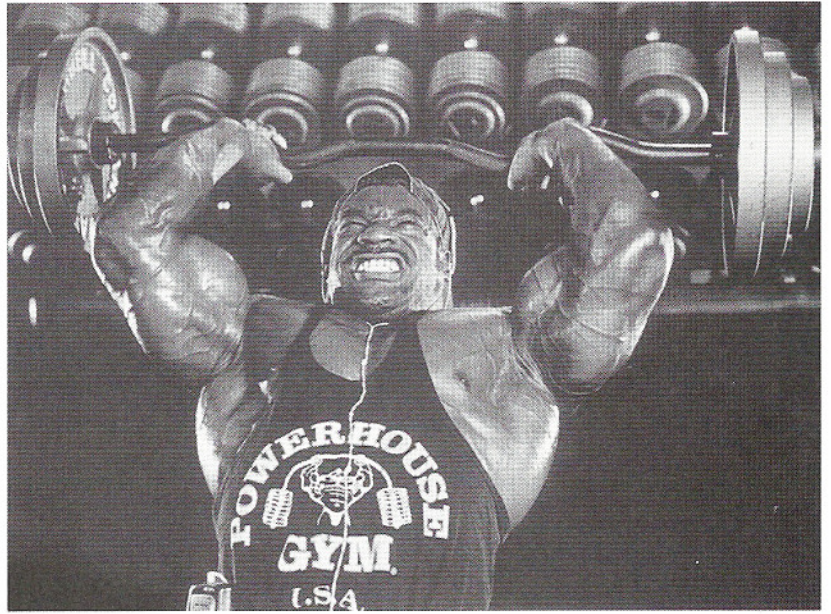
Including some power sets in your program also helps to make you stronger for the rest of your training. You will move up to using heavier weights more quickly, so your muscles will grow that much faster. It also toughens and strengthens your tendons as well as your muscles, so you will be much less likely to strain them while doing higher-repetition training with less weight, even if you should lose concentration at some point and handle the weights with less than perfect technique.

Heavy training strengthens the attachment of the tendon to bone. Separating the tendon from the bone is called an avulsion fracture (see *Injuries*, page 775), and the right kind of power training minimizes the possibility of this occurring.

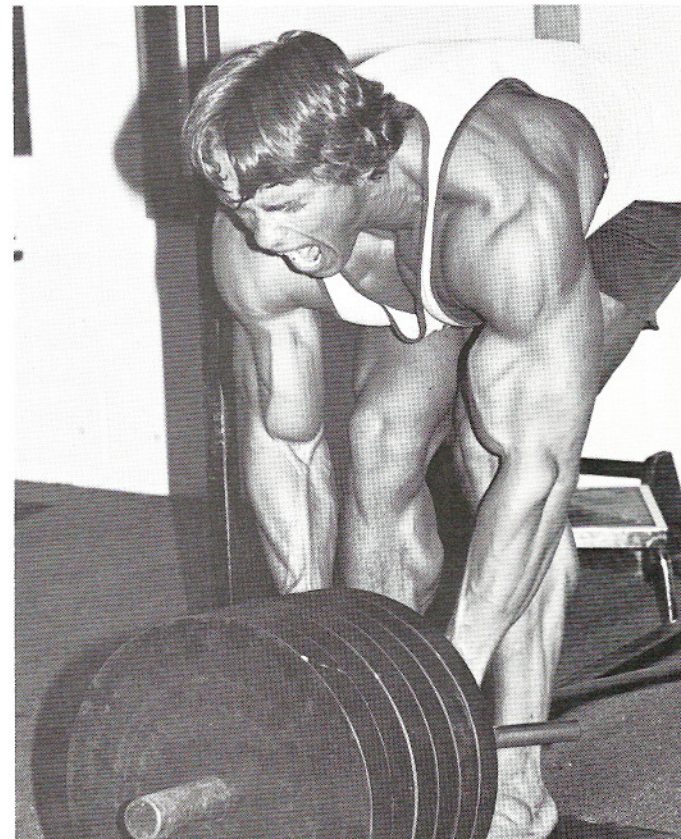
Muscle size and density created by a program that includes heavy training are easier to maintain for long periods of time, even with a minimum of maintenance training. With high-rep training only, much of the growth is the result of transient factors such as fluid retention and glycogen storage, but muscle made as hard as a granite wall through power training comes as a result of an actual increase in muscle fiber size. Also, as Franco tells me, the muscle cell walls themselves grow thicker and tougher, so they tend to resist shrinking.

Besides all this, when you do power training, you find out what the body can really do, how much weight you can really move, and this gives you a mental edge over someone who never does power training.

*Chris Cormier's arms are so powerful
he is able to do Triceps Extensions
as a power exercise.*



*With my long arms, bench-pressing 400-
plus pounds eight times takes a lot of effort
and concentration.*



*Heavy T-Bar Rows is one of the best power
exercises for the back.*

Modern bodybuilders need to master many sophisticated techniques, but you can't forget that the basis of bodybuilding is developing muscle mass by lifting heavy weights. This does not mean that I believe bodybuilders should train like weightlifters. I recommend a program of total development that includes a certain number of power moves to give you the advantage of both kinds of training.

HEAVY DAYS

When I was a young bodybuilder just starting out, I used to do a lot of powerlifting (powerlifting is a form of weightlifting which involves three specific lifts: Bench Presses, Squats, and Deadlifts). As I progressed in the sport, winning competitions on higher and higher levels, I had to concentrate more and more on sculpting a complete, balanced, quality physique because the further you go in bodybuilding the higher the quality of your competition. Remember, at the top levels in *any* sport, everybody has a lot of talent. That's what got them there. So relying on talent or raw genetics will not work at the elite levels of competition. For example, when you get to the Mr. Universe or Mr. Olympia level, judges are looking more at what you *don't* have than what you do, focusing on your weak points, so having as complete a physique as possible becomes essential.

In my case, this meant doing a greater proportion of higher-rep isolation training, making sure I sculpted each muscle and achieved the greatest amount of definition and separation possible. But I never wanted to lose the basic thickness, density, and hardness that my early powerlifting training had created. That is why I always scheduled "heavy days" in my training routine. Once a week or so I would pick one body part and go to the maximum with strength moves that worked that area. When training legs, for instance, I would try for a maximum Squat; for chest, a maximum-strength Bench Press; and so on. By training this way I would not tax my body to such an extent that it could not recuperate before my next workout. But by going to the maximum on a regular basis, I gained a very accurate perception of just how much progress I was making in developing my strength, and by forcing myself to go to the limit every so often, I counterbalanced the lighter-weight, higher-rep training that made up the majority of my workouts.

I recommend you try the same thing. Once or twice a week pick one body part and test out your maximum strength. Have your training partner standing by to spot you so that you have no anxieties about handling a heavy weight. Stretch and warm up first to prepare your body for the effort. Keep track of your poundages in your training diary. You will feel a great deal of satisfaction watching the numbers climb as you grow stronger. Your ability to handle heavy weight will also contribute tremen-

dously to increasing your confidence and mental commitment to your training.

OVERTRAINING AND RECUPERATION

The harder you work your body, the more time it takes to recover and recuperate from that training. Rest and recuperation are very important because, although you stimulate growth by training, it is during the subsequent period of recuperation that actual growth and adaptation take place. That's why bodybuilders frequently overcome sticking points by resting more rather than training harder or more often.

