The Chest

THE MUSCLES OF THE CHEST

The **pectorals** consist of two parts, the clavicular (upper) portion and the sternal (lower) portion. The upper part is attached to the clavicle (collarbone). Along the mid-body line, it attaches to the sternum (breastbone) and the cartilage of several ribs. The largest mass of the pectorals starts at the upper arm bone (humerus), fastened at a point under and just above where the deltoids attach to the humerus. The pectorals spread out like a fan and cover the rib cage like armor plates. Attached to the rib cage in the center and across to the shoulder, this muscle lets you perform such motions as pitching a ball underhanded, doing a wide-arm Bench Press, twisting a cap off a bottle, swimming the crawl stroke, and doing parallel bar Dips. In addition, because of its attachment to the humerus, it plays a large role in movements like Chinning. There is, in fact, a prominent interdependence between chest and back muscles. The chest will not reach its full potential size unless the latissimus dorsi muscles of the upper back are fully developed.

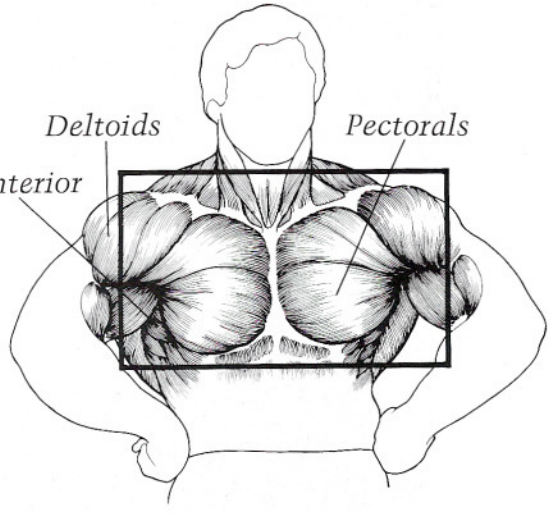
BASIC FUNCTION: To pull the arm and shoulder across the front of the body

The **subclavius,** a small cylindrical muscle between the clavicle and the first rib

BASIC FUNCTION: To draw the shoulder forward

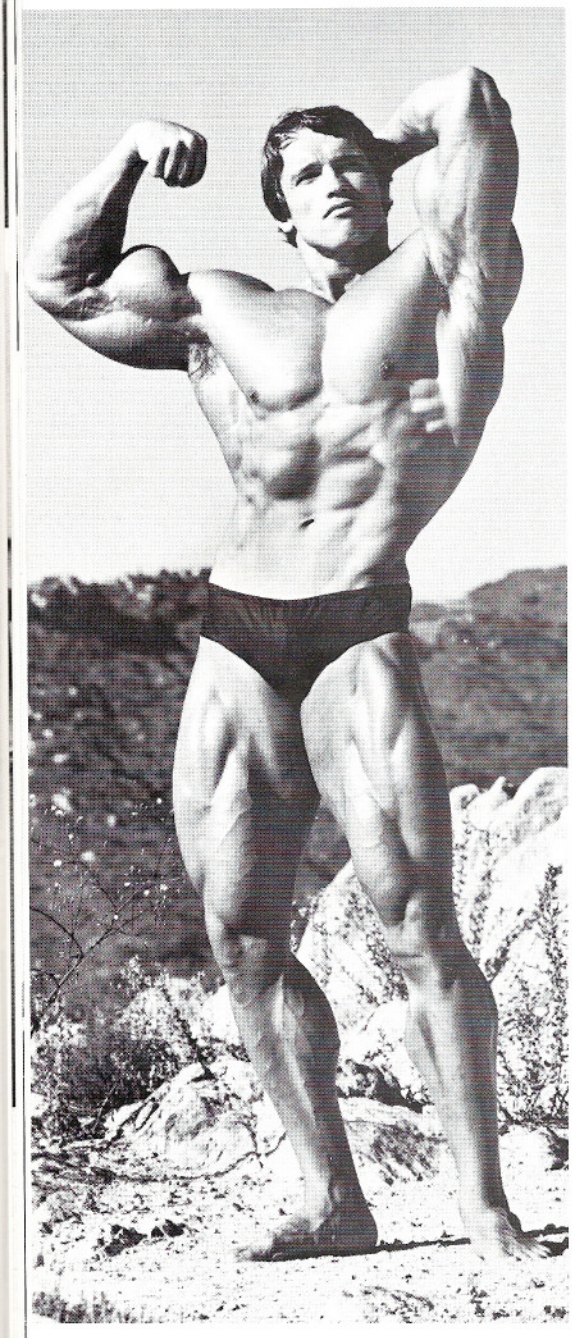
The **serratus anterior,** a thin muscular sheet between the ribs and the scapula

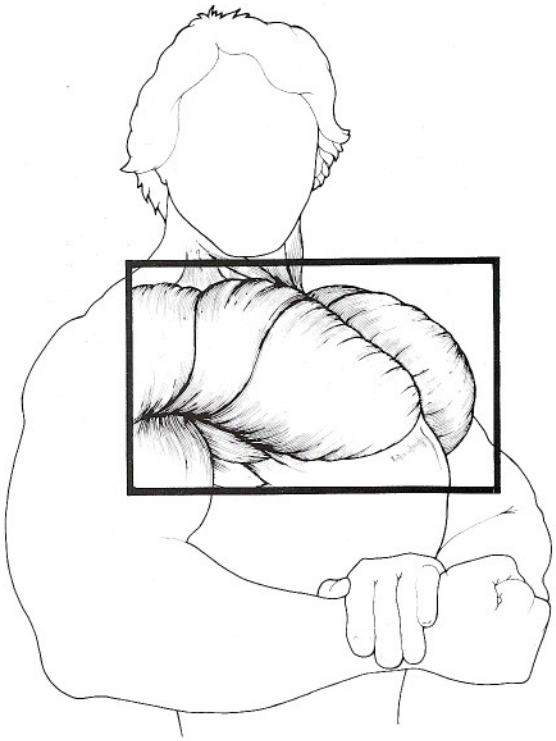
BASIC FUNCTION: To rotate the scapula, raising the point of the shoulder and drawing the scapular forward and downward

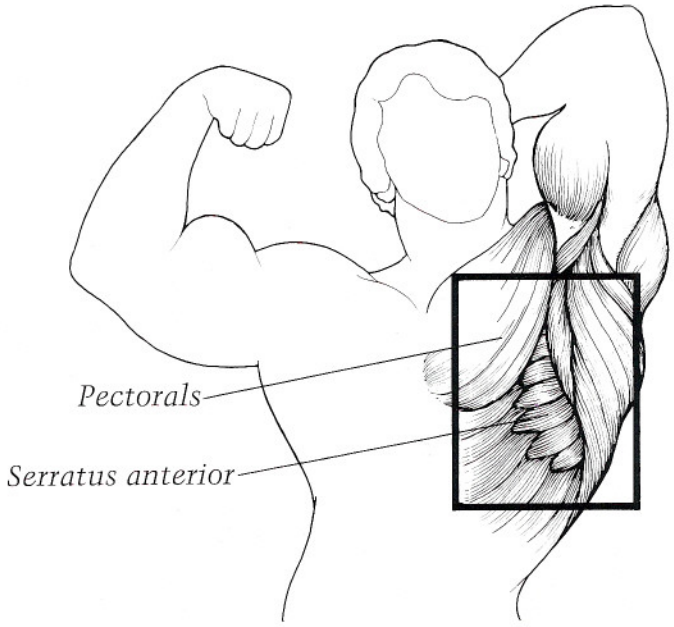


TOTAL CHEST DEVELOPMENT

A really deep, well-shaped chest is one of the most important qualities in a bodybuilding physique. To achieve this requires training with a variety of exercises—to develop the upper and lower pectorals, the inside and outside pectorals, and the tie-ins to the deltoids, and to expand the entire rib cage to show off the pectoral muscles to their best advantage.

