

THE CORY HOLLY SERIES



Biological

BodyBuilding

THE ART & SCIENCE OF NATURAL BODYBUILDING

Book Seven

Audio eBook Series

The Cory Holly Series

Biological Bodybuilding (Book Seven)

The Art & Science of Natural Bodybuilding

by Dr. Cory Holly

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*Biological
Bodybuilding*

The Art & Science of
Natural Bodybuilding

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Forward

There are two forms of bodybuilding. The first is called biological, it is the best, the original and commonly known as natural. It is the form advocated by all bodybuilding associations, but seldom practiced by the world's best bodybuilders. In fact there are no natural bodybuilders at the very top of the competitive bodybuilding ladder.

The IFBB Mr. Olympia for example, considered the ultimate bodybuilding title in the world, is a good example of pharmaceutical bodybuilding in all its glory. In this scenario, winning has everything to do with how you play the pharmaceutical game.

In professional bodybuilding circles as well as numerous other sports, diuretics, growth hormone, beta-blockers, insulin, EPO, amphetamines, steroids and countless other doping substances are not the exception, they are the rule and so is the multi-dimensional damage that follows.

Biological is a term related to biology, to life and to the living. Biological bodybuilding denotes a positive life-giving phenomenon, a form of training that creates and preserves form, function and health. It doesn't destroy or take away health when practiced correctly. In fact it adds much more than symmetry, quality muscle and what can be seen with the naked eye.

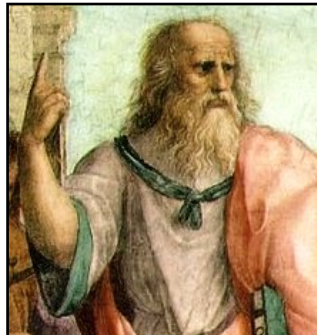
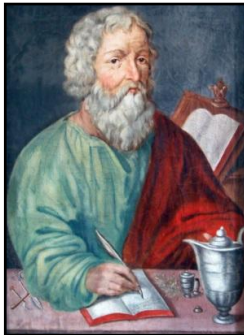
Biological bodybuilding employs the use of exercise, dietary supplements and a healthy diet, which enhances immune function and increases resistance to degenerative disease. With each rep, cells are flushed with life giving oxygen and a bountiful supply of micronutrients.

Waste is removed efficiently and quickly. Efficient waste removal is one of the most important hallmarks of basic hygiene and disease prevention.

True bodybuilding is an art and a science. The objective is to create a body that is beautiful to behold, resilient, strong, graceful, flexible, lean and highly functional. Biological bodybuilding embodies the true sport and lifestyle of bodybuilding, which also happens to be the same lifestyle required to achieve optimum health.

Optimum health provides us with the insight necessary to define our goals and the motivation required to achieve them. When we are truly well, we are able to adapt to change and stress without significant damage.

A healthy person is well nourished and physically fit from the inside out. Natural bodybuilding liberates the soul and strengthens the mind. Its practice is based on the same principles of health and living taught by Hippocrates, Plato and Aristotle.



Anyone who lifts weights or who uses their own body as resistance to achieve any degree of muscle tone, strength or power is engaged in building their body. Call it what you will, bodyshaping, body sculpting, resistance training, weightlifting, weight-training, working out, whatever, if you pump iron you are bodybuilding to some degree.

Competing in the sport of bodybuilding simply takes the same process of training and dieting to a much higher level or extreme.

Biological bodybuilding depends exclusively on nature for support, avoiding any chemicals or toxic substances known to cause damage.

Banned substances are avoided by natural athletes for two reasons; first, the rules clearly state they are not permitted and second, crossing the pharmaceutical line reduces health and health is what biological bodybuilding is all about. Therefore the pernicious use of performance enhancing drugs is deemed unacceptable and illogical.

The idea is to take your genetic potential to the max using supplements, training and high quality food. Health is never compromised for aesthetic value; rather aesthetics are altered in response to controlled exercise performed somewhat religiously and always progressively. A natural cause and affect if you will facilitated through hard work, smart work and constant vigilance.

Biological bodybuilding provides us with the opportunity to challenge ourselves to outperform ourselves and to demonstrate our potential. It's not about looking better than anyone else; it's you on stage in your own world. It's a personal and intimate expression that flows from high self-esteem. The lifestyle encourages wellness and provides a reliable means of extending health span.

The other kind of bodybuilding is called pharmaceutical or chemical bodybuilding. It employs the cyclic and compounded use of synthetic substances not found in nature. It's non-functional mirror muscle taken to the max without restriction.

The purpose is to crank muscle up as high as possible and hope something doesn't give, snap or blow. But something always does and this is the problem. Pharmaceutical bodybuilding has a huge downside, which is why anabolic steroids, thyroid hormones and diuretics are

prohibited by natural bodybuilding associations. Not because they work, but because they cause injury, damage, decay and even death.

Pharmaceutical bodybuilding is not about health, it's about enhancement of form beyond what is possible to achieve biologically. It allows a man or woman to surpass their genetic potential and achieve levels of supernatural strength and size, in fact the outcome of such artificial enhancement combined with heavy resistance training and good genetics is seldom less than astounding, unbelievable, incredible, and utterly amazing, at least that's how those who admire the freaks, as they are called, perceive them.

Both forms of bodybuilding require hard work, discipline, dedication, strict dieting, intense training and unquestionable loyalty to the iron.