Overtraining occurs when you work a muscle too often to allow it to fully recuperate. You hear bodybuilders talk about tearing the muscle down and then letting it rebuild itself, but this is not really physiologically accurate. There can be small amounts of tissue damage during heavy exercise, and it is this damage that is associated with residual muscular soreness. But the soreness is a side effect and not the primary reason the muscles need time to recuperate after heavy exercise.

A number of complex biochemical processes accompany strenuous muscular contraction. The process of fueling muscular contraction results in the buildup of toxic waste products such as lactic acid. And during exercise the energy stored in the muscle in the form of glycogen is used up.

The body requires time to restore the chemical balance of the muscle cells, clear out the residual waste products, and restock the depleted stores of glycogen. But another factor is even more important: Time is needed for the cells themselves to adapt to the stimulus of the exercise and to grow. After all, bodybuilding is all about making muscles grow. So if you overtrain a muscle, forcing it to work too hard too quickly after the preceding exercise session, you will not give it a chance to grow and your progress will slow down.

Different muscles recover from exercise at different rates. As I mentioned, the biceps recover the fastest. The lower back muscles recover the slowest, taking about a hundred hours to completely recuperate from a heavy workout. However, in most cases, giving a body part 48 hours' rest is sufficient, which means skipping a day after training a muscle before training it again.

Basic training involves only medium levels of intensity, so the time necessary for recuperation is shorter. Once you move on to more advanced training, higher levels of intensity will be needed in order to overcome the greater resistance of the body to change and growth. There is one other important factor, however: Trained muscles recover from fatigue faster than untrained muscles. So the better you get at bodybuilding, the faster your recovery rate will be and the more intense your training program can become.

RESTING BETWEEN SETS

It is important to pace yourself properly through a workout. If you try to train too fast, you risk cardiovascular failure before you have worked the muscles enough. Also, you may have a tendency to get sloppy and start throwing the weights around instead of executing each movement correctly.

However, training too slowly is also bad. If you take 5 minutes between each set, your heart rate slows down, you lose your pump, the muscles get cold, and your level of intensity drops down to nothing.

Try to keep your rest periods between sets down to a minute or less. In the first minute after a weight-training exercise you recover 72 percent of your strength, and by 3 minutes you have recovered all you are going to recover without extended rest. But remember that the point of this training is to stimulate and fatigue the maximum amount of muscle fiber possible, and this happens only when the body is forced to recruit additional muscle fiber to replace what is already fatigued. So you don't want to allow your muscles to recover too much between sets—just enough to be able to continue your workout and to keep forcing the body to recruit more and more muscle tissue.

There is one other factor to consider: Physiologists have long noted the link between maximal muscle strength and muscular endurance. The stronger you are, the more times you can lift a submaximal amount of weight. This means that the more you push yourself to develop muscular (as opposed to cardiovascular) endurance, the stronger you become. So maintaining a regular pace in your training actually leads to an increase in overall strength.

BREATHING

I am surprised how often I am asked how you should breathe during an exercise. This has always seemed automatic to me, and I am often tempted to say, "Just relax and let it happen. Don't think about it."

But now I know that for some people this doesn't work very well, and for them I have a simple rule: Breathe out with effort. For example, if you are doing a Squat, take in a breath as you stand with the weight on your shoulders and squat down, and expel your breath as you push yourself back up. As you breathe out, don't hold your breath.

There is a good reason for this. Very hard contractions of the muscles usually involve a contraction of the diaphragm as well, especially when you are doing any kind of Leg Press or Squat movement. This increases the pressure in your thoracic cavity (the space in which the lungs fit). If you try to hold your breath, you could injure yourself. For example, you could

hurt your epiglottis, blocking the passage of air through your throat. Breathing out as you perform a maximal effort protects you from this and, some people think, it actually makes you a little stronger.

STRETCHING

Stretching is one of the most neglected areas of the workout. If you watch a lion as he wakes from a nap and gets to his feet, you will see he immediately stretches his whole body to its full length, readying every muscle, tendon, and ligament for instant and brutal action. The lion knows instinctively that stretching primes his strength.

Muscle, tendon, ligament, and joint structures are flexible. They can stiffen, limiting your range of motion, or they can stretch, giving you a longer range of motion and the ability to contract additional muscle fiber. That's why stretching before you train allows you to train harder.

Stretching also makes your training safer. As you extend your muscles fully under the pull of a weight, they can easily be pulled too far if your range of motion is limited. Overextension of a tendon or ligament can result in a strain or sprain and seriously interfere with your workout schedule. But if you stretch the areas involved first, the body will adjust as heavy resistance pulls on the structures involved.

Flexibility will also increase if the various exercises are done properly. A muscle can contract, but it cannot stretch itself. It has to be stretched by the pull of an opposing muscle. When you train through a full range of motion, the muscle that is contracting automatically stretches its opposite. For example, when you do Curls, your biceps contract and your triceps stretch. When you do Triceps Extensions, the opposite happens. By using techniques that engage the full range of motion, you will increase your flexibility.

But that isn't enough. Muscles contracted against heavy resistance tend to shorten with the effort. Therefore, I recommend stretching before you train—to allow you to train harder and more safely—and stretching after you train as well—to stretch out those tight and tired muscles.

You can prepare for your workout by doing any number of the standard stretching exercises which follow. You might also consider taking a yoga or stretching class. Many bodybuilders feel that this extra effort devoted to flexibility is not necessary, but others, like Tom Platz, rely heavily on stretching to enhance their workouts. When Tom is limbering up for a workout, with those gargantuan legs of his twisted like pretzels beneath him, it is almost unbelievable to watch. He spends the first part of his calf workout stretching his calves as far as possible, often using very heavy weights, because he realizes that the more they stretch, the more fiber becomes involved in the contraction.

But as important as stretching before and after the workout may be, I believe it is also essential to do certain kinds of stretching during your training. Just as I recommend flexing and posing the muscles between sets, I also believe in stretching certain muscles between one set and the next. The lats, for example, benefit from careful stretching interspersed with various Chin-Up and Pulldown movements. You will find I have included stretches in various exercises where I feel stretching to be particularly beneficial.

It is, after all, details like these that set champions apart, and the difference will be immediately visible when you pose onstage in competition. The difference will be not only in how you look—the utmost in separation and definition—but will also show in the grace and sureness of your presentation. Bodybuilders like Ed Corney, known as perhaps the best poser in modern bodybuilding, could never move with such beauty if their muscles, tendons, and ligaments were tight and constricted.

I don't recommend spending too much time and energy stretching unless you have a severe flexibility problem or are trying to rehabilitate an injured area. For most purposes, I think spending about 10 minutes doing 10 basic stretching exercises for the bigger muscles before and after you work out is enough.

Stretching requires slow, gentle movements rather than quick, bouncing ones. When you put sudden stress on a muscle or tendon, it contracts to protect itself, thereby defeating your purpose. On the other hand, if you stretch it out carefully and hold that position for 30 seconds or more, the tendon will gradually relax and you will gain flexibility.