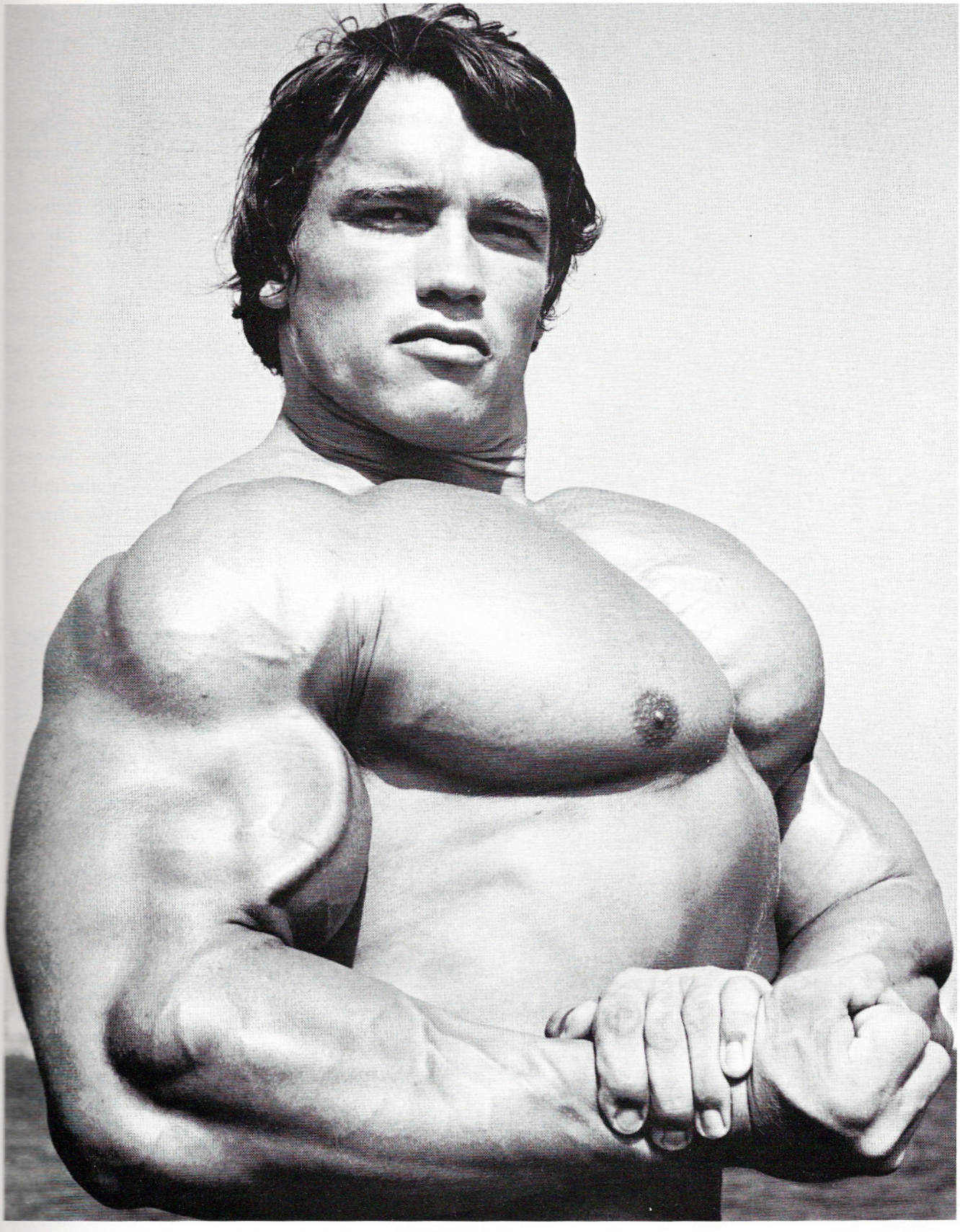




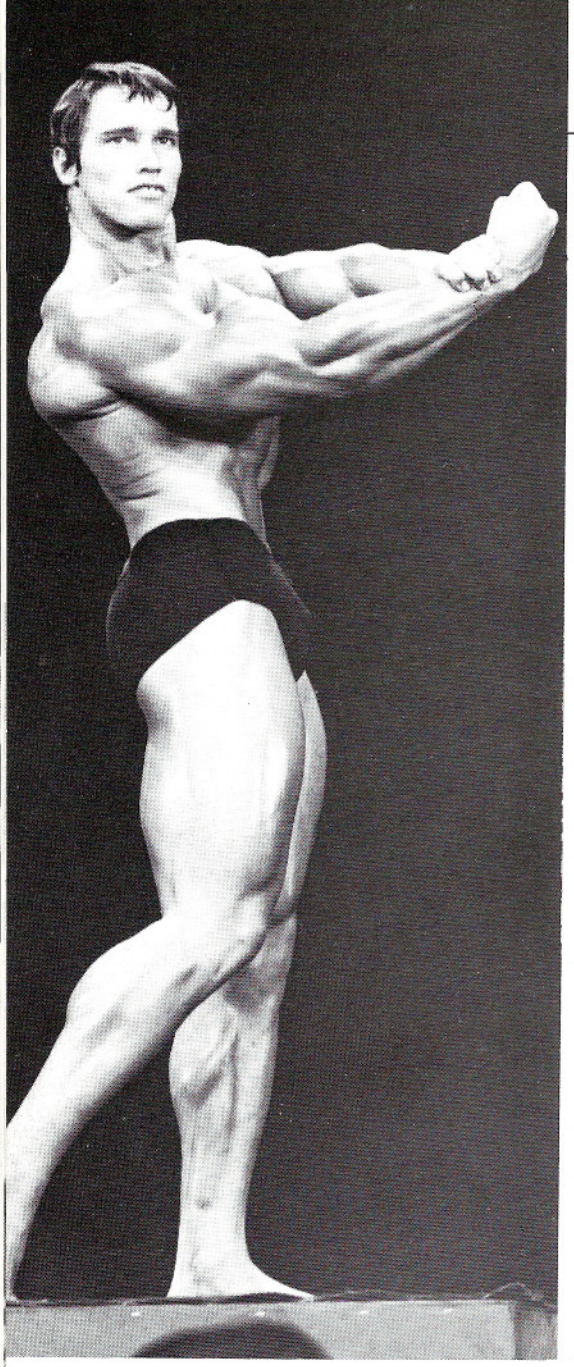


But perfecting the chest is more difficult than many bodybuilders believe. You can have a huge rib cage and huge, thick pectoral muscles, but this will not guarantee a perfect chest. Chest perfection, especially if you are interested in competition, involves all of the following:

1. A great rib cage
2. Thick pectoral muscles
3. Development of the inside, outside, upper, and lower areas of the pectorals



This is what you need to make a side chest pose really effective: a great rib cage under big, fully developed pectoral muscles.



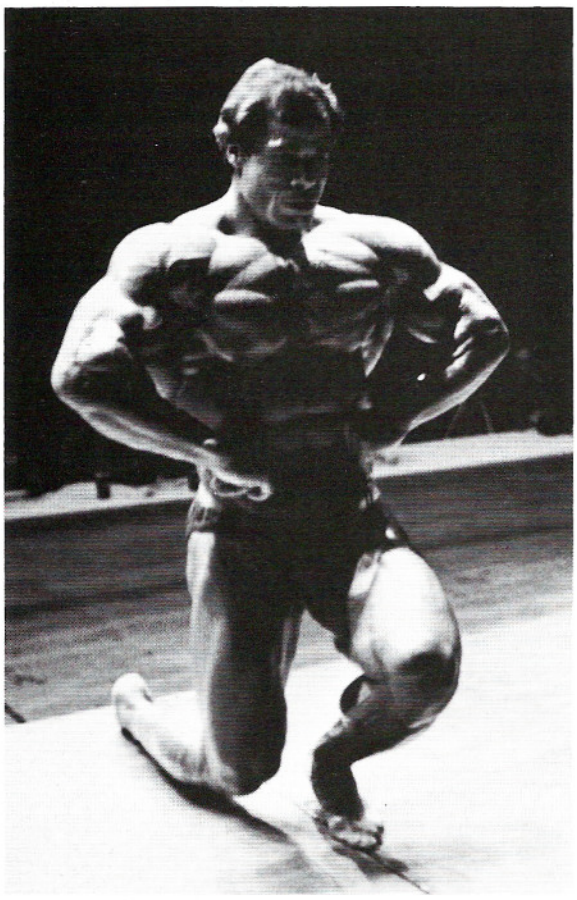
Thick pectoral muscles complement deltoid and upper-arm muscularity in a straight-arm side pose.

4. Visible striations when the pectorals are flexed, such as in a most-muscular shot, with the striations showing from the middle of the rib cage all the way across and from top to bottom
5. A clear separation of upper and lower pectorals
6. A shape that gives a nice square look, achieved by a lot of upper pectoral development, rather than one in which the muscle seems simply to be hanging down
7. Sufficient development so that the pectorals don't totally disappear when you lift your arms over your head or do a front double-biceps shot

The chest program included here is specifically designed to help you achieve complete pectoral development as just outlined. Of course, some bodybuilders are extremely lucky in their genetic potential for chest development. Sergio Oliva used to do only one kind of exercise for the chest—Bench Presses—and his chest muscles would rise like a loaf of bread. Reg Park is gifted with an enormous rib cage, making his pectoral development all the more impressive. John Grimek also displayed a wonderful rib cage that made his chest poses look terrific. As a former

When Franco Columbu hit a chest pose, you could see every area of the chest clearly delineated—the upper and lower chest, the separation of upper chest from deltoids, the inner pectorals, and the tie-in of the chest to the serratus.

The chest is the centerpiece of the most-muscular pose. Notice how the striations of the pectorals hold together all the other elements: the traps, front delts, arms, and abdominals.