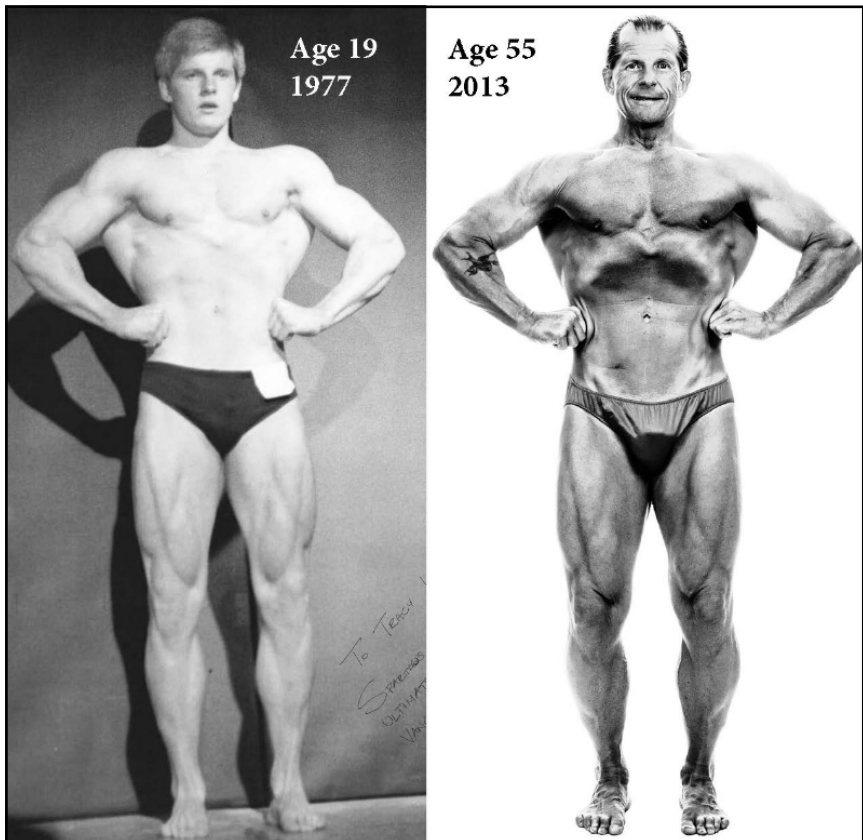
Competitive bodybuilding requires adherence to a specific set of rules and regulations that are made known to all competitors. Athletes are well versed regarding the use of banned substances and all agree before competing not to use them.

Athletes engaged in biological bodybuilding competition are held in check through a mandatory polygraph, urine analysis and random drug testing throughout the year without notice. Some associations now require a blood sample from each competitor to help determine if the athlete is using any prohibited substances.

Now this of course is provided that the natural bodybuilding association is doing what they're supposed to do to protect the integrity of the sport. But we all know there are problems with drug detection, so the detection process is controversial, political and the methods of detection continue to be a function of investigation and advancement in science. Currently no detection method is absolute.

The desire to win at any cost is so strong that some athletes will cheat just to gain temporary victory. Some competitors will even forfeit their health for a handshake and a trophy. Some will even risk death. That's how important it is for some people to win.

So without modern, state of the art drug-testing detection methods and a compulsory lie detection test, it's relatively easy to use any number of prohibited doping agents and compete without detection. This makes the sport unfair and more difficult for those who are clean and looking for a level playing field.



Chapter One

The Art and Science of Weight Training

Weight-training is an art form that requires skill, coordination and great mental concentration. In weightlifting strict attention must be applied to correct execution of movements and proper exercise form.

Prevention of injury and the long-term effect of your exercise strategy must be a consideration associated with choosing specific exercises. Like the shot, hammer, javelin or discus in track and field, technique is everything.

For example, bent-over barbell rowing is excellent for building the latissimus dorsi and the rhomboid major but with heavy weights over time, this exercise can ruin the vertebrae in the column of your lower back no matter how good your technique is.

Many competitive powerlifters and bodybuilders end up with chronic back pain, are forced to have surgery and become susceptible to arthritis and related autoimmune disorders that involve inflammation. It all starts with how you begin and like everything it's important to examine your motives.

Behind neck presses are well known for building shoulder strength, but thousands of athletes destroy their joint capsule and damage their rotator cuff muscles in the process. In the end they learn to live with chronic shoulder pain or even worse, quit training all together.

Learning basic movements like barbell squats or the bench press takes time, energy and lots and lots of practice. In weight training, repetitions are the mother of skill. Each rep should be performed with precision and know-how.



It is illogical to damage the body in the process of building muscle or developing strength. Your body is a temple, so protect it, nourish it, look after it, it's the only one you've got.

Initially, the amount of weight you use is irrelevant, or at least it should be. Develop the right lifting pattern first, focus on exercise technique and develop a rhythmic pattern of breathing and muscle control. Use your muscles according to their natural design and mechanical function.

Avoid jerky, fast movements; push or pull against resistance in a controlled and relatively slow fashion. Concentrate mentally on the fibres and muscle group you are forcing to contract in response to your telepathic command. Skeletal muscle fibres are voluntary, meaning they obey commands sent from the central nervous system, meaning the neurons in your brain.

Get a feel for the exercise. Although the motion of some exercises may seem foreign or uncomfortable in the beginning, the movements will eventually feel natural and smooth, the cable, dumbbell or barbell should become an extension of your limbs and mind.

Gradually you'll develop an instinctual awareness of the connection between yourself and the iron. This is known as the mind-muscle connection. Put your mind in your muscle and your muscle in your mind.



Every conscious attempt should be made to stay true to correct exercise form with all effort focused on making the exercise as difficult as possible, and therefore more productive.

Rest between sets, not during the set.

For training purposes the body can be categorized into six primary or basic muscle groups according to size, including legs, back, chest, shoulders, triceps and biceps.

Secondary muscle groups include traps, hamstrings, calves, forearms, lower back and abs or what is known as the core.

Compound movements target large or primary muscle groups and recruit smaller secondary muscles. Compound movements are foundation exercises and are great for building size and strength.

Some examples are chin ups, bar dips, standing barbell curls, squats, deadlifts, military press, power cleans, bench press and so on.

Isolation movements target one muscle group only. A good example is a concentration bicep curl using a dumbbell. Isolation exercises supplement compound movements and can be very useful for working around injuries, developing sports specific functional value, or targeting specific muscle fibres after performing a major compound exercise.



Most weight training routines combine compound and isolation movements using free weights, cables and machines. Each individual is built differently and responds uniquely to a variety of exercises, therefore through trial and error your objective is to discover your own personal ideal training routine and exercise format blend.

While engaged in any particular exercise, one should concentrate on full range of muscular motion in relation to the function and natural movement of the target muscle. This means you should fully extend and completely contract the muscle. Complete stretch and maximum contraction with applied resistance and control of movement is necessary for total muscular development.

Partial movement brings only partial results, although partial movements may be utilized in heavier lifting techniques to increase tendon and ligament strength, or enhance one's adaptive capacity to accommodate heavier lifting strategies.

