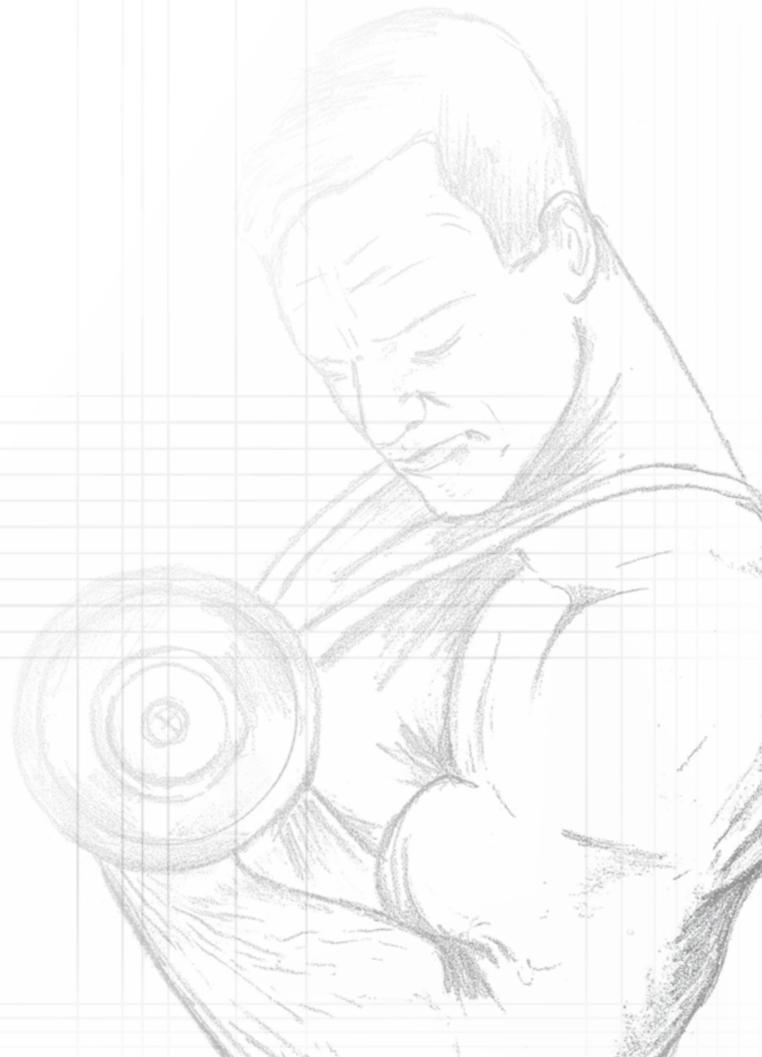


CHAPTER 1

THE ART OF BODYBUILDING



This chapter contains the key to success for everyone who wishes to acquire the tools needed for training and developing their bodies. If I had to put the whole thing into two words, I would use *persistence* and *willpower*. Some of you may think that these words are somewhat antiquated, but you will be wise never to underestimate their value. They will serve as crucial elements on your way to the top.

You are probably asking yourselves at this point: "How will I ever achieve perfect, or even merely adequate, performance?" Without unlimited persistence and without willpower, only a miracle can get you there. However, my method is based on dedicated efforts, on commitment, on sweat and, at times, on tears... none of which are in any way miraculous! Physical abilities are important, but they alone do not suffice in attaining the trainee's goals. The trainee's willpower and mental attitude will eventually determine the outcome. They will have a crucial effect on one's ability to achieve perfection in any endeavor, and this applies even more to bodybuilding.

A person's mental abilities include, among others, the two significant components mentioned earlier: persistence and willpower, and these cannot be overstated when bodybuilding is concerned. They are the basis for the entire art of bodybuilding, and they cannot be separated from the actual engagement in arduous physical exercise. These two characteristics are essential, and any person who is weak of heart or nonpersistent will have to work meticulously in order to best hone these abilities. Bodybuilding is an occupation that requires time, dedication and many abilities, including the ability to persevere and attain one's goals.