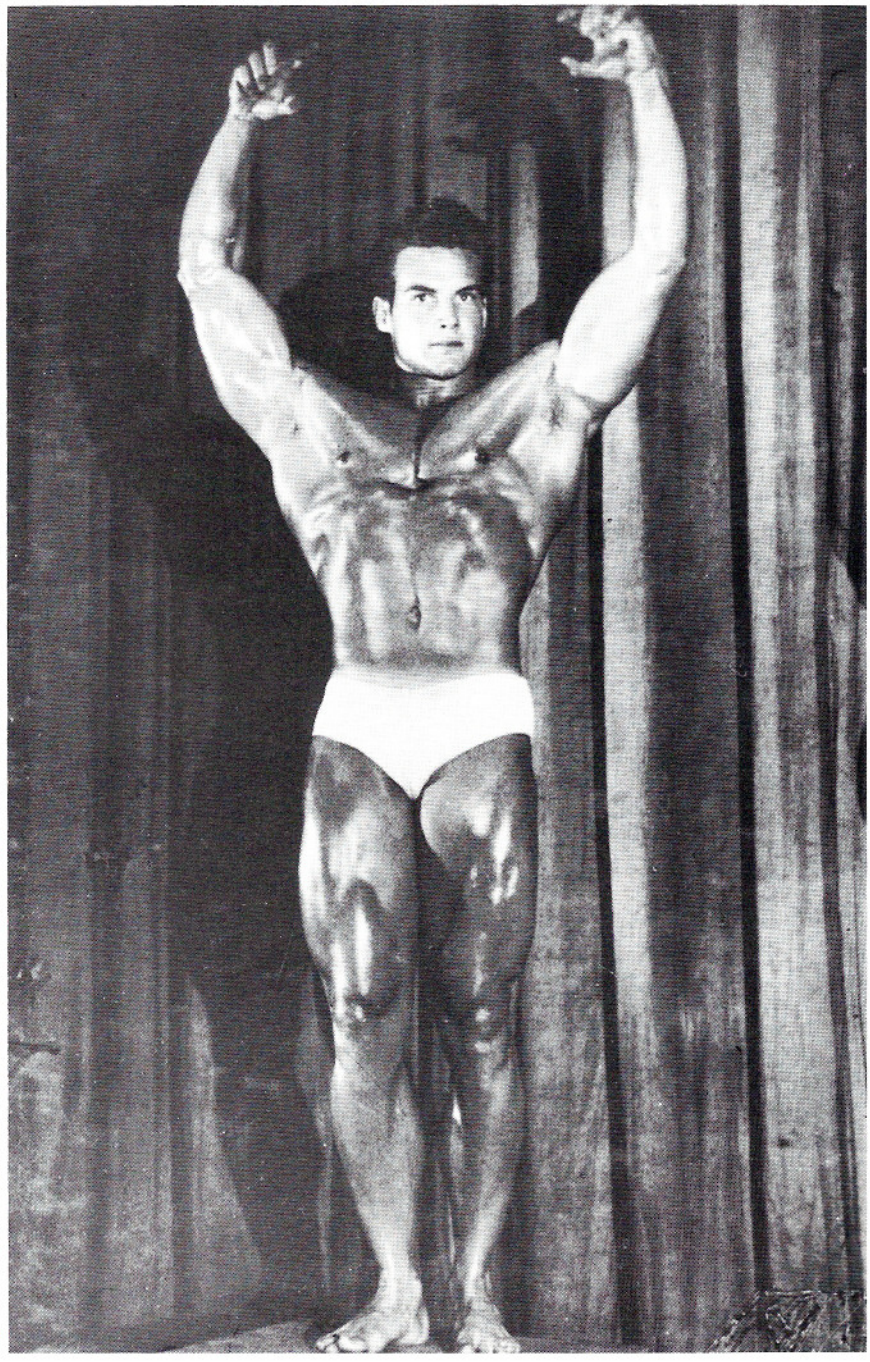


Franco Columbu probably has the most separation of upper and lower chest of anyone in bodybuilding.

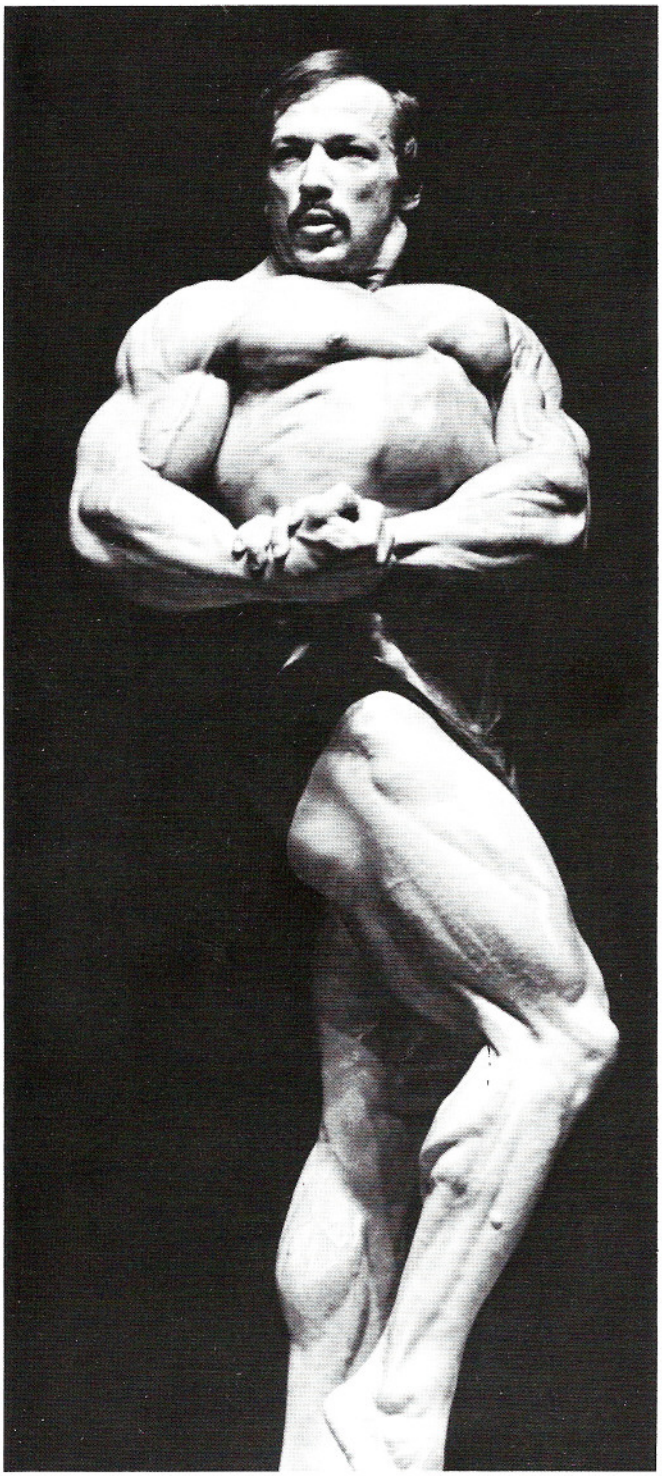
Serge Nubret's chest development is complete, including upper and lower, inner and outer pectorals. That's what gives him the desired square shape in this picture.

powerlifter, Franco Columbu has developed his chest so that the split between upper and lower pecs is awesome. Sometimes we used to jokingly refer to this vast chasm as the "Grand Canyon."

But genetically gifted or not, if you want to be a complete bodybuilder you need to develop your chest properly, and this means making up with skill, effort, and technique for what nature may have neglected to hand you on a silver platter.



As Steve Reeves demonstrates, with proper chest development your pectorals will not disappear when you lift your arms above your head.



Really thick pectorals allow a bodybuilder to hit a lot of very powerful poses, and when it comes to Herculean chest development, Casey Viator and Dorian Yates have always been among the most impressive.

TRAINING THE CHEST

There are two basic kinds of exercises for the chest: *Flys,* in which the extended arms are drawn together across the chest in a kind of hugging motion; and *Presses,* in which the weight is pressed upward off the chest with the involvement of the front deltoids and triceps in addition to a primary effort from the pectorals. The basic Bench Press is done with a barbell on a flat bench and is an all-time favorite exercise of bodybuilders as well as one of the three movements used in powerlifting competition. If you do Bench Presses correctly—using the proper grip and getting the fullest range of motion possible—you will be able to develop the overall mass of the chest.

However, changing the angle of the Bench Press—by doing it on an incline, for example—you transfer more of the effort from the middle pectorals to the upper pectorals and front deltoids. I believe in including Incline Presses in your program right from the beginning so that you don't find your upper pecs are underdeveloped relative to the middle and lower portions of your chest. Also, doing a lot of Incline Presses will help you create that split between upper and lower chest that is so impressive in most-muscular poses.

As with training other muscles, the greater the range of motion you get in chest exercises, the more intense the muscle contraction you achieve—which ultimately leads to the maximum amount of muscle growth. Therefore, especially when you are doing Flys, it is very important to stretch the pectorals as much as you can. This helps develop maximum flexibility, and increased flexibility results in more development. This is why so many of the top bodybuilders, as massive as you can imagine, are also flexible enough to twist themselves into pretzels.

But simply having large pectoral muscles is not enough if they are hung on a small, unimpressive rib cage. Though it's subject to controversy, I am convinced that I could effectively expand the rib cage by performing Dumbbell Pullovers. Be aware, however, that Pullovers performed on machines do not have the same effect. When you are locked into a machine the latissimus muscles bear most of the stress, so you do not get as much expansion of the rib cage.