But these are reserved for advanced lifting strategies and should never be attempted until one has mastered the basic principles first.

Continuous tension relates to maintaining tension on the muscle without allowing it to rest or relax through its fullest range of motion. Resting the muscle while performing the exercise is not recommended, for example, at the top of the squat it is possible to lock the knees and remove the tension from the quadriceps.



Avoid this temptation, ascend just to the point of near lock out at the top and then descend back down with control. Avoid dropping quickly. The eccentric or negative phase of lifting is actually the most important part or phase.

As you lower the weight in the squat resist the weight and lower your body in a controlled fashion. Then just as you break parallel explode upwards with the force of a mountain or huge tidal wave. Always maintain control of the weight, never let it push or pull you around. You are in control, and not the other way around.

Don't let weight, iron or the metal in the gym intimidate you. How can it? It's not alive. It doesn't have a brain. It's not thinking. Use the thoughts that you can control in your mind, take command and become a champion in the environment that you call your gym.

Free moving barbells and dumbbells demand coordinated movement, balance and grip strength and therefore require greater mental concentration and overall effort than machines. The need to control and balance free weights is extremely beneficial for stimulating and preserving neurons in the brain.

Free weights more closely mimic real life movements, especially dumbbells. A combination of both free weights and exercise machines are generally recommended for complete body development with greater emphasis on free weights for building shear strength, making advances in training or for providing neuromuscular stimulation for sport training. Cables and pulleys provide certain obvious advantages and thus are complementary.

Repetitions vary depending on training objectives, exercise intensity and experience. It really depends on what you're after, although type 1, type 2A and type 2B muscle fibres all require stimulation and full recruitment for health and total muscular development.

Type 1, or red slow-twitch fibres, respond to lighter weights and higher repetitions. To stimulate both types of type 2 fibres which are white fast-twitch fibres, you need to train with heavier weights and keep the reps under a ceiling of six for type 2B and 8 to 12 for type 2A.

Warm up sets can vary between 10 to 20 reps with light weights and sometimes as low as 2 to 6. Warming up is useful to prepare specific muscles for heavier poundage and to practice ideal form with total concentration and correct technique. Again, put your mind in the movement and in the muscle.

Another basic rule of warm-up relates to elevating body temperature. Five to ten minutes of cardio and some light stretching should be done first before you ever pick up a weight. This will greatly reduce risk of

injury to the joints. Safety first is a good rule of thumb to practice in the gym. Use your head before you use your body.

There will always be differences in the approach and design of workout schedules and arrangement. Exercise variation, cross-training and periodization are important concepts associated with the science of exercise physiology. Routines can vary depending on the specificity of sport, the anatomy of the individual and the exercise equipment available.

Each one of us is biologically unique. This is why biological bodybuilding is the only way to train and to live. I have interviewed hundreds of professional athletes and bodybuilders all over the world and in general they all have a different take on training.

The most important thing is to understand the basic principles, design a structured program, follow some initial guidelines and then modify your program as you go along. Don't change your routine if you're injury free, improving or making progress. This is the most you can ask for. Leave well enough alone. Don't fix the machine if it isn't broken.

However, you should change your routine if nothing is happening or simply work harder. Experience is the greatest teacher and through trial and error you can come up with an effective strategy that challenges the body and minimizes risk of injury.

If you ask the world's best professional bodybuilders how they train, they all have a different story to tell. What works for some may not work for another. However, there are basic keys of knowledge that apply universally to workout and training success.

And don't make the mistake of training like a bodybuilder if you want to transfer the value of weight training onto the field as an athlete. Muscle can be built for show or developed for function and there's a big difference between how each is done.

Chapter Two

Nutrition

There are five essential keys to training success. The first key is nutrition. Nutrition involves the consumption of those elements essential to life and conducive to survival, excellent health and optimum function. These include light, air, water and food.



Food is basically composed of macronutrients (carbohydrates, fats and proteins) and micronutrients, including vitamins, minerals, trace elements and enzymes.

Many other additional components are also present such as fibre, chlorophyll, alkaloids, lactones, glycosides, flavonoids, carotenoids, polyphenols, the list goes on and on and on.

Food provides an organic source of thousands of unique, naturally occurring biochemicals and these substances interact with the structure and chemicals of our bodies.

Don't kid yourself. Food actually influences our genes and how they express themselves. This is why it's so important to be aware of how the food we eat influences our genome (epigenetics) and to understand how this relates to long-term health and performance.

Resistance training is a form of mental and physical stress, which generates increased demands on the entire system. Training intensity and frequency determine requirements for energy and nutrients. More protein for example is required if you are trying to increase muscle size and strength.

Most bodybuilders and strength athletes consume at least one gram of protein per pound of bodyweight as a minimum standard, although it is much more accurate to base protein requirements on functional lean mass. I recommend no less than 2 grams of protein per kilogram of lean mass per day delivered incrementally in 5 meals.

The objective regardless of training format or goals is to maintain a positive nitrogen balance. This is where meal replacements, protein shakes and high quality sports bars can come in handy.

Vitamin B-complex, vitamin C and minerals like calcium and potassium also must increase to supply new demands. Training increases the demand for antioxidants, however, increasing the intake of only one nutrient without consideration of your overall biological need is not recommended. No one is deficient in only one vitamin or mineral, and if your intake of an isolated vitamin or mineral is excessive, research has shown that this can produce the same symptoms as a deficiency.

Taking vitamins and minerals in their proper balance is important to the proper functioning of all vitamins, and here's where we get into the idea of synergy. Synergy is the combination of two or more vitamins in order to create a stronger vitamin function.

For example, combining bioflavonoids with vitamin C helps vitamin C to work more effectively in the body. Also, certain substances have been known to block absorption of particular vitamins and minerals, such as prescription drugs.

In order to create a synergistic balance, all vitamin and mineral supplements should be taken with meals unless specified otherwise.

One of the best times is with a protein shake before training, after training, in the afternoon or before bed. This is what my wife and business partner Tracy Kaye calls 'Shake and Take'.