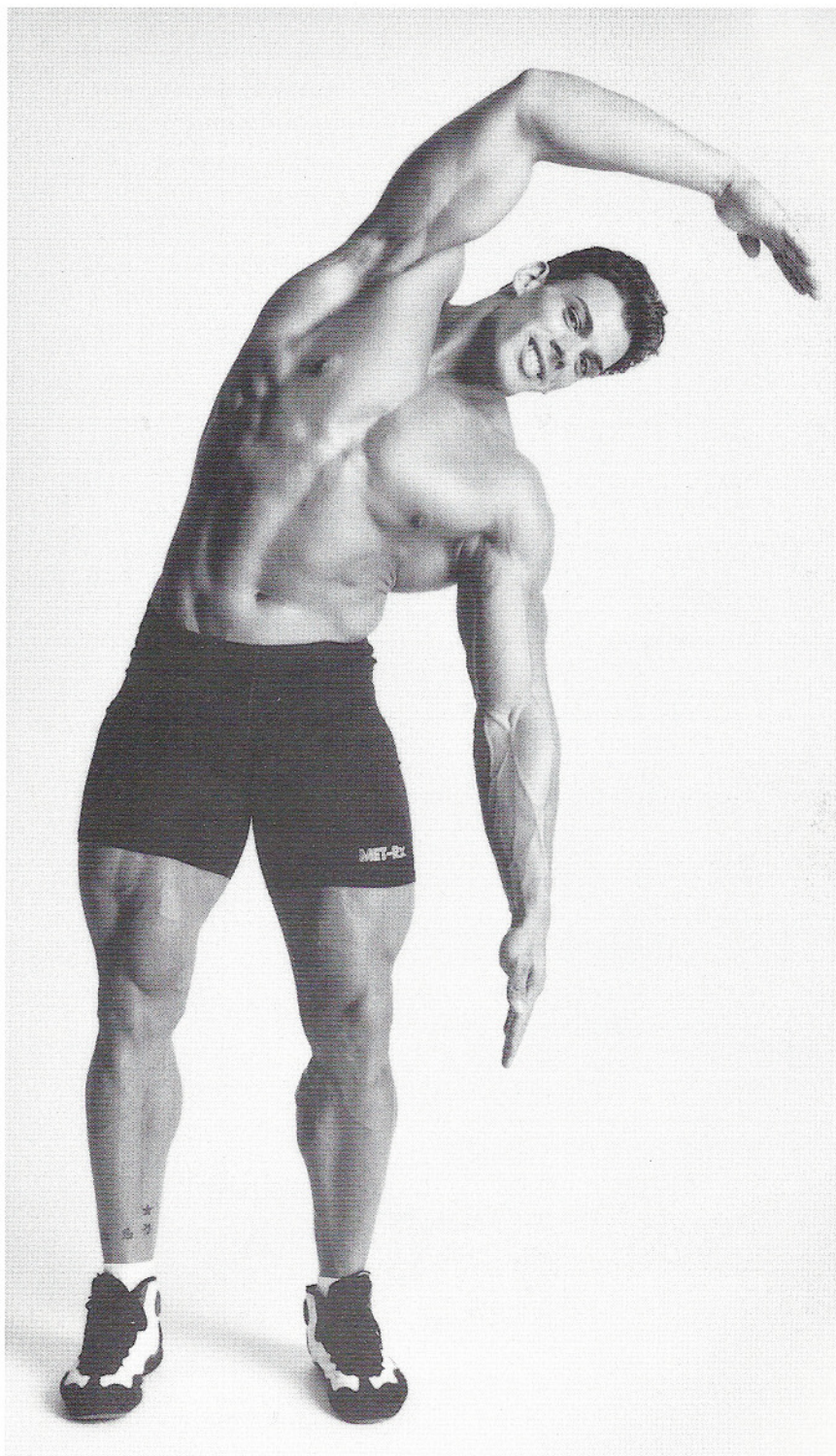
I recommend spending about one minute on each of the following exercises. However, this should be considered the bare minimum. The more time you spend stretching, the more flexible you will become.

Stretching Exercises

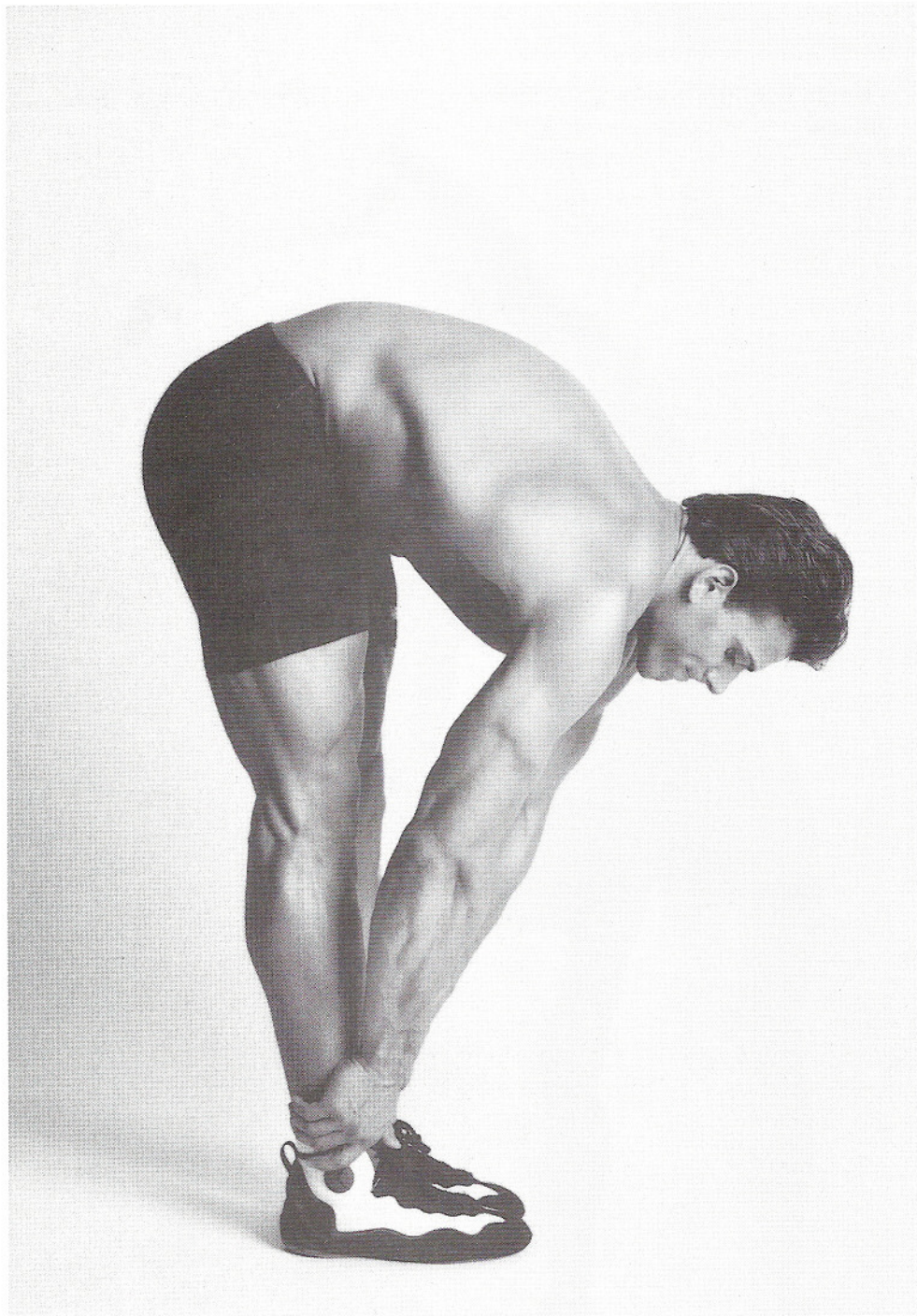
SIDE BENDS

PURPOSE OF EXERCISE: To stretch the obliques and other muscles at the side of the torso.