As you progress in your training, you need to build on the basics and pay more attention to details. So that every area is reached for complete pectoral development I recommend including in your program a lot of Dumbbell Flys, Cable Crossovers, Dips, and other pectoral exercises.

Also, as you become more advanced, the program is designed so that you superset chest training with back movements. I believe that the pectorals, like the lats, need to be stretched as much as possible as well as developed by resistance exercise. Therefore, after you do an exercise like a Bench Press, you should immediately go to something like Chins, which

stretch the pecs to the fullest. This is also a highly time-efficient way to train, since you can work a different set of muscles while the first group is recuperating, making your workouts go much faster and burning off extra calories.

In the Advanced Program you also need to concern yourself with the serratus muscles, which are just below and to the side of the chest. The serratus will be dealt with in a special section, along with the intercostals. Development of these muscles shows the judges that you have achieved a high degree of quality as well as mass.

BEGINNING AND ADVANCED PROGRAMS

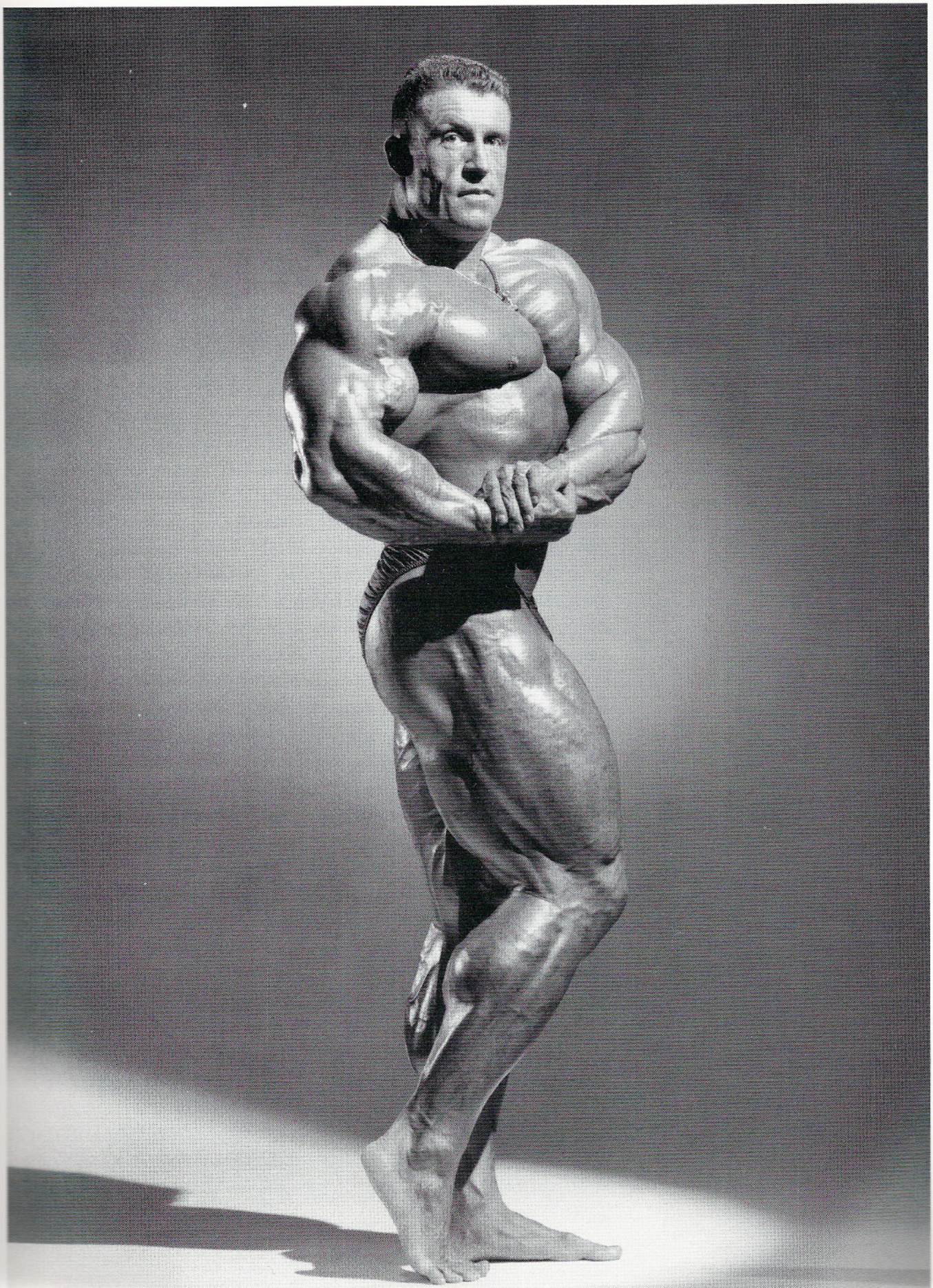
In my own early training, I practiced what I am now preaching: I started with the basics—Bench and Incline Presses, Dumbbell Flys, Dips, and Pullovers. After three years I was still doing only these five basic chest exercises.

When I moved to Munich after having been training for about four years, my pectorals were huge and I had certain weaknesses—upper pecs, for example. There I began training with my friend Reinhard Smolana, who showed me a very different kind of pectoral training. We would begin by doing Incline Presses standing and leaning back against a bench—which meant we had to clean the weight, fall back against the bench, do the set, then manage to stand upright again and put the weight back down. Only after we finished our Incline Press sets would we go on and do Bench Presses and Flys.

This emphasis on Incline Presses had its effect—after a while my upper pecs grew enormously until I could literally stand a glass of water on the upper part of my chest when I hit a side chest shot. Seeing how a change in one's training program can overcome a weak point was an important lesson for me.

Incidentally, this particular way of doing Incline Presses, having to clean the weight and handle the bar as I was falling back against the bench, gave me a secondary benefit—it enabled me to develop enormous strength, and with that strength came the added thickness and density that results from power training with heavy weights.

Dorian Yates has great upper chest development



By increasing the development of my upper pecs, I was learning two important lessons about how to sculpt the body and train for physical perfection: (1) It pays to put special emphasis on weak areas, especially to train them first when you are strong and fresh (Priority Principle); and (2) changing your training routine so that the body has to perform in unexpected ways accelerates development (Shocking Principle).

I also discovered how much the training ideas in any gym affect those who train there: In Austria, where the first exercise bodybuilders wanted to do was Curls, everyone had great biceps; in Munich, where we all used the same chest routine, everyone had good upper pecs; in Reg Park's gym, everyone had terrific calves and deltoids, just like Reg, but relatively less developed pecs because Reg himself believed excessive pec development interfered with the impressiveness of shoulder width.

It was also in the early days that I discovered the advantages of stretching the pectoral muscles while training them. Doing Dumbbell Flys or cable exercises, I would always stretch the chest muscles to their limit and then frequently include some back movements to further stretch the pecs.

One's particular anatomy can make certain exercises more or less effective. Bodybuilders like Nasser El Sonbaty, with huge, barrel-like chests and short arms, get very little out of doing regular Bench Presses unless they use an extraordinary amount of weight. When Nasser lowers the bar down to his massive chest and then lifts the bar back up, because of his relatively short arms he has more limited range of motion than somebody with a different structure, so the pectorals never get the kind of workout they need. People with this body type usually need to include more Incline Presses in their workouts or do Presses with dumbbells instead of a barbell so that they can lower the weights down past the top of the chest. This doesn't mean they shouldn't do Barbell Bench Presses at all, just that they must also include exercises with a greater range of motion. (I have also seen a bar used that has a curve in the middle, allowing you to drop your hands much lower when doing a Bench Press and thereby extending the range of motion considerably.)

Ken Waller (featured in both *Pumping Iron* and *Stay Hungry*) had enormously strong front deltoids. When he did a Bench Press, his delts got a tremendous pump and his pectorals seemed to work hardly at all. So Ken always relied a lot on Decline Dumbbell Presses instead.

In all matters involving your genetic inheritance and your natural leverage advantages and disadvantages, you are going to have to learn to adjust your training accordingly.

COMPETITION PROGRAM

When I first came to the United States, I already had plenty of size so I began to concentrate on detail training. I developed a more sophisticated program with additional exercises which included a lot of isolation movements for each of the important pectoral areas. Experts like the late Vince Gironda gave me a lot of ideas, so I went from simply having huge pecs to having first-rate chest development.

Each time I competed I learned something more. Gradually, I mastered all of the training principles outlined in this book from the Stripping Method to forced reps, and so on. And I learned from competitors like Serge Nubret, Frank Zane, and Franco Columbu that it takes a lot of dieting and, especially, endless hours of posing to give the chest the totally finished, muscular and defined look.

I have always gotten good results finishing off my chest workout with a triset—for example, a set of Dumbell Flys, then Dips, followed by Cable Crossovers. This pumps an enormous amount of blood into the area and forces you to go all out at the end, rather than pacing yourself and taking it easy—to make you hard, defined, and competition-ready.

