

Nautilus Bulletin #2

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Strength and Muscular Endurance Factors

In the body building and competitive weight-lifting fields, the ability to perform one maximum-possible repetition is generally considered the only meaningful test of strength; but in fact, a far more accurate measurement of strength can be based on performances of a given number of repetitions, almost any reasonable number of repetitions – except one repetition.

While most weight-trainees consider performances of several consecutive repetitions tests of endurance, there is actually no apparent difference between strength and endurance – accurate measurement of either one of these factors clearly indicates the existing level of the other; at least so long as actual "muscular endurance" itself is being considered – however, if the number of repetitions is too high, then other factors are involved to an extent that meaningful test-results are no longer possible.

The significance of this relationship between strength and endurance should be obvious – but in fact, and in practice, it has been misunderstood, totally overlooked, or ignored.

It is not my intention to become bogged down in attempts to justify this relationship – all of the evidence supports it, and nothing counter indicates it; but it is at least necessary to accept the existence of the relationship – and having done so, then any reasonably intelligent trainee should be immediately aware of the implications. In short – by properly training for strength increases, improvements in endurance are produced in direct proportion, and vice versa; for competitive lifters, an awareness of that simple fact is enough – but for bodybuilders, the implications are even greater. Because there is also a direct relationship between strength (and-or endurance) and muscular size; in effect, producing maximum-possible degrees of strength will simultaneously and unavoidably produce maximum-possible degrees of muscular mass – and again in proportion. If we consider only the actual "input" of strength – the power being generated by the muscle – then increases in muscular mass will be out of proportion to such measurable strength gains. But the "results" will be the same in either case – in order to build maximum-possible muscular mass, you must build maximum-possible strength.

Great confusion on these points exists for several reasons – but primarily because attempts have been made to compare the performance abilities of different individuals: which cannot be done in a meaningful manner. But if such comparisons are restricted to individuals – if a man is compared to himself at another point in time – then the validity of the above points is clearly supported by any sort of presently-available test procedure based on sound principles. However, such tests must be conducted within a reasonable time period – the normal degeneration of age will produce apparent exceptions if the tests are made several years apart; and when such tests involve immature subjects, then careful attention must be given to the maturity factor – and in such cases, reasonable accuracy of measurement depends upon average figures resulting from a rather large number of exactly-similar tests. While the performances of mature subjects will normally remain remarkably consistent, immature subjects will usually show great variation on a day-to-day basis.

Reduced to practical considerations, this means that a bodybuilder must work for maximum-possible strength – and that a competitive lifter must work for maximum-possible muscular mass, at least in those muscular structures that are involved in lifting; and in either case, the "type" of training is exactly-similar – in both cases, the training should be of maximum-possible intensity, but brief and infrequent.

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Being clearly aware of this relationship between strength and "actual muscular size" (as opposed to supposed muscular size, or bulk which may have a high percentage of fatty tissue), we have long directed our efforts to attempts to increase strength; Casey Viator is a good example of a trainee with far-better-than-average potential who has trained in this manner – and as a result, he is almost unique. In the past, it was assumed that great size presupposed at least some visible fatty tissue; people spoke of "bulking up", and then "training down" – and this practice is still widespread today. But it is always a mistake; adding fatty tissue has absolutely nothing to do with increasing actual muscular mass – and once added, much of such fatty tissue can never be entirely removed.

Casey has built his almost unbelievable muscular size by building his strength – and as a result, he remains in hard muscular condition at any size; he is not – as some people suppose – "very defined in spite of his size," rather he is literally "very defined BECAUSE OF HIS SIZE."

Regardless of apparent muscular definition, some degree of fatty tissue will always remain – as it must in a living organism; but there does not appear to be any definite requirement for any certain percentage of such fatty tissue – thus a very large muscular individual might remain perfectly healthy with exactly the same "amount" of fatty tissue found in a much smaller individual. And since the actual percentile of fatty tissue would be lower in the case of the larger individual, he would obviously appear more muscular – literally BECAUSE OF HIS SIZE.

Demonstrations of strength depend on many factors – many of them in no way related to actual strength; for this reason, many bodybuilders – probably most bodybuilders, today – cannot demonstrate strength in proportion to their appearance of strength. And thus they have come to believe that "strength training" is of no importance to a bodybuilder; while in fact it is really the only type of training that is even capable of giving them the results they are seeking.

Secondly, many bodybuilders – and probably all successful bodybuilders – actually practice strength training without being aware that they are doing so. Failing to realize that the actual number of repetitions is of no real importance – so long as the set is carried to a point of proper intensity-of-effort, and so long as the number of repetitions is at least reasonable – many bodybuilders are actually training properly without realizing it; training properly for strength, that is. Which, of course, means properly in every sense of the word in this instance.