"Will I ever be able to become a bodybuilder?" I have been asked this question countless times. Everyone wants to know what characteristics a person

needs in order to be a potential professional bodybuilder (or at least those needed to become an accomplished amateur), and how one can make sure they have these characteristics.

The answer to that can be achieved using various techniques that are particular to the field of bodybuilding. However, before I specify any of them, I would like to begin by telling Tal's story – a story that gives a different kind of answer. I am sure the observant ones among you will understand why.

By the late 80s, I was considered to be the strongest, most muscular man in the country. My personal story and the results I had achieved were widely reported in the press, thus enabling me to encourage others to attain similar goals. I was very proud of my achievements and myself and aspired always to share them with others. A muscular, chiseled body in those years was a rare sight indeed. As a leading gym instructor, I was fortunate enough to witness the many fruits of my labor in the field of bodybuilding.

The pursuit of bodybuilding had grown increasingly popular. I had become a role model in my neighborhood, as many young people and adults began to understand what gym training involves, and what can be achieved as a result. Consequently, trainees began to gradually increase in numbers.

One day, while I was opening a gym I had co-founded and planned, I noticed a small, timid boy, a real bag of bones, as we used to say, who was too young to train. At that time, dozens of boys came to my gym on a daily basis to watch my training. His name was Tal. I tried explaining to him that he was too small and too young to train, but this had little effect. He came back like a boomerang and couldn't stop talking about how much he wanted to train. He kept coming back to watch me train with a gleam in his eye.

I'll be honest – it did something to me. I found his persistence touching. I remember telling myself: "This kid will be incredibly motivated." I waited until he grew up a little, and then decided to "take him under my wing". I promised myself that one day he would become the country's leading bodybuilder. Tal was ecstatic when I told him that he could begin training. At that time, he was still a scrawny late bloomer. He began training under my strict guidance, and was an unusual sight at the gym, as it was not possible to train boys at such an early age. However, I maintained that early, yet controlled training regimens are possible and are not likely to cause any damage.

And so it was that Tal bloomed and prospered; he reached amazing results. Several years later, he attended world championships and exhibited the sort of muscle mass and shape not yet common in Israeli athletes. Tal, this small, timid, persistent boy, was the first in a series of exquisite bodybuilders I have fostered in my many years as a bodybuilding instructor.



Recommended Traits for the Trainee

Here is a detailed breakdown of the traits that each trainee must have and strive to enhance:

Concentration

The ability to concentrate and ignore the world and people around you while working out is of paramount significance. If you suffer from ADHD (attention deficit hyperactivity disorder) or find it difficult to stay focused, then you are definitely in for a real challenge. In fact, one's concentration is crucial for developing the ability to achieve adequate performance. Various exercises demand different levels of concentration, but during each exercise, and even each repetition, one must devote their entire mental and physical faculties to their execution. Studies show that when trainees performed exercises while being highly attentive, their performance was better and the motor units involved operated with greater efficiency.

In scientific terms, better concentration enables the brain to send electrical pulses at higher frequencies through the nervous system to each active muscle. Therefore, each muscle receives motor commands from the brain at greater frequency leading to better-than-average muscle contraction and subsequently improved muscle response and strength.

Flexibility

Flexibility is one of the attributes that define a person's physical fitness. Genetically, some are born more flexible than others are, but it is within the power of everyone to facilitate and enhance this element in our fitness, particularly when one wishes to improve in the art of bodybuilding.

An inflexible yet muscular body suffers from a limited range of movement, and therefore a reduction in capabilities. A flexible muscle is much more efficient than an inflexible one. Flexibility allows the trainee to operate in

greater movement ranges, and, consequently, to lift greater weights and employ greater force. Muscle flexibility also ensures the absence of undesirable contractions or, in more severe cases, torn tendons and ligaments. It is recommended that each trainee devote about five to ten minutes at the beginning of each workout to flexibility exercises. For those who persevere in these exercises, this small investment will pay off tremendously later on.

Proper Posture

The trainee's posture is the basis for all exercises and techniques. The phrase "proper posture" will be referenced frequently throughout this book, and its meticulous observance will ensure the best and safest execution of each exercise.