As you prepare for competition, you need to concern yourself with even more specific details—things that you would hardly notice at other times suddenly become major weak points. For example, I have seen bodybuilders hitting a side chest pose and showing striations in the inner pecs, but not farther up on the chest. This kind of detail can make a big difference in a close contest. Therefore, I would advise these bodybuilders to superset Incline Presses (with a barbell or dumbbells) with Cable Crossovers to rectify this weakness. Sergio Oliva used to force his muscles to work in harder and unexpected ways by doing only three-quarter movements, lifting the bar off his chest in a Bench Press, for example, but not going all the way up, so that the triceps never came into play in the movement and his chest never got any rest at all. After using this method of training for just a few months, I found my chest became much harder-looking and more defined—which shows you how relatively small alterations in your training technique can make very substantial differences in your physique.

The Competition Program for the chest is designed on a push-pull basis, combining movements for chest and back done as supersets and trisets. Combining these exercises gives you a tremendous pump, and will really blast your chest muscles and give them the size, shape, definition, and tie-ins you need for successful competition.

Supersets like Weighted Chins plus Incline Bench Presses, Flat Bench Presses plus Wide-Grip Chins, and Dumbbell Flys plus Bent-Over Barbell Rows keep the back and chest pumped at the same time and allow you to train pectorals and lats each in turn—muscles which work in

opposition to each other—so that one has a chance to rest while the other does a set. And since you are dealing with opposing muscles, every set for the back helps stretch the pectorals while they are recuperating for the next chest set.

WEAK POINT TRAINING

As with any other body part, once you have been training for a while you are likely to notice that some areas of the chest are developing better and more rapidly than others. To correct this imbalance, you will have to alter your program and include more exercises to stimulate the areas that are lagging behind. Following is a list of exercises for improving each area of the chest, though no exercise works in complete isolation.

Serge Nubret has developed one of the most balanced chests in the world, with every one of the pectoral areas in complete proportion to the rest.

Upper Pectorals

Incline Presses with a barbell or dumbbells or Smith machine
Incline Flys

Lower Pectorals

Decline Presses with a barbell or dumbbells or machines
Dips
Decline Flys
Cable Flys

Inner Chest

Cable Crossovers
Presses or Flys holding the contraction at top for several seconds
Bench Presses done with narrow grip

Outer Chest

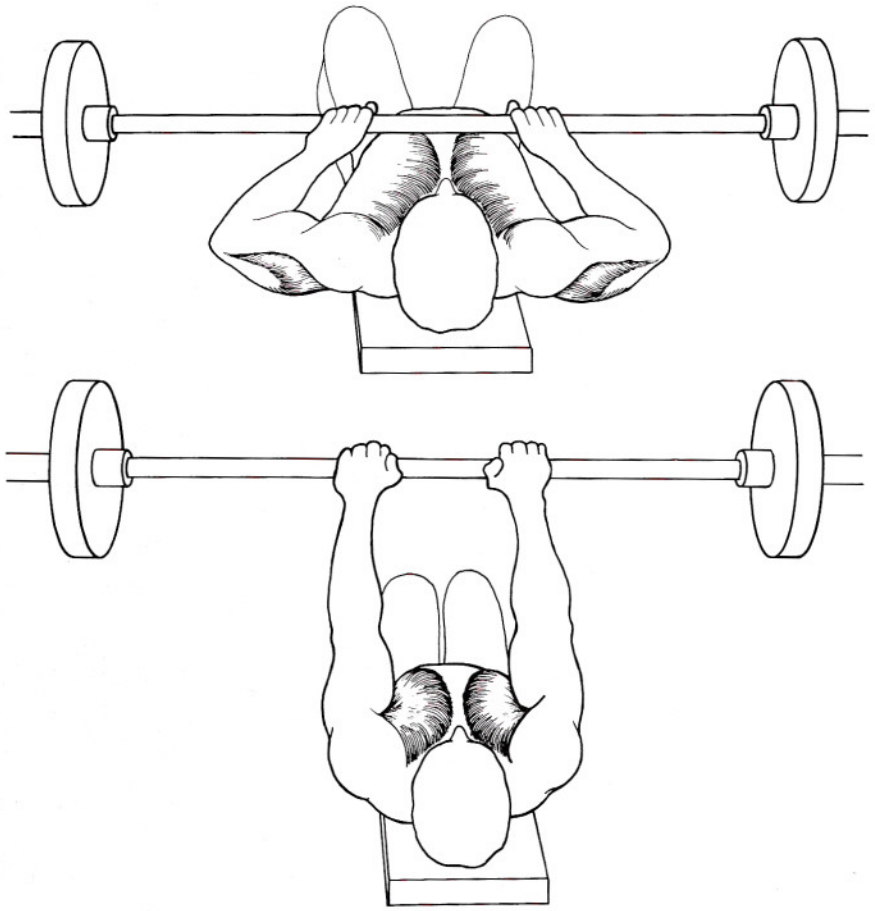
Dumbbell Flys concentrating on full stretch and lower range of motion
Dips
Incline Presses and Bench Presses done with a wide grip and lower three-quarter movement
Dumbbell Flys
Dumbbell Bench Presses stretching at bottom, coming up only three-quarters of the way and not letting dumbbells touch
Incline Presses with bar

Rib Cage

Dumbbell and Barbell Pullovers

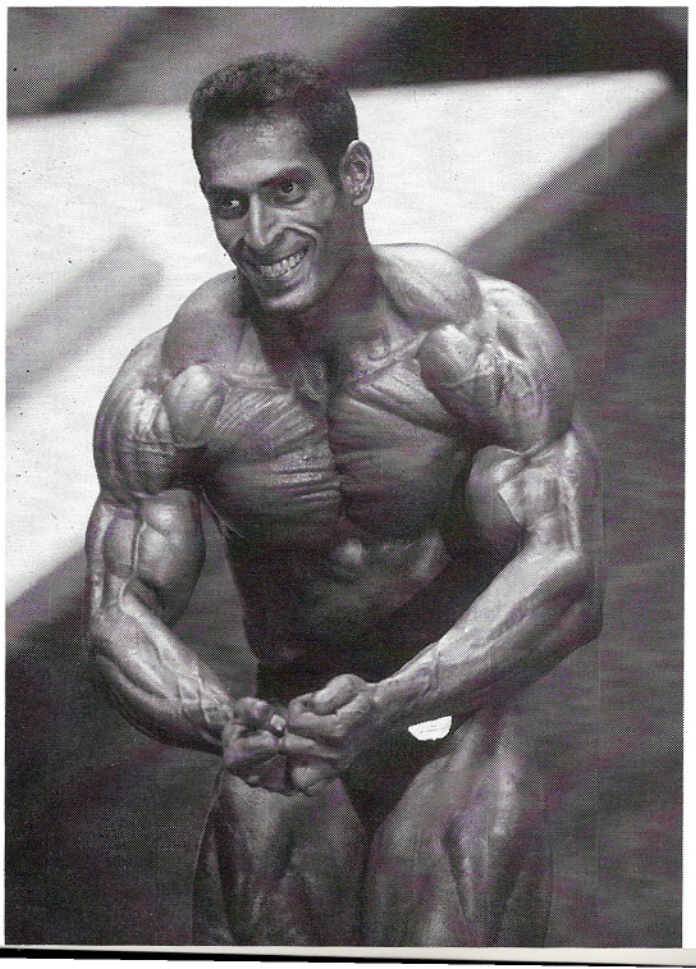
When you have a weak point in chest development, train your pectorals according to the Priority Principle, doing the exercise for that weak area first, when you are fresh and at your strongest. In the early stages of my career, I always felt I suffered from a comparative lack of upper pectoral development. So I would begin my chest training with Barbell Incline Presses followed by Dumbbell Incline Presses to really hit this area. Only then would I go on to regular Bench Presses and the rest of my chest routine.

But there are times when this kind of specialized weak point training is not justified. For example, if you have problems with the inner chest, I would not recommend starting out your routine with an exercise like Cable Crossovers. Instead, try to work on this area as you are doing the rest



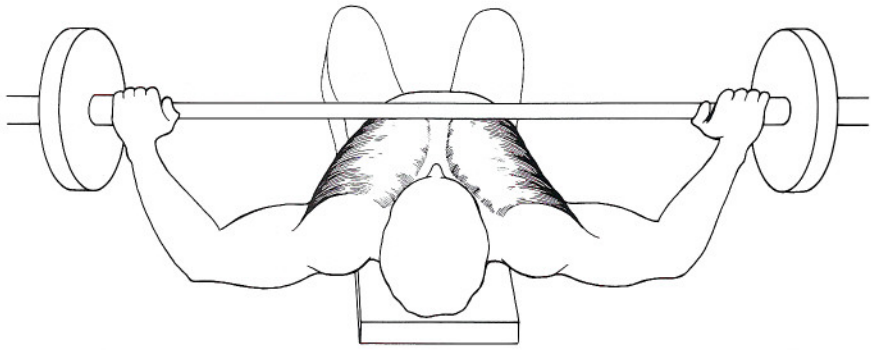
This is the proper way to do Narrow-Grip Bench Presses: Keeping the elbows out and away from the body at the bottom of the movement . . .

. . . allows a full contraction of the pectorals at the top, which helps to develop the inner part of the chest.