Nutrition quality makes a huge difference in your energy levels, body fat percentage, motivation and recovery. In general, avoid manmade processed foods that come in cans, boxes or packages. Consume a whole natural diet abundant in fruits, vegetables, whole grains, legumes, nuts and seeds, and clean animal protein, such as free range eggs, chicken, fish, turkey, seafood, beef, lamb, bison and wild game. These are whole foods and obviously the quality of any animal tissue protein is relative to how the animal was raised and fed during its life.



Minimize, or stay away from refined dairy products, pork, sugar, processed flour and pasta or bread made of white flour. Use freshly pressed vegetable and fruit juices to cleanse and alkalize the system and drink plenty of clean, filtered water. The rule of thumb is 30ml per kg of lean body mass per day, plus one to two litres for each workout.

Also consider adding an electrolyte powder to your workout bottle, something that's got potassium, magnesium and selenium; the elements that come out through your sweat have been identified. A 7:1 ratio of potassium to sodium (K:Na) is ideal as this is the average K:Na ratio of all natural plants and animals on the planet when added up.

When we add these electrolytes to a solution and drink it, the solution helps hydrate our cells more efficiently and more quickly than water alone. This helps prevent dehydration and dehydration is the enemy of energy.

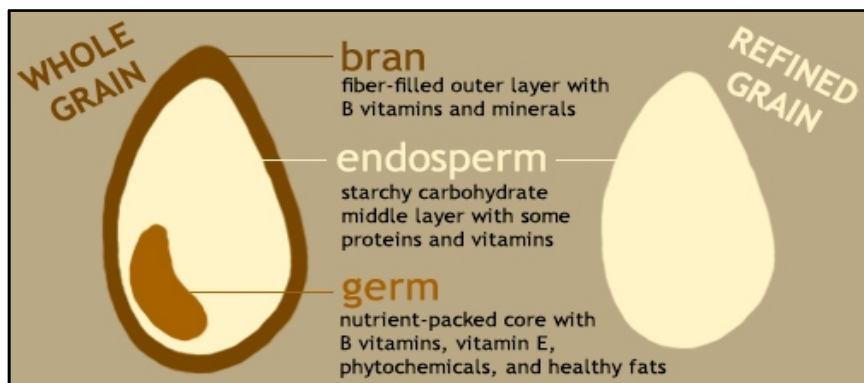
Make your own salad dressing with fresh live oils, and avoid commercial condiments, like ketchup, mayonnaise and BBQ sauce and be sure you pick up a copy of Tracy's cookbook [The Athlete's Cookbook](#). It will provide you with excellent recipes and guidelines to improve the quality of every mouthful of food that you eat.

The primary role of food is first and foremost to sustain the body with the nourishment it needs for cellular, glandular, muscular and nervous system function. This is best accomplished by consuming micronutrient dense fuel in its natural whole state and supplementing with a variety of high quality natural health products (NHPs).

Taste and culinary satisfaction, although an important feature of nutrition, is secondary to the premise of biological supply and demand. It is illogical to compromise sound nutrition for taste alone, yet this is the rule for the great majority of North Americans, not the exception.

This is why so many people are sick, obese and loaded with diseases, including cancer, diabetes and a host of endocrine related conditions, and also depression, which is permeating our society and destroying millions of people.

Junk food creates toxicity and leads to eventual decay and erosion. When you consume refined, empty, high-glycemic carbohydrates like white flour, pasta, buns, bagels, and white rice that do not provide fibre and which lack the trace elements and minerals normally present in their whole food alternatives, you become deficient in these same elements. It is the germ and bran of whole grains like rye and oats that possess most of the micronutrient action.



Our bodies require these micronutrients to potentiate metabolic enzymes and create the digestive force required to transform, assimilate and efficiently metabolize food. By consuming processed foods containing purified sucrose, fructose, glucose-fructose or invert corn syrup, you lose magnesium and chromium, both of which are essential for efficient insulin metabolism.

You can't grow muscle if you have insulin resistance, and insulin resistance is definitely a function of refined carbohydrate ingestion. Insulin facilitates the entrance of glucose and amino acids into the cell.

The entire process of oxidation which yields ATP and energy from food for growth and maintenance of the body is dependent on enzymes formed from the vitamins and minerals which enter the body when we eat.

If insufficient amounts of these nutrients are obtained, as is the case if we consume processed food, then over time the body is forced to draw these nutrients from where they are stored or compartmentalized in the body, such as our bones, skeletal muscle, joints and vital organs.

Imagine if your body is using your own muscle organ as a source of nutrients. Do you think it can grow, even with sufficient stimulation in the gym? No way. This is what causes, and/or contributes to osteoporosis, sarcopenia (the slow gradual loss of functional lean mass), arthritis and organ failure.

Refined sugar inhibits immune response, feeds yeast and pathogenic bacteria in the gut and intestines, hampers vitamin C absorption, disrupts glucose metabolism, damages insulin transport, causes reactive and nocturnal hypoglycemia, sets the stage for Type-2 adult onset diabetes and exhausts the adrenal glands and pancreas.

In other words, it's not worth consuming. Remember, that excess sugar is stored in your body as fat, so as an athlete, if nothing else about sugar will make you stop eating it, I hope knowing this will. Refined sugar will fatten you up or harden your arteries in no time flat.

Natural whole food provides thousands of micronutrients, enzymes, vital chemicals, and antioxidants not present in refined carbs, and these nutrients reinforce and protect the adrenals, thyroid, liver and pancreas.

Consuming fresh whole food throughout the day in small portions is by far the best approach. Insufficient protein intake, which is prevalent in

females and young children, is a common cause associated with the symptom of craving sugar and sweets.

Consuming a variety of natural health products (NHPs) is like exercise, a wise and intelligent thing to do. They reinforce the body with essential nutrients and provide adaptogenic value.

NHPs include vitamins, and mineral formulas, antioxidant blends, free-form amino acids, protein powders, thermogenic agents, meal replacements, sports bars, electrolytes aids, ergogenic aids, botanical extracts, herbal tinctures, homeopathic remedies, probiotics, organic seed oils, and enzymes, and again the list goes on and on. Walk into any health food store that is well stocked and you can look at the shelves, just loaded with some wonderful great products.

Dietary supplements protect the body from environmental chemicals, pollution and poison. They enhance immune function and are an excellent addition to a healthy diet, as opposed to the concept of using fillers to compensate for a poor, highly processed diet and unhealthy lifestyle. Use vitamins to reinforce the best choices you can make when it comes to eating food, and your health and your life and your body will love you for it.