During my many years as a bodybuilder, I have reached the conclusion that any training regimen that fails to adequately address the matter of safety does not merit the being called a training regimen. At times, I'm afraid such a training regimen would more aptly be described as inflictor of future irreversible damage.

As a novice trainee, it is important that you acquire some background information and become acquainted with the basic and most important rule of exercising, and that is: proper posture.

Proper posture refers to the positioning of the body when standing and sitting that is ideal for performing exercise techniques while ensuring the safety of the trainee.

Proper posture is based on six fundamental principles:

1. The legs are to be set at shoulder-width.
2. When standing, maintain an erect back.
3. When sitting, maintain an erect back.
4. Focus on a particular point in space with your head erect so that your spinal column remains straight at all times.

5. Bend your knees when working with heavy weights.
6. Avoid bending your back backwards at all times. Such a posture can cause irreversible damage.

Proper Breathing

Proper breathing is a primary and essential stage for each novice athlete. Briefly stated, proper breathing includes exhaling with every physical exertion, as such effort places high pressure on your lungs. When pressed, your lungs tend to extend sideways towards the thorax. If the pressure is too high and the lungs have no more room to expand, pressure is then formed on your trachea or even a main artery. Such pressure can cause dizziness due to an inadequate supply of oxygen to the brain, and if, heaven forbid, an artery becomes congested – can lead to arterial constriction. In addition, to these undesirable side effects, one will perform poorly, as the muscle itself will fail to obtain what is needed for proper contraction. The bottom line is: Never forget to exhale when exerting yourself.

Self-Restraint and Perseverance

Many of you are already familiar with the word *overtraining*, and are wise enough to know that it should be avoided. Those of us with a little experience know that, as is the case for anything in life, when we attempt to reach our goals swiftly and recklessly, failure quickly follows suit.

As a novice bodybuilder, you will have to understand and accept the fact that if you want to reach the top, the way to get there will be gradual, with careful steps, and will require a great deal of patience and self- control.

There is a broad spectrum of performance levels, and trainees will reach each level in due time. The avoidance of overtraining should be a chief concern for both novice and professional trainees.

Overtraining is a physical state that results from uncontrolled and extended exertion. Symptoms of overtraining include fatigue, poor performance (compared with earlier performance levels) or even an inability to practice at all, poor daily functioning and, in extreme cases, exhaustion.

Each trainee of every level should endeavor to avoid overtraining. If overtraining is observed, however, the trainee must rest for two or three days, and, in severe cases, for a whole week. You must remember that without rest the body cannot properly develop, for the simple reason that muscle growth only occurs during rest.

If you are new to bodybuilding, you must pursue an easy training regimen with periods of rest between each workout. As you progress, you will be able to reduce the length of resting periods, though still resting in the proper fashion – thus allowing your body to replenish itself and restock the resources it employs during workouts.

Overtraining can also be caused by poor nutrition. If you exercise while lacking basic building materials (e.g., food elements), then you will not have the ability to continue training at the desired level. Trainees of every performance level must be aware of the significance of nutrition, and persevere in consuming the required food elements in proper quantities in order to avoid fatigue.

On the Significance of Rest

The pursuit of bodybuilding requires an extraordinary amount of willpower and perseverance. Make no mistake – bodybuilding requires a substantial and multifaceted personal investment. On the other hand, and in proportion to the resources devoted to bodybuilding, the satisfaction afforded by it is exceptional, providing the trainee with a wonderful feeling that no other athletic pursuit can produce. However, there is a time for everything, and that includes the time for rest.

As mortals, human beings, rather than machines, we simply must rest. Even a serviceable machine will eventually break down or malfunction with time when constantly used. You should know, then, that adequate rest is needed after each workout, so that your body will be able to replenish its energy and be ready once again for future exertions.

The million-dollar question would be, of course, how much rest do we need? It is possible to specify ideal resting periods, but if you think you need more rest, you may extend your resting periods accordingly. My recommendations are as follows:

As a novice trainee, you will need the longest periods of rest.

Train three times a week and rest during the days between each workout. For example, if you train on Sundays, Tuesdays and Thursdays, then you should rest on Mondays, Wednesdays, Fridays, and Saturdays.