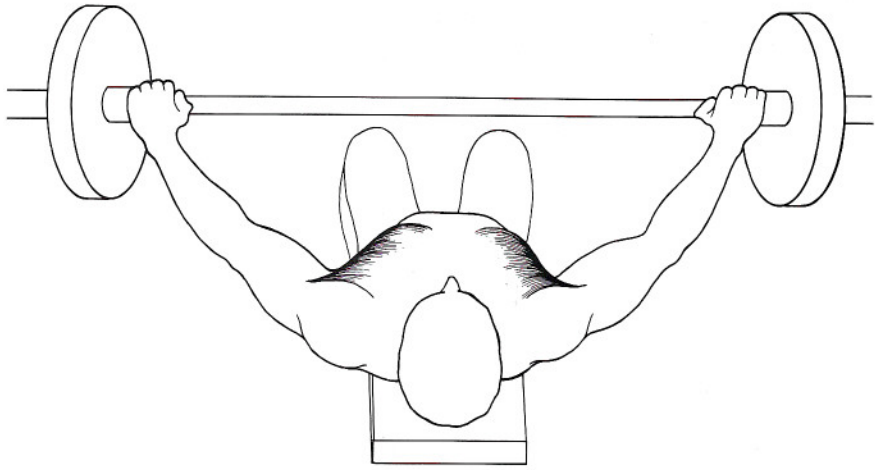


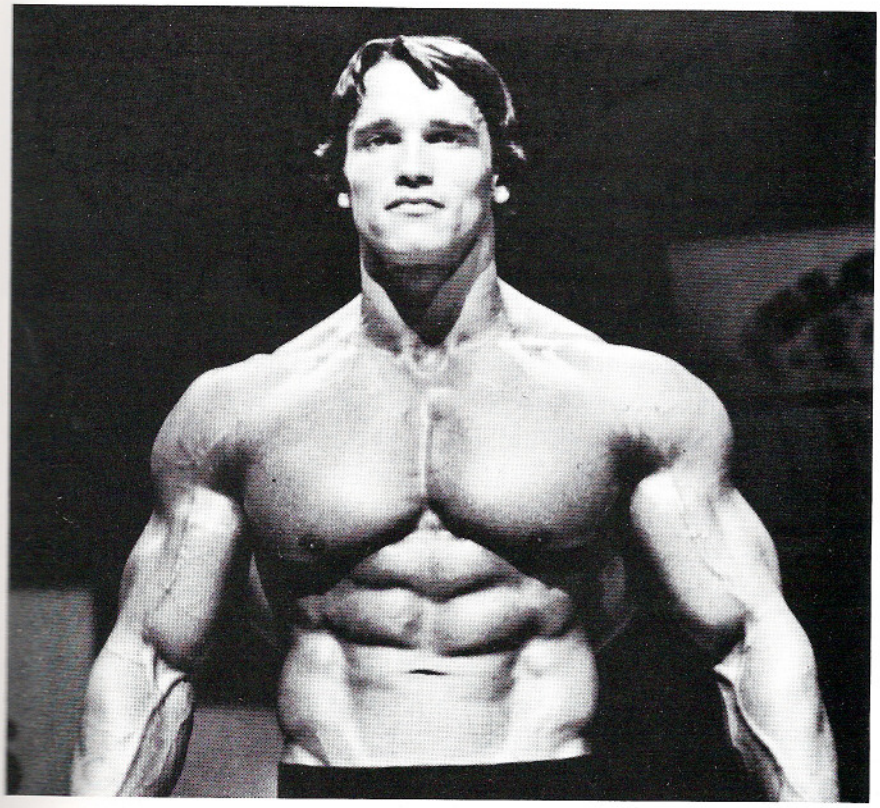
This shot of Hamdullah Aykutlu shows clearly the sharp and defined development of his inner chest.

Taking a wide grip on the bar . . .



. . . allows you to get a tremendous stretch in the pectoral muscles as you lower the weight. This is very effective in developing the outer pectorals.





The development of the outer chest is what gives the pectorals a really full look when seen from the front. In this photo I am standing relaxed, but my outer pecs and biceps are almost touching.

This picture of Dorian Yates shows how important a good rib cage is for executing a side chest pose.

of your chest workout—perhaps locking out all of your pressing movements, and really tensing and contracting the inner pecs. Then, at the end of your workout, you could add on some extra Cable Crossovers or other exercises specifically designed to hit the inner chest.

The same thing can be done for outer chest development. You can emphasize this area during your routine by lowering the weights a few inches farther when doing Dumbbell Flys and by getting the fullest possible stretch with other pectoral exercises. You don't have to schedule specific outer pec movements at the top of your routine in order to deal with this weak point the way you would if your problem was the upper, lower, or middle chest. The most adjustment I would recommend for pectoral weak points would be to widen your grip while doing Bench Presses in or-

der to hit the outer pecs or use a narrow grip to work the inside pecs harder.

When doing Presses the area of the pecs you work hardest is determined by the angle at which you do the exercise. For example, in training the upper chest I used to start out doing 3 sets of Dumbbell Incline Presses at an angle of only 15 degrees. I would go to 25, 35, 50 degrees, and so on, doing 3 sets at each angle. At the end of a workout like that, I could feel I had really blasted the entire upper chest and that no part of that area had escaped attention.

Barbell exercises normally allow you to use more weight, so you develop maximum mass and strength. Dumbbell exercises give you a longer range of motion, so you get more extension and contraction. Cables allow you to work at a variety of angles, so you get more shaping for a better finished look. A disadvantage of machine training for the chest is that the apparatus only lets you work at very specific angles, but you can turn that to an advantage if you want to work the muscle at that angle to develop a weak area.

Dumbbell Flys are ideal for developing the outer pecs, but you need to employ a particular technique to get the most out of this movement. Lie on a bench and let the dumbbells down just as far as you can. Then when you come up, stop about three-quarters of the way. This technique puts all the effort on the outer pecs and never lets them disengage from the exercise.

But you can use Dumbbell Flys to work the inner pectorals as well, by bringing the weights all the way up, squeezing the muscles together at the top, and even crossing the dumbbells over slightly to get a full contraction of the inner pectorals.

Inner pectoral development in general comes about by working the top range of pectoral movements—a Bench Press with a narrower grip, for example, with the bar pushed all the way up; or Cable Crossovers, letting the arms cross over each other, which really contracts the inner pecs.

Decline exercises work the lower pec region more intensely. These include Decline Presses, Decline Flys, Decline Cable movements, and Dips. I like Dips because, by bending farther forward or holding yourself straighter, you can change the way the stress hits the muscle even right in the middle of a set.

If your pectorals just seem to disappear when you raise your arms over your head, I recommend doing a series of Incline Dumbbell Presses at a variety of angles, starting out almost flat and going up until you are almost doing a Shoulder Press. This will produce the kind of total development that gives you impressive pecs even when your arms are raised or when doing a front double-biceps shot.

There are exercises you might do for weak point training that you would never do in a normal workout if you weren't trying to overcome a problem. This is why I caution young bodybuilders against simply copying

what they see a champion doing in the gym. He may be doing some sort of One-Arm Cable Lateral motion at a special angle in order to deal with a weak point. If you assume that exercise is a standard one and include it in your regular routine, you might end up wasting a lot of time and energy and holding back your overall progress.

Remember, even when doing weak point training, don't totally neglect any area of the muscle group. However, you can cut down on the number of exercises that work a strong area while adding extra movements to work a weak point.

Some experts say that you can't develop the size of your rib cage once you reach a certain age—about the early twenties. It is certainly true that the cartilage binding the rib cage stretches more easily at a younger age, but I have seen too many older bodybuilders improve their rib cage size to believe that this cannot be done. It is just a matter of time, effort, and patience—like so much else in the discipline of bodybuilding.

Finally, remember that the best way to force a weak body part to develop is by using a variety of Shocking Principles to increase training intensity. Chuck Sipes always liked to do Bench Presses using the Stripping Method. He would start off pressing around 400 pounds, do as many reps as he could, and then have his training partner strip plates off the bar so that he could keep going and really blast his pectorals. You can also use techniques like forced reps, Rest/Pause, three-quarter movements, Staggered Sets, or anything else that will force the kind of development you need.

I especially like the idea of heavy days for maximum chest development. Once a week I usually trained my chest with extra heavy weight: 5 or 6 reps at the most, 100-pound Flys, Incline Presses using 365 pounds for 6 to 8 reps, super-heavy (450-pound) Bench Presses to produce the maximum pectoral mass and thickness.

POWER TRAINING

To develop maximum power, mass, and strength in the chest, I recommend a program in which you:

1. Begin with Bench Presses. Do 20 reps the first set, then 10 reps. At this point, raise the weight so you go immediately down to 5 reps, 3 reps, and 1 rep.