EXECUTION: Stand upright, feet slightly more than shoulder width apart, arms at sides. Raise your right arm over your head and bend slowly to the left, letting your left hand slide down your thigh. Bend as far as you can and hold this position for about 30 seconds. Return to starting position, then repeat to opposite side.



Frank Sepe



FORWARD BENDS

PURPOSE OF EXERCISE: To stretch the hamstrings and lower back.

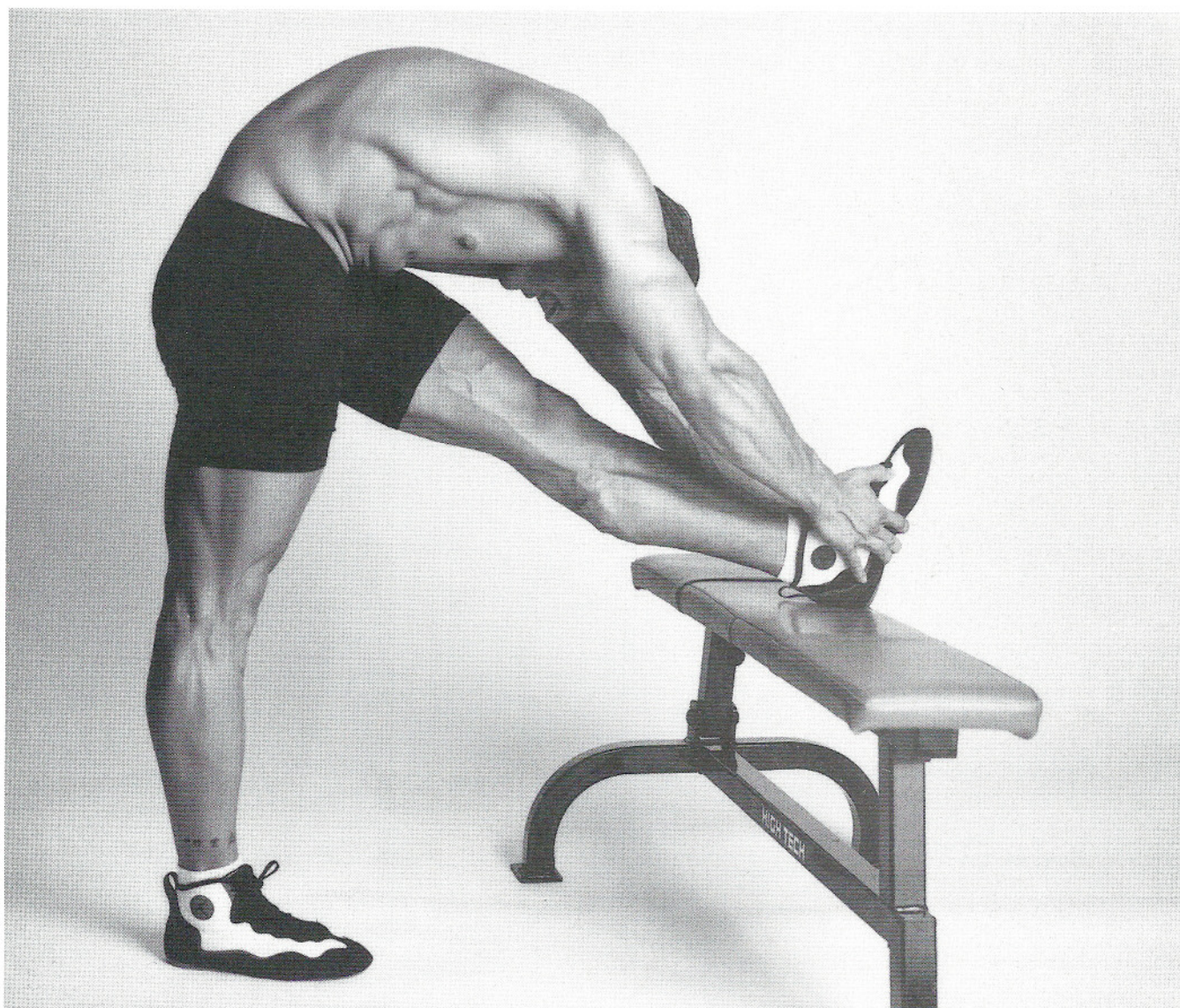
EXECUTION: Stand upright, feet together. Bend forward and take hold of the back of your legs as far down as possible—knees, calves, or ankles. Pull gently with your arms, bringing your head as close as possible to your legs in order to stretch the lower back and hamstrings to their limit. Hold this position for 30 to 60 seconds, then relax.

HAMSTRING STRETCHES

PURPOSE OF EXERCISE: To stretch the hamstrings and lower back.

EXECUTION: Place one foot or ankle on a support. Keeping your other leg straight, bend forward along the raised leg and take hold of it as far down as possible—knee, calf, ankle, or foot. Pull

gently to get the maximum stretch in the hamstrings. Hold for about 30 seconds, relax, then repeat the movement using the other leg.