Your vitamin program should be tailor made according to your present health, body type, performance levels, genetics and dietary intake. These days you have to work, really work, at eating well. Like training, good nutrition required planning, scheduling, discipline, and self-control. Eat as hard as you train!

You mustn't leave nutrition to chance, because high-quality food is absolutely vital for optimum performance and the prevention of disease and degeneration. Left to chance makes you an easy target like a deer in a meadow or a sitting duck.

For every health food store and grocery outlet that provides whole, fresh, organic, decent food, there are tens of thousands of alternatives which provide the opposite, and that's one of the reasons why there are so many sick people in our society.

It's just too easy to gain access to the wrong kind of food. Food that no pet owners would even consider feeding their pets and certainly now we know because of scientific evidence that all refined food, all processed food, is illegal to feed to zoo animals.

Eating smart means paying attention to everything you consume when you consume it and why. Many of us fall pray to eating disorders caused by stress and the build-up of negative emotions including loneliness, insecurity, fear and guilt.

Food addiction is just as serious and potentially destructive as alcoholism or addiction to tobacco. This behaviour is usually connected too much deeper emotional problems although micronutrient deficiencies and poor quality macronutrients can alter brain biochemistry, which effects rational judgement.

Food should heal, not destroy. It should build up, not tear down. Construction, not destruction. Eat to live, as oppose to living to eat. We are all biochemically unique, born with unique micronutrient requirements, passed on from our parents and our children inherit ours. They inherit our strengths and our weaknesses.

This is why it's so important to take dietary supplements regardless of how we feel or whether we perceive our diet as being excellent or whether we believe in them in not. Each of us has special biochemical needs for micronutrients that cannot be met by food alone. The idea that you get everything in the food that you eat is not only out-dated and ridiculous, it boards on the edge of total lunacy as a concept.

Chapter Three

Intensity

Intensity is relative. It means different things to different people. Some think of intensity as maximum physical effort, or equate it with achieving a state of 100% momentary exertion. Others associate it with temporary exhaustion, or what it takes to cause a certain muscle, or group of muscles, to fail.

Intensity of training refers to how hard you workout or the difficulty of your training. It can be defined as the average amount of weight lifted or described as a percentage of how much weight you can lift for one repetition.



Intensity has also been used to define the magnitude of the load deployed, while others define it as the rate of the actual work performed. In the field of exercise physiology, three domains of intensity have been defined based on their distinct metabolic profiles: moderate, heavy and severe.

The moderate intensity domain begins at the onset of exercise and encompasses work rates at or below lactate threshold. During exercise and the heavy intensity domain, work rates are above the lactate threshold and in the severe intensity domain, VO_2 increases to maximum value.

VO₂ or maximum oxygen uptake refers to the maximum quantity of oxygen a person can utilize. It is used to express our capacity for the aerobic synthesis of ATP. All out effort forces the body to compensate by increasing the dimension (size) of individual muscle fibres and/or the force they can generate by neurological activation when they are called upon to contract.

This is how the body adapts to the stress of training provided it is adequately rested and supplied with the raw materials required for adaptation.

Going through the motions does not challenge the body, so no additional positive changes will occur. Athletes must train and live progressively if they expect to improve performance.

You can increase training intensity or your workload several ways. You can increase the amount of weight, you can increase the number of sets or repetitions, you can decrease the rest time between sets or you can increase the number of exercises in any give workout. Without hard training, no real growth will ever be realized, if this is your objective.

However, intense training creates the need for more rest and sleep and without this the body cannot adequately recover. High intensity workouts are extremely taxing but essential to advanced form and shape. Quality of workmanship is the point in mind here.

One set of any given exercise performed with excellent technique and pushed to a specific ceiling or to absolute maximum failure is worth ten sets done with less effort and poor form. Finding balance between

intensity and volume is paramount in the lifting game and biological bodybuilding is all about discovering balance within yourself and focusing on quality always.

Intensity is relative; a weight deemed impossible for one to lift could be perceived as a warm-up for another. The important thing is whether or not you are challenging yourself to go beyond your comfort zone. Not all the time and never if it means compromising exercise form.

I have a name for my approach; it's called 'taking two steps forward and one step back'. Those I know who get into trouble, as in getting stuck, stale or injured, never take a step back. They just keep plowing forward without conscious restraint until they crash.

The smart wise biological bodybuilder is willing to do what needs to be done, submits to the forces and the laws that dictate growth and health and is humble enough to do what needs to be done for the purpose of what?

To generate not only performance and a beauty that people admire, but overriding this always is health, optimum health. Now if you never push yourself from one level to the next, you simple cannot move forward. The hands of time never stop moving, so, what are you waiting for? Remember these two words; keep them tightly protected in the vault of your mind: QUALITY and BALANCE.

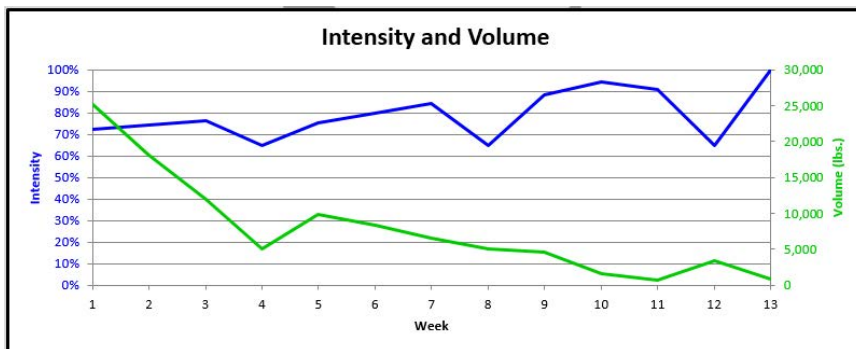
Training with intensity is tough and requires a high degree of motivation and determination. At the highest level of training it is brutal and almost savage and certainly not for everyone, however, if you possess ambitions of national physique calibre or want to excel as a competitive athlete and natural biological bodybuilder, you must be prepared to train hard with high intensity, with or without steroids.