As intermediate trainees, you could train on Sundays, Mondays, Tuesdays and Wednesdays, and rest on Thursdays, Fridays and Saturdays.

For the competitive trainee (who works on a different muscle group each day and therefore does not work on the same group the next day, allowing it to rest), only Saturdays will be devoted to rest, whereas training is pursued on every other day of the week. Following several months of continuous training, it is recommended that at least four days are devoted to rest, per your discretion.

When I say that bodybuilding is suitable for everyone, I mean it. The potential for rehabilitation and healing afforded by bodybuilding is infinite. The following story is a true account that proves this statement better than a thousand secondary sources.

Yuval was a high-school student who attended my gym. He was a handsome and energetic young man who was constantly surrounded by girls. Yuval discontinued his training regimen when he joined the IDF. I didn't see him for some time, but one day, two years later, a young stranger led by an older man, apparently his father, came by. The young man was barely able to walk, and when he got closer, I noticed he had a hole in his trachea and his body was constantly convulsing. He called me by name and I could not recognize him, as his speech was difficult to understand. His father informed me that he was a former trainee of mine, and the sole survivor of a severe car accident. The accident resulted in the death of three young men of IDF-conscription age. I was shocked by this, as the young man I knew was so obviously different from the one standing before me. I realized that the reason he came to me was so that he could resume his training regimen and rehabilitate his physique, after having undergone an arduous rehabilitation period at the Beit Levinstein Rehabilitation Center. Due to his severe disability, no physician would approve his training regimen – his breathing was extremely strained, his trachea was open and he was under the constant risk of infection. His posture was feeble and, as I mentioned, his body suffered from tremors. He was also barely able to communicate – it was extremely difficult to hear and understand his speech.

Consequently, I examined his condition with great care. In light of the severe challenges I had to cope with, and owing to my vast professional experience in rehabilitation and training, I decided that it was more than possible to help this young man to facilitate his rehabilitation. I informed his

father that I was willing to take him into my care, and explained the long and difficult journey he would have to make before he would be able to better use his bodily organs and ultimately improve his posture. He placed his full confidence in me and was visibly eager to improve his condition.

An additional difficulty was observed from the beginning – one of a social nature. Other trainees were unwilling to accept him as he was. He invested great efforts and persevered in his regimen. With time, his posture improved, he began to walk better and better communicate with his environment, and consequently began lifting greater weights. After three months of training, we reevaluated Yuval's condition, and realized that his body mass had clearly grown. Slowly, but surely, Yuval began to reintegrate himself socially among his peers. When he'd regained many of his former abilities, he began socializing with women again, as well. He continued working hard and training regularly. Two years after that injured, convulsive, incommunicative boy approached me, Yuval was again able to walk and drive on his own. His life got back to normal, and he is functioning well. To this day, he persists in his training and the pursuit ultimately gave him back his life.

Basic Bodybuilding Terminology

Whether the trainee is healthy, or are in need of rehabilitation through physical training, they would require, as is the case for any pursuit, familiarity with the basic concepts and technical terminology – a new "language", if you will. Below is a list of some of the more important basic terms with which all trainees should be acquainted:

1. Repetition (Rep)

A rep is a basic work unit – namely, a single weight lift. A series of reps comprises a single set. For example, a trainee may execute three sets, eight reps each, when working on their arm muscles.

