

Ironman Articles

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The Time Factor in Exercise

As a factor in exercise, time is of great importance – for several reasons, and in a number of ways; running a “three-minute mile” would correctly be looked upon as a superhuman performance – and a “six-minute mile” is almost no performance at all. Yet the only difference is the time involved – in all other respects, the performance is equal; the distance covered is the same, the weight moved is the same, and the work performed is exactly equal in both instances.

For the average bodybuilder, “elapsed time” is usually the only time factor of any importance; “...how many years will it take me to reach my bodybuilding goals?” seems to be the only question in the mind of the typical weight-trainee – the only question on the subject of time, at least. Total training time – the actual number of hours devoted to training is of little or no importance to most bodybuilders; many of whom seem to be perfectly willing to devote twenty, or thirty, or even forty hours of weekly training to their workouts – if they are encouraged to believe that such marathon training programs will speed their rate-of-progress, reduce their elapsed training time.

A football coach using weight-training as supplemental exercise for his team is also concerned with elapsed time – but even more concerned with actual training time; or at least he should be, since available training time is always a critical factor.

But “elapsed training time” and “actual training time” are not the only time factors involved; additionally, we must consider such matters as “speed of movement,” which obviously depends upon the time required for the performance of a single repetition – and “pace of training,” which is determined by the rest periods between sets – and “number of repetitions,” which affect the time required for performing one set of an exercise – and “number of sets,” which will to a large degree determine the total length of workouts.

Also, for the purposes of charting progress, it is obviously necessary to consider at least two of the above-listed time factors, “elapsed training time,” and “total training time.” Paradoxically, and quite in contrast with the widespread belief, increasing total training time usually WILL NOT REDUCE elapsed training time – “doing MORE, in order to reach the same goal QUICKER,” almost always has a result exactly opposite to that desired.

Twenty-seven years ago, just after a rather prolonged unpleasantness called the Second World War, which occupied my attention for four years and prevented me from devoting much of my time to weight-training, I was perfectly willing to devote almost any amount of time to my workouts; for a while I trained as much as twenty-eight hours weekly, four times daily, seven days a week – and FOR A WHILE, I made gains, UP TO A CERTAIN POINT. Beyond that point, I simply couldn't go.

A bit later – after having, in the meantime, tried almost everything – I settled on a program of twelve hours of weekly training, three workouts of four hours each; then I made additional gains, progress that I previously considered impossible was produced very rapidly – but gain, ONLY TO A POINT, a point that I considered far below my potential.

Then, literally by accident, I was forced to reduce my weekly training time by exactly fifty percent – and the first week of such reduced training produced more progress than I had experienced during the immediately preceding three months.

Eventually I settled on a program of four hours of weekly training – three workouts of one-hour and twenty minutes each; during the first seven weeks of such training, I gained twenty pounds of bodyweight while greatly increasing my existing degree of muscularity (a “net muscular-mass gain” of at least twenty-five pounds), added two-and-a-half inches to the “cold” measurement of my upper arms, increased by bench press strength for ten repetitions by 70 pounds, and made other gains in proportion – IN EXACTLY SEVEN WEEKS, FROM ONLY TWENTY WORKOUTS. Using only conventional equipment – and a very limited variety of equipment, at that; my program consisted of only eight exercises – two sets of each, squats, standing presses, chins, parallel dips, behind-neck chins, bench presses, barbell curls, triceps curls, a total of only sixteen sets.

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Having been an “extremist” all my life, I always worked out to my absolute limit, so “maximum-possible intensity-of-effort” was an existing factor right from the start; but it took me several years to learn that there is a very definite limit to the “amount” of exercise that will produce good results – carried beyond a certain point (insofar as “amount” is concerned), exercise will reverse its own previous results, producing losses rather than gains. In practice, most bodybuilders soon fall into a rut of training wherein the amount of exercise closely approaches their tolerance for exercise; in such cases gains are impossible in many cases, and very slow in all cases – since the system is constantly exhausted in never-ending attempts to repair the damage being done, and no reserve is left for building additional muscular size.

And make no slightest mistake about the following point – “eating more IS NOT THE ANSWER, regardless of WHAT YOU EAT.” Amount of exercise has LITTLE OR NOTHING to do with protein requirements – but it does increase carbohydrate requirements in direct proportion to the increase in amount of exercise. If you WORK MORE, then you must EAT MORE; more carbohydrates – protein requirements are almost entirely dependent upon existing bodyweight.

And while it is perfectly true that you can increase your “recovery ability” – which, in effect, will give you a greater tolerance for exercise, it remains equally true that limits will always exist, IN ALL CASES; and if you exceed those limits, losses in muscular size will be produced instead of gains – and if you work exactly at the level of your individual limits, as many bodybuilders do for years, then no gains will ever be produced – and if you work just below your limits, as many thousands of other bodybuilders do, then gains will be very slow.