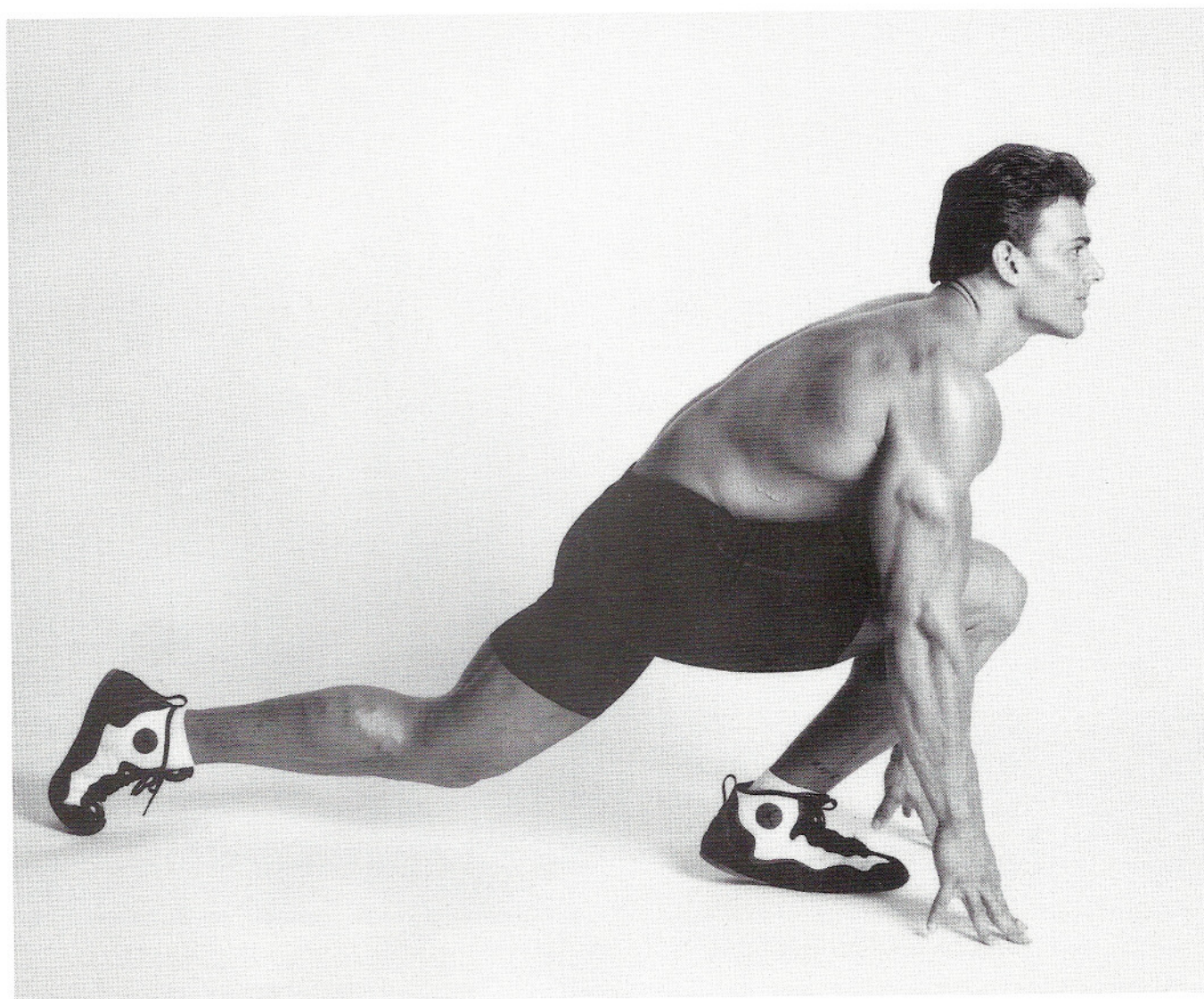
LUNGES

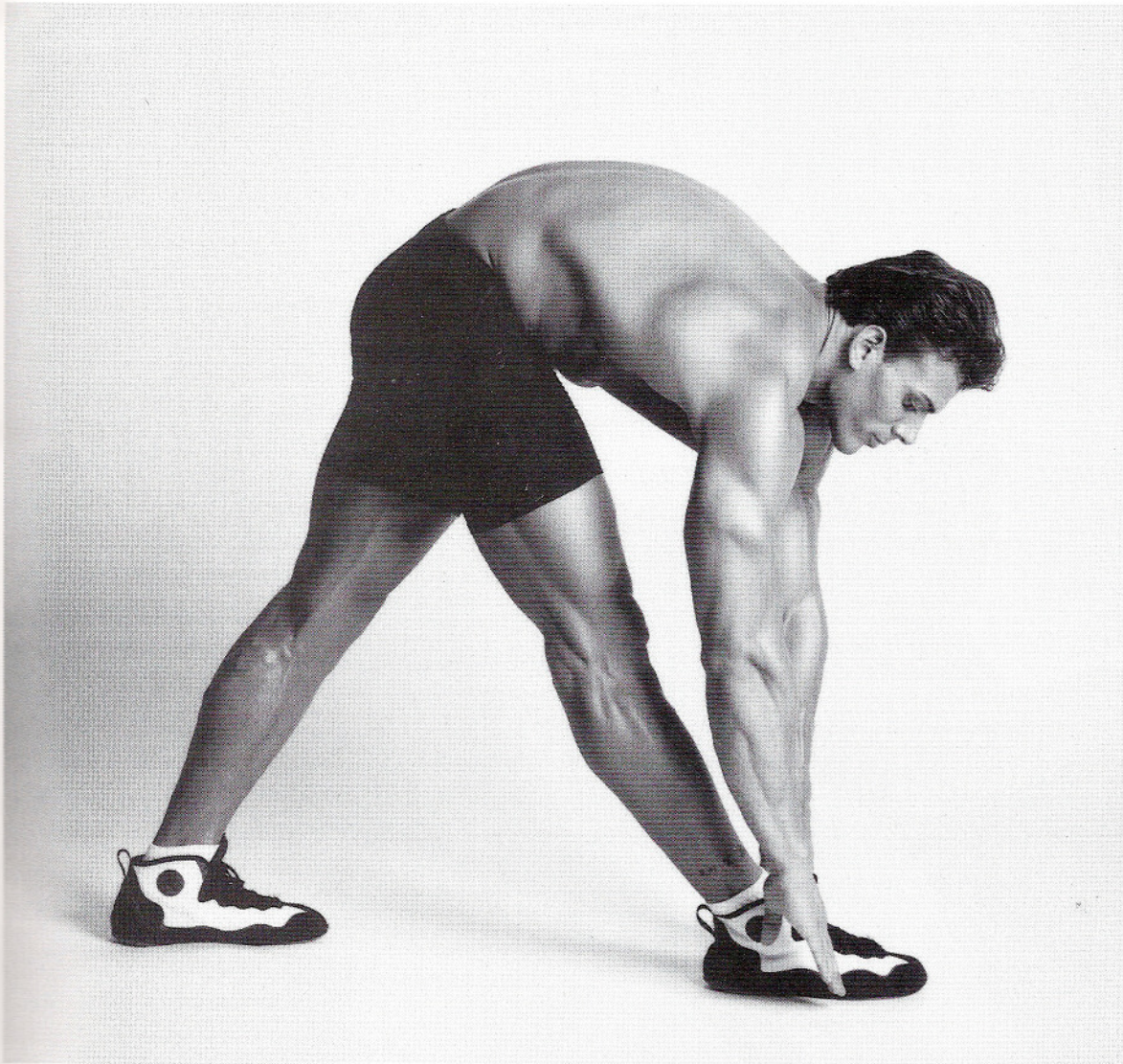
PURPOSE OF EXERCISE: To stretch the inner thighs, hamstrings, and glutes.

EXECUTION: (1) Stand upright, move one leg forward, then bend that knee, coming down so that

the knee of your trailing leg touches the floor. Place your hands on either side of your front foot and lean forward to get the maximum possible stretch in the inner thighs. (2) From this position, straighten your forward leg and lock your knee, stretching the hamstrings at the back of the leg.

Bend your forward knee and lower yourself to the floor again. Repeat this movement, first straightening the leg, then coming down to the floor again. Stand upright once more, step forward with opposite foot, and repeat the stretching procedure.