Provided you train intelligently and correctly the body is actually designed to cope with strenuous exercise. It like its and feeds on it. It is able to cope and endure the process and that is how you develop an incredibly attractive body that is a high performance machine.

Without the component of intensity, your body will miss out on the benefits of hormonal stimulation including maximizing the effects of growth hormone, testosterone and IGF1. These hormones normally diminish with age, and this decline is associated with physical weakness, a reduction in metabolic rate, increased insulin resistance, muscle atrophy and susceptibility to disease and obesity.

And this, in part, explains why we have such wide spread obesity and why people have a hard time controlling their so called 'weight' or how I like to put it, their 'fat'. This is where interval training comes in and the principle of periodization. Walking combined with sprinting for example, is preferable to walking only or sprinting only. It's seldom only one or the other, it's usually both.

Let's compare intensity to volume now. Intensity refers to how hard you train. Volume refers to how long you train. As you increase volume, intensity of work decreases. And in like manner, training with intensity forces a contraction or reduction of time.



Intensity is the key factor when it comes to achieving higher standards of strength and size because the concept of pushing it to the limit is based on a model of significantly greater stress as opposed to stopping short of maximum fibre recruitment.

It is true that volume of work performed does play a role in growth stimulation and recovery. But there is a point of diminishing return. The function of exercise as a whole is to develop total physical fitness and train the body with a symmetrical approach.

Symmetry is bodybuilding's greatest virtue. It's number one on the list, but remember that muscle density, muscularity and quality of muscle built from the inside out, are also on that list. Each subset of muscle fibre type requires stimulation, so it's wise to include a variety of sets and reps in your workout routine.

Just as no one can obtain a true and lasting tan without some form of light as a stimulus, no one can increase muscle size and strength without stressing the system beyond its normal capabilities. Muscle doesn't grow unless it has to. The load or resistance must be increased to the degree that it causes cell disruption, which forces a natural compensatory response. Growth must be forced.

The most common way to overload a muscle in a resistance-training program, is to increase the amount of weight. This should be done progressively to allow for appropriate recovery and adaptation, hence the term: Progressive Resistance Training or PRT. By progressively adding resistance to keep pace with the growing strength of your body you ensure that your muscles will always be working at their maximum capacity and therefore grow as fast as possible.

To train with intensity you have to be motivated and immensely focused. Concentration is essential. Each repetition brings you one step

closer to failure and this is a rare example in life where total failure equals success. Failure to lift the weight means that you have exhausted your existing capacity, recruited a maximum number of muscle fibres and disrupted a greater percentage of microfilaments. Perfect!

Training to failure or close to it takes less time but demands more attention. You can't go through the motions when you train hard; you really have to pay close attention to proper form and the execution of every movement.

All in all, the right way to train and the best way to train is the most difficult. You have to push yourself through the zone of the lactic acid hydrogen burn. It's definitely not like watching TV.

You have to confront your lactate threshold every time you workout, but because you're training progressively, intelligently and correctly, and hopefully because you love it, you actually look forward to driving through that burning sensation that most people all over the world try and avoid.



Chapter Four

Consistency

Consistency is defined as dedicated conformity to a specific set of principles, action or belief. To derive any benefit from the effects of training you have to actually workout and train. So the first rule is you've got to get to the gym, track or pool.

Ideally your workout should be strategically planned and viewed as a top priority, not just for building or toning muscle but for the maintenance of health and the security of your own wellbeing. Each of us has an inner athlete locked in our DNA just waiting to be expressed and part of what drives us forward is the acknowledgement of this fact.

Exercise demands time and energy and a strong commitment. If we expect to achieve a high level of physical health and athletic performance then we must remain loyal to the cause and demonstrate allegiance to what optimum health requires.

Like the archer, we have to keep a sharp eye on the target we intend to hit. Achieving a lean abdominal region or adding inches to your biceps is no easy task. Without clarity of purpose and ferocity of intent, any original commitment to exercise will get swallowed up in the sea of procrastination or shelved on the wall of personal idleness.



Left to itself, the body will naturally choose the pathway of least resistance. It does this to conserve energy. So to remain consistent on a path to success, we must focus on our goals and keep in mind the reasons why we want and need to train. The motivation to exercise is conceptualized from deep within our brains.

The body has a discreet and insidious way of going downhill with age; this occurs primarily because of entropy, gravity, cosmic radiation and the effects of consuming oxygen.

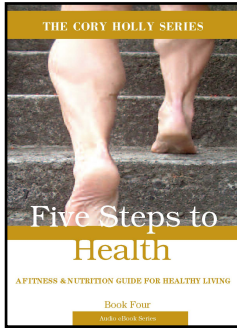
Through controlled oxidation, pairs of hydrogen atoms released from carbohydrates, fats and proteins, combine with oxygen to form water. Energy is transferred from food and stored in a currency, called adenosine triphosphate, or ATP. But another process known as uncontrolled oxidation is responsible for much of the damage we associate with aging.

Oxygen is a necessary element. Without it we can't transfer energy from food or respire. The irony of life is that the forces that cause our demise in the end are the same ones that we cannot live without. And regardless of intellectual ability, financial strength or social status, they affect everyone's life from beginning to end, especially the end part.

The body loses vitality and strength the less it is exposed to physical movement and controlled exercise, this is inevitable. But if we make resistance training a foundation, we can safeguard ourselves from much of the weakness and frailty experienced by men and women as they age.

A minimum of three days per week of strenuous exercise is recommended, you've all heard this as a maintenance program, but I recommend five, and if you want insight, please read or listen to my

book *Five Steps to Health*. I go into detail on training five days a week and breaking down the pattern in detail.



Five Steps To Health

- Five Workouts Per Week
- Five Phases to Each Workout
- Five Meals Per Day
- Five Supplements to Take
- Five Principles to Live By

In addition, some form of light to moderate physical activity performed daily is ideal. Go for a morning walk, play some sports with kids, move your body. That's different from the actual workout pattern.

Think of the training episode as a separate component of your life that you give and submit to, to stay well for life. Each workout will bring you one step closer to your destination.

Consistency is a brother to persistence. It is that quality in everyone that pushes us through the hard times and past the myriad of excuses, which are used to justify missed workouts.