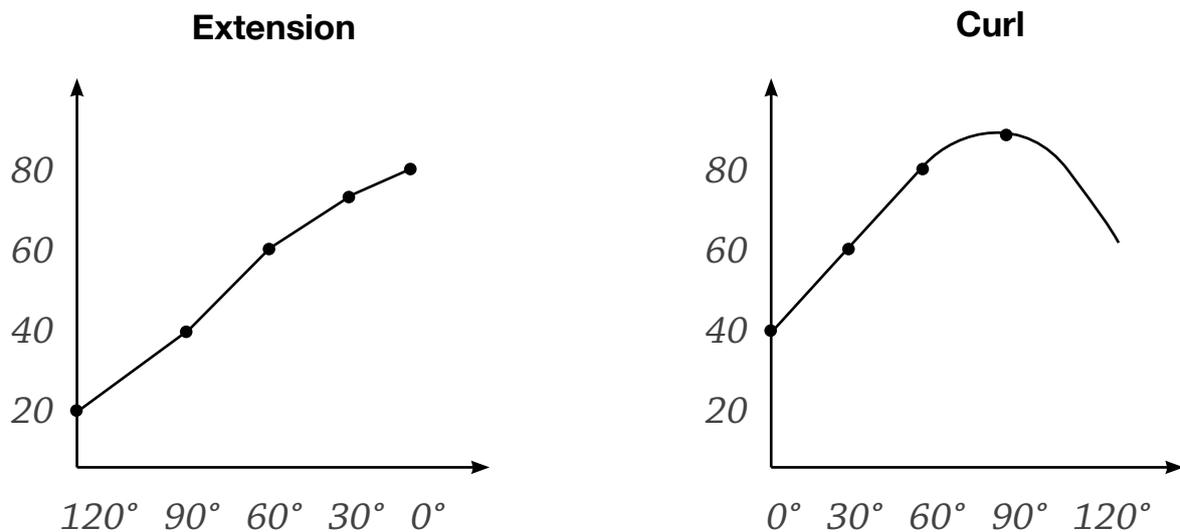
2. Sets

Each training session involves a series of sets dedicated to each muscle group. Each set includes multiple reps.

3. Rest

Each rep is separated (under certain conditions, such as those characteristic of advanced training regimens) by a brief interval (at least one second in duration) between each *locked joint* position (extension and curl).

Strength Curve/Angle of Elbow Joint Position



However, in most cases, the word *rest* refers to the period of non-exertion taking place between each set, described as follows: when you lift weights ranging from 70-80 percent of your maximum lifting capacity, either a *passive* or an *active* interval is required. An active interval involves pacing effortlessly at the gym or conducting muscle relaxation techniques for approx. 20-30 seconds before the next set. For weights that amount to 80-95 percent of one's maximum capacity, an interval of at least 90 seconds is needed

(throughout which the trainee's muscles should feel exerted). After substantial exertions, two minutes or more are required. When a series of sets involving a particular muscle group is concluded, the trainee must commence the next series of exercises without resting.

4. Locked Joint Transition

This phrase denotes a complete and fully accurate muscle movement, namely, the exertion of a muscle throughout its entire action range, from perfect curling to perfect extension.

Correct muscle exertion always employs the muscle's complete action range, thus enabling the gradual growth of the trainee's joint movement range. Consequently, muscle flexibility will also improve with time. Such work will enable perfect performance without creating any disparity in terms of each muscle group.



Example

Biceps Curl (Joints):

- 1) Commence arm curling
- 2) Lock arm posture at termination of movement range
- 3) Restore original arm position (thus concluding the exercise)

5. Optimal Work Speed

One of the most important aspects of bodybuilding is the correct work speed or the pace of each technique – each has its own idiosyncratic optimal work speed. I have encountered novice and even adept trainees who were not always familiar with the suitable speed needed to attain the best results with each technique. Most trainees devote a great deal of time to their training sessions when they could very well achieve better results in less time.

In that case, how is an optimal work speed defined? The definition is simple: an optimal work speed is the length of time needed to contract a muscle when completing a single curl or extension technique.

As a preliminary example, let us consider an elbow curl exercise.

An elbow curl exercise involves two basic maneuvers: curl and extension. Extension techniques enable the muscle to employ greater force. A curl exercise requires two seconds for each technique and about four seconds to restore the muscle to its previous position. This would be an ideal duration for curl/extension exercises. At a higher work speed, the muscle would be utilizing momentum rather than exerting force against the earth's gravitational pull in a controlled and natural fashion.

Example

As an example, let's consider an extension technique involving the quadriceps and hamstring muscles. The *quadriceps* is defined as the extending muscle, whereas the *hamstring* is defined as the curling muscle. The following graph demonstrates the best working technique and the absolute advantage it confers. It clearly indicates that a 60°/sec work speed is optimal for attaining the best outcomes in terms of the lifting capacity and muscle mass of the two muscles involved (curling and extending).