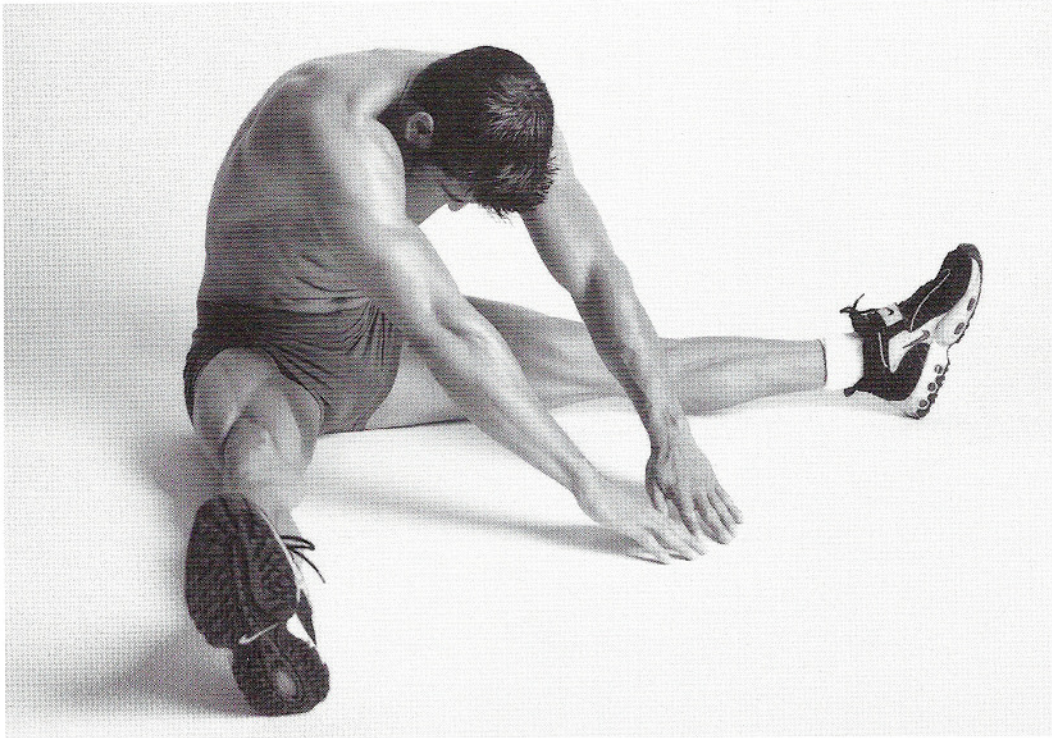


FEET APART SEATED FORWARD BENDS

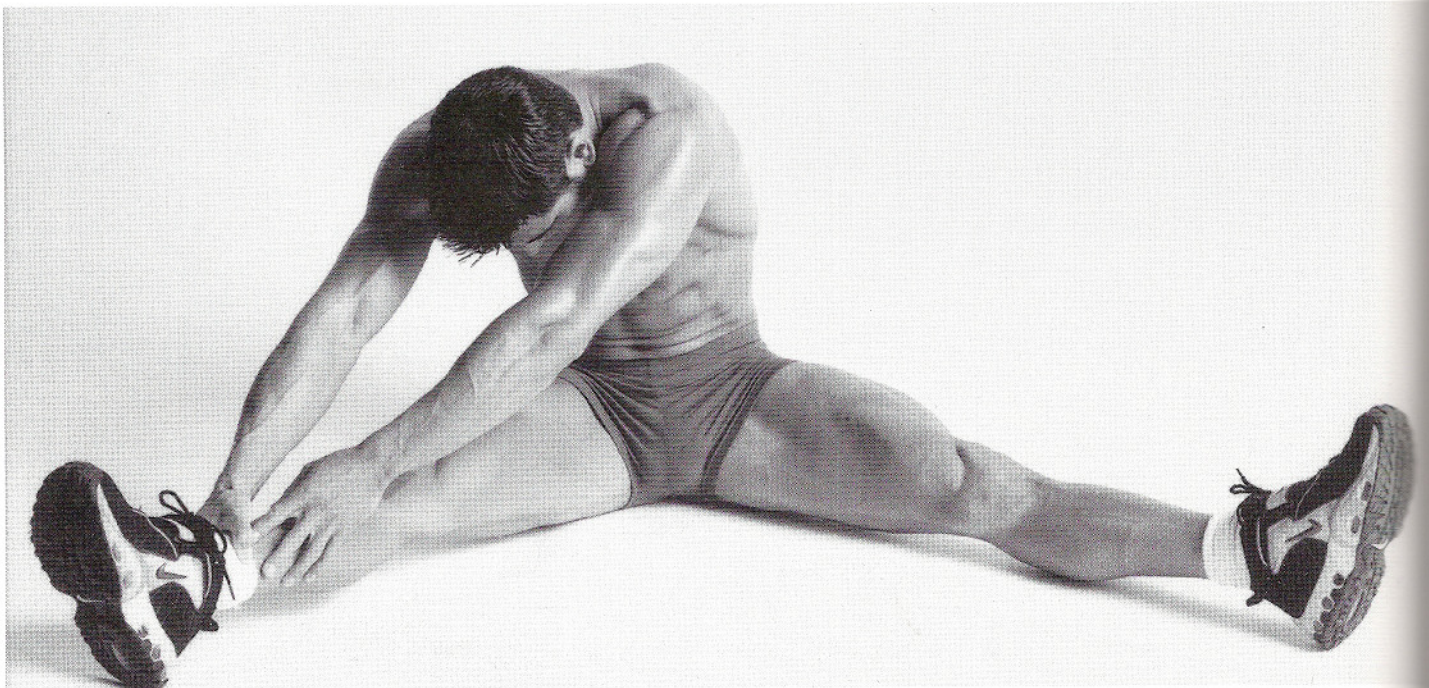
PURPOSE OF EXERCISE: To stretch the hamstrings and lower back.

EXECUTION: (1) Sit on the floor, legs straight and wide apart. Bend forward and touch the floor with your hands as far in front of you as possible. (2) Hold this position for a few seconds, then “walk” your hands over to one leg and grasp it as far down as possible—knee,

calf, ankle, or foot. Pull gently on your leg to get the maximum stretch in the hamstrings and lower back. Hold this position for about 30 seconds, then walk your hands over to the other leg and repeat.