BUT IT MUST BE CLEARLY UNDERSTOOD – such limits apply only to the “amount” of exercise; it is literally impossible to work “too hard.” And since most people always seem to feel that generalities apply only to somebody else (never to themselves), it should also be clearly understood that rather definite limits to the worthwhile “amount” of exercise are already plainly understood; these limits define the “upper” and “lower” levels of the amount of exercise that will produce good results in ALL CASES – if exercise in excess of the amount indicated produces results considered worthwhile by an individual (by ANY individual), then this is merely proof that simply spectacular results would have been introduced by that individual, IF THE AMOUNT OF EXERCISE HAD NOT EXCEEDED THE LIMITS. In these apparently exceptional cases, the individuals involved possess far greater than average potential and/or recovery ability – which is certainly no excuse for poor utilization of any such existing advantages; or it could be that individual opinion is in error – subnormal results may be viewed as good results by people who are not aware of the rate-of-progress to be expected from proper training.

I have yet to meet a rational man who would even consider trying to walk from one place to another on a treadmill – yet literally millions of trainees attempt to produce muscular size increases in an almost identical manner. If progress is not constant – and rather fast, fast enough to be apparent – then something is wrong; but in order to be sure that something is wrong, at least a fair understanding of the time factor (or factors) in exercise must be reached – and such knowledge must be applied to a rational progress-charting program based on measurable strength-increases. Without such knowledge, or without proper application of the required knowledge, then attempting to estimate the value of a particular training program is impossible – in almost all cases being outright guesswork; but in practice, such accurate progress-charting is actually quite simple – and if the information required for such charting is clearly understood, then an actual understanding of the theory involved IS NOT REQUIRED.

But – therein exists a problem; most of the people who really need this information are unwilling to accept it without a clear explanation, and they are literally incapable of understanding such an explanation – lacking the necessary background in physiology, such people cannot comprehend a technical explanation and even a reasonable attempt to explain the involved factors in non-technical terms would run to a length far in excess of the attention span of almost everybody.

Secondly, most currently-active trainees have been exposed to such a mass of outright hogwash masquerading as “fact” that becomes firmly-held (and totally-false) beliefs.

Taking advantage of this fact that most people are naturally lazy, quite a number of other people with little or no interest in anything except money – and with no slightest regard for the truth – have devoted years of their time and millions of dollars of windfall profits to efforts of brainwash the general public on the subject of exercise; and let it be clearly

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understood that I am NOT talking about the “anti-exercise” forces, who are very quick to devote their remarks, but seldom if ever their money, in a manner intended to raise doubts on the subject of exercise; while frequently doing great harm, such people are at least sincere – even if, as happens to be the case, sincerely mistaken. Rather, I am concerned here with the people who should know better – and frequently do know better – people who, while claiming to be the strongest supporters of the entire field of physical training, are in fact its worst enemies; these people are sincere only in their desire to make money – any way they can, regardless of the results to others. As an unavoidable consequence, a situation has existed for many years where the actually-informed people have been largely ignored – while the “anti-exercise” forces have been given at least some attention (while deserving NONE), and while the supposedly “pro-exercise” voices have been those of commercial interest.

Under the circumstances, it is hardly surprising that the situation has finally degenerated to a point where sincerely interested people are the most-poorly informed.

With the physical-training media having been dominated by commercial interests for the last thirty years, we have eventually reached a point where even self-evident truth is ignored, and where outright lies are published as scientific fact.

You think otherwise? Then just look around at the great number of supposed “spot reducing” methods being touted at the moment; “spot reduction” of fat is an outright myth, a physical impossibility – the body is a single unit, it stores fat as a unit and it loses fat as a unit, if you are fat anywhere then you are fat everywhere.

Yet millions of bodybuilders – the very people who should know better – have performed billions of situps and leg-raises in totally wasted efforts to reduce fat from the mid-section while maintaining all of their existing size elsewhere; such abdominal exercises will burn off fat – but only in direct proportion to the “amount” of work performed, and an exactly equal amount of work performed by any muscular structure of the body would have produced exactly equal results.

Certain sections of the body – the abdominal area, the hips, the upper thighs – appear to become fat more readily than other areas, and it is only natural to assume that exercise for those areas is the answer to such a problem; but the stinger in that statement is the fact that the first part is PERFECTLY true – that is, “certain sections APPEAR to become fat more readily,” and appearances are frequently deceiving. But it is equally true that the hump on the CAMEL’S BACK “appears” to become fat more readily than other parts of the body.

And it is also true that the existence of visible fat stores on the surface of a man’s abdominal area – or on a camel’s hump – is simply evidence of the fact that less-obvious fat stores are located throughout the body; it is merely a matter of degree – ANY fat there indicates SOME fat everywhere.

