

# **Nautilus Bulletin #1**

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## Average Expectations from Training

"How much can I gain – how fast?" An impossible question, obviously – far too many factors are involved for even the possibility of an accurate answer; yet averages do exist, and if careful consideration is given to all of the factors, at least some sort of reasonable goal can be established for most new trainees.

Taking one group of thirty-six test subjects, their average starting measurements were as follows – as contrasted to the average sizes that I expected them to reach if they stayed in training for a period of eighteen months:

BODY PART STARTING EXPECTED AFTER 18 MONTHS Bodyweight 167.19 pounds to 195 pounds;  
a gain of 27.81 pounds

| Body Part    | Starting | Expected After 18 Mo. | Gain  |
|--------------|----------|-----------------------|-------|
| Bodyweight   | 167.19   | 195                   | 27.81 |
| Normal chest | 37.5     | 45                    | 7.5   |
| Rib box      | 33.25    | 37.5                  | 4.25  |
| Waist        | 32.2     | 32.5                  | .3    |
| R. thigh     | 21.73    | 25.5                  | 3.77  |
| L. thigh     | 21.98    | 25.5                  | 3.52  |
| R. calf      | 14.93    | 16.75                 | 1.82  |
| L. calf      | 14.88    | 17.0                  | 2.12  |
| R. upper arm | 12.96    | 17.0                  | 4.04  |
| L. upper arm | 12.67    | 17.25                 | 4.58  |

But in order to reach any significant conclusions on the basis of the above figures, it must be remembered that they are "averages." In order to reach the average expected size after eighteen months of training, the lightest subject – with a starting bodyweight of 136 pounds – would have to gain 49 pounds; and the heaviest subject – with a starting bodyweight of 267 1/2 pounds – would have to lose 72 1/2 pounds. At the end of the first eight weeks of training, the lightest subject had gained 13 pounds of bodyweight – and the heaviest subject had lost 10 pounds.

It must also be remembered that the above group of trainees were high school athletes for the most part – almost the entire football squad of a large high school was included; thus the average bodyweight was well above that which would be encountered in a group of subjects selected at random – and the ratio of rib-box size to normal chest size was different from that to be expected in a similar sized group of non-athletes. Having engaged in sports requiring endurance for running, most of these subjects reflected a result of that training in the size of their lungs.

## The Arthur Jones Collection

Although more than fifty percent of the subjects had taken part in a very limited weight program the previous year, only one of them had much in the way of training experience with weights; this one subject – with approximately eight months of training experience – was stronger than any other subject in the group, and far stronger than the average for the group as a whole. During initial strength tests, he was able to perform 21 repetitions with 260 pounds in the full squat – and the second strongest subject in the group was able to do only one repetition with 255 pounds, with the average performance being far below that. Yet this one experienced subject's bodyweight – 174 pounds – was only 6.81 pounds above the average weight of the group, and was far below the weight of the larger subjects in the group.

In the immediately preceding eight months of training, this subject had gained 41.5 pounds of bodyweight and had increased his upper arm size by almost exactly three inches – an increase in the actual bulk of muscular tissue in the upper arms of well over one hundred and forty percent (140%). At the end of that period of training, his strength performances were as follows:

### EXERCISE REPETITIONS AND RESISTANCE

Full squats: 21 with 260 pounds; 9 with 290; 5 with 330

Full squats on one leg only: 5 with 135; 50 with 65

Bench presses: 7 with 215

Standing presses: 5 with 155

Parallel dips: 7 with 95; 18 with 50

Regular grip chins on bar: 3 with 75; 18 with 50

Strict barbell curls: 8 with 130

Barbell wrist curls: 17 with 120

The above performances were recorded when the subject weighed 174 pounds at a height of 5 feet, 8 inches – he was then 17 years and 5 months of age.

Insofar as flexibility was concerned, a comparison between this subject and any other subject in the group was almost ridiculous; his ranges of movement were far greater in every respect – in some cases by as much as 90 degrees of movement. Without bending his knees, he was capable of touching a point more than ten inches below his feet – and his range of elbow movement exceeded 240 degrees, as contrasted to an average range of movement of approximately 150 degrees. In spite of his far larger than average leg size, he was easily and comfortably able to sit with his buttocks, the entire surface of the backs of his thighs, the entire surface of the sides of his calves and the inside surfaces of his feet all in solid contact with the floor – and this position was in no sense a forced position. No other subject in the group could come anywhere close to assuming this same position – not even as a forced position.

In spite of having done no running at all for a period of over two years –and very little at any time in his life – this subject was among the fastest in the group in the 100 yard dash, and among the leading five percent of subjects in the 660 yard run.

While the above described gains and performances are certainly worthwhile results from only eight months of training, this particular subject fell far below expectations; being almost totally lacking in incentive, he simply refused to push himself in training – and avoided training entirely if at all possible. Many subjects are capable of doing much better, some simply cannot do as well – and incentive is not the only factor involved, although it is an extremely important one, perhaps the most important one.

## **The Arthur Jones Collection**

If a healthy – but underweight – subject trains properly and is provided with the nutritional requirements, he must gain weight; but the rate at which he gains will depend upon many other factors as well.

During the first eight weeks of the above mentioned test program, another subject gained 18 pounds – from 138 pounds to 156 pounds – while increasing his muscular bulk and strength enormously; during that period, he added two full inches to his upper arm size – a 100% increase in muscular bulk – while increasing his strength in the standing press from one repetition with 80 pounds to one repetition with 155 pounds, and ten repetitions with 130 pounds. In the same period, his squatting strength increased from eight repetitions with 130 pounds to twenty repetitions with 230 pounds – and he added more than four inches to the size of his normal chest.

In all of the cases mentioned above, these results were obtained from a maximum of four hours of weekly training – and in most cases, from less than three hours of weekly training.