Once again, you cannot make any progress if you don't workout and if you don't lift you will experience what I call 'the muscle slide'.

But if you are physically fit, well structured, nurtured, conditioned and maintain an excellent diet and attitude, you will enjoy a superior quality of life because you have put time and effort into creating and maintaining this quality.

Chapter Five

Sleep

The fourth essential key to training success is sleep, and this is a big one. Why humans require sleep and what happens within the brain hemispheres during sleep is definitely not clearly understood. It appears that the body and mind are regenerated and that specific glands, tissues and organs are given a metabolic rest.

While sleeping, the pituitary gland releases growth hormones cyclically, which is essential to muscular growth, fatty acid metabolism and immune system function. Melatonin is released and as an antioxidant protects neurons from damage.

Foods consumed during the day are broken down and assimilated into tissue and muscle cells injured through training recover, adapt and grow a little larger or more powerful.

Heavy training demands longer periods of rest and sleep, for sure. Remember, your body doesn't grow in the gym; it recovers and grows at night during sleep. This is why sleep deprivation leads to loss of energy, poor concentration, irritability, reduction of strength and power and increased risk of injury and immune system dysfunction.

Overeating prior to bedtime will interfere with cleansing and healing within the body. Besides exercise and physical movement, food digestion requires more energy to complete than any other body function or process.

Loading up on junk food is especially harmful to the system and will lead to the accumulation of unwanted body fat and toxins. If you eat systematically throughout the day, then your last meal before bed should contribute to your overall game plan of stabilizing blood sugar, and maintaining a positive nitrogen balance without driving insulin too high.

Tracy and I both enjoy, as well as our children, a delicious protein shake before bedtime most nights. With a nice essential omega-3 rich fatty acid oil, you can add some glutamine, which also has a sedative calming effect at night-time and helps release growth hormone.

The protein shake to me is absolutely essential and critical and you just partition it throughout the day, in the morning, before workouts, after workouts, and then at night-time (night-time is optional if you practise intermittent fasting and like to avoid eating at night).

Nutrients and herbs known to sedate and calm the nervous system or prevent insomnia include calcium, magnesium, lecithin, niacin, inositol, tryptophan, melatonin, St. John's wart, GABA, glycine, valerian root, hops, skullcap, kava kava, passion flower and chamomile.

There are many others including some good homeopathic remedies, but at any rate don't forsake the benefits of a good nights sleep.



Chapter Six

Attitude

The fifth and final key is attitude. Attitude is the master key that unlocks every door because thought is the most powerful substance in the universe.



Motivation, which gets you to the gym and determines your workout intensity, is generated through and from your mind. Your state of mind pre-determines your state of body. Thought is the cause, your life is the effect.

If you think in positive terms you get positive results. If you think in negative terms, you get negative results. It's as simple as that. You must visualize your goals and imagine how good and wonderful it will feel to achieve them.

Imagine looking at yourself in the mirror everyday and loving what you see, looking at those deep lines of muscle separation, that nice trim waist, those nice legs and arms, all tailor-made and something that you created.

Imagine the satisfaction that experience will provide and what that could do for your self-esteem and self-worth. This is something that we have control over and people are giving it away. They're throwing their power and potential into the wastebasket.

[Emoducate](#) your mind. Take advantage of MP3 technology and listen to both your favourite music pieces and educational tutorials while you are training.

emoducate (verb) : *Emoducate: To elevate the sensory portion of the brain by listening to one's favorite music with an mp3 player during exercise and physical activity, enabling one to absorb, utilize and retain selected educational tutorials, interviews and health related data in audio format (Merriam-Webster)*



In my experience, this is the most powerful way to seduce your mind into doing everything that's right as it relates to health. And wouldn't you like to be seduced by something or someone where the outcome and the benefits are absolutely everything that you love and enjoy?

I know that I would, and do.

Our mind is like a sponge, soaking up everything it receives through the sensory organs of the brain and central nervous system. It can be likened to a huge magnet attracting particles of information from all sides, from everywhere, both consciously and unconsciously.

Great caution must be applied to whom and what we expose our minds to. Reading articles on exercise, health and nutrition will program your inner computer to change your behaviour toward that end.

Attend seminars, utilize MP3 audio technology, discover what education is really all about.

It's a terrific concept that will really, and I guarantee this, will absolutely change your life for the better. Read books, subscribe to journals and enroll in online continuing education courses like the CSNA Education Program. The [CSNA Education Program](#) is the operating system and owner's manual for health that none of us received at birth

Knowledge and objective science based education increases our ability to execute living habits correctly that will improve our level of wellness and quality of life to the fullest. Take whatever time is necessary to plot out the course of your life. Set short term and long term goals; plan your workout schedule and eating habits in advance instead of leaving your health and fitness to chance. If you don't take action and create an optimum health and lifestyle program now, nobody else will, guaranteed.

In the final analysis, what's required to produce a favourable outcome? Well, fitness professionals like to measure things, like body composition, muscular endurance, muscle strength, aerobic capacity, and flexibility. Enter a concept that is new or foreign to many people, it's called 'science'. Science is not a noun. It's a concept of rational thought.

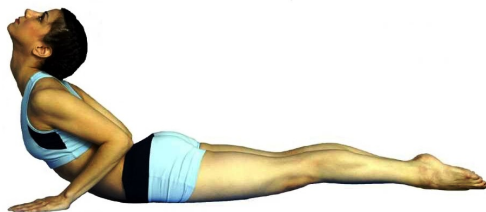
Therefore, an ideal workout scenario should consist of stretching, both aerobic and anaerobic training, one that builds flexibility, endurance, strength and power. Remember that biological bodybuilding is not only about what you look like, it's about what you feel like and it's about your resistance to disease and pathology.

So if you're really a noble person that honours life, you're going to live a lifestyle that creates health as a consequence of your actions, which is controlled by thought and how you think. This is where weight-training

comes in also, it builds the strength and power athletes need to excel in sport and it also helps maintain coordination and balance, and we need that because we tend to lose that as we age.

Fitness and health is more than strength and power. It's also determined by measuring resting heart rate, maximum heart rate and aerobic capacity. This is where things like running, swimming and cycling come in. Aerobic exercise is essential for improving cardiovascular fitness, lung capacity and VO2 max.