And in many cases, appearances are deceiving in another respect; an area with very poor muscle-tone may appear to be fat when actually very little surplus fat exists – the soft, “dimpled” look so common on the surface of women’s upper thighs is primarily a result of poor muscle-tone, rather than evidence of surplus subcutaneous fat. Exercise performed for that section of the body can rather easily restore muscle tone and thus give the impression that fat has been removed. Thus very brief exercise may appear to remove a rather large amount of fat.

Also – speaking of “removing” fat, as I have done above, is in itself an error; recent evidence shows that fat, once formed, cannot be removed except by surgery – apparently fat cells, once formed, can only be “reduced in size,” but can NOT be removed by exercise or diet. And unlike muscle fibers, which cannot be increased in number (exercise increases the SIZE of muscle fibers, not the NUMBER of fibers), fat cells can be increased both in size and number – but can only be decreased in size by exercise and diet. Which perhaps helps to explain why it is so much easier to get fat the second time around – but which is certainly not an excuse for anyone to remain visibly fat.

Decreases in the “amount” of fat (decreases in the SIZE of fat cells) can be brought about in only one way – by changing the input-output ratio of food consumed and energy expended; if you are using more energy than you are replacing with your diet, then the system will be forced to use bodyfat as a source of the required energy that is not being provided by the diet, and you will then reduce the size of some existing fat cells.

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Some people can lose fat easier than others – but the above-outlined rule holds true in ALL CASES, it is merely a matter of degree; however, the age factor changes things in some ways – other recent evidence has clearly shown that the addition of fat to certain areas of the body is an almost unavoidable result of age in many cases. In my own particular case, I don't think I could have added visible fat to my body if I had tried – before the age of thirty; but after the age of forty, I found it almost impossible to remove visible fat –having once weighed 205 at a height of a bit less than 5 feet 8, with no slightest traces of visible fat. I later found it impossible to maintain an equal degree of muscularity above a bodyweight of 160.

Some individuals find it impossible to get fat at any age – a few people find it nearly impossible to keep from getting fat at almost any bodyweight; but all such cases are simply examples of perfectly normal variation within a certain scale – they are not exceptions to the rule.

In practice – because of such normal variation – this means that each individual is just that, an INDIVIDUAL; an amount of food that might be too much for him could easily be too little for another individual. But the rule still holds true; if you are adding fat, then you are eating too much – and if you are losing fat, then your diet is not fully replacing your output of energy. Secondly, HOW you use the energy is of no slightest importance – the results will be the same if you burn 1,000 calories by doing squats or by doing situps; insofar as “fat loss” is concerned, at least.

The above remarks on the subject of fat loss are not “opinion” – neither my personal opinion nor the opinion of somebody else – they are simple statements of clearly established, undeniably proven, fully supported FACTS; and while anybody is free to form an opinion on any subject – contrary opinions in this case are simply proof of ignorance, or deceit.

Deceit? Yes, or fraud; call it what you like – if a man attempts to refute the above statements on fat loss, and if he isn't simply ignorant, then he is a prevaricator, probably for his own commercial gain.

The whole field of weight training is almost literally knee deep in such frauds at this very moment; so it isn't at all surprising that millions of trainees are a bit confused – having been exposed to thousands of outright lies and having the truth carefully hidden. But such a result is not entirely due to the efforts of people touting such frauds – to a large extent, the victims of such frauds are at least equally guilty; since the victims are almost always people looking for “easy” solutions to hard problems – such people are constantly seeking miracles, are always willing to try something “new” just on the off-chance that it might work.

I cannot redirect the thinking of such people – and I suppose it is merely proof of my own foolishness that I even try; but I don't have to remain silent in the face of widespread outrage, either – and I won't.

“Don't rock the boat,” a well-meaning friend told me recently, “you have nothing to gain and you'll just make a lot of enemies.”

Maybe so – but I've had enemies before and I'll have them in the future, no matter what I do or say. And if I restricted my remarks – or my activities – to situations that were obviously to my financial advantage, I'm afraid I might end up with an attitude like that of the people who are perpetrating the frauds alluded to above; so, thanks, but no thanks.

And just what does all of this have to do with the “time factor” in exercise? Quite a lot – far too much; the proper understanding of the time factor (or factors) in exercise unavoidably leads to answers that are not often very welcome, and never welcome to people seeking “easy” solutions.

For reasons that are far too complex to go into here, it is now obvious that a fast pace of training is an absolute requirement for producing maximum-possible results – similar results can NOT be duplicated in any other known manner, and make not the slightest mistake about another point – there are no “secrets” in physical training. Some people know what they are talking about and some people don't; some people are freely willing to admit the truth and some aren't; it's really just that simple.