T. J. Hoban

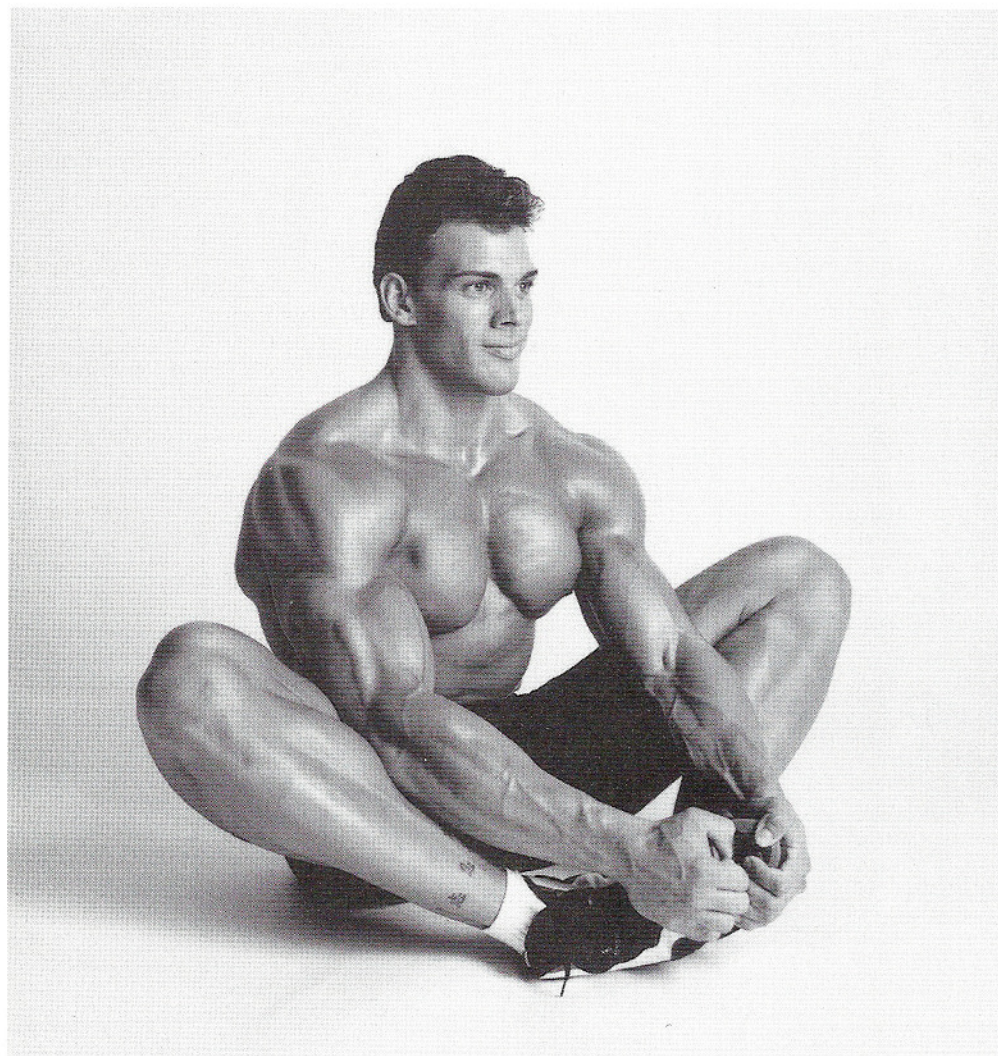


INNER THIGH STRETCHES

PURPOSE OF EXERCISE: To stretch the inner thighs.

EXECUTION: Sit on the floor and draw your feet up toward you so that the soles are touching. Take hold of your feet and pull them as close to the groin as possible. Relax your legs and drop your knees toward the floor, stretching the in-

ner thighs. Press down on your knees with your elbows to get a more complete stretch. Hold for 30 to 60 seconds, then relax.

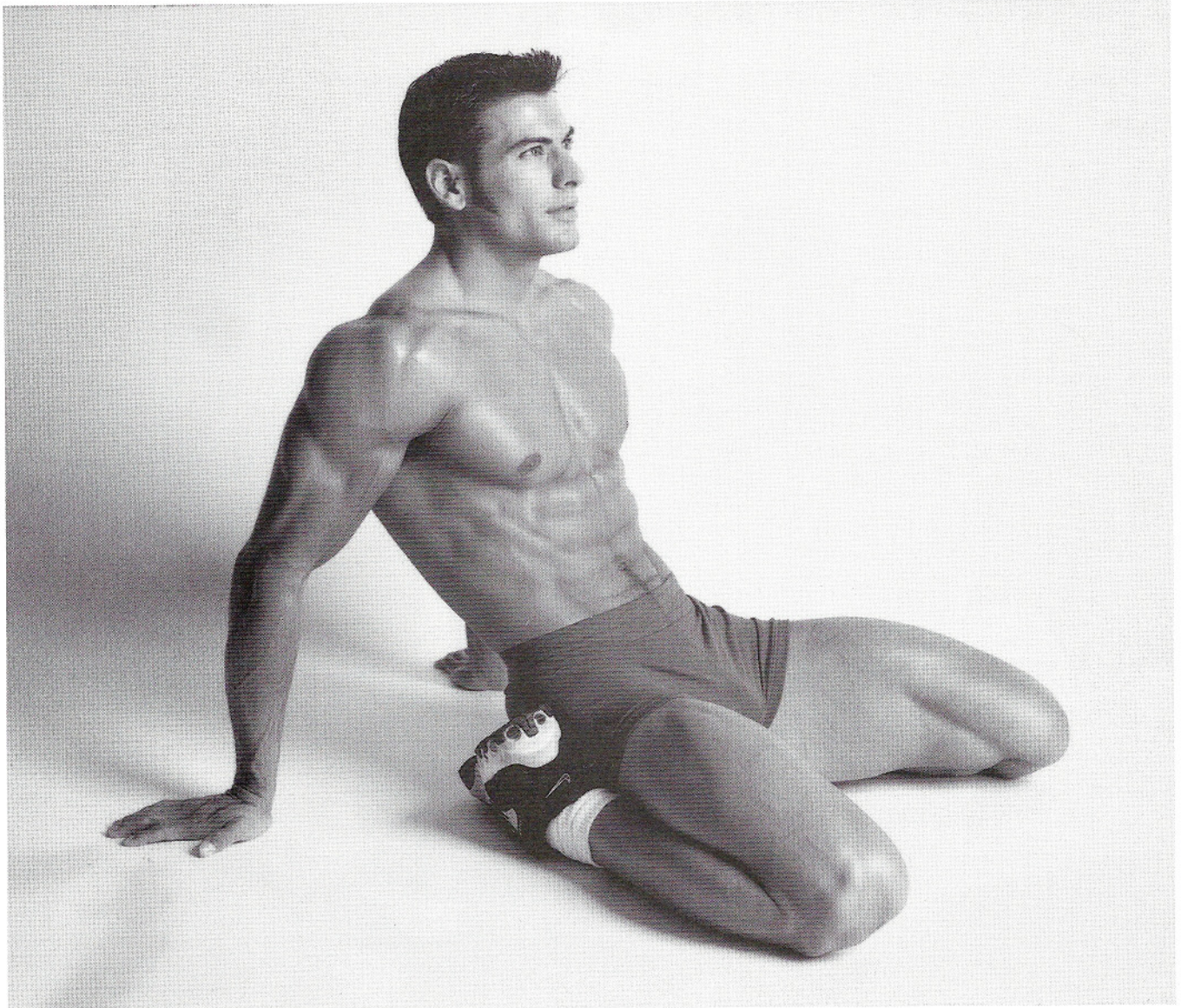


QUADRICEPS STRETCHES

PURPOSE OF EXERCISE: To stretch the front of the thighs.

EXECUTION: Kneel on the floor. Separate your feet enough so that you can sit between them. Put your hands on the floor behind you and lean back as far as possible, feeling the stretch in the

quadriceps. (Those who are less flexible will only be able to lean back a little; those who are very flexible will be able to lie back on the floor.) Hold this position for 30 to 60 seconds, then relax.