Finally, develop a good basic stretch routine. Combine some yoga with dance and martial arts stretch. Stretching prevents injury by improving range of motion and maintaining youthful motility in the joints. Tissue elasticity is a crucial component of high performance.



And do you know why a lot of athletes and bodybuilders don't stretch? It's because when you go into the gyms, most don't have a dedicated section specifically for stretching. They kind of leave it up to the individuals to grab a mat and find a space on the floor.

Wouldn't it be nice to walk into a gym where they've got a special room, where the entire floor is covered by a wrestling or judo mat so you can walk in with say six hundred square feet, or however much space you need, and do a wonderful great stretch.

People, you've got to focus on stretching in the same way that you focus on your training with the weights. They're all a function of the outcome of wellness and health and a beautiful looking body.

Afterword

In most sports you load up on plenty of good whole food before and after the game or practice. Your physical appearance is actually hidden under the sports gear. No one knows what you actually look like in most sports.

Natural bodybuilding is all about what you look like, on and off the stage. Therefore, the dieting component is critical and much more demanding, intense and extreme than most other sports.

To be successful as a natural biological bodybuilder and to remain well and injury free for life, we need what the Tin Man, Scarecrow and the Lion from the Wizard of Oz were looking for, namely, heart, brains, and courage.



The Tin Man wanted a heart. The heart represents the repository of our deepest and sincerest feelings. It is the firmness of our will to carry out with compassion and kindness what we know is right. The prime directive of natural medicine is 'Do no harm'.

The Scarecrow wanted a brain. A functional brain thinks logically and borrows from intellect to overcome temptation and negative emotions. It acquires knowledge that when applied rationally, creates a predictable outcome determined in advance through the power of conceptualization. A concept that is absolutely unique to humans only. Use of the brain allows us to utilize the science of training and nutrition with precision and understanding.

And last but not least we need to be courageous and brave enough to overcome our inner most fears. The Cowardly Lion wanted courage. This boils down to genuine self-determination and simply being true to ourselves and our own ideals. The opposite of courage is not cowardice; it is conformity. Courage is both a virtue and a state of mind.

The road that leads to Oz is filled with many distractions and is difficult to follow. But as the Wizard himself said to the Cowardly Lion, *“As for you my fine friend, you’re a victim of disorganized thinking. You are under the unfortunate delusion that simply because you run away from danger, you have no courage. You’re confusing courage with wisdom.”*

And so now in conclusion, and I want to challenge you and ask you, are you confusing your life with any other? This is the most important thing that you have in your life; an opportunity to put energy and focus into health, it is the greatest wealth.

When I was twelve years old, I started weight training and immediately fell in love with the iron. In no time flat I learned the secret of steel. I was able to solve the riddle, and what I discovered in the iron is what I know to be true about myself. That it is my mind and my will and my self-determination that will make or break me in this life.

This is not an easy life; it isn’t something that we can just take in stride without being well. Build strength, build muscularity, train with nobility

and honour and become the man or woman that you are destined to be, because if you are truly connected to the iron and the gym then you know and understand full well that biological bodybuilding is absolutely the only choice that you can make.

This book is the seventh in a series of many to follow, each forming a link in the [Cory Holly Series](#). I invite you to join me on the journey of self-discovery and in the mean time, please move on to book eight in our series titled Sports Nutrition for Kids.

[Sports Nutrition for Kids](#) is devoted to the world's most important natural resource, our children. As health minded parents we are obligated by the law of love to protect, nourish and sustain our children to the very best of our ability.

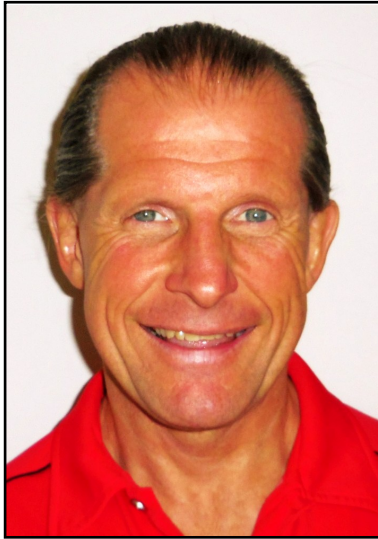
This book covers lifestyle, exercise, physical activity, supplements and the basic nutrition principles for children to help them stay lean, healthy, strong, ambitious, independent and well for life.

Remember, to stay well and live long with vibrant health, we must make exercise a top priority and nourish our bodies with the best possible food and natural health products we can find.

This is Cory Holly wishing you all the very best of health and wellness for life.

Stay well and live free!

A handwritten signature in black ink that reads "Cory Holly". The signature is written in a cursive, flowing style with a large loop at the end of the name.



About the Author

Dr. Cory Holly is the Founder & President of the [Cory Holly Institute](#) (CHI). Cory completed his Doctor of Naturopathy degree at Clayton College of Natural Health in 1992. He studied exercise physiology and biochemistry at Western Washington University and apprenticed at the Colgan Institute of Nutritional Science for seven years. He currently studies philosophy, physics, biology, biochemistry, physiology, molecular genetics and human psychology online at MIT, Stanford, UCLA and the Ayn Rand Institute.

As Canada's Ambassador of Sports Nutrition, Health & Fitness, Cory's objective is to strengthen sports nutrition awareness worldwide and bridge the enormous gap that exists between nutrition and fitness. Cory is the recipient of the 2003 CHFA Sports Nutrition Hall of Fame Award. The CHFA (Canadian Health Food Association) is Canada's largest trade association dedicated to natural health and organic products.

Cory has competed in a great variety of competitive sports including hockey, soccer, football, basketball, lacrosse, wrestling, track & field, tennis, table tennis, badminton, volleyball, triathlons, running, swimming, diving, gymnastics, handball, rowing, Tae Kwon Doe, boxing, bodybuilding and power lifting. He was awarded Athlete of the Year in both Junior High and Senior High School.

Cory currently competes on Canada's Masters National Team in track and field (hammer throw) and has several Natural Masters bodybuilding titles including CNBA Canada (Gold) INBA Universe (Silver) INBA Olympia (Silver) and INBA Hawaii (Gold). Each year in Vernon BC he also hosts the [Cory Holly Classic](#) (track & field meet).