

# **Nautilus Bulletin #1**

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## Conclusions

There has been a great deal of repetition in the earlier chapters – it was intended that there should be; in large part, most of the preceding could be summed up in a very few words, "...work HARDER, but very briefly – and infrequently."

If the reader expected this bulletin to be a long description of the new Nautilus training equipment, then it may prove a disappointment – and for that reason, one of the following chapters will be devoted to a brief outline of the principles incorporated into the new types of equipment; however, the major value of the new equipment is provided by the fact that it makes harder exercise possible – and if the main points outlined in this bulletin are clearly understood, and properly applied, then a rather large part of the value provided by the new types of equipment can be derived from conventional training equipment.

In some cases it is possible to obtain any possible degree of results without the use of any new types of equipment; and in a few other cases the new equipment produces better results primarily because it forces the trainee to perform his exercises in a proper style.

It should be clearly understood that "style of performance" of an exercise – almost ANY exercise – is of utmost importance; and I would like to add that I seldom encountered a weight-trainee who performed any of his exercises in a proper style.

Performed in a proper manner, a total of only eight basic conventional exercises are capable of producing almost any degree of possible results –and far more quickly than most people would believe; these exercises are (1) standing presses with a barbell or with heavy dumbbells, (2) full squats, (3) stiff-legged deadlifts, (4) heavy barbell curls, (5) regular-grip chinning, (6) parallel dips, (7) barbell wrist-curls, (8) one-legged calf raises.

But in practice, most trainees avoid most of the above listed exercise – or attempt to replace them with other, "easier" movements which they hope will provide the same degree of results; probably because they are simply not willing to work as hard as they should for the production of best results.

If, over a period of two or three years of training, the above eight exercises are alternated with a few other basic exercises, then ANY degree of results that are possible with conventional equipment can be produced; these exercises are (9) leg presses, (10) thigh extensions, (11) thigh curls, (12) pulley triceps-curls, (13) behind-neck "pull-downs" performed properly, with a narrow, parallel grip, (14) shoulder shrugs, (15) standing side-raises with dumbbells, (16) the proper use of a "gripping" machine, (17) incline and decline presses with heavy dumbbells, (18) stiff-arm "pul-lovers" on a decline bench, (19) behind-neck presses, (20) sit-ups on a decline bench, (21) leg-raises on a steep incline bench, (22) "high pulls" – or front rowing with a barbell, (23) side bends with a dumbbell, (24) bent-forward rowing with a barbell.

But it should also be clearly understood that attempting to use all of the above listed exercises at the same time would be a major error; in most cases, not more than ten exercises should be practiced – and best degrees of results will almost always be produced if sets are limited to two, performed three times weekly.

Many people have expressed interest in a "calf machine" based on the Nautilus principles; and while it would be easily possible to build such a machine, I have refused to do so – because it is not required. For the purpose of developing any possible degree of size and/or strength into the major muscles of the calves, all that is required in the practice of one-legged calf raises while holding a dumbbell in one hand.

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Properly performed, barbell wrist-curls will build literally huge forearms – and thus it might appear that no new types of equipment would be required in this case either; however, in fact, it seems to be almost impossible to teach people the proper style required – or to get them to practice a proper style once it is understood. So, in this case, the new equipment is a requirement – because it forces the trainee to perform the movements properly.

If only a few actually very simple points are understood – and applied in practice – then almost all trainees can reach their individual limits of muscular size and strength very quickly, and as a result of brief, infrequent workouts; these points are listed below.

1. In order to involve all of the fibers of a particular muscle in an exercise, the muscle must be exposed to heavy resistance while in its position of full contraction. No matter how hard a muscle is worked in any other position, you are not involving the total number of available fibers.
2. But simply working a muscle in its position of full contraction is not enough; while in that position, it must be worked to a point of momentary failure.
3. This should be done in the performance of sets of at least six full repetitions and not more than twenty full repetitions; but in all cases, additional partial repetitions should also be performed until a point is reached where any amount of movement is impossible.
4. Workouts should be designed to include every major muscular structure in the body, with emphasis on the largest muscular masses.
5. Workouts should be outlined in such a fashion that the muscles are worked in their order-of-size; the largest muscles should be worked first, etc.
6. Exercise movements should be performed as rapidly as possible consistent with safety considerations while maintaining proper form.
7. The entire workout should be completed in not more than one and one-half hours; a total weekly training time of four and one-half hours.
8. If a "split routine" involving six weekly workouts is used (and the author's experience indicates that it seldom should be), then no single workout should exceed one hour in length – and total weekly training time should still be limited to about four and one-half hours.
9. In almost all cases, two sets of any one exercise are all that are required for maximum muscle-growth stimulation; and any additional exercise will reduce the production of results. In no case should more than three sets of any particular exercise be practiced.
10. "Bulking up" by the purposeful addition of fatty tissue is always a mistake; very recent evidence indicates that fat cells, once added (and fat cells, unlike muscle fibers, CAN be increased in number), can never be removed – apparently the SIZE of such cells can be reduced, but the actual number of cells will not be reduced by anything short of surgical removal.

Such fatty tissue will add little or nothing to the performance ability of any athlete (with the possible exception of long distance swimmers, and the value is questionable even in this instance); but attempts to remove all remaining visible traces of fat will almost always produce a condition of over-training and result in actual reductions in performance ability.