2. Continue doing as many sets as you can (at least 5) with a weight that allows you only 1 or 2 repetitions.

3. Perform the last set with a lighter weight that allows you to go back up to high repetitions.

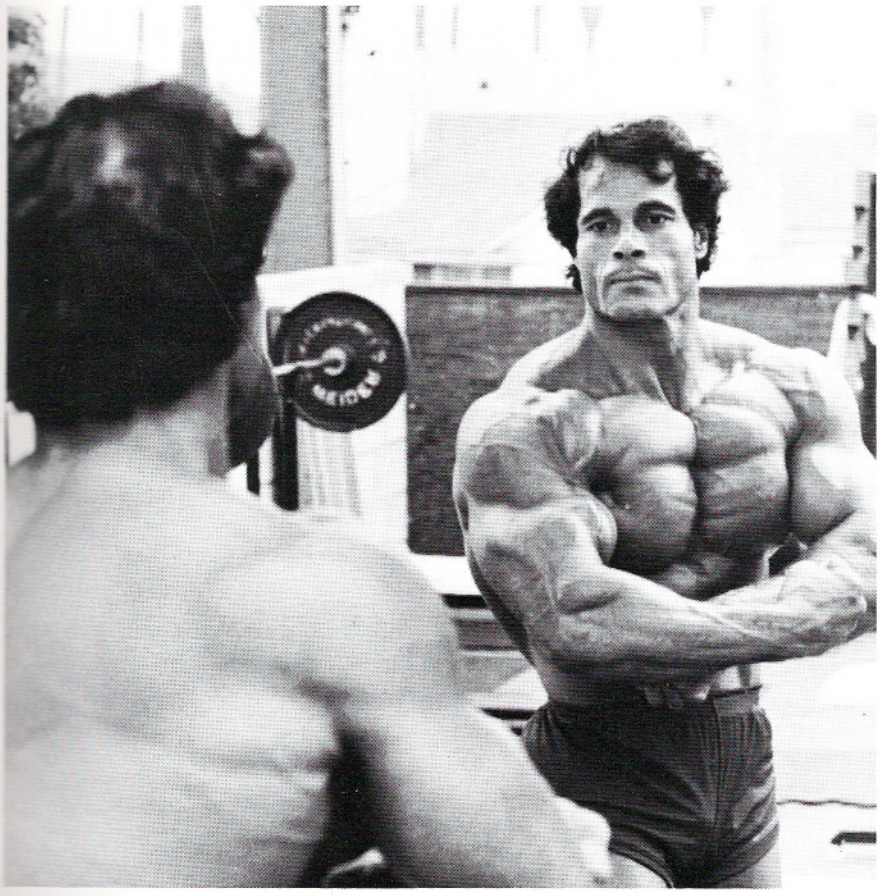
4. Go on to Incline Presses and do them the same way. Afterward, follow the same program with Dumbbell Flys.

POSING AND FLEXING

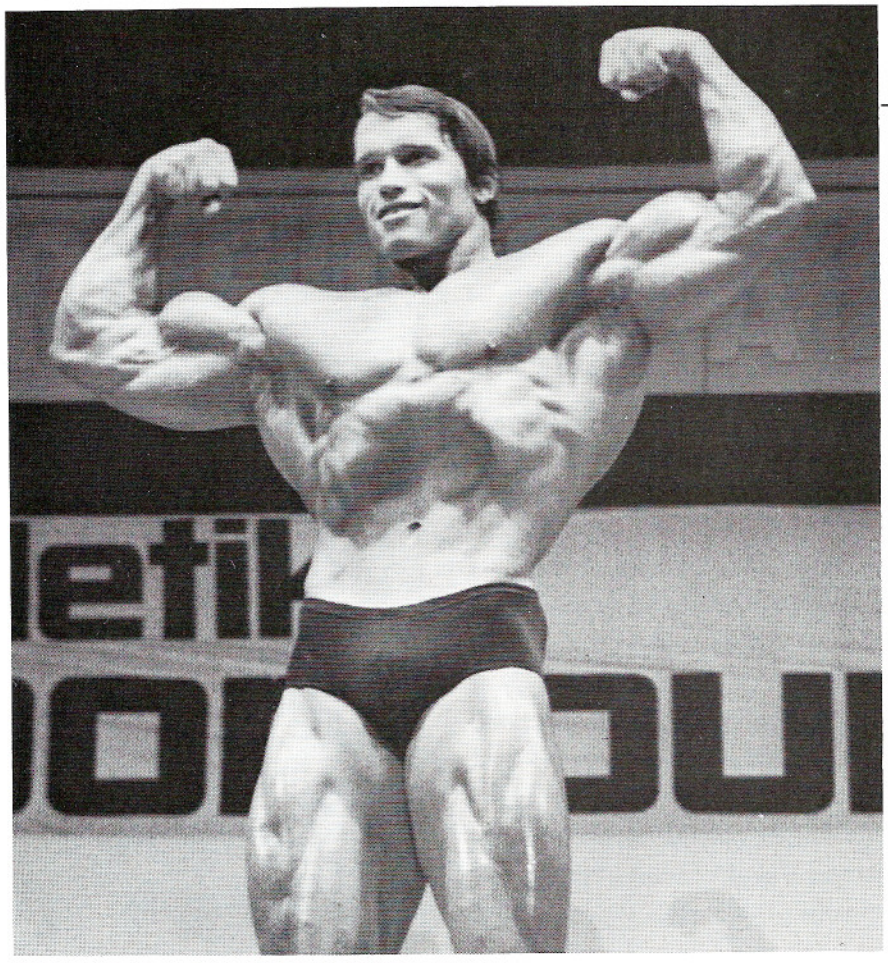
On heavy days especially, I always include a great deal of posing and flexing along with heavy weight training. Hitting a lot of side chest shots and most-muscular poses along with intense training is the best way I know to bring out pectoral striations. I've seen a lot of bodybuilders try to create these striations by artificial means—dehydrating themselves with diuretics, for example—but it just never looks as good as the results you get from hard training, posing, and flexing.

Learning to pose the chest properly takes a lot of practice. When you do a side chest shot, a front double-biceps, a most-muscular, or a front lat shot, in each shot the chest is posed differently and you need to practice each of these poses separately to get the effect you want. For a front double-biceps, you need to pose with your shoulders forward to create that sweeping line of the chest from sternum to deltoid; in the side chest shot, you need to keep the shoulder down and lift the chest to make it look high and full. Flexing the chest as you train it is the only way to create maximum pectoral definition—and endless hours of posing practice is the only method that will give you total control of your physique for presentation.

Not only do you constantly need to pose and flex your pectoral muscles, you also need to practice a variety of ways of showing off the chest. Here, I am doing a side chest shot.



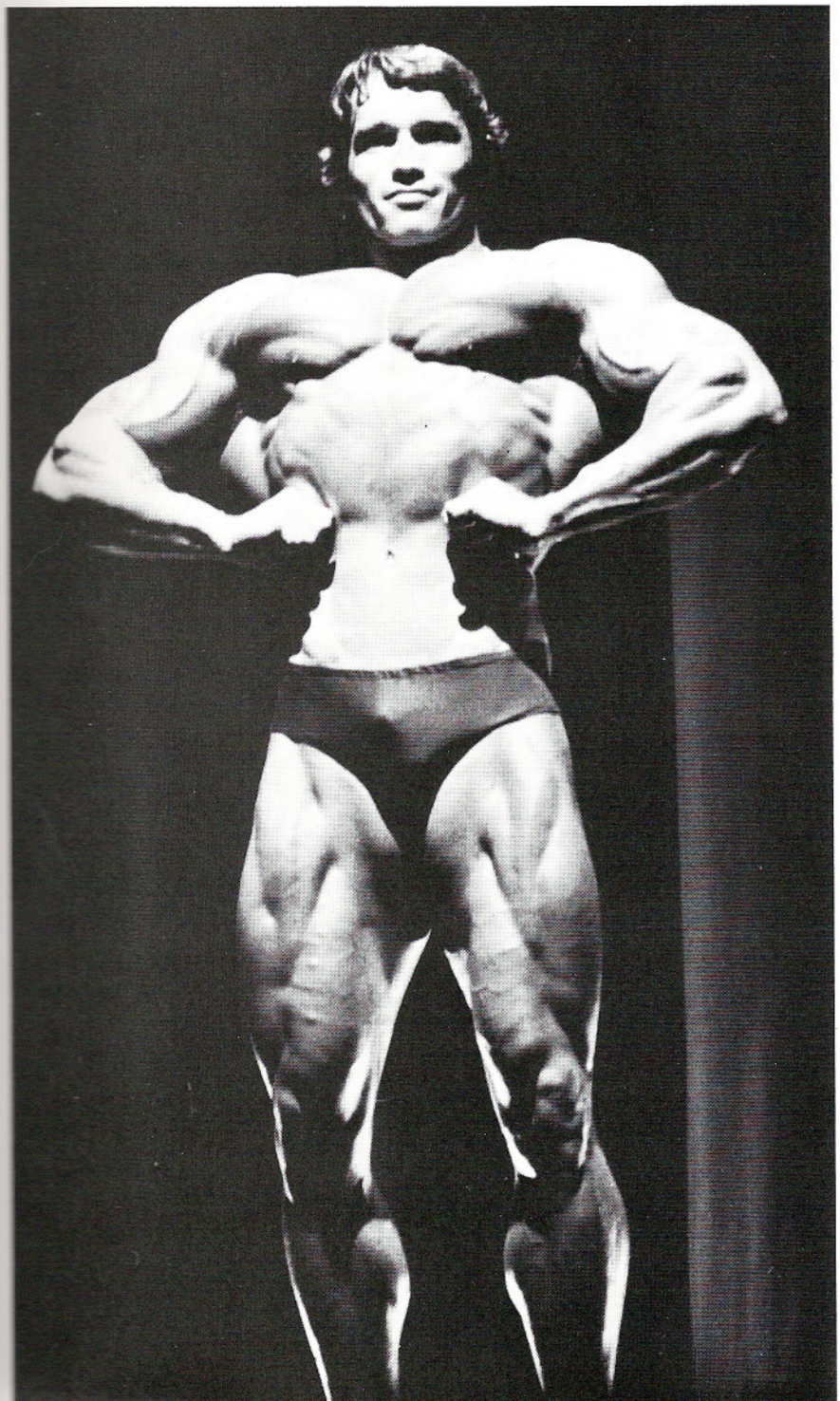
Franco Columbu checks out his inner pectoral development.