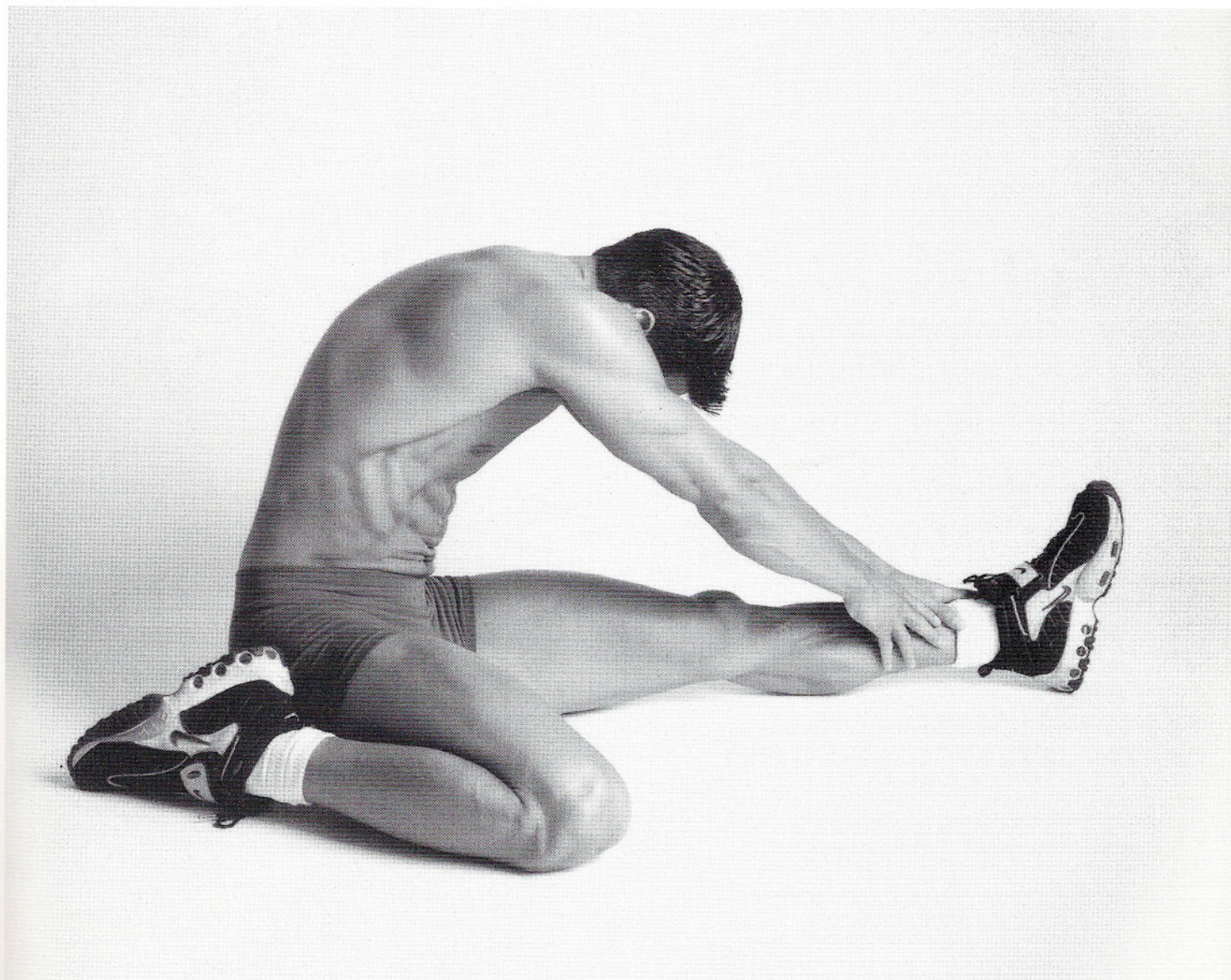


HURDLER'S STRETCHES

PURPOSE OF EXERCISE: To stretch the hamstrings and inner thighs.

EXECUTION: Sit on the floor, extend one leg in front of you, and curl the other back beside you. Bend forward along the extended leg and take hold of it as far down as possible—knee, calf, ankle, or

foot. Pull slightly to get the maximum stretch and hold for 30 seconds. Reverse the position of your legs and repeat the movement. Do not overstress your bent knee.

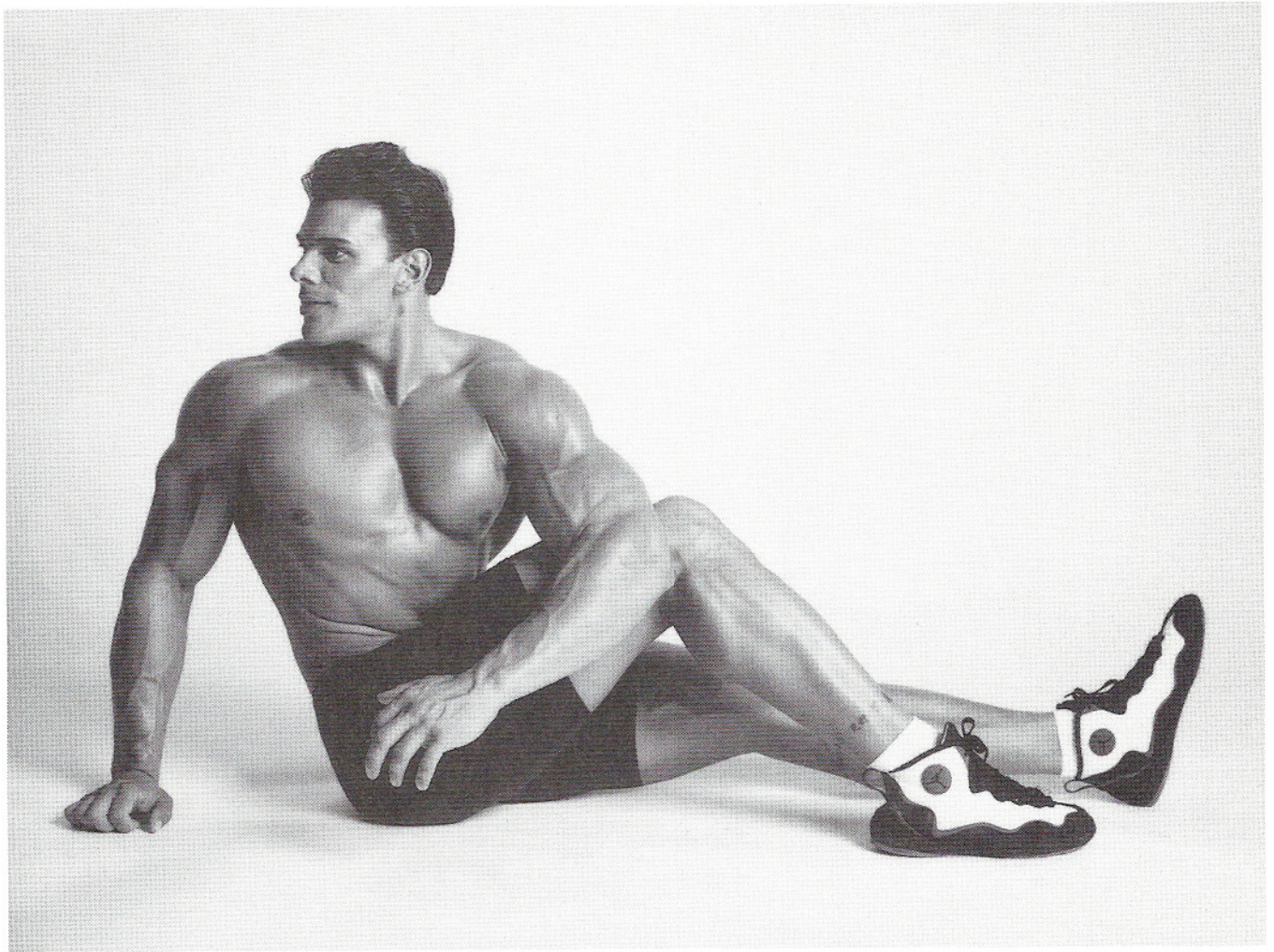


SPINAL TWISTS

PURPOSE OF EXERCISE: To increase the rotational range of motion of the torso and stretch the outer thigh.

EXECUTION: Sit on the floor, legs extended in front of you. Bring your right knee up and twist around so that your left elbow rests on the outside of the up-raised knee. Place your right hand on the floor behind you and con-

tinue to twist to the right as far as possible. Twist to the extreme of your range of motion and hold for 30 seconds. Lower your right knee, bring up your left, and repeat the motion to the other side.



HANGING STRETCHES

PURPOSE OF EXERCISE: To stretch the spine and upper body.

EXECUTION: Take hold of a chin-ning bar and let your body hang beneath it. Hold for at least 30 seconds so your spine and upper body have a chance to let go and stretch. If you have gravity boots or some other appropriate piece of equipment available, try hanging upside down to increase the amount of spinal stretch.

