

# **Nautilus Bulletin #1**

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## Recent Developments

For a period of more than twenty years I used "resulting muscular soreness" as one means of determining the effects of exercises – or, at least, so I thought I was doing; now I am not so sure – in fact, not at all sure.

Most of our new machines produce EXTREME degrees of muscular soreness in previously untrained individuals – and nearly as much in experienced trainees that have not used this equipment before; but one of our recently-developed machines produces absolutely no soreness at all, literally none – while producing all of the other results that are normally associated with severe degrees of muscular soreness.

We simply do not understand "why" no soreness is produced – and this surprising development has led us into a re-examination of the entire subject of muscular soreness and the cause/effect relationships involved. If additional information on this subject becomes available, it will be detailed in supplements to this bulletin.

During the past few months, we have become even more aware of the importance of the time factor in training; it now appears that exercises performed "in cycle" should be spaced as closely as possible – and that best-possible results would be produced only if a literally zero rest period was permitted between sets of different exercises. The initial recovery period of muscular structures is very short; having been worked to a point of absolute failure, most muscular structures are capable of two or three more repetitions after a rest of only three seconds.

Thus, if you are trying to totally exhaust a muscle by performing isolation-type exercises that are immediately followed by compound exercises involving the same muscle, it is obvious that even a few seconds of rest between the different exercises will permit some degree of recovery – which is not desirable; a set of one exercise should IMMEDIATELY follow a preceding set – with, if at all possible, less than one second of delay between the last repetition of the first set and the first repetition of the second set. Resting as much as five seconds between sets will reduce the production of results by as much as fifty percent.

In practice, this means that the trainee must prepare all of the required equipment in advance, and even that the related pieces of equipment should be located as close together as possible; if the trainee must change weights between sets – or even walk across the gym to another piece of equipment – then a large part of possible results will not be produced.

Quite a number of people have written requesting the plans for our new types of equipment – and for awhile, it was my intention to publish the plans for all of our machines; some people – given the exact plans – could duplicate our machines, but I honestly do not believe they could do so for a cost even approaching the selling price of the machines, and I am certain that many people would make serious errors in construction, mistakes that would reduce the productivity of the machines greatly. And since the machines – regardless of how well, or how poorly they were constructed – would be considered Nautilus products by most people, I decided not to publish the plans.

My simple statement to this effect will not influence some people, but it should be clearly understood that several of the features of the machines are very critical insofar as construction is concerned – a slight change can alter the entire geometry of the machines, and greatly reduce their value. So copy them for your own use if you will – but don't be surprised if it turns out to be a bigger job than you expected, or if it happens that the result isn't quite what you desired.

In future issues of IRON MAN Magazine, I will publish exact plans for the simple modifications of several types of conventional training equipment – changes that will greatly improve the value of many types of commonly-used equipment.