Nautilus
Bulletin #1
"Break-in" Training

Extreme degrees of muscular soreness can be – and should be – avoided by following a carefully outlined "break-in" program of training for at least a week; and in some cases, as much as ninety days of break-in training may be required. Although, in such cases, prolonged break-in training will not be required because of any considerations due to muscular soreness.

During the first week of training – if at all possible – a trainee should exercise daily for a period of about thirty minutes; during that first week of training, only one set of one exercise should be performed for each of the major muscle masses of the body – and these sets should be terminated before reaching a point of muscular failure. However, it is necessary to work the muscles fairly hard – no amount of light movements will prepare the muscles for the heavy workloads that will follow in the normal course of training.

At least some degree of muscular soreness is almost unavoidable, but it is neither necessary nor desirable to work a new trainee so hard that he will become extremely sore; but should extreme soreness result, then it is absolutely necessary to work the muscles quite hard until such a time that a normal condition returns. If a muscle is worked hard enough to produce an extreme degree of soreness within twenty-four hours, then that muscle should be worked heavily every day until no traces of soreness remain; if not, then the subject will probably be crippled for at least a week.

But while that is certainly true, it is almost impossible to convince a new trainee that he should heavily work a muscle that is already extremely sore; he will tend to feel, rather naturally, that hard work got him into that condition – and when you suggest even harder work as a cure, it may appear that you are suggesting pouring gasoline on a fire as a means of extinguishing it.

But if extreme muscular soreness results within twenty-four hours after a workout – and if no exercise is performed on the second day – then a literally crippling degree of soreness will result on the third day, and the fourth day will usually be far worse.

The worst form of muscular soreness involves the attachments of the tendons and ligaments, and in extreme cases it may be literally impossible to straighten the arms or stand in a normal manner with your heels flat on the floor; in such cases, more exercise – heavy exercise – is the only possible solution. Without additional exercise, normal activity may be impossible for as much as ten days or two weeks. But such a situation can be – and should be – avoided; if a new trainee suffers that sort of results from his first workout, you have probably seen the last of him – although he might be tempted to come around a month or so later and burn your house down, with some possible justification.

Some years ago, a man I knew suffered such a degree of muscular soreness as a result of one hard workout that he spent the next five days in the hospital – and was unable to resume his normal activities as a flight instructor for a period of more than a week after he got out of the hospital; and this man was in fairly hard muscular condition at the time of his first workout – or at least thought he was.

But, if he had returned for a second hard workout on the following day, then most of the prolonged effects would have been avoided – and his degree of soreness would never have approached the point that it actually reached. But trying to tell him that had no slightest effect – with the results mentioned above.
Thus – since new trainees usually cannot, or will not believe that heavy exercise is capable of reversing the effects that were caused by previous heavy exercise – it is best to avoid any sort of training that might produce extreme soreness.

During the first week of training, a new trainee should perform the following basic program of exercises – every day for five consecutive days:

1. Full squats 1 set, 20 repetitions
2. Standing press with barbell 1 set, 10 repetitions
3. Regular grip chinning on bar 1 set, 5 repetitions
4. Bench presses with barbell 1 set, 10 repetitions
5. Regular grip curls with barbell 1 set, 10 repetitions
6. Stiff-legged deadlifts 1 set, 15 repetitions
7. Calf raises on one leg 1 set, 10 repetitions
8. Sit-ups with bent knees 1 set, 10 repetitions

The actual resistance employed should be light enough to permit the designated number of repetitions without exhausting the working muscles – and the first week of training should be conducted under careful supervision, in order to assure that the trainee is performing the exercises properly and is not working to a point of exhaustion.

During the second week of break-in training, the same basic exercises should be employed in the same order – but only three workouts should be performed, on Monday, Wednesday, and Friday, or Tuesday, Thursday, and Saturday. And two sets of each exercise should be performed during each workout; the first set of each exercise should be performed exactly as that exercise was performed during the first week of training – with the resistance previously used – and the second set should employ approximately ten percent (10%) more resistance, and should be carried almost to the point of momentary exhaustion. The actual number of repetitions performed during second sets of the exercises will depend upon the recovery ability of the individual trainee – but in most cases it will be found that the subject will be able to perform about as many repetitions during second sets as he performed during first sets.

After two weeks of such break-in training, most subjects will be ready for a regular training program – but exceptions will occasionally be encountered; most such exceptions will involve trainees that are either extremely overweight or very thin – and great care is required in the supervision of the training of either type of individual.

While a thin individual may appear to be in good muscular condition, such subjects will almost never have much in the way of recovery ability, and if they are worked too heavily during the first two or three months of training, losses in strength and muscular size may be produced; in such cases, keep the trainee on a basic program of one set of each of ten exercises – movements designed to involve the largest muscular masses in the body – until such time that the subject is obviously gaining weight at a rate of at least one pound per week.

The number of repetitions in each set should be limited to about ten – with the exception of squats, which should be performed for twenty repetitions; but after a normal break-in period, each set of each exercise should be a maximum possible effort, leading to a point of momentary muscular failure.

Unless a thin subject is suffering from an undetected illness, he should gain at least thirteen pounds during the first three months of training – at a rate of one pound per week for thirteen weeks; and if so, then his training program can be increased to two sets of each exercise during each of three weekly workouts after the first three months of training.
But some thin subjects will respond to almost any sort of training in literally spectacular manner – they may gain twenty or thirty pounds during the first month of training; and in such cases, their program can be intensified after they have gained twenty or more pounds of bodyweight.

With overweight subjects, the situation is very similar – with the obvious difference of the weight problem; such individuals desperately need to burn up as many calories as possible, but are almost never in condition to stand much in the way of heavy exercise without a prolonged period of break-in training.

Their diet should be reduced to the minimum point that is capable of maintaining a reasonable level of energy – while providing daily nutritional requirements in the way of protein, vitamins, and minerals; and they should be encouraged to start in a daily program of jogging in addition to their regular workouts. But nothing spectacular in the way of results should be expected – such an individual may require a full year of regular training to reach a condition of reasonable muscularity.

With badly overweight subjects, as many as four sets of ten basic exercises should be practiced – as soon as they are able to perform that number of sets without becoming totally exhausted; repetitions should be on the high side, from fifteen to twenty in each set – and as many as fifty in each set of squats.