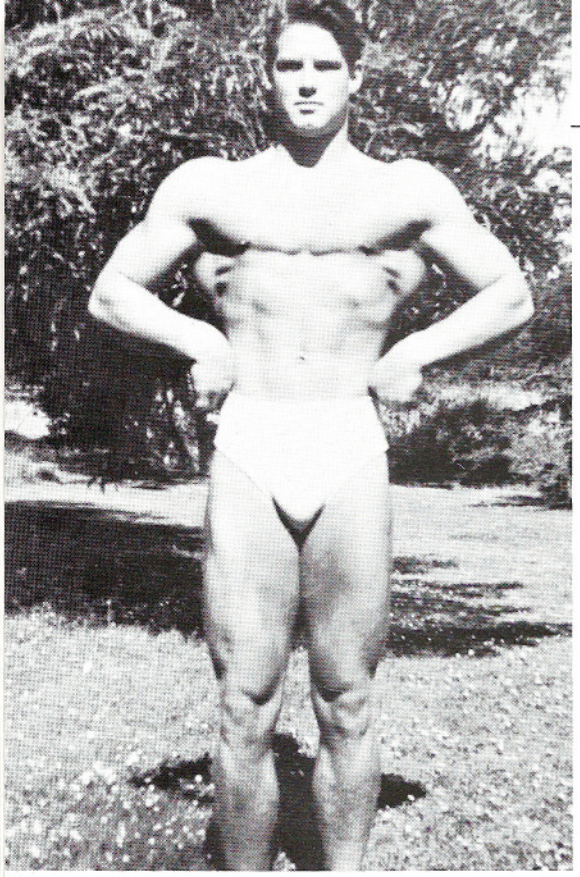
The front double-biceps shot is one of the most difficult in bodybuilding. Any faults you have become immediately visible, especially if your chest tends to disappear when you lift your arms.

Sometimes you don't need to pose at all—just flex your pecs as hard as possible, hold it, and see what happens.

When you hit a most-muscular pose, the chest should look like an anatomy chart—every area developed, defined, separated, and striated.



Upper and outer pec development is particularly important when you hit a front lat spread.



Steve Reeves at fifteen

Steve Reeves at twenty-four as Mr. Universe

THE SERRATUS MUSCLES

The serratus muscles lie parallel to the ribs, coming out from under the lats and forward to tie into the pectorals and the intercostals and downward to the external obliques. When they are properly developed, these muscles look like fingers, with each digitation clearly defined and separated from the others. The serratus muscles are not like other muscles in that you don't measure their level of development with a tape measure; it is their visual impact that makes the difference.

Complete serratus development is important for a variety of reasons: For one, it announces clearly that this bodybuilder has achieved real quality detail training; for another, the serratus helps separate the lats from the chest and the obliques, and aids in making them appear much larger when seen from the front. Good serratus development also helps make you more symmetrical and athletic.

Some people are naturally gifted with great serratus development. There is a photo of Steve Reeves doing a front lat spread when he was fifteen years old and had been training for only a year—and sure enough, you can see the serratus already several fingers deep. Later, when he went on to win the NABBA Mr. Universe contest, his serratus development was really spectacular.

Bill Pearl was able to combine impressive size with aesthetic qualities like highly defined serratus muscles, proving that you can achieve both mass and quality without compromising either. Pearl was able to hit a variety of overhead and front poses because of his outstanding serratus development, and this made him a much more formidable opponent on the competition stage.

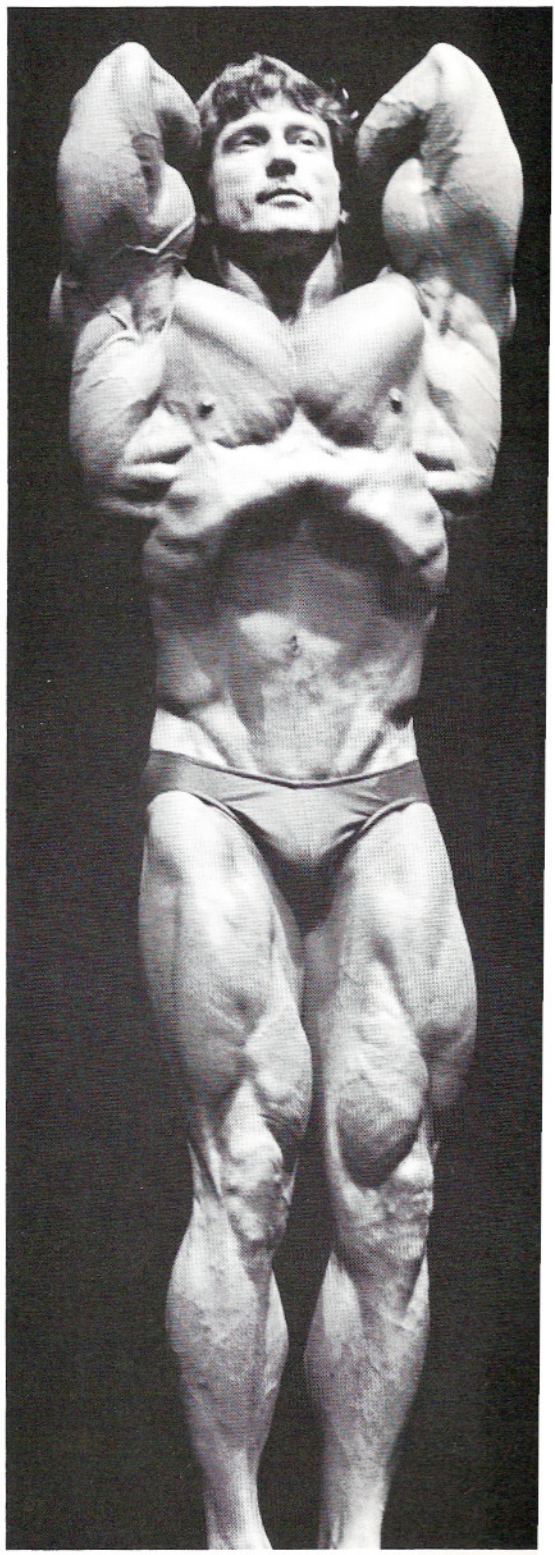
However, if you weren't born with great serratus development you can train for it by making a conscious effort to bring out these muscles. Frank Zane worked very hard at serratus training, and this helped establish him as a model for the complete bodybuilder and win three Mr. Olympia titles. Like Bill Pearl, Zane has found that his superior serratus development allows him to do a greater number of poses effectively, especially the aesthetic hands-over-the-head shots. (I recall standing onstage next to Zane in 1968, outweighing him by fifty pounds, and discovering that his lat spread was more effective than mine because of the tremendous lat separation his serratus development gave him. You can bet I started training the serratus extra hard after that!)

Reeves, Zane, and Pearl were my inspiration for developing the serratus. When they hit poses, especially ones in which the arms are raised, they demonstrated to me exactly what the serratus should look like.

TRAINING THE SERRATUS

Since a basic function of the serratus is to pull the shoulder forward and down, you train these muscles whenever you do movements like Chins, Close-Grip Pulldowns, various kinds of Dumbbell and Barbell Pullovers, and when you use the Nautilus Pullover machine. (When I do Dumbbell Pullovers, the structure of my body is such that this exercise becomes a rib cage expander. For others with different proportions—like Frank Zane and Bill Pearl—Dumbbell Pullovers tend to hit them more in the serratus.) There are, however, two exercises that work those muscles more specifically and that you can use if you have a weak point in this area: Rope Pulls and One-Arm Cable Pulls. In both cases, you have to do the movement as strictly as possible to get the maximum effect.

Working the chest and back with Chins and Pullovers, you will have already done some serratus work. This is the time to consciously isolate the serratus, to concentrate on making these muscles burn. It is not enough just to throw in a few sets for the serratus, any more than for abs, calves, or intercostals. You need to train each muscle with maximum intensity if you want a complete and quality physique.



The combination of outstanding serratus development and an impressive vacuum make this hands-over-the-head pose one of Frank Zane's best.