Iron Dog Productions presents:

Bodybuilding Made Simple

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Bodybuilding, like any other sport, can be dangerous to your health. Do not, under any circumstances, attempt to perform something you read in this book unless you fully understand what you are doing.

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Introduction

Before we begin, I would like to tell you a bit about this compilation and what to expect from it. I'm certain that, unless you've been living in a hole in the ground, you've flipped through various bodybuilding magazines at the grocery store or read books about it. What most people do not understand is that what you read in these is not real life. The routines given are not going to produce maximum results on an average person, and let's face it, you're reading this because you want to maximize your training.

I have been bodybuilding for seven years now and have made pretty much every mistake you could possibly make. The reason- in the beginning, my whole knowledge base was founded upon muscle magazines and basic common "knowledge" about bodybuilding (e.g., curls build biceps). I only started to make insane progress once I realized that I needed help and had to expand my base to include worthwhile knowledge. This meant listening to others who had been doing this for a while, understanding what I was doing wrong, and fixing my training.

Unless you're being trained by someone who's been in this sport for a while, chances are you're going to be stumbling around for at least a little while when you start bodybuilding, trying to discover what works best. Unfortunately, this can be rather frustrating as, during this period, you are experiencing minimal strength and muscle gains. If this persists for an extended period of time, most people lose hope and simply quit the sport. This is where this compilation comes into play. In it, I lay down all the basic guidelines for success, as well as some useful tips you may or may not know. While every body is different, each conforms to some basic rules.

What you are about to read is not based solely on my knowledge. For the past five years, I've been dealing with those I would consider to be the true professionals of this sport- 100% natural people who have been lifting from fifteen to thirty years, have made their mistakes, and have sorted through all aspects of training to achieve maximum results. I've made every attempt to assimilate their knowledge and am now putting everything I have learned from them, in addition to my own personal experiences, to pen so that I can share with you the most important aspects of bodybuilding.

I would like to note that this compendium is not going to go into the biomechanics of bodybuilding, nor is it going to spend four pages explaining exactly why, for example, you shouldn't spend 5hrs/day in the gym. The point is to get across the keys of success and make certain you understand them, not to bore you to death about how and why your body works the way it does. Everything will be explained in common layman terms so you can understand exactly what is, and what isn't, good for your training.

Glossary

Listed below are common terms you are going to encounter in this compilation. I want to make certain that you understand each one in its proper context. Remember, knowledge is half the battle.

- 100% intensity: Giving the lift all you have. This means that at the end of your workout, you have no desire to even press a 5pd. dumbbell - you are just completely exhausted.
- BB: Barbell (e.g., bb curl= barbell curl).
- Body fat (%): The amount of overly fat your body has. Can be measured using callipers (with a 3-4% margin of error) or a water body fat test. Electrical tests are highly unreliable (margin of error of anywhere from 10-30%).
- Bulking: To increase your caloric intake and gain weight.
- Burn ("The burn"): Increased build up of lactic acid in your muscles.
- Cardio: Anything that increases your heart rate (e.g., running, boxing).
- Chalk up: To rub ground up chalk on your palms. This increases your grip and prevents slippage from sweaty palms. Far superior to using gloves, as you have a natural grip and can feel the weight in your hand.
- Cold: Refers to your muscle when you are not training, and thus are not pumped up.
- Compound lifts: Lifts that involve a lot of the major muscle groups and do not isolate just one muscle group (e.g., deadlift, squat, pull-up, bench press, military press).
- Cutting: To decrease your caloric intake, lose weight and drop in body fat percentage.
- DB: dumbbell.
- Drop set: Usually 3 sets done without any rest in between. You do the first set, then lower the weight by a certain poundage, do the second set, lower the weight again and do the third set, all with no break period.

- Ectomorph: Skinny, naturally small boned. Has hard time putting on muscle.

- Ego lifter: Somebody who lifts more weight than they can handle, and thus has poor form.

- Endomorph: Stocky/fat build, naturally big boned. Has hard time cutting (losing fat).

- Full motion: Not doing partial reps. (e.g., pull-ups: at the bottom of the rep, your arms are fully extended with no bend in the elbow).

- Hypertrophy: Growth. When used with regards to bodybuilding, it means muscle growth.

- Isolation lifts: An exercise that isolates a muscle group if done properly (e.g., bb curls isolate the biceps).

- Mesomorph: Combines the best attributes of an ectomorph and endomorph. Muscle almost seems to grow on them- ideal candidate for bodybuilding.

- Natural (100%): Somebody who has not taken prohormones or steroids.

- Over-training: Doing too much volume (either too many sets, reps, or both). Could also mean that you're not giving your body enough rest.

- Pump: When your muscles become gorged with blood and become bigger than usual.

- Pyramiding: To either increase or decrease the weight after a set (e.g., You barbell curl 50pds, then you pyramid up by 5pds (which means you would be curling 55pds for the next set)).

- Rep: How many times an exercise is done in a row (e.g., 6 reps of pull-ups means you do 6 pullups in a row, then stop).

- ROM: Range of motion (e.g., pull-ups: full ROM involves starting with your arms fully extended. You pull-up until you hit at least chin level, then lower with arms until full extension occurs. Partial ROM would be not fully extending your arms (such that they are bent at the end)).

- Set: How many times an exercise is done that day (e.g., 2 sets of pull-ups means doing one set (containing a certain amount of reps), break for a few minutes, then doing the second set (which contains a certain amount of reps).

- Spotter: A person who watches your lift and provides assistance if necessary.

- Super-set: Doing 1 exercise (e.g., benching) and immediately upon completion doing another type of exercise (e.g., db flyes) with no rest period in between.

- Straps: Tight bandages that wrap around the wrist and then around a bar for added support. Not a good idea to use because they eliminate the forearm benefit from the exercise.

- Volume (reps): The number of reps you do. High rep volume implies you are doing a high number of reps (>8) on each exercise.

- Volume (sets): The number of sets you do. High set volume implies you are doing a high number of sets (>12) for each workout.

- Weight belt (dip belt): A belt with a chain attached to it. You hook weight plates onto this chain to add weight to bodyweight-only exercises (e.g., pull-ups, dips).

- Wraps: Tight bandages wrapped around your knees when squatting. The degree of tightness determines the tension in the knee. The tighter it is, the more elasticity exists, and thus the more weight you can squat. When wrapped lightly, it does not provide the extra benefit of letting you squat more weight, but it does provide greater stability and can prevent knee injuries.

Chapter 1…. The Basics

1.1) The Bare Basics

There are THREE key elements you must understand to achieve maximum hypertrophy.

- Sleep
- Exercise
- Diet

Each of these concepts will be covered in greater detail later on, but I want to stress that, if even one of these is lacking, you're wasting your time training.

Muscle does not just grow from nothing. Proper nutrition is needed to achieve maximum gains. As I discovered the hard way, if you're not eating enough, eating poor quality foods, or, for example, not consuming enough protein, your training will be hampered. Your body is a finely tuned machine. If it is not properly fed, it cannot function to its utmost capacity.

When you lift, you create micro-tears in the muscle and are actually decreasing muscle size/strength. While you recover (not lifting), the tears heal themselves. This causes the muscle to come back stronger and, eventually, bigger than before. Healing can only occur with proper nutrition and sleep.

1.2) Sleep

Muscles require rest to recover from the strain of lifting. Although some repair occurs while you move around during the day, most healing occurs at night. This is the body's natural time to do it. GH(growth hormone) is released at night as you rest, and muscle building (protein synthesis) occurs.

There's a lot of debate over the amount of sleep that is necessary; however, I feel that seven to eight hours a night is sufficient. Six hours is the minimum amount needed, while ten hours is the maximum. This really isn't a concern for most people unless they spend the night partying.

The most important thing you need is a deep, trouble free sleep. Don't go to bed thinking about problems in your life. Relax, take a hot shower, whatever. Just make certain the sleep is a refreshing one. Not only is this conducive to muscle recovery, but it also let's you have a more enjoyable day.

A common question is whether or not the time you go to bed affects your gains. Based on personal experience, and acquired knowledge, there is no ideal time to go to sleep. As long as you have a consistent sleep pattern and a restful sleep, you'll be set.

Today is a busy world- everybody is always on the move, so it may not be possible for some to achieve 8hrs of sleep a night. If this is the case, try to make up for it on the weekend. Go to bed early each night and sleep as long as possible. This isn't a direct replacement, but it can help the body make up a bit of what it's lost during the week.

1.3) Exercise

Remember, you're at the gym to achieve maximum gains. You don't want to be wasting your training time if it isn't going to produce results. Anybody who says that their sole reason for lifting is to live a healthy life, I don't buy it. For a healthy life style, all you have to do is some cardio each day (to shed a few pounds of fat and to build some endurance). Those who are in the gym pumping iron are there, even if they don't admit it to themselves, for gains. It's just common sense- any male out there wants big muscles.

A common myth/mistake assumed to be true by many, and thus can affect a beginner's training, is that you have to lift for hours on end to achieve results. This is completely false!

1.3a: The MOST important information you'll ever read

If there's only one thing you take from this compilation, make certain that it is this motto: 'less IS more'. You will see this concept repeated over and over in the following chapters.

Contrary to popular opinion, spending hours upon hours at the gym is actually counter-productive. If you are lifting for more than 55 minutes at a time, you're wasting your energy. After 55 minutes of training, your body enters a different type of state, where the effort you are putting in is not producing best results. The only exception to this are those on steroids- they can benefit from extended training.

When I do a full-body workout, I spend exactly one hour in the gym, but that's because I'm working every muscle group. When I do a one muscle per day workout, I make certain not to spend more than 35 minutes in the gym. I don't doddle in the gym as I make every minute count.

1.3b: An important key to success

You must give each lift everything you have (100% intensity). Do not hold back!

If you don't challenge your body, you will not grow. For example, if you bench 100pds for 6 reps and continue to do the same weight and rep scheme for the next two months, you will not experience hypertrophy. In fact, your muscles may actually atrophy (shrink)! The reason is that your muscles are just like you- you cannot do the same task over and over and over, day after day after day, without becoming bored. When the muscles are bored, they're not being challenged, and thus no growth is encouraged. When you lift, if you give it everything you have so that at the end of the set you are beat and cannot do another rep with good, quality form, you can be certain that hypertrophy will occur.

Keeping this in mind, you should try to increase each exercise by 1 rep each month; however, if you are making progress, each lift should go up 1 rep every week or two.

1.3c: Another definition of intensity

Always try to increase the number of reps by 1 from your last workout. If you can't achieve this, don't worry- sometimes it's only possible to increase by 1 rep every second or third week.

As a final note, the body does not just adapt to weight poundages. It also adapts to your schedule, which is why every few months you want to change it. This may mean, but is not limited to, changing the rep range you stay in, or the ordering of the exercises you do.

1.3d: Your body needs excitement; give it some

As noted above, your body is just like you. If you aren't challenging it to new routines or forcing it to work harder (by introducing heavier weights and more reps), you can't expect it to grow.

1.4) Diet

Your diet is a whole complex issue, and thus receives its own chapter later on. As I mentioned above, without proper nutrition you are wasting your time lifting. I had to learn this fact first hand, and I'm willing to bet that most people who are struggling with their training never thought it could be their diet that's holding them back.

This is a problem when your knowledge base is solely from magazines and what would be considered common knowledge. Go to anybody and ask them if a proper diet is necessary to gain huge muscles. Chances are they would just guess, or that they would have no idea what a proper diet even consists of.

The most common diet mistakes include a) not eating enough calories b) consuming too much "poor" quality foods (e.g., eating take-out every single day) c) not consuming enough protein (for muscle building) or carbohydrates (for energy) d) eating

too infrequently (e.g., 3meals a day versus 7smaller meals).

If you don't understand something from the above paragraph, don't worry. The whole nutrition angle will be covered later.

1.4) Attitude

While most people know a positive attitude is necessary for success, I felt I should bring it up in this section to be thorough. When you lift, you have to think positive and know that you will be successful. Take curling for example. If, throughout the movement, you're saying to yourself 'My god, this weight is so heavy I can barely hold it', or 'My arms are small, they'll never grow', you're going to have trouble with the lift. By keeping a positive attitude and not letting anything hold you down, the sky is literally the limit. Tell yourself that you can succeed at the current lift and that the bar is as light as a feather- no problem to press it.

1.4a: The body is strong, but the mind is stronger

You must maintain 100% mental focus and concentration when lifting.

When you are lifting, you should not be thinking about your job, stock portfolio, or any issues other than the exercise at hand. This has to be time you set aside for your body. Although your body is physically moving the weight, without a strong mental game plan you can't hope to succeed. A strong (built) body with a weak mind is an impossibility in this sport. If you don't believe in yourself or don't maintain focus, you won't be able to lift to the best of your abilities. Remember, never doubt yourself, but know your limits. No matter how much you believe you can bench 800pds, you can't. You have to apply common sense here.

1.5) Avoid all muscle magazines

This tip is crucial to your training. As a source of entertainment, they are great. As a source of information, well, they're not so great, to say the least. The routines and ideas mentioned in these are not for the average person. Steroids and other chemicals allow individuals to train longer than normal, and to receive additional benefits from these extended training sessions. For a natural person, however, following these routines and advice is like walking off a cliff. Listen to an average person who's been in your shoes before and has discovered what works the best.

These types of magazines are where some myths are created. For example, if an average person picks it up and flips through it, they think they have to spend at least 2hrs. a day in the gym to make progress. Totally untrue. For an average individual who is not genetically gifted, shorter training sessions are far more beneficial than longer ones.

Chapter 2….Workout Facts (and Myths)

2.1) What makes a good workout

I am willing to bet that most people would answer the above question by saying 'When your muscles are all pumped up. The pump means you had a good workout'. This is TOTALLY false. The pump occurs when your muscles become gorged with blood- the more blood, the bigger the pump. That's all it means; it has nothing to do with the quality of your workout.

Another myth is that the more the muscles are burning, the more effective your training is. This is once again untrue. The burn is essentially lactic acid build up, which can be bad for hypertrophy. When you first start lifting, you'll experience this most of the time as your body slowly adapts to working out. Over time, the feeling will completely fade as your muscles' endurance increases; however, if you were to do something silly, like 20 rep bb curls, then you would experience "the burn". This time it will be from the muscles pushing past their old endurance barrier. While this may sound good, keep in mind that, in most instances, after 8 reps you're training more for endurance, not hypertrophy (the exceptions will be covered later on).

There is only one true way of knowing if you had a good workout- ask yourself 'Do I want to do one more set of (fill in this blank with an exercise from that day)?'. Remember, muscle growth occurs when you give each lift your full attention and 100% intensity.

If you have honestly given everything you have, then you will answer the question with a resounding 'NO!'. If the answer, however, was 'yes', then you still have energy left and did not give full intensity with that workout. This does not mean go back and lift some more. Even though you did not give full intensity, you did encourage some muscle growth, although not maximum growth. Just make a promise to yourself that next week you'll try even harder to attain 100% intensity.

I like to use my chest day as an example of this intensity concept. When I am finished blasting my pecs, I have no desire to even bench the bar; however, to show you what would happen, I decided to try it anyway and discovered that I couldn't even press the bar for one rep without assistance. My muscles were thoroughly exhausted. Now that shows 100% intensity was given during the workout. I’ve seen some people who could, after working their pecs for an hour or more, still bench over 200pds without any problems. There’s no way they could do that if they gave 100% intensity throughout their workout.

2.2) The set myth

One common myth that even experienced lifters can fall for is the '3 set or bust rule'. Basically, this means that you have to do 3 sets of each exercise or you will not achieve maximum benefit. Once again, this is a myth. It has been proven that there is no difference between doing two or three sets; some studies have shown that 2 sets is optimal for hypertrophy.

I'm not saying do 2 sets for maximum growth; what I am saying is don't believe everything you hear. Some of the common weight-room "facts" are just myths passed down from previous trainers.

I have heard some people advocating 4 sets for 4 exercises (so your entire workout consists of at least 16 sets). This idea is silly because, once again, it goes against the ‘less IS more’ approach. More sets mean you spend more time in the gym. The longer you spend, the more energy you’re using and hence the less intensity you can apply as time wears on. It’s far easier to do 2 bench presses with 100% intensity than it is to do 4.

2.3) The rep myth

This one especially makes me laugh- 'higher reps will make the muscle more cut'. This is so untrue it isn't even funny, yet you would be surprised how many people believe it.

If you are a beginner, you should start by using the 10 to 15 rep range. This will build your endurance, in addition to strengthening joints, tendons, and ligaments. As a newbie, if you start lifting heavy without any prior experience you're asking for injuries- your body is not accustomed to the stress placed on it. Far too many people try to rush ahead and start lifting as heavy as possible, forgetting other factors such as nervous system recovery. For this reason, I suggest you keep reps relatively high for the first few weeks. Once you’re comfortable, you can experiment with different (lower) rep ranges.

2.3a: Central Nervous System (CNS)

Without going into too much detail, your CNS is in charge of body recovery functions. A beginner’s CNS is not used to the stress demanded of it, and requires time to get up to par. When people begin lifting, they may start to shake after a few reps, despite using a relatively low weight. The reason- your CNS is saying it’s out of shape. Bringing it up to par is simply a matter of time; how much time depends solely on your genetics.

As a general rule, higher reps are suited towards muscular endurance, and, to a certain extent, hypertrophy. Lower reps are geared towards strength. A general rep guide can look like:

- 1: True one rep max
- 1-4: Ideal for strength
- 5-10: Ideal for hypertrophy
- >10: Suited for muscular endurance (some exceptions exist (e.g., 20 rep squats), but these will be covered later)

A true one rep max refers to the ability to lift a weight once. After that rep you are unable to do a second. This range is best left to powerlifters who are preparing for a competition. It may seem cool to lift to your maximum ability, but there are two reasons you should not- it is very demanding on the nervous system (the more stress you place on it the less able it is to handle body recovery and the easier it is to enter an over-trained state), and one rep maxes can be very dangerous (you are exposing yourself to muscle/tendon tears since you are operating very near to your body's maximum capabilities).

Doing one to four reps is better suited towards powerlifting. This range will build muscular strength, at the cost of hypertrophy. You can still gain size, but it will not be ideal gains. My opinion is to avoid this range until later if you decide to combine bodybuilding with powerlifting to maximize gains from both worlds. This combination can be done, however, it's too complex for a newbie. A lot will revolve around knowing your capabilities, which you will only discover through time.

Ten reps and beyond are suited towards building endurance; however, these still have a place in your routine, either as a recovery device when you are injured and trying to rehab the damage, or to do some physically demanding lift like a 20 rep squat (see exercise section- legs for a description of 20 rep squats).

For the most part, I would recommend staying between five and ten reps. Although it may not sound like much, that is a pretty large gap. Some recommend training around 4-6 or 6-8 reps. I, however, am slightly different. I advocate a 5-7 and 9-10 rep range. Between 5-7 reps you're building strength and a fair share of muscle. 9-10 reps have been shown to be the point where maximum protein breakdown and synthesis occurs (i.e., optimal muscle building). For this reason, I suggest using both of these ranges. In my training, the first four weeks after a break week are spent around the 9-10 range. The following four weeks are at the 5-7 range, followed by a break week.

2.3b: Discussion of rep ranges

When someone refers to the 4-6 rep range, this means taking a weight you can handle for at least 4 reps with quality form. Once you can do 6 reps with the weight, then add either 5pds(bb) or 2.5pds(db) and start the process again. Hence, if you are able to bb curl 85pds for 6 reps this week, next week you should be able to handle at least 90pds for 4 reps.

2.4) Quality form

It is important to note that, for a bodybuilder, how much you lift does not matter. Your muscles will become larger as you progress over time, but only if perfect form is maintained. If you sacrifice form for weight, not only do you stand a higher chance of injuring yourself, but you will not be encouraging growth.

Bad form means that the weight is distributed to body parts other than the one you are targeting. As an example, think of bb curling: if you swing the weight forward and bend with the back, rather than keeping a straight back and rigid form, not only are you risking a lower back injury, but the weight is no longer being placed solely on the bicep (it is now also on the anterior deltoid, lower back, and legs). As a result, you're wasting your time curling. Remember- you want to maximize your time with maximum results.

2.4a: Something to always keep in mind

The key to hypertrophy is- "quality over quantity" (quantity referring both to the number of reps and sets you do, as well as the weight you are using for the exercise).

Don't assume that the more you lift, the better your results. This type of attitude clearly violates the above rule. If you are able to only handle 6 reps with perfect form, then only do 6. Don't try to attempt 8, as the cheating reps will provide very little benefit. As an example, think of a bent over barbell row. If you fully extend your arms and control the motion, your back will grow. However, if you start bobbing up and down, and are jerking the weight up (using momentum), then not only are you risking injury, but you are wasting your time with the lift; you will not achieve maximum benefit from it, due to your poor form.

Look around the gym. The ego lifters are usually the smallest people there. Granted, they can move heavy poundages, but their form is so poor they might as well be sitting on the couch drinking a beer. An ego lifter may be lifting, but if the weight and stress isn't being placed directly on the targeted muscle, it's simply a waste of time. They are breaking the above rule (quality over quantity) and in the long run will suffer, both in terms of injuries and poor growth.

Everybody is an ego lifter, it's a fact of life. Successful bodybuilders know they have to check their ego at the door. I know, I know, you've probably seen somebody with god-awful form and yet they're pretty darn huge. Well, life isn't fair sometimes. Due to genetics, some people excel at lifting to a degree unfathomable to most. On these people, muscle just grows like crazy. While they may be big, they could be even huger with proper form. In addition, these people are going to be having medical problems later on in life, regretting what they're doing now. Remember, this compendium is for the average person who is not genetically gifted.

2.4b: Another mantra for you to repeat

Leave the ego at the door.

It's a very simple concept, yet causes trouble for most because, if you're a normal human being, you want to lift as heavy as possible to impress people. Just remember, while you may impress them with the amount you're lifting, you will not be growing and eventually those who are using less weight and perfect form will easily surpass you and your lifts.

2.4c: Money is not the root of all evil

Momentum is the root of all evil in bodybuilding.

A bit of momentum is unavoidable; it's a simple fact of life. However, creating your own momentum is not fine. While it will let you lift more, not only does it take stress off the targeted muscle, but it also sets you up for more injuries down the road. The reason for momentum is simple- the weight is too heavy to handle. By losing their ego and lowering the weight, their form will improve and they'll have much better results from the exercise.

2.5) Genetics- life isn't fair sometimes

One of my pet peeves is when somebody talks about 'shaping' a muscle. Do concentration curls, they help give your bicep a higher peak! It almost hurts my head to think about it. A simple fact of life is that we are limited by our genetics. We can NOT increase the width/height/shape of any muscle. All we can do is create tears in them so they grow. The dimensions of the muscle have already been pre-determined. No exercise is able to shape a muscle- that's impossible to do unless you are God. All you can do is increase/decrease the size of your muscles. If you have a high bicep peak- lucky you. If your peak, on the other hand, is rather flat, no exercise will help to make it higher.

2.6) Follow-up on 'less IS more'

Here's an actual application of the concept we learned in chapter one. One might think that if you, for example, train your biceps two times a week you'll experience far greater gains than once a week. Well, remember the motto- 'less IS more'. Training the muscle group twice a week is not a good idea for a few reasons:

1) It needs time to recover. The micro-tears do not heal overnight. The longer you do not use that muscle group, to a certain extent, the more healing occurs and thus more growth can occur.

2) Most muscles have a primary and an auxiliary day. For example, think of biceps. They're worked when you train them on bicep day, and then again when you work your upper back. Most do not take this into consideration. Therefore, if you train them twice a week directly, you're actually training them 4(!!!) times a week, which is not conducive to hypertrophy
3) If you give the muscle 100% intensity when you lift, it should need a while to recover. If you're able to use it again directly the next day, then you didn't give it your all and will not experience maximum hypertrophy.

2.6a: Primary and secondary

Each muscle has exercises that work it directly, and then again indirectly.

The point of this is that you want to target each muscle directly once a week, and indirectly once a week. What muscles are primary and secondary will be covered later on, so there is no need to worry about that right now.

The only exception (other than for steroid users who are able to train more frequently due to faster recovery times from the drugs) are full body splits (covered later on). As a full body routine involves such a low number of sets for each body part, you are able to get away training each group three times a week, but this is the only exception. You should note that you do not want to be on a full body routine for a very long time as, since it is very intense, your energy can be drained quite rapidly. This type of routine is a great way to throw the muscles off guard for a while and induce new growth. Remember- your muscles like change. Completely changing your routine for a few weeks to another type of routine (e.g., 1muscle/day-> full body split) is a great way to feed the desire for change.

2.7) Muscle does not grow overnight

A lot of people think that they'll go from 10'' arms to 20'' arms overnight. Heck, I'm certain any experienced lifter will grudgingly admit that for the first few months of training they measured themselves constantly (maybe even every day). This is not a good idea. Gains do not occur just like that. Muscle needs time to recover and rebuild. Constantly measuring will only increase your blood pressure when you see that your measurements are not always increasing. Give it three or four months, then measure. Changes take time. Remember- Rome wasn't built in a day.

2.8) I've been training for only a few months and have been growing like a weed

Everyone who starts bodybuilding for the first time will grow like a weed, both strength and muscle wise, for the first few months. Unfortunately, this sets up unrealistic expectations. These gains are referred to as 'newbie gains'. They only last for the first

few months, then taper off. After this point, your training has to be right on the dot or else you may experience few, if any, gains.

When your newbie gains taper off, it's gut-check time. Either you are serious about your training and are willing to go the next level to experience gains, or simply stop progressing. A lot of people quit bodybuilding at this point because they have nobody to guide them and become frustrated with their lack of progress. Read through the whole compendium, think about what you're currently doing and apply what you learn here to what you are currently doing. This should help put you on the fast track to success.

2.9) Free weights are dangerous

A lot of people will tell you that free weights are dangerous and you should only use machines. These people do not know what they're talking about. Free weights are vastly superior to machines and are only dangerous if you're using momentum. Creating momentum is not the fault of the free weight- it's the user's fault. Use perfect form. If you can't do any reps without using momentum, then obviously the weight is too heavy for you. Lower it and make certain to use proper form.

2.10) I can't gain ANY mass, I need steroids / I can't lose weight, I need liposuction

Many take these attitudes because they can't seem to make any progress. There are only two reasons for their lack of progress:

1. Poor routine/diet/life style
2. Not enough focus

Many people blame their metabolism. That's only an excuse. As an example, after three years of training, I was stuck at 125pds. I made half-hearted attempts to bulk, but none of these met with success. I convinced myself that it was because of my metabolism. Long story short, after receiving information on how to build a proper diet and being ensured that it would work, I managed to move from 125pds to 210pds in less than two years. The reason I couldn't do this without help was because I was hiding behind an excuse (metabolism) and not giving it my all. In addition, my old diet sucked. Plain and simple. I've an insanely fast metabolism, yet managed to bulk up. It proves that your metabolism is not an excuse if you really want to achieve your goals, whether they be bulking up or cutting down.

The problem with most personal trainers is that they tell their clients what they (clients) want to hear. If a woman wants to lose weight and, after 4 months, has only lost 1pd., chances are the trainer will say something like 'It's your metabolism, it'll take you longer but keep on working at it'. The reason she didn't lose weight is either poor diet or lack of commitment (not enough focus). Trainers make their living doing this. If they called you lazy and uncommitted, despite the fact it's true, you wouldn't come back or recommend them to others.

If you're frustrated with your progress at this point, then take an even more serious look at this compendium. Everything you need to change is in here; however, it's up to you to realize that you need help and to accept what is being given. What you chose to do with this knowledge is up to you. You can either accept it and try to work harder, or you can stick your head in the sand and simply refuse to change your ways. It's up to you.

2.11) Flexing my muscles makes them harder

This is another myth. Flexing your muscles during workout will not make them any harder, or produce any strength gains. In fact, you'll actually be weaker because, instead of resting between sets, you've been exerting your energy flexing.

The only time you should be flexing is when your workout is finished. Include a 3-4 minute posing session to help you work on your poses. The reason to do this is to help you perform a pose quickly and properly if needed, not to increase muscle hardness.

2.12) Heavy and light days

I used to be of the mind 'must lift heavy…must lift heavy'. Heavy weights will build muscle; however, there's a drawback- the heavier you go, the more stress you place on your body. The more stress, the harder your nervous system works. When your nervous system becomes overworked, you enter a state of over-training (the point where your progress becomes less than optimal).

For this reason, it's a good idea to spend a few weeks at a higher rep range, then increase the weight and lower the reps for a few weeks. Then take a break week to let your body fully heal. Coming off a break week I usually spend 4 weeks around 9-10 reps, then 4 weeks around 5-7 reps.

Some feel that this isn't a good idea because of muscle memory (see topic in recovery section), but they forget that muscle memory simple means that it's easier to regain lost muscle after a layoff than it is to build new muscle. It does not mean that if you bench 250pds for 3 reps last week and this week proceed to do 230pds for 8 reps that you're going to lose strength and your body will forget how to do 250. Far from it.

Here's something to consider- let's assume week one you deadlift 500pds for 5 reps. That's a total workload of 2,500pds. Week two you deadlift 400pds for 10 reps. That's a total workload of 4,000pds! As you can see, although you're using a lighter weight, your body is moving a greater workload. Hopefully through this simple example you can see why, although you are using less weight, your body can still progress. In addition, your body's recovery system will be far better off- although your workload is greater, you're staying at a higher rep range and using a (relatively speaking) lighter weight. This places less stress than using a heavier weight for fewer reps.

2.13) Becoming as big as a professional bodybuilder

Many people use professional bodybuilders as their goal. For a person with average genetics and is 100% natural, this is an impossible target to realize.

Professional bodybuilders have reached their genetic limit. The only way for them to become bigger and stronger is through the use of prohormones, AS(anabolic steroids), and other substances. While it is possible to achieve a nice body with a few years of hard work, it is impossible without using chemicals to achieve the physique of a professional bodybuilder.

The one exception is the natural professional leagues. Although rare, there are some leagues out there that are very strict with drug testing, and use polygraphs on competitors. Those are the people you should use as your role model. They look in proportion and like real human beings.

2.14) Training abs for a perfect 6-pac

A common myth is that in order to reveal a perfect 6-pac and slim up, you have to do a fair number of sit-ups and other ab exercises. This is, once again, false. Training your abs via exercise strengthens them; it does nothing to help you slim up. As will be covered later on, the only way to reveal a 6-pac and to slim-up is through proper diet and cardio. I would say that revealing your abs is all about 49.5% cardio, 49.5% diet, and 1% exercise.

2.15) Big arms

A common mistake is to assume you have to have huge biceps to have huge arms. This is true, to a certain extent. What most newbie lifters do not realize is that they have to train their triceps as well. Triceps are the muscles on the back of the arm that give it the horseshoe shaped look. In addition, they make up around 2/3 of your total arm mass

(the bicep makes up 1/3 of it). Next time you're looking in the mirror and wondering how to increase your arm size, don't immediately look at your bicep routine; rather, look at your triceps routine. More information about the triceps is given in the Exercise section.

2.16) If you can do it, you must do it?

This is a very dangerous trap to fall into. Just because an exercise exists does not mean that you should do it. For example, let's look at upright rows. The excise exists to work your traps and shoulders; however, there's a slight problem- during the later portion of the motion, you're impinging your rotator cuff. As a result, years from now you will have shoulder problems (assuming you're constantly doing upright rows). Many blindly argue 'But they exist! If they were dangerous they wouldn't exist!'. For some reason, it's human nature to believe that if something exists, it must be used. Do not fall into this trap. Certain movements (discussed in the exercise section) should be avoided, regardless of the fact they do indeed exist.

Chapter 3…. The Intricacies of Training

3.1) Explanation

The exercise part in bodybuilding is not rocket science. You read about an exercise, practice it a few times with no weight, and then perform it with weight. There's absolutely nothing wrong with that; however, the point of this compendium is not to state facts that can be found elsewhere (e.g., ROM for benching). Rather, it's role is to give you little details that are often neglected or not even known about that can be quite helpful to your training.

3.2) A solid base

No matter what lift you are performing, a solid base is needed. Let's take the bench press as an example. When you think about it, it's really just your delts/triceps/pecs doing most of the work. Try benching with your feet in the air. Notice now how your balance is completely thrown off and the lift becomes twice as hard to do, in addition to being very dangerous to perform. When your feet are planted on the ground, they're giving you support. When lifting, you want to drive your feet further into the ground to transfer even more power to your lift. This applies to pretty much any exercise- bench pressing, curling, military pressing, lat pulldowns. It may seem like the feet aren't involved, but they are. The stronger your base is, the more stable you are, and thus the more you're able to lift.

As an example, try this next time you bench press- set-up for the movement, then, just before you're ready to unrack the bar, drive your feet into the ground, pretending that you're trying to make a deep imprint. Now unrack the bar and press it. Notice how stable you are and that the pressing motion has become much easier.

3.3) Drop sets/ Super sets/Negatives

Drop sets are a valid technique, but should be avoided in a regular routine; however, they could be used once in a blue moon simply as a change of pace for a week. The reason is that they do not let you lift to your maximum ability. As no rest is allowed between each lift, the body is tired out. If you're giving each exercise 100% intensity, then you would have to take a major hit, in either form or weight, in order to do another set without rest.

As an example, let's use bb curling. Assume you can curl 100pds for 6 reps, 3 sets. This is with a 2-3 minute break between each set. Now curl 100pds for 6 reps, take

off 5pds, curl again, then take off another 10 and curl again. Your form will suffer, especially on your last set. While great for endurance, drop sets do not create ideal hypertrophy conditions.

Super-sets are a double-edged sword. There are two types- similar muscle groups and combining different groups. For example, similar muscle groups would be super-setting chin-ups with curls. Different muscle groups would be super-setting chin-ups with benching. Keep in mind that there is very little rest between the combinations.

While great for the occasional change in routine, super-setting present too many problems in my opinion. With regard to similar muscle groups, you'll be fatigued when starting the second set due to lack of rest between lifts. Not only will you be physically fatigued, but so will your muscles. Using the chin-ups/curls example, chin-ups will demand a lot from your biceps. So will curling. It will be impossible to give 100% to both movements with little rest between them, especially considering how hard it is to do both in the same workout with a large rest gap.

The problem with super-setting different groups is that general fatigue will set in (due to lack of rest between sets), plus the fact that you can overlap muscle groups without even realizing it. Using the chin-ups/bench example, chin-ups will work your lats and biceps. When we think of benching, we think shoulders, triceps, and pecs. However, biceps are used as a stabilizer, and lats are used to drive the bar off your chest. Therefore, although you think you're combining unrelated groups, you aren't.

The final topic is **negatives**. This is where you lift more weight than you can normally handle, such that the spotter is assisting you throughout the lift and you're basically 'fighting' the bar. Let me explain. Let's assume your one rep max is 200pds. When you do a negative, you put on 220pds, then unrack the bar. The spotter will be holding the bar and you will resist the bar all the way down. You touch your chest and basically have the spotter yank it off before it crushes you (you are obviously unable to lift it because it is well above your one rep max). Two problems- this can lead to injuries if you aren't careful, and will severely tax your nervous system (remember- the more stress on your nervous system, the better the chance of entering an over-trained state). Negatives will not have a tremendous impact on hypertrophy and therefore shouldn't be considered.

These types of techniques go counter to two of the most important approaches we have learned here- "quality over quantity" and "less IS more". A common mistake among lifters, as mentioned above, is to think that the more exercises/sets/weight handled, the more they'll grow. While this can be true in certain instances (e.g., you'll make better progress deadlifting 200pds for 10 reps than 50pds for 10 reps), there's a fine line that much be drawn- your body can only handle so much. If you try to overload it with more than is ideal for it, you'll end up stuck in a rut. Each exercise must be approached methodically and with 100% intensity. Anything less will not yield maximum results.

Does this mean the above techniques are useless and invalid? No, they can serve some purpose in a well-designed routine; however, I tend to recommend people shy away from them. In either case, if you employ them, remember not to fall into the trap of fixating your routine on them. Sometimes people will try a new technique (e.g., negatives) and will love it. Next thing you know they're doing negatives everyday! Big mistake. If you employ the above techniques, use them sparingly, not as the meat of your routine.

3.4) Thumbless grip

Take a pencil and hold it in your hand. Notice how your thumb goes around it (so it is not next to your index finger). That is a thumb'd grip (also known as a normal grip). Now try this- take your thumb and wrap it next to your index finger (so they're touching, and hence the thumb is on top of the pencil, like the rest of your fingers). This is a thumbless grip.

The exact uses of the thumbless grip will be covered later on (exercises->upper back (lats)); at this point, this is merely an introduction to it. If you do an internet search for a thumbless grip, chances are you'll find a lot of sources against it, and a lot for it. Most experienced lifters prefer the thumbless grip for three reasons.

1. Provides better support
2. Can feel the muscles working more
3. Can help place more focus on the target muscles

Some will try to argue that it will harm the wrists, or that it does not recruit the muscle fibres any better than a normal grip. These opinions are completely unfounded. I know people who've been lifting with a thumbless grip for many years and have had no wrist problems. As to the other issue (recruiting more muscle fibres), who can say. There's no proof one way or the other for this; however, I'm certain that if you try it you'll find that you'll enjoy it, with the (possible) sensation of the muscles working more.

Even if the muscle fibres aren't recruited any differently than a thumb'd grip, the fact that you think it does is very important- remember, bodybuilding is a mental game. If you think you have a stronger support and that the muscles are working more, then you'll be able to press more. Does it really make sense? No. Does it work? Yes. As long as it's comfortable for you and you think you're receiving a benefit from doing it, do it.

A final word on the thumbless grip- only use it with chalk on your palms. If you haven't chalked up, this technique can become very dangerous.

3.5) Using of a spotter

A spotter can be either a valuable asset or completely useless. A proper spotter will know when you're in trouble on your last rep and need that extra little bit of assistance. A poor one will either not realize you're in trouble or will spot you from the very beginning! Remember, you want to be lifting the weight. If the spotter is helping you on each rep, then essentially two people are doing the work.

To see an example of a good spotter, consider the bench press. A good spotter will help you unrack the bar (so you aren't wasting a lot of energy with this movement), hold it while your are stabilizing yourself, then remove themselves from the equation when you are ready to proceed with the exercise. They'll only help if you're struggling on a rep, or when the bar might be slipping from your hands (believe me, it can happen!).

One common mistake is for people to become reliant upon their spotters, almost to the degree that they'll refuse to do a bb curl without somebody spotting them. This is a poor trap to fall into. Remember, a successful bodybuilder has a strong mental game plan. They can, and want to, lift all by themselves. A spotter should only be used to watch your form or provide assistance on dangerous exercises (e.g., squat, benching). I say dangerous because, if you become stuck at the bottom and nobody is there, you're going to have a few problems racking the weight (as it's crushing your chest and you can't get it off).

3.6) Chalk is your friend

When lifting, sweaty palms are unavoidable. Not only can this detract from your lifts (you have to re-adjust your grip and thus lose a rep or two by doing that), it can also be dangerous (benching->palms sweaty->the bar rolls and can slip out of your grasp). Not only does chalk remove the problem of sweaty palms, but it also increases your grip tenfold. In all my times using it, I've never once had to re-adjust my grip. You can't go wrong with it.

If your gym doesn't allow you to use chalk, then I suggest you talk to the manager about it, or possibly find another gym. Any experienced lifter will tell you that chalk is a valuable asset. Anybody who denies this obviously has never tried it and has no clue of what they are talking about.

Chalk can either be bought in a chalk bag (at any outdoor shop (it's mainly used for mountain climbing) or fitness stores), or you can buy your own chalk, smash it up with a hammer, and have chalk dust. I prefer the second method, mainly because I don't feel that the chalk in the chalk bag, for whatever reason, lasts as long on my hands.

3.7) Save your knees

Another valuable asset is wraps. In order to encourage the growth of huge muscles, you're going to have to squat, there's no way around that. Natural GH (growth hormone) is stored within your legs and is released when you do movements such as squatting. A lot of people eventually have problems with their knees, mainly from the poundages being using. The best advice is to wrap your knees lightly (any fitness store carries wraps). They increase the tension on the knees and make them less susceptible to injury.

A hidden advantage (?disadvantage?) is that the tighter your wrap, the more elastic they become, and hence they can allow you to bump up your weight on the exercise. For this reason, I recommend only a light wrap because, not only is a tight one uncomfortable, but you're also cheating yourself.

As a general rule, wraps should be replaced every six months or so. They tend to lose their elasticity after a while. Considering the cost is around $4.99, I would hardly consider it a big sacrifice for your training.

3.8) Too much muscle mass

A lot of people feel that any amount of muscle mass that makes you heavier than what is recommended for your height is harmful to your health. This should be amended to meaning excessive muscle mass. For example, look at any bodybuilding professional. Being 280pds, despite the fact it could be all muscle (most are around 5% bf), is extremely unhealthy, mainly due to the stress all that weight is putting on the body.

Having a reasonable amount of muscle mass, on the hand, is ideal. The more muscle you have, the more calories you burn and hence, if you are cutting, the less cardio you have to do and the easier it is to cut up and stay cut.

Some people think they should minimize weight lifting when cutting. This is a horrible idea. Even though you are cutting, the added muscle only helps with your plan and in no way hinders it.

3.9) Real men keep diaries

The following tip is indispensable- bring both a watch and a training journal with you when you lift.

The watch is a necessity because, as mentioned above, you want to restrict your training to a maximum of 55 minutes. Without a watch, you might be resting upwards of

5 minutes on each set and not realize it. Time yourself.

The training journal (which can be a regular note-book or even just sheets of loose-leaf paper) is vital to your success. Unless you have a photographic memory, chances are you will not remember how much weight you used last week. Did you use 52.5pds or 55pds? Trying to figure that out wastes valuable time, and picking the wrong weight can be disastrous to your training (e.g., last week you did 52.5pds, but you took 62.5pds this week and can't figure out why the lift is so hard all of a sudden). With a journal, you simply note the exercise you did and the weight you used (as well as the number of reps you performed).

Not only will a journal help you remember how much you did last week, but it's invaluable to tracking your progress. You can look back, say, seven months ago and see how much you've improved. Although day to day we may not see many changes, as the months pass, if you look back, I'm willing to bet that you'll be quite surprised and happy.

I set up my journal in the following manner (using chest day as an example)

Monday, October 7- Chest

Exercise 1		Weight used	Reps performed
Exercise 2		Weight used	Reps performed

3.10) Am I over-training?

The word 'over-training' is thrown around a lot these days, so it's meaning has become obscured. The basic possible signs of over-training are

1. Having trouble increasing in strength (maintain current strength levels or even decreasing in strength)
2. Constant fatigue throughout the day
3. Not feeling motivated anymore
4. Injuries not healing as fast as they used to

Of course, all of these signs could also point to a poor routine, diet, or any number of other things. That's why there's no set way of telling if you're over-training or not. If your diet is fine and you aren't doing excessive volume, then you might want to take a week or two off from lifting to recover from possible over training.

3.10a: An important key to success:

REST! Take a week off every 7-9 weeks.

Remember, your body needs time to recover. Once every 7-9 weeks you should take a week off training. Although you may feel perfectly fine, most bodies need a break around this time period. Relax, do whatever you want- just don't train.

There is an exceptions- some people can go for an extended period of time without breaking, but not everybody can do this. The average person is best off just taking a rest break every now and then. Don't worry; your gains will not disappear overnight. It would take months for your muscles to begin to atrophy.

3.11) Rest between sets

There is a lot of debate as to what the ideal amount of time between sets is. I've found that best gains are generally made when you rest between 2 ½ and 3 minutes. Any less and you're not giving the muscles enough time to recover. Therefore, on the next set you'll be slightly weaker and will do fewer reps than before. Any more and you're giving them too much time to rest. You want the muscle to have a slight break and recover it's energy, not give it a vacation.

As with a lot of things in bodybuilding, experiment and see what works best for you.

3.12) Little things do matter

This goes along the lines of proper form, but is something very important to keep in mind- even the slightest change in your body position can affect the way the exercise works.

As an example, think of a close-grip bench press. At the bottom of the movement, your elbows should be as close to your body as possible- you want to think of almost driving them into yourself. The closer your arms are, the more weight is transferred onto the triceps. By flaring the arms out, more weight is taken off the triceps.

Another example could be dips. If you do parallel bar dips the regular way, the stress is on the triceps, as well as a bit on the pecs. If you lean forward, the stress is being placed more on the pecs. Simply changing your elevation creates a whole new exercise. This shows that even a little change can make a whole new exercise. However, this is not always desirable. In the first example, that slight change of elbow position means less than optimal benefit from the exercise.

3.13) Assisted Reps

Assisted reps are basically done to help push your body further than it can normally go. Using the bench as an example- if you can do 200pds for 5 reps and that's it, what the spotter would do on the 6 rep is basically put his hands underneath the bar and help you lift it. This helps overload the muscle and is a great way to help your strength gains.

The key to assisted reps is not to abuse them. Some people think that if the spotter helps them perform 5 assisted reps, they'll grow faster. Not true. These types of reps are like a double edged sword- they can help you, or hurt you. The key is knowing how to apply them.

My advice is to use them with some simple basic compound movements such as the bench press, incline dumbbell press, or perhaps military press. Many use spotters to help them perform movements such as dumbbell curls. That's just silly- save assisted reps for heavy compound movements. In addition, perform no more than 2 assisted reps at one time (anymore is a waste for hypertrophy and will put more pressure than necessary on your nervous system). Try to use assisted reps only once or twice throughout the workout.

There is a difference between an assisted rep and using a spotter to help you through a rep. In the latter, you do the rep and sometime during the movement you get stuck and just can't move the weight. The spotter helps you through the sticking point and then you rack the weight. With an assisted rep, you've already done as many as you can, so basically the spotter is applying force throughout the entire movement.

My favourite examples of assisted reps are assisted pull-ups (using the machine). If you can only do 4 pull-ups on your own, versus 10 using a machine, stick with 4. You are performing those 4 reps- it's 100% your strength doing them. With the machine, it's helping you and therefore you aren't doing 100% of the movement yourself. When somebody (or something) takes over part of the movement for you, stress is taken off the muscle and you will not achieve maximum benefit.

3.14) Breathing

Believe it or not, your breathing pattern can either help or hinder your lifts. On heavy compound movements (e.g., bench, deadlift, squat, military press), you want to develop a strong breathing pattern (sometimes referred to as forced breathing). This means that you inhale for the first part of the lift, and exhale for the second part.

As an example, let's use the bench press. After you un-rack the bar, you want to start by taking three or four quick deep breathes. This is to help calm yourself and get focused. Now inhale and lower the bar to your chest. As you press the bar up, exhale. Then repeat.

For squatting, prepare to do a squat. Now, before you begin, take three or four sharp, deep breathes. The next step is to inhale and squat down. As you begin to rise up, exhale.

You never want to hold your breathe for the entire rep as this can be quite dangerous for your health (e.g., you can pass out and the bar will squish you). Always make certain to inhale on the first part, and then exhale on the second. You may also find it helpful to take two or three quick, deep breathes between each rep to help prepare for the next.

With regards to isolation lifts (e.g. bicep curls, skullcrushers), you'll want to follow your natural breathing pattern. On these exercises, forcing a breathing pattern will often throw off the lift and make it awkward. Save forced breathing for heavy compound movements.

3.15) A tip to achieve 100% intensity

Although many understand the concept of 100% intensity, they fail to reach this goal when lifting. For them, a simple tip- don't count the number of reps you're doing; rather, have a spotter do this. Almost everybody mentally tracks the number of reps they've done. There's nothing wrong with this, but sometimes it can hold you back.

Before you begin the movement, clear your mind and repeat to yourself- 'light weight light weight light weight'. Keep repeating this throughout the movement to distract your mind so it doesn't start counting the reps.

Since you don't have any idea what rep number you're on, you have to push yourself harder to make certain you give it everything you have and not stop short because, for all you know, you may stop on the 4^{th} rep. This forces you to dump all your energy into the lift and to go until your muscles are exhausted. When I tried this idea, I found my lifts jumping by 2 to 3 reps. The reason- I was holding myself back before. By not counting, I had no idea where I was. Therefore, I had to give 100% intensity and go until my muscles were drained and couldn't lift anymore to be certain that I had surpassed last week's numbers.

3.16) Smith machines

If you can, avoid using smith machines when benching or squatting. These machines basically exaggerate your strength by taking over part of the lift for you. So, while they are good for the ego, they're not letting you lift to your maximum ability.

Let's say you had a choice between using a flat bench for 200pds, 6 reps or a smith machine bench for 250pds, 6 reps. If you recall, we learned above that results occur when you use a heavy weight with proper form. So, it would seem that the smith machine is the way to go, right? Wrong. Remember back to assisted reps. A smith machine is like an assisted rep machine- by taking over parts of the lift, it takes stress off of you. The more stress taken off your muscles, the more you can lift. However, the more stress taken off you, the less your muscles are growing. To keep it simple, use free weights.

In addition to the above, there are two more problems- reduction of ROM by 50% or more (depending on the make of the machine), and increased chance of injury. A smith machine forces you into a fixed groove, which isn't going to be ideal for most. If you watch two people squat (using the same technique), due to differing builds, the paths the bodies travel will differ. When you are forced into a fixed path, not only can it be less than optimal for hypertrophy/strength progression, but it can also be potentially dangerous since your body may not be meant to travel that path with that amount of weight.

Chapter 4…. Designing A Workout For You

4.1) Explanation

There are literally thousands of different routines out there, mainly because of the variety of reps, sets, and exercises you can perform. There would be no possible way to cover all of them; this section is devoted to giving you facts to help you chose what works best for you and your schedule.

4.2) Powerlifting vs bodybuilding

The main difference between designing a powerlifting routine and a bodybuilding routine is that powerlifters tend to shy away from isolation exercises and focus solely on going as heavy as possible on the main compound exercises. I've done a brief stint in the powerlifting world, but not enough to be able to comment on the best way of going about designing a routine for a powerlifter. This compendium basically assumes you're here for the bodybuilding aspect.

This does not mean that you will not be able to drastically increase your strength, far from it. The harder you work, the more muscle mass you will obtain, and, consequently, the more strength you'll gain. They go hand-in-hand. Will you be as strong as a powerlifter? No. Will you be reasonably strong? Yes.

Many think that bodybuilding does not give practical strength that can be used everyday. That is completely false. For example, let's say you play football for fun with your friends. If you are properly training your lats, then they'll be growing and you'll find them becoming stronger and stronger (e.g., rowing more or doing more pull-ups). What a lot of people forget is that when pushing, the lats become involved. The stronger your lats, the stronger your push. Hence, the harder you train your lats, the stronger they become overtime and the stronger you'll be in football when you have to push somebody. That's just one of the thousands of ways bodybuilding helps to give you functional strength.

4.3) False routines

There is no such thing as a magic routine that will add mass overnight. A common trap for people to fall into is what is known as the "1 day arm cure". There are quite a few varieties of it, and yet they all suck. With that routine, you're doing almost 100 sets for biceps and triceps throughout the entire day. These different routines claim to be able to permanently increase your arm size by around 1''.

Now, why does this claim fall short? Simple- it promotes quantity over quality (lifting), as well as encouraging the attitude of 'more is better'. These types of routines aren't even worth it as an endurance test. Chances are your arms might even atrophy from performing them.

My friends and I have tried these types of routines at one point or another, and let me tell you they are a complete and utter waste of time. Sure, your arm may be all pumped up, but that's it. Once the pump fades, you'll be back where you were before, and quite possibly have even taken a step back! The reason is that you've taxed the body far too much and also have destroyed (temporarily) your nervous system. It will take about a week or two, at the very least, to recover from this 'training', thus costing you valuable time. Stay far away from the "1-day arm cures". If you doubt this advice, ask yourself something- 'If I can add an inch to my arms in one day, then at the end of the month I can add 4''. By the time the end of the year rolls around, I can have at least 50'' arms'. See something wrong with this?

In addition, there is no such thing as a perfect routine. Everybody's body responds differently to training, therefore, while all the basics hold, some exercises might not be as effective for certain people. You have to find what works best for your body.

Just remember this- if somebody claims their routine will give you massive muscle and strength gains in record time, do not believe it. If you invest some time and patience, as well as have a solid training routine, you will experience gains. Good things come over time, and muscle growth is no exception.

4.4) Reps

This topic was covered in a previous chapter, but I'll expand on it. We learned that the ideal range for hypertrophy is either the 5-7 range or the 9-10 range. For each person it's different, and the only way you'll know what works best is to experiment.

I encourage cycling your rep range every 4 weeks. Whether you start with high reps and move to low reps, or vice-versa, is simply a matter of personal preference. Although changing your range may not seem like a big deal, it is. If you recall from section 2.12 (heavy and light days), the heavier the weight, the more stress on your nervous system. If your nervous system becomes overworked, your body enters a state of over-training. Alternating ranges provides the benefits from heavy weights, a higher workload, and a happier nervous system. Remember- you still need a break week. No matter how you manipulate your routine, your body will never fully recover unless it's given a week off (discussed in recovery section).

Another technique worth mentioning is alternating rep ranges each week. This technique is best applied to a full body routine. What you try to do is on day one and two (M, W) shoot for 8 reps. Day three and four (F, next M) shoot for 6 reps, and for day five

and six (next W, next F), try for 5 reps. Don't worry if this doesn't make any sense to you, it will once you've read about full body splits.

4.4a: 1-rep maxes

You may hear this term being tossed around in the gym. It basically means loading up the bar so that you can only perform 1 rep, that's it. This is meant for powerlifters, not bodybuilders. The reason is that 1 rep is not enough to encourage hypertrophy and is very taxing on your nervous system. If your goal is hypertrophy, and not to get injured, do not attempt these.

4.4b: Rep speed

Rep speed is often not taken into account. There are three techniques- super slow, normal, and explosive lifting. Explosive lifting, which involves a higher chance of injury, means that you lower the weight normally, then when you bring it up, you explode up with the bar as fast as you can. Super slow is dragging each rep out for a very long time. Although both are valid techniques, I prefer to do a normal rep speed- what comes naturally. It falls in between slow and fast. However, if you're looking for something different to do for a week, you may consider changing your rep speed. I've used super slow form on occasion and it has helped to get past a few points where I've been stuck.

4.5) Sets

If you recall, we learned that the '3 sets or bust' myth is just that- a myth. So what is the ideal set range? This is a very hard question to answer because, once again, it is based on your routine and preferences. As a general guideline, I prefer doing 2 sets on average. Sometimes I may increase it to 3 sets, but like I mentioned, it all depends on your current routine.

It is possible to only do 1 set; however, I recommend at least 2. The reason is that to get maximum benefit from just 1 set, your mind has to be in a totally different state. You have to realize you only have one shot at this and must go until total muscle failure (when you are unable to lift anymore). The problem with this is that very few can actually enter this state. So, if they only do 1set, they usually don't receive maximum results.

There is no perfect number of sets to do for each muscle. I prefer to follow this guide; it stresses low volume combined with high intensity- the best plan for success.

- Chest- 7-9 sets
- Triceps- 7-9 sets
- Biceps- 4-6 sets
- Shoulders- 4-6 sets
- Calves- 4-6 sets

- Legs- 9-11 sets
- Forearms- 0-3sets (personal preference; see exercise- forearms)
- Abs- 0-3 sets (personal preference; see exercise- abs)
- Upper back- 9-11 sets

4.6) Bulking vs cutting routines

A common question is how you should adjust your routine when bulking, cutting, or maintaining. I stand firmly behind the belief that, no matter what activity you are doing, your actual lifting routine should remain the same. There is no need to change it or increase/decrease the volume.

The only change to your schedule will be the amount of cardio you do. This will be covered in greater depth later on, but suffice it to say, if you're bulking, you'll find yourself doing less cardio; if you're cutting, you'll find yourself doing more.

4.7) The compound exercises

I think it's a pretty safe bet that, given the choice between, say, curling and military pressing, most would prefer curling because it's easier. Although this may be true, you have to remember that the keys to gaining muscle mass are the compound lifts.

Unlike isolation movements, compound lifts recruit quite a few different muscle groups in order to perform the movement, thus allowing you to move heavy weights. This is essential to good, overall growth. Next time you think of not doing leg day because you hate squatting (and who doesn't), remind yourself that it is an important compound lift that can, and will, encourage growth in the body. Don't shy away from these movements simply because they're heavy and quite taxing.

Some compound lifts would include: bench press, deadlift, squat, pull-ups, military press, clean+press.

As an example, let's look at the deadlift. It directly works the legs, lower back, and traps(in addition to other muscle groups like shoulders indirectly). This is the exercise to do if you want to work your lower back or traps, and is an excellent way to build huge legs.

You may hear people referring to "The Big 3". In this case, they're referring to 1) squat, 2) deadlift, 3) bench.

Finally, a piece of trivia- did you know that the military press used to be the standard way of gauging strength? Now most people use the bench press because it's easier to move bigger weights around; however, I believe, along with most experienced lifters, that if you really want to compare lifts with somebody, use your military press.

4.8) The isolation exercises

After reading the above section you may be asking yourself 'Why bother with isolation exercises?'. The simple answer is that, although compound lifts are great, they can not completely target every muscle efficiently. For example, a bench press works the triceps and pecs; however, regular benching will not utterly exhaust the triceps. That's why some isolation movements are needed. Can you function and encourage growth without isolation lifts? Yes. Will it be maximum growth? Probably not.

4.9) The different types of routines

There are three ideal types of routines- a full body split, a 1 muscle/day split, and a routine that combines the primary and auxiliary muscle days together (e.g., chest and triceps). One thing to point out before proceeding is that no two people will respond the same way. For example, person A's pecs may really respond to incline dumbbell pressing, and person B's pecs to flat barbell benching. Unfortunately creating a routine for you is something that comes down to trial and error; however, once you know how to build a basic routine it is simply a matter of playing around with exercise selection/rotation to find what works best for you.

4.9a: Full body split

A full body split is exactly that. You train your entire body three times a week. The mistake people make with this type of routine is that they usually spend around two hours performing it. This is a big mistake! Remember, your gains come from training less than 55 minutes, although it could be, in this case, expanded to a maximum of 60minutes. Anything more does not encourage hypertrophy and wastes your time. People seem to feel they need multiple sets in order to do this type of routine. No! The key is low volume (set wise) and high intensity for each muscle group. As you should be doing a maximum of 3 sets/muscle group, your body is able to handle training each muscle group three times in one week.

The best type of full body routine is one that rotates both the rep range and the actual exercises. Let's say on Monday you're doing flat bench press for the pecs. Then on Wednesday you should do, say, incline db press. The reason is that it's highly ineffective to repeat the same exercises each day as your body will begin to expect it. Once it isn't forced to adapt, it will stop growing; therefore, you want to split them up. For example, if

you're doing bb curl on Monday, you want to do db curls on Wednesday.

A full body routine should contain two cycles (cycle 1-M, W, F, cycle 2- next M, next W, next F). Try to vary the reps. For cycle 1, you would do 8, 8, 6 reps, then on cycle 2 you would do 6, 5, 5 range. This means that, for example, on day 1, cycle 1 you want to use a weight that you can do up to a maximum of 8 reps. Once you are able to perform 8reps, it's time to increase the poundage. (See below to fully understand what I'm talking about)

4.9b: 1 muscle/day

A 1 muscle/day split is ideal for most. It's quick and simple. As a result of the 'less IS more' concept, you should spend no more than 35 minutes/day working out. While you could spend more time, I find that most people who give 100% intensity are unable to because they are completely drained. There are many different ways to arrange this, but you want to keep in mind that you need a break between hitting the muscle in it's primary location and then in it's auxiliary location (e.g., it would be silly to do triceps on Monday and then work chest on Tuesday, as there would not be enough recovery time). A minimum of two days in between use should exist.

4.9c: Primary/Auxiliary together

With this type of routine, you're basically combing two muscle groups together. For example- bicep and back. I am not a fan of this type of routine, simply because I do not believe it's possible to give 100% intensity to two muscle groups in one day. It's very hard to split your attention evenly. Consequently, you can end up giving uneven attention to the muscle groups, thus minimizing growth. For this reason, I think it's much simpler to stick to training one muscle a day.

The one thing you want to keep in mind is that, with any routine, change is the key. You do not want to be doing the same thing week after week. Sometimes simply re-ordering the exercises is enough, and other times a more drastic change is needed. I rotate between a full body split and a 1 muscle/day split every few months, just to keep my body off-guard so it can't expect what's coming next (if it's able to expect and predict, then it will fall into a pattern and growth will slow down).

4.10) Magic exercises

This topic falls in the same category as magic routines promising instant growth. There is no such thing as secret exercises that will encourage instant growth and are far superior to all other known ones. Always stick with the basics and what is known.

If you doubt this advice, ask yourself- if this magic exercise is so damn good, how come nobody has heard of it or performs it?

4.11) Warming up

Make no mistake about it, if you fail to warm up, you are risking injury. You need to get the blood flow started and to loosen the muscles. For this reason, I suggest a few practice lifts with almost no weight. Some ways to warm up the muscles:

1. Pecs/Triceps- Do a few benches with just the bar, and also a few cable pressdowns with maybe 10pds.
2. Biceps- Do a few bb curls with just the bar, then add 30pds and warm up with that.
3. Legs- Do some light squats with just the bar and some sissy squats.
4. Upper back- Do some light lat pulldowns to stretch the lats.

Many, when warming up, pyramid the weight up. For example, let's take the bench press. They'll warm up with just the bar, then 145, then 180, then 200, and then begin their real sets. While there is nothing really wrong with this, I tend to shy away from these types of warm-ups because you're expending energy that could be used for lifting. I like to keep my warm-ups sweet and simple. Stretch the muscles and get the blood flowing using a light weight, then begin with your real workout. In the above case, I would warm up with just the bar, then 145pds, and then start my workout.

4.12) Increasing your weights

The most important step is to first identify what rep range your body associates with. Let's assume it's the 6-8 range. This means that you must pick a weight that you can handle, with proper form and 100% intensity, for at least 6 reps. Your goal is to be able to do 8 perfect reps. When you can do this many (8), you increase the weight by either 2.5pds or 5pds. You want to increase by at least 1 rep/month on every exercise. Increasing by 1rep/week is ideal for some exercises, but not all (otherwise you could curl 500pds in a few years). Just remember- if it's been a month and you haven't increased by 1 rep, then there is something wrong with either your training or diet (or both!). Make changes immediately!

4.13) ***One muscle is bigger than another***

A common concern for people is that one muscle is larger on the right side than the left. This is nothing to worry about. At some point in our training, one side will be larger than the other. A common mistake is to design a routine around this flaw to try and work the weaker side more. This is the last thing you want to do.

If you isolate one side, then you're only looking for problems. I've tried and found I was simply wasting my time. The best advice I can give you is to not think about it and to not design a routine around the smaller body part. Over time, it will even out. Just don't think about it and train normally.

4.14) Picking apart a few example routines

I'm going to write down a few routine examples and analyze them to give you an idea of what is good and what isn't.

Example 1:

2 set power press
2 set incline db press
2 set flat bench press
2 set incline flyes

The above is a good chest routine because it's evenly balanced between flat and incline lifts. It's a good idea to include both of these angles when hitting the pecs to ensure even growth. If you simply focus on only one angle (flat or incline), you will not be evenly working the pectoral muscle.

In addition, it focuses on compound lifts (the different types of presses) and finishes off with an isolation movement. The volume is low (8 sets total), which means that you have to give 100% intensity or you will not achieve maximum gains.

Example 2:

3 set flat bench
3 set incline db press
3 set flat flyes
3 set power press
3 set incline flyes

This is a very poor chest routine. It has way too much volume (15sets!!!)- there's no way to maintain 100% intensity throughout that routine. In addition, it has two "flying" isolation lifts, which is far too many- only one is needed. Also, it starts off with the regular flat bench. This in itself is not a problem, but not a very good idea- flat bench press is highly over-rated for pec growth. It's better to start off with either power pressing or incline db pressing. Save flat benching for the end because it's really just an ego lift. There are far better exercises to replace it with.

Example 3:
50 rep pull-ups (broken up into 8 sets)
3 set bent over rows
3 set cable rows

The above might be an excellent upper back routine, but for one failure- the 50 rep pull-ups. A common myth is that you must do a total of 50 reps worth of pull-ups each week to grow massive lats. This is untrue. There is no magic number that will produce results, and, in my opinion, 50 reps is excessive training for lats. If you were to replace them with a combination of wide grip pull-ups and normal (shoulder width) pull-ups, then the routine wouldn't look so bad.

Example 4:

3 set leg press
3 set leg curls
3 set sissy squats
3 set squats

This might be a good leg routine with some changes. The primary problem is that you are squatting at the end. Squatting is a heavy compound lift and should be placed at the beginning of your workout to maximize its effectiveness.

Example 5:

2 set modified close-grip bench
2 set modified skull-crushers
2 set lying dumbbell extension
2 set seated barbell extension

This triceps routine starts off great; however, it falters when you begin the lying dumbbell extensions. Extensions, as will be covered below, are like (pec) flying movements- you don't want to include too many of them in a workout. Skull-crushers are by far the most effective extension, so you would want to replace the last two exercises in the above example with other, more effective lifts that are not extensions (e.g., dips).

4.15) Examples of complete workout programs

To help you out, I've listed some of my favourite routines. Remember, there is no such thing as a perfect routine. Everyone responds differently to training. Try these, make changes, and find what works best for your body.

4.15a) 1 muscle/day split

Monday- Chest
Pause press, 2 sets
Incline dumbbell press, 2 sets
Flat barbell bench press, 2 sets
Leaning forward dips, 2 set
Incline or flat flyes, 1 set (optional)

Tuesday- Biceps
BB curl (either standing or preacher), 2 sets
DB curl (either standing or incline), 2 sets
Hammer curl, 2 sets

Wednesday- Lower back/Legs/Traps
2 set squat
2 set deadlift
2set front squat
Stiff-leg deadlift, 2 sets
Hack squat, 2 sets
Shrugs, 2 sets

Thursday- Triceps
Close-grip bench press, 2 sets
Reverse-grip bench press, 2 sets
Parallel bar dips, 2 sets
Skullcrushers, 2 sets
Pressdowns, 1 set

Friday- Upper back (lats)/shoulders
Pull-ups, 2 sets
Bent-over rows, 2 sets
Chin-ups, 2 sets
1-arm db rows, 2 sets
Military press, 2 sets
Seated Laterals, 1 set
Cuban rotations, 2 sets

4.15b) Full-body workout

Cycle 1:

M (Part A, 8 reps)
Squat, 2 sets
Stiff-leg deadlift, 1 set
Flat bench press, 2 sets
Pull-ups, 2 sets
Bent-over rows, 1 set
Modified skull-crushers, 2 sets
Cable pressdowns, 2 sets
Db curl, 1 set
Hammer curl, 2 sets
Seated bent-over laterals, 2 sets

W: (part B, 8 reps)
Deadlift, 2 sets
Incline db press, 2 sets
Close-grip bench, 2 sets
Dips, 2 sets
Bent-over rows, 2 sets
Chin-ups, 1 set
Military press, 2 sets
Bb curl, 2 sets
Hammer curl, 1 set
DB shrug, 2 sets
Cuban rotations, 2 sets

F: repeat M (part A, 6reps)

Cycle 2:

M- repeat last W (part B, 6 reps)
W- repeat last F (part A, 5 reps)
F- repeat M (part B, 5 reps)

and for weights, I use this form of cycling:

M- 8 reps
F- add 5pds from M, 6 reps
next W- add 5pds from last F, 5 reps

When cycles 1 and 2 are done, I then re-start. If I did 8 reps on the M, then I add 5pds and try again for 8 reps. If I didn't get 8 reps on cycle 1, I'd do the same weight and try to hit 8 reps again.

This way it forces you to continually increase your weight.

So, say I benched 200pds, and it went like this:

M-200*7
F-205*5
W-210*4

Since I didn't hit 8,6,5, I wouldn't add 5pds the next week and I would repeat using the same weight:

M-200*8
F-205*6
W-210*5

This time since I hit my target, I would add 5pds and work back up to the 8,6,5 target
M-205
F-210
W-215

4.15c) Primary/Secondary

M- Chest/Triceps
Incline dumbbell press, 3 sets
Close-grip bench press, 2 sets
Skull-crushers, 2 sets
Dips, 3 sets
Flat flyes, 1 set
Pressdowns, 1 set

W- Legs/Shoulders/Traps
Squat, 2 sets
Deadlift, 2 sets
Front squat, 2 sets
Stiff-leg deadlift, 2 sets
Seated bent-over laterals, 2 sets
Military press, 2 sets
DB shrug, 2 sets
Cuban rotations, 2 sets

F- Upper back/Biceps
Chin-ups, 3 sets
Bent-over rows, 2 sets
Pull-ups, 3 sets
Bb curl, 2 sets
Hammer curl, 2 sets
^Remember, contrary to popular opinion, biceps do not need a lot of work since they are being worked when working your upper back.

These are only a few possible routines, with much variation still existing. For example, with regard to back/biceps in the primary/auxiliary split, one may find that four sets are too many for curling and decide to reduce it down to two. More than acceptable. Or, one may decide to only do two sets of vertical lat training (chin-ups/pull-ups) and focus on rowing, using a combination of bent over bb rows and 1-arm db rows. Also acceptable. These are only meant to give you an idea of possible routines; I highly encourage you to play around to discover which routines your body prefers.

4.16) Music

An often overlooked part of designing a workout is selecting a musical selection to listen. Studies have shown people tend to perform better when they're listening to some type of music. The type depends on each person. Some need a fast beat, others something along the lines of rap, while others need some hardcore metal music.

If you pick the right track for yourself and let yourself get caught up in it, time will fly when you're lifting and you can psych yourself up easier.

4.17) HIT Routine

I'm going to briefly cover what HIT training is, as you may have heard about it and may be slightly curious. HIT stands for high intensity training. Basically, you're only doing 1 set for each body part. Now, you're probably saying that's silly- just one set.

What makes HIT special is that you have to have a totally different mindset when lifting. You only get one shot at the lift, so you have to make it count. You must go all out so that, at the end of the lift, that body part is destroyed and literally can't handle anymore weight.

For example, if you're going to do an incline press, you have to dig down so deep that, once you've finished, you couldn't do anymore chest exercises.

Does HIT work? Yes. Does it work for everybody? No. The reason I do not advocate HIT training is because of the mindset. Very few people can get in this mindset and stay in it throughout their workout. If you're not in it, then it's a waste of time as one set will do you no good. My advice is to just stick with regular routines, as you don't need to enter this mindset.

If you would like to learn more about HIT, visit its founding site:

www.cyberpump.com

4.18) How much weight should I lift?

A lot of people like to be told how much weight they should ideally be lifting for their weight and in terms of how far they've progressed. There is no clear-cut answer to this question. If somebody tells you, for example, that you should be barbell curling 40% of your bodyweight, just roll your eyes and walk away.

As a bodybuilder, you should not be concerned about the amount of weight you are using. Instead, you should be concerned about your form. Maximum gains are made when you use a heavy weight (for you) with perfect form.

In addition, due to body structures, nobody can tell you what to lift. For example, some people excel at a flat bench press while others excel at an incline dumbbell press because their stabilizer muscles are more developed. Some people excel at squatting, others at deadlifting. As long as you are lifting to the best of your abilities, and not cheating yourself (with poor form), you're doing great and shouldn't worry.

4.19) Becoming bored with your current routine

If you recall, you never want to stagnate at one point, be it the number of reps you're doing, the weight you're using, or the routine. If you ever feel bored with your current routine, change it. This can involve something as simple as re-ordering the exercises, or as complete as switching from, say, a one muscle per day routine to a full body split for a while. Regardless, every 3 months you should change things a bit. Even though you may be progressing quite well, a small change can mean a world of difference to your body, and can induce better growth.

Chapter 5…. Cardio

5.1) What is it

Cardio is essentially any type of intense activity that raises the heart rate. Bodybuilding could be considered a form of cardio, but most lifters prefer to just think of it as 'lifting', not cardio. It's far easier to think of it in this sense than to try and distinguish between the two. The thing to remember is 'intense'. Walking around the block is a light-form of cardio. Running around the block is a true form of cardio. It's important to distinguish the difference so that you don't think by walking outside to collect the mail you are performing intense cardio.

Common examples could be running (indoors and outdoors), swimming, biking, as well as boxing. I prefer to do boxing, mainly because it also helps to develop the shoulders and the lats and burn off calories.

A common mistake bodybuilders make is performing cardio each and every day. No! You should limit yourself to a maximum of 2hrs of intense cardio, total, a week. Remember, when you are doing cardio you are converting muscle, as well as fat, into energy. Too much cardio and you start to lose some of your gains.

5.1a: Cardio rule #1

Never perform more than 2hrs of intense cardio a week, even if you're cutting.

5.2) When is the best time for doing cardio

There are two places it can be done- before you begin your routine and afterwards.

If you were to place cardio at the beginning of your routine (before you begin lifting), the advantage would be the increased blood flow and the fact you are warmed up. However, this also becomes a disadvantage- you've expended some energy which could have been used to perform more reps.

I do my cardio at the end of my routine. My energy is expended and I'm beat, but that does not mean I can't hop on the treadmill and run for 10 minutes. It's a great way to finish off a workout and burn off fat. Since your glycogen levels have already been used during your lifting, you're basically converting fat into energy instead of muscle tissue into energy.

Perhaps you do not want to do cardio before or after lifting. Another time is in the morning when your stomach is empty (just after you have woken up). Doing cardio on an empty stomach is all about burning more fat due to lower glycogen store levels. However, you have to be careful when doing this. Since the last time you consumed food was approximately 10hrs ago, your body's reserves are running low. Doing too much cardio or too intense a form of cardio can make you quite nauseous and potentially adversely affect muscle gains (too much in the morning can cause the body to dip into muscle reserves instead of fat reserves for energy). If you do it in the morning, make certain to have a quick snack that's high in both protein and carbohydrates before beginning, to help refuel the body.

If you're uncertain where to place cardio in your schedule, make things simple for yourself and do some right after you lift.

5.3) Too much cardio

Once again, the 'less IS more' concept can be applied here. When you do some form of cardio, you're consuming calories at an elevated rate. If your goal is to bulk, then you should obviously stay away from cardio until you have reached your desired weight. Does this mean that, if you're cutting or maintaining, you can do as much cardio as you want?

Although you may think that you can do as much cardio as you like, you have to keep in mind your caloric consumption. If you're burning off more than you're consuming, you're going to lose some muscle mass, in addition to fat. If this intake/output proportion is not properly monitored, it is possible to lose a lot of your hard-earned muscle from doing cardio.

You want to make certain that all parts of your routine are in play properly. If just one part is slightly off base, then it can send your training for a loop.

To say bodybuilding is not a science would be false. All aspects of the body have to be taken into account. Anybody who rushes headfirst into it without knowing exactly what they're doing is only asking for trouble.

5.4) Warming up and cooling down

You should never just leap into doing intense cardio without some form of warm up first. If you are doing cardio following your workout, then you have no need to worry about this issue. Otherwise, for the first 4-5 minutes, use a slow pace. Once you feel that your body has started to warm up, it's time to up the intensity.

When you have finished performing your intense cardio, you should always have a cooling down period- it should consist of about 4-5 minutes of very light cardio, similar to your warm-up. Having a warming up and cooling down session not only helps your performance, but has also been shown to produce better results and to reduce the chance of injury.

5.5) Cardio and full body workouts

Full body workouts are very intense and involve a lot of energy. It has been shown that, when working with a full body routine, you should limit the amount of cardio you do even further, due to the energy expended while working out. If you're bulking, you should do no more than 20minutes of intense cardio a week. If you're cutting, you should stick to a maximum of 1hr of intense cardio each week.

Chapter 6…. Diet

6.1) Explanation

As you recall, developing a routine is quite personal and takes a lot of hard work and thought. It would be impractical to write down a routine and say 'Follow it', mainly because every person is different. The only way to build a routine is to see what you want from bodybuilding, what you are willing to do (e.g., how much time you have available), and work with that.

Creating a diet is just like creating a routine. It would be impossible and impractical to write out a meal plan for you, mainly because I don't know what your tastes are, what you're allergic too, etc… Instead, tools are provided here to help you design a diet that suits you.

When dieting, you need to count calories. There's no way around it. The only way to effectively bulk, cut, or maintain is to know how much you're currently consuming and how it's affecting you, and then act accordingly. You will need to count calories in the beginning until you get a rough idea of what you're taking in and consuming, and how it's affecting you (e.g., is your weight staying the same, increasing, decreasing, etc..).

6.1b: The most important thing to know about dieting

It doesn't matter whether you're bulking, cutting, or maintaining, you should always eat every 2-3hrs.

The most common mistake made when creating a diet is thinking 3 large meals a day is better than 6-8 smaller meals. This is the worst mistake you can make when constructing a meal plan. Your body is designed to eat once every 2-3hrs, which works out to about 6-8 meals a day. If this seems like a lot, then you could try cutting down the meal size each time. Remember, a meal does not necessarily mean two pounds of steak. Your diet should include three core meals, four 'snack' meals (not candy bars, but, as an example, a few tablespoons of peanut butter or some whey powder), and one post-workout meal (which should be a few scoops of whey powder to help muscle recovery time). Remember- the body is able to digest smaller meals easier than larger ones, thus providing for greater nutrient absorption and ensures energy is used as effectively as possible.

6.2) Bulking guidelines

As mentioned in chapter one, muscle does not grow from nothing. For it to flourish, you must exercise and feed the body. Let's assume you currently have 12'' arms and would like massive 19''arms. If you only weigh 130pds right now, you'll never have 19'' arms, no matter how hard you train. Your body grows in symmetry to itself. If you want big arms, then you yourself have to be big.

Although it may sound quite challenging, it isn't. In order to get bigger, you simply have to bulk. What this means is upping your caloric consumption to a point where you are steadily gaining weight. This does not mean to go out and eat all the Twinkies you see. What you eat must still be good, quality foods.

A general rule of thumb is to start your caloric consumption around 4,000calories/day. Try this for two weeks, then examine your progress. If you are not gaining weight, increase it by 500 calories and repeat until you find a caloric intake level where you're gaining at a steady pace. No two people are the same in this manner. Some may only need 4,500, others, such as myself (due to my metabolism and body type) need to take in almost 7,000 calories/day to bulk!

While bulking, you'll want to restrict your cardio to no more than10 minutes/day, for a maximum of 3 times a week. Cardio is counter-productive to bulking, but should not be completely ignored- some light jogging is fine, as it's important not to let the heart go by the wayside and pay the price later. Do not use bulking as an excuse to simply lie around and do nothing.

There are a lot of foods you can eat while bulking (pretty much anything). However, I recommend focusing on tuna, steak, and peanut butter. Make sure to include these in your diet, as they are a staple in any bulking routine.

6.2a: Fat is not muscle

When bulking, a great way to see how you're progressing is to examine a body-weight exercise, such as dips. As your weight increases, the number of reps you do should remain relatively constant. If this happens, or your can do more than before, then you're gaining a lot of muscle. However, if the number of reps drop, that would show that you are gaining some muscle, but most of your weight increase is fat.

Remember, fat does not give strength. If you were, as an example, to bulk up from 150pds to 200pds, but your bench press only went from 170pds to 180pds, that would show that a majority of the gain was fat. If your weight gain is muscle, then should find your lifts soaring. If not, then you better re-assess your diet.

6.3) Cutting guidelines

Cutting is the exact opposite of bulking. You're decreasing your caloric consumption and trying to lose weight and body fat. The ideal way to do this is to start around 2,500 calories/day, and monitor what happens over a period of two weeks. If this is too much, decrease by 200 calories and watch your progress for the next two weeks.

A word of warning with cutting- you have to be very careful about how you proceed. If you do not monitor your calories and what's happening, it's possible to lose too much weight too quickly and actually start losing muscle (not what you want!).

For cutting, you'll generally want to do about 30 minutes of intense cardio 3 times a week. As mentioned, even though you're cutting, never perform more than a total of 2hrs of intense cardio a week while cutting.

The thing to remember about cardio and cutting is that your calories are in short supply- energy is being released from the muscles. The released energy goes to your liver and is re-converted into sugar to fuel your form of cardio. If too much energy is released, you'll find that although you're becoming leaner, you're also losing a lot of hard-earned muscle mass. This is why you need to know how many calories you're taking in, and compare it with your results. If you're currently taking in, say, 1,500 calories, and dropping 15pds/week (although unlikely), you're going to be losing a lot of muscle mass, which is unhealthy. This would be a sign to increase your caloric consumption and to find an intake level that helps you lose fat at a reasonable, healthy rate.

As for food, you'll want to stick mainly with chicken and tuna as your primary sources. Items such as peanut butter should be avoided, while steak can be had, but in small quantities. Try to avoid foods high in fat.

6.3a: Reducing body fat in a certain area

A lot of people ask whether or not they can target a specific area and lose fat from that area (e.g., thighs). That answer is a plain and simple 'No'. You cannot target a specific area of your body when cutting. Your whole body is affected by this; there is absolutely no such thing as 'spot fat reduction'.

6.3b: Cutting out carbs/fats

Some people think that they can cut faster if they remove either all the fat from their diet, or most of the carbohydrates (keto diet). While this may work, be advised that there are certain health risks with doing this. The safest, and in my opinion easiest, way to cut is in moderation. Take your time. Remember, if you cut too fast, not only can there be health risks associated with it, but you can lose a lot of your hard earned muscle.

6.3c: Coming off a cutting diet

Once you've decided you've had enough of cutting, you should slowly introduce your body to what you used to eat. What I mean is, if your cutting dinners were simply one chicken breast, don't go out and eat 2pds of steak. Your body needs a few days to re-adjust. Slowly bump the calories back up, don't just jump from, say, 2,300 calories/day to 3,500/day.

6.3d: Loss of strength when cutting

Many complain about a sudden lack of strength while on a cutting diet. Based on experience, this is usually because you're cutting too fast, and hence losing a fair bit of muscle mass and strength. If you find your strength lacking while cutting, slow down. This isn't a race. It's far better to slowly cut down and preserve your strength and muscle mass, as opposed to losing a fair bit of them as you run rampant with your diet. If somebody tells you that strength loss is common when cutting- ignore them. If you're properly cutting, you should notice minimal strength loss. It may take longer to cut up but your results will be far better.

6.4) Maintaining

This is the true science of bodybuilding. You have to understand your body and what's happening when you adjust your diet or routine. The basic advice here would be to start with 3,000 calories/day and monitor for two weeks. Based on your progress, either maintain, decrease, or increase your intake by 200/day until you reach the proper level. In this case, a proper level would be where you're neither gaining nor losing weight.

For cardio, I would recommend a total of 1hr. of intense cardio work for the week.

6.5) Bulking and cutting at the same time

This idea would be great- decrease your body fat and get bigger. Unfortunately, it's very hard to do and not recommended. Not only would you have to get your exact caloric intake down, but progress would be very slow. Your body is built for one task or the other, not both. It can't effectively multi-task.

To this extent, those who know what they're doing don't combine the two. It's far simpler to pick one and stick with it for an extended period of time, then do the other (e.g., bulk until you reach your desired weight, then slowly start cutting to drop a few pounds of fat and lower your body fat %).

6.6) How long should I bulk or cut or maintain

This is completely up to the individual. Some cut until they are 6% bf, others bulk indefinitely, while others bulk and then cut when they believe they are starting to become fat.

As a word of warning, you should NEVER go below 5% bf. Staying at that level for more than a day is harmful to your organs and thus your health. If you are uncertain of your body fat %, a simple calliper test will give you a rough estimate (error of 4-5%), while a water test, done at any gym, will give you an exact number.

A common bodybuilding tradition is to bulk in the winter, cut down in the spring, stay cut (maintain) for the summer, then start bulking once it's fall. The idea behind this is that in the summer, your shirt will be off so you can show off your abs; in the winter, you're wearing long-sleeved clothing so you can add on a few pounds and focus on becoming massive because nobody can see your body (and lack of abs).

6.7) What should I be eating

Once again, this is completely up to the individual. Listed below are some food items that should be a staple in your diet. Remember, when selecting what to eat, you want to choose items that are both high in protein (for muscle building), as well as carbohydrates (for energy). The fat content is also important, but not as much as the above mentioned. You do not want to only eat foods that are high in protein, because not only is excess protein not utilized in your body, but you will be not be eating enough carbs, which are necessary for energy (as well as muscle re-building).

- Tuna
- Oatmeal
- Chicken/Turkey
- Steak
- Peanut butter
- Breads (flax is the best)
- Flax seeds/flax seed oil
- Milk products (milk, cottage cheese, yoghurt)
- Potatoes/Yams
- Pretty much any fruit/vegetable
- Water
- Pastas

Many despise tuna. Well, to be honest, tough. If you want to be a bodybuilder, you're going to have to learn to love tuna. After consuming it for a while, it isn't as bad and becomes quite tolerable.

A lot of people take water for granted. A bodybuilder's muscles NEED to be hydrated constantly. Make certain to consume as much water as you can each day. Water during a workout is especially important, because if your muscles do not remain hydrated, they will start to suffer (in terms of strength).

I could list the protein/carb/fat contents for different items, but that would be pointless and time-consuming. If you want to accurately plan out what to purchase for you diet, visit:
http://www.nal.usda.gov/fnic/cgi-bin/nut_search.pl

They have a fairly complete and accurate listing of almost every food imaginable.

6.8) Bulking Shake

You may have heard references to a bulking shake. This is simply a shake that is high in calories and can be made and consumed quite quickly. These are best drunk post-workout to help replenish the calories expended while lifting.

The most common shakes include some supplements (generally whey powder) mixed with food that's easily bendable. Everybody has their own preference as to what tastes best, but listed below are the ingredients in my shake. It contains somewhere around 900-1000 calories, and when prepared properly tastes exactly like frozen yoghurt. Give it a try if you're bulking to see if you like it. If you don't, modify it.

Sample 1:

- 2 cups of vanilla ice cream
- 1 cup of cottage cheese (2%)
- 1 cup of yoghurt (2%)
- 1 cup of frozen berries (could substitute any fruit here for flavouring)
- 10-12oz. of 2% milk
- 2-3 scoops of whey powder
- Blend for a few seconds
- Sprinkle 3-4 tablespoons of flax seed on top
- Eat

Sample 2:

- 12oz. milk
- 1/3 cup of crushed oatmeal
- 2 scoops whey powder
- 3 scoops natural peanut butter
- 2 tablespoons of flax seed oil
- 1 banana

If you are consuming these shakes post workout, I would recommend that you add some dextrose or maltedextrin . These simple sugars will help to replenish glycogen levels lost during lifting and will not be stored as fat.

6.9) Eating before bedtime

A lot of people finish their final meal at supper and don't eat again until the next morning. This is a big mistake as, while you're sleeping your body has ample time to consume what you fed it, and then begins to work away at itself.

The best food items to drink prior to bedtime are any dairy product such as yoghurt, cottage cheese, or milk. Milk products take the body longer to digest, so you don't have to worry about the body feeding on itself while you sleep.

Many people will wake up in the middle of the night to consume some form of food product so their body has constant nutrition. This is foolish. Simply consume some milk products beforehand and you're set.

For this reason, I usually save ~20 of my bulking shake as a pre-bedtime snack. It's loaded with calories and lots of milk products, so I have nothing to worry about while I sleep.

6.10) Ratios

There is no set amount of protein/carbs/fat you should be eating in your diet. It varies from person to person. Myself, I've found that 30%/50%/20% seems the right amount (meaning, for example, 30% of my caloric intake comes from protein).

Ideally, you only need to eat .7-.9*bodyweight grams of protein a day. The maximum you should be consuming is 1.4*bodyweight. Your body cannot use anymore than this, so anything extra is essentially wasted. The more protein you eat, the more water you have to drink. If you're consuming a large amount of protein and very little water, you'll be looking for kidney damage later on down the road.

6.11) Pre/Post workout nutrition

If you're going through hell at the gym, then you should definitely make certain that you're giving your body every possible chance to maximize it's gains. A lot of people argue about what's best for a pre-workout. I believe a sampling of glutamine and a high-caloric bulking shake are best. This gives your body plenty of carbohydrates for

energy, which will be helpful during your workout. Some people, though, do not like to consume a lot pre-workout, but it's up to personal preference.

Post-workout nutrition is very important. You'll want to replenish the carbs you just consumed, so something high in protein and carbohydrates is ideal. For this reason, I recommend some form of protein bar, some yam (high in carbs), as well as some whey powder. Whey powder has been proven to help the body recover faster if taken right after you finish your exercise routine. In addition, you may want to consume some simple sugars (e.g., dextrose/maltedextrin). These will help to replenish glycogen levels lost during lifting and will not be stored as fat.

Whatever you chose to have post-workout, make certain that you're consuming at least 35-55g of protein, 35g of carbohydrates, and 5-10g of fat.

6.12) Water- a bodybuilder's best friend

As mentioned above, water is essential for a bodybuilder. It keeps your muscles hydrated, which makes them look full and provides them with strength. Many think that by sweating the water out of their body they'll lose weight. This is true, but only to a certain extent. You will make yourself de-hydrated and extremely ill. Once you consume some water, you'll gain everything you lost back. This is basically water weight- some part of your bodyweight that is entirely made up of water.

You may have heard about some crazy exercise programs where you cover yourself in a paper bag and do cardio. The point is basically to burn off your water weight and lose like 5pds instantly. Although you will lose this weight, you'll gain it back as soon as you drink some water.

You'll want to drink a glass or two at least once an hour to keep your muscles fully hydrated and to prevent fatigue (dehydration is the number one cause for daytime fatigue). While working out, you'll find you'll be drinking quite a few glasses, or at least you should be.

6.13) Food guides & body fat tests

You may or may not remember learning about the food guide in school. Basically, they said take so many servings of meat/dairy/grain/fruits a day. A bodybuilder does not follow this schedule. Instead, a bodybuilder only cares about total calories and the ratios of them (fat/protein/carbs). Do not base your diet on any past knowledge- use this new knowledge you learned in this chapter. As a guideline, carbs should make up the most of your diet, followed by protein, and then fats.

Never use any on-line or text book ways of determining your body fat percentage. For bodybuilders, these are completely inaccurate. To give you an example, using a height/weight ratio, I came out with a body fat percentage of 65%! At 65% I would be extremely obese and probably not even able to fit through a door. The only true way is a water test done at any gym. So remember, if you're bulking and do an on-line test and start freaking out at what it's telling you, don't. Bodybuilder's are not like normal people for many reasons. The primary reason being that muscle weighs more than fat does.

6.14) Example

The diets that are outlined below do not include everything you should be eating- I'm including what the core of that meal should be. For example, if you feel like having a salad or half a potato with your protein shake, go for it. In addition, don't forget about drinking milk after each meal!

Sample cutting diet (morning lift):

7am: Tuna and post workout drink (containing glutamine and whey powder)
Train
9am: Chicken breast with yam and rice
11am: Protein bar and yam
1pm: Chicken breast with salad and rice
3pm: Protein shake
6pm: Sirloin steak w/ bacon and flax bread
9pm: Protein shake
11pm: Some form of milk products (cottage cheese, yoghurt, etc…)

As you'll note, there's a 2-3hr difference between each meal. The quantities are small because of your reduced caloric intake.

This example assumes you're going to be training around 8am. Therefore, for your first meal you want something that's high in both protein and carbs to replenish what you lost during your night's sleep. The tuna is an excellent source of protein, and the drink should be both high in carbs and protein to provide optimal conditions for muscle building (remember, just because you're cutting does not mean you cannot still be focusing on muscle growth).

This is a very basic cutting diet. If you do not like eating that much chicken, change it to suit your tastes. The key thing to remember is to count your calories so that you fall within your desired range for weight loss.

Sample cutting diet (evening lifting):

7am: Tuna and chicken breast
9am: Chicken breast with yam
11am: Protein bar and rice
1pm: Chicken breast with yam
3pm: Tuna and chicken breast
6pm: Protein shake
Lift
8pm: Sirloin steak w/ bacon and flax bread
11pm: Some form of milk products (cottage cheese, yoghurt, etc…)

You can use the above to design a bulking routine as well. For example, instead of simply having one chicken breast, have some ground up hamburger meat. Add in some peanut butter and some more steak into the diet. Add foods that are high in protein and carbs, as well as fat, that best compliment what you enjoy to eat.

Now that you have the basic outline, a bulking diet should be simple to create- you have the time-table more or less laid out, now it's up to you to select the foods. Remember, it is important to count calories so you see how many you're taking in, and if more are required.

If you're lost and need some help, here's a sample bulking diet you could try.

7am: Tuna and oatmeal
9am: Two chicken breasts with yam and flax bread
11am: Protein bar and flax seed
1pm: Steak with salad and rice
3pm: Chicken breast and peanut butter
6pm: Protein shake
Lift
8pm: Sirloin steak w/ bacon and flax bread
11pm: Some form of milk products (cottage cheese, yoghurt, etc…)

As you can see, there's not a huge difference between the bulking and cutting diet, other than the fact you're consuming more food. Remember, the above is only an outline. If you find you are not making any gains with it, increase the quantities slowly until you reach a level where you are steadily gaining weight.

Chapter 7…. Exercises

7.1) Introduction

This section does not discuss every exercise available in the bodybuilding world. That would be time consuming and pointless, especially since you can look them up on the internet or any bodybuilding book, and find pictures and possibly videos of proper form. Covered below are some helpful hints for each body part, as well as a list of good exercises and the not so good.

If you are uncertain how to perform a movement, here are two free sites that provide animations to walk you through them.

http://www.exrx.net/Lists/Directory.html

http://www.fitsite.com/anatomy.cfm

If you are uncertain about a description or something I write, do not jump blindly into the exercise. Ask somebody at your gym for help. Describe what you don't understand and hopefully they'll be able to help you.

At the end of each section is a sub-section which contains the top three exercises for each muscle group. They are not ranked in any specific order as each body responds differently to them, but they should be a staple in any routine you do.

7.2) Biceps

The key mistake made with biceps is that people think they're a huge muscle and deserve unlimited attention. This is utterly false. Biceps are a small muscle group. Ideally, you want to keep the sets between 5-6. If you're doing anymore, chances are that either you aren't using proper form or enough intensity. Remember, the bicep only makes up 1/3 of your total arm mass. The bicep is such a small muscle that it is easily exhausted. If yours can handle set upon set upon set without getting fatigued, then it's time to re-examine how you're training them.

7.2a: Using strict form for your curls

The most common mistakes are using momentum to lift the weight (swaying your back, bending at the knees) or letting the elbows drift forward. Only you can prevent momentum when you lift- make certain to focus and not encourage it. If you can't, then perhaps the weight is too heavy. Lower it and try again.

You also want to envision the biceps being glued to your waist and not moving. Try this: pick up a barbell. From the point at which your elbows start, draw a line 2'' away from them (moving towards your waist). Curl, and have a spotter watch that line. If your elbows travel beyond this point, you're cheating by letting them move too far forward. Focus on keeping them fixed in place. It may help if you pull your shoulders back when curling to let you keep the elbows fixed at your side.

A bit of movement is fine, but not a lot. The body will try to let the elbows move forward- it's its way of letting you lift more. When the elbows travel forward, stress is taken off the bicep and placed on the anterior deltoid. This limits the effectiveness of curls. Make certain your elbows do not move more than 1-2''. If you can't stop them from moving forward, use a lighter weight- the current weight is obviously too heavy for you to handle.

If you're having trouble keeping the elbows fixed against your side, try this idea- place a mirror beside you. While curling, turn you head and watch. Make certain your elbows are staying fixed against your side. If you see them moving too far, lower the weight and try again. Once you are certain they are no longer moving, do it without the mirror. You'll find that since your head isn't turned to the side, it's much easier to curl now (obviously).

Some people will try to tell you to curl with your back to the wall, as it reduces momentum. Ignore their advice. If you do this curl and find that you can't lift as much as when your back isn't against the wall, obviously you were cheating yourself before. Besides, if you were using momentum before to lift the weight, placing your back to the wall will not make a difference- speaking from personal experience, it's easy to cheat the wall and use it to your advantage. My advice is to stay standing straight and reduce momentum/elbow movement through sheer will power. It's hard, but very rewarding.

7.2b: Tip for db curls

When doing a db curl, make certain that at the bottom of the rep (when your arms are fully extended), your palms are facing forward, not each other. This places more stress on the bicep, which makes the exercise more rewarding, but also harder.

In addition, make certain to do the full range of motion with bicep curls. The majority of the benefit from these exercises comes from the point when your arms are fully extended downwards to just after the point when your forearms are slightly past parallel to the ground. The rest of the movement (the curling part) produces very few results. A mistake usually made is to assume that the curling (contracting of the bicep) is the most important part of this lift- it isn't!

7.2c: Exercises

1. **Barbell curl**: A staple to any bicep routine. You should find that, if you're using proper form, the bar comes to around nipple height or slightly higher. If it's coming to your upper pec/neck area, then you're letting the elbows drift forward. If you have pain in your wrists/forearms while performing this movement, try using an ez-curl bar- it will take some of the pressure off these areas.

2. **Dumbbell curl**: Similar to a bb curl. The db should be brought up around nipple height. Some may receive an extra benefit if, at the top of the rep, they give their wrist a slight twist. Lower the weight slowly- do not let it drop. If you see the term alternating curl, this means to curl with the right arm first, then the left, then the right, then the left, etc… Can be done either seated or standing.

3. **Hammer curl**: Do not try to bring the db up to touch your shoulders. Results are only obtained from this movement if elbows stay locked in place. Best results are obtained from doing it as an alternating curl. This will train both the biceps and the forearm.

4. **Zottman curl**: Avoid these. They place unnatural stress on your joints and do not yield good results.

5. **Concentration curl**: Not the greatest exercise. Most people enjoy these because they claim to add peak to the bicep- this is completely untrue.

6. **Preacher curl**: Done using a preacher bench. These are a great way to finish off a bicep routine. You won't be able to curl as much on these because the arms are in a position of weakness. Arms at your side (as in a db curl) is a position of strength. By extending your arms straight out, you're placing them in a position of weakness. One point to be careful of is not to hyperextend the elbow. This can occur if you use too heavy a weight and, at the bottom of the ROM, fully extend your arms. There's nothing wrong with fully extending them, but if you're using too much weight to try to show off, you could run into problems.

7. **Incline curl**: Can be a very valuable exercise if done properly. It's easy to cheat on inclines and let the elbows travel forward. I've found the best way to prevent this is to imagine keeping my elbows trained at one point on the ground and to keep them focused there. Try to use a very light weight initially and perfect the technique. It's easier to detect cheating on a standing curl than an incline because it can almost feel natural on inclines to allow the elbows to travel forward and up throughout the movement. The incline angle can be anywhere from 15 to 75 degrees. The lower the incline, the more stress on the longhead of the bicep. It would be a good practice to rotate the angles of elevation periodically.

8. **21s**: Avoid these at all cost. They're okay for endurance training, but not for hypertrophy.

7.2d: Top 3 picks

- Barbell curl
- Hammer curl
- Standing dumbbell curl (alternating)

7.2e: Reasons

Barbell and standing dumbbell curls were chosen because they are a staple in any bicep regime. There is no doubt in anybody's mind that they are effective for bicep isolation. Hammer curls were chosen because of the extra benefit given to forearms. It's my belief that if one takes a tight grip on whatever they hold and does hammer curling, they will develop nice forearms.

Two other possibilities for this list were preacher curls and incline curls. These are both good but were not in the top three because of the added risk of hyperextension if one gets careless and piles on too much weight (preacher curls). Also, inclines are easier to cheat on, as compared to standing curls.

7.3) Triceps

Most people don't even know what triceps are. Triceps make up about 2/3 of your total arm size and give your arm the horseshoe shaped look.

The tricep is made up of three heads- long, lateral, and medial head. When training, do not try to isolate each head. Not only is that quite hard to do, but a waste of time. A lot of the key mass builders (e.g., close-grip benching) work all the heads, so there is no real need to focus on one over the other.

7.3a: Tricep mistakes

There are two common mistakes for triceps. The first is to let the elbows drop when doing extensions. This means that, instead of your elbows staying fixed in one spot, they change positions from the top of the movement to the bottom. This is unsafe and does not work the triceps. If you can't hold them in place mid-air, then lower the weight. The easiest way to see if your elbows are moving is to ask somebody to watch them for you.

The other mistake is to let the elbows flare out at the bottom of the rep when close-grip benching. This means that instead of your arms being as close to your body as possible, they're flared out and are running almost parallel with the ground. Although this is not bad, it does reduce the stress on the triceps and thus the effectiveness of your workout. Keep the elbows as close to your body as possible. It may help to think of dragging the elbows in towards you. The closer your elbows are to your body, the more stress is placed on the triceps.

7.3b: Extensions/Pressdowns hurt my elbows

Some experience pain when doing extension and pressdown movements. There are generally two reasons for this complaint- the weight is too heavy or their body is not built for it. With regard to the first, the triceps may be able to handle it, but the joints are not ready. Lower the weight for a few weeks and focus on using a slow, controlled movement. Your tendons/joints will slowly strengthen. If you don't strengthen them and ignore this warning sign, you're only asking for injury later on.

The second reason is because their body is not built to do that movement. To counter this, one must explore all possible variations- for example, french press, 1-arm db press, bb extension to the head, bb extension behind the head, etc… As an example, I am unable to do barbell extensions to my forehead. If I do, my elbows erupt in pain. However, I am able to do them behind the head (bringing the bar behind the head). As another example, regular pressdowns bother my elbows; however, reverse-grip pressdowns do not. The key is to find movements that are comfortable for your body.

7.3c: Close-grip bench press hurts my wrists

This is a very common complaint, with a very easy solution- your grip is too close. Some people take close-grip to mean as close as possible. This is not a good idea. Ideal close-grip is done with palms over elbows (in other words, more or less shoulder width). This is, in terms of body mechanics and safety, the best hand distance. In reality, the difference between close-grip and regular width benching is very small.

7.3d: Elbows in

A quick point before I begin the exercises- your elbows should remain tucked in at all times, whether benching or doing extensions. In terms of benching, this places more stress on the triceps and increases pushing power. It's natural to want to let your arms flare out when benching, but best results are done when elbows are tucked in. This may take a bit of time to get used to, but it's well worth practicing to get the technique down (see training pecs for proper bench technique).

With regard to extensions, this puts more stress on the tricep and reduces chance of injury. Elbows tend to flare out when you get sloppy or use a weight that is too heavy to control.

7.3e: Exercises

1. **Close-grip (c-g) bench press**: Similar to a regular bench press, except you take a grip that is palms over elbows (approximately shoulder width).

2. **Reverse-grip close-grip bench press**: This move is awkward to master, but provides excellent results. It's similar to a regular c-g bench, except instead of palms facing your

feet when you grab the bar, palms will face towards you. Expect to use far less weight because of less pec involvement (reverse-grip puts the pec fibers at a disadvantageous position, therefore putting more stress on the tricep). It's useful to start this movement out-of-the-hole (in other words, at the bottom of the ROM instead of at the top where one usually begins after unracking). To do this one MUST be in a power rack. In addition, I cannot emphasize how dangerous this movement is- it is very grip dependent; the slightest flaw and you could squish yourself. For this reason, you MUST do it in a power rack with safety catches properly set.

3. **Close-grip floor press**: Essentially a c-g bench done in a power rack, with you laying on the floor. You stop when the triceps touch the floor, not before. As this emphasizes the top portion of the bench, triceps will play a heavy role (and the pecs a very minor one). This is a good movement; however, you should not let it take precedence over a regular close-grip bench. You will find that a floor press will require less weight than a regular bench because you are no longer able to drive with the feet- you have lost a base of power.

4. **Partial close-grip bench**: The theory is similar to that of a floor press. This movement is done in the power rack, with the safety catches set higher than your chest (such that when the bar touches them it is not near your chest, but rather anywhere from 6+'' above). Since this focuses on the top portion of the bench, you will receive more tricep than pec work. And again, do not replace a full ROM c-g press with a partial ROM press. You will be able to use more weight since you are not completing a full ROM, but you will be missing out some benefits from a full ROM.

5. **Pause close-grip bench**: Similar to a regular close-grip bench, except you stop at the bottom of the ROM for a 2-3 second count. Although this will not do anything more for hypertrophy, it will strengthen that part of the bench and increase your ability to drive a weight off your chest.

6. **Barbell extensions**: A very good movement that can be changed in many ways (grip width, where you bring the bar to, etc…). Can be done on a flat bench, the floor, or at an incline. Barbell extensions done on a flat angle are referred to as skullcrushers. See below for a way to modify the standard skullcrusher.

7. **Dumbbell extensions**- Just as good for results as barbell extensions. There are multiple variations such as double overhand dumbbell extension, 1-arm dumbbell extensions, etc… If you are using a double overhand grip (2 hands gripping 1 dumbbell), you are doing what is called a french press.

8. **Parallel bar dips**: Keep the elbows close to your body- do not let them splay outwards. In addition, monitor for discomfort. Too many go too low on this movement and ignore pains in their sternum (later resulting in injury). When your upper arms are more or less parallel to the ground, you can stop.

9. **Bench dips**: Not as good as parallel bar dips for working the triceps. Also, some can

experience pain in their stomach when doing them. They're okay if you don't have access to a set of parallel bars, but just remember they'll be nowhere near as good for results. In addition, the weight you can use is limited to the amount of plates you can stack on your lap (and trust me, it isn't a good idea to have 4 45pd. plates on your lap).

10. **Pressdowns**: A good finishing movement. Keep the elbows close to your side- make certain they don't move. In addition, rotate between using a straight bar, V-bar, and a rope. These three gripping devices work the triceps from different angles, so rotate regularly. When doing heavy pressdowns, stop when your forearms come parallel to the ground. One thing to note is that they should be used to finish your routine, not to be the meat of it. They will produce good results, but nowhere near as good as dips, extensions, or pressing. In addition, there is no strength carryover to any exercise. For example, if you do dips, some of that strength carries over to the bench press. With pressdowns, no carryover strength exists. Should be done with a shoulder-width grip; can be done with a reverse grip or regular grip.

11. **Kickbacks**: Avoid these at all cost. They claim to shape the triceps, which is utter nonsense (remember, you can't shape a muscle).

7.3f: Modifying skull-crushers

To modify the skull-crushers, change your set-up slightly. Grab the bb and pretend you're doing a skull-crusher. You should note that at the top of the rep, your arms are fully extended upwards (they form a 90 degree angle with your body such that from the side you arms look like '|' to your body). Now, keeping the arms straight, slowly move them backwards (towards your head) until they form a 145 degree angle (more or less) with your body. From the side, your arms should look like '\'. This places far more stress on the triceps when bringing the weight upwards, and also makes the movement easier. When your arms are forming a 90 degree angle, as you bring the weight up, the force is taken off the triceps. This is fine, but not maximizing your results. Keeping them at around a 145 degree angle makes certain that the stress stays on the triceps throughout the entire movement and never leaves. It takes a while to get used to, but it's a way to make the exercise even better.

7.3g: Top 3 picks

- Close-grip bench press
- Extensions
- Parallel bar dips

7.3h: Reasons

There's a standard line in bodybuilding for triceps- close-grip bench, extensions, and dips, all you'll ever need. In reality, that is all you'll ever need. The great thing about these lifts is that you can modify them in so many ways- for example, c-g bench, reverse grip close-grip bench, close-grip floor press, etc.... The above three, and their variations, are the best lifts you'll find for triceps. A word of warning though, do not include lifts

that will overlap each other. For example, do not do close-grip bench, close-grip partial bench, and close-grip floor pressing. Floor pressing is like a partial bench, so partial benching would be an overlap and pointless. In addition, when doing extensions, do either dumbbell or barbell; do not try to include every variation in your lift. For a change of pace, switch from dumbbell to barbell (or vice versa) the following week.

7.4) Forearms/Grip

No direct work for forearms is needed. As long as you take a solid grip whenever you hold either a db or a bb, you'll be working your forearms and grip. The reason for a weak grip is usually reliance upon grip crutches- lifting straps or hooks. Try to limit your use of them, or even just completely remove them from your program. In addition, hammer curls, when done properly, are an excellent way to hit forearms while training biceps.

Avoid reverse curls. These movements (both bb and db) take an unnatural ROM that can, and will, lead to forearm injuries. It's safer to stick with hammer curls and working it naturally with a rock solid grip on whatever you're gripping.

7.4a: Farmer's Walk

If for some reason you feel your grip/forearm strength is lacking, try performing farmer's walks. Take two heavy dumbbells and place them side-by-side. Pick them up and start walking around, holding them as long as possible. They're quite effective, but unless your strength is really lacking or you plan on entering some sort of competition (powerlifting), you really have no need for these.

7.4b: Support/crush/pinch grip

This section is called forearms/grip because grip work can be trained with forearms. There are three types of grip- support, crush, and pinch. **Support grip** is what I have just discussed- it's basically the ability to hold a bar or dumbbell. The best way to train support grip is with static holds

Crush and pinch grip are not important for bodybuilding, but it does not hurt to broaden your knowledge. **Crush grip** is just that- the ability to crush objects with your hand. The best way to train a crush grip is with grippers- vice-like devices that you squeeze. There are many manufacturers of these products; however, most are not good quality or are of poor resistance. To give you an idea, an average man has a crushing grip of around 108pds of force. A generic store-bought gripper offers a force of about 50pds. To be blunt, you are not going to make much progress with that little resistance. My recommendation is Captains of Crush- quality grippers that come in varying resistances.

Pinch grip is the ability to hold an object with your thumb on one side and the rest of your fingers on the other side. The best way to train is with plate holds- take two plates and turn them smooth side facing out. Grip them with your thumb on one side and the rest of your fingers on the other. Hold the plates (in the air) until you have to let them go. To give you an idea, a word class powerlifter can have trouble pinch gripping two 45pd plates, so expect to start off around 5 to 10pds.

There is no relation between any of the grips. The ability to hold 600pds does not give you the ability to apply 200pds of force when using a crush grip, or the ability to hold two 45pd plates. Each grip must be trained. For our purposes, it's sufficient to know that forearm size will come in time as long as you're using a solid grip on whatever you're holding. Your support grip will also improve at the same time.

7.5) Calves

Calves are unlike most other body parts- they seem to thrive on high volume workouts. For these, I would recommend keeping the reps high (~20 reps). This is because they're used everyday when we walk, so you really have to work with them in order for them to grow.

A lot of people feel that by angling their feet differently they can target the different muscles (heads) in the calves. While this can be effective, it's not the best way. The best way is to change your stance- rotate between using a wide and a narrow stance. A narrow stance (shoulder width or less) stresses the outer head of the calf; a wider stance places more force on the inner calf.

7.5a) Exercises

1. **Standing calf-raises**: Great way to work the calves. Change the rep scheme around constantly.
2. **Donkey raises**: An oldie but a goodie. You don't see these being done anymore
3. **Calf-machine**: An alternative to donkey raises

7.6) Legs/Lower Back/Traps

This is where a lot of people disagree. Some believe you should go all out on leg exercises and stick to heavy compound lifts, others believe that isolation movements are the key. Myself, I believe that heavy compound lifts are the way to go.

The reason I group these three muscle groups together is because if you work one you essentially work the others. For example, when deadlifting, you're working your legs and your lower back. When stiff-leg deadlifting, you're working your quads as well as

your lower back. Both type of deadlifts also hit your traps.

Is it hard to both deadlift and squat the same day? You better believe it. Are the gains worth it? Oh hell yes. People will try to come up with 101 reasons why you shouldn't squat and deadlift on the same day. The fact is, they're scared of the challenge. I was against doing this at one point; however, I gave it a shot and loved it.

7.6a: ***Mistakes***

The most common mistake is poor form. Both deadlifting and squatting require perfect form, or else your balance could shift and, as an example, you could squish yourself with the weight. If you are uncertain as to how to perform an exercise, always ask somebody who has done it before and knows what they're doing.

The most common squatting mistake is to keep your head down (looking down at the ground). When squatting, keep your upper back as rigid as possible and make certain you're looking forward (i.e., your head is straight up, not down and limp)

The most common deadlifting mistake is to pull with the lower back. This usually occurs if you're too far from the bar. You know when you're a proper distance if, when you lift the bar up, it rubs against your shins. In addition, you should be looking straight ahead (i.e., your head should not be hanging limp looking at the floor).

Aside from the above, about the only other mistake a person could make is using a weight that is too heavy. If a weight is too heavy, then their form will suffer and injury can occur. Always use common sense and pick a weight you're comfortable with, but is heavy enough to challenge your body.

7.6b: ***Squatting is hard***

Both squatting and deadlifting are very demanding movements. Many people do not perform them for that simple reason. However, what most don't realize is that a large amount of natural GH (growth hormone) is stored in the legs. When you do these exercises, the GH is released, encouraging more muscle growth.

It is possible to only train your upper body and become massive. However, if you were also to squat and deadlift, chances are you would be even larger. For example, if your arms were 18'' without these two lifts, with them and the same amount of training, I'm willing to bet that they'd be 19 or even 20''. Squatting and deadlifting are hard, but the rewards are WELL worth it.

7.6c: How low in squatting

A common question is how low you should squat. It is my opinion that you should go as low as possible (so that your bum is almost riding on your heels). Most people do not and use the excuse of knee injury. The truth is that by stopping when your

thighs are parallel to the ground, you're putting the same amount of stress, if not more, on the knees.

The actual reason most people stop there is because, if you go past the thighs being parallel to the ground, your quads stop working and the hamstrings take over. The hams are far weaker than your quads, and thus you have to use lighter weights. However, trust me on this one, if you develop your hams, your squat will soar and reach new heights that you would never be able to achieve by only squatting to parallel.

In addition, when going as low as possible, you are also working your glutes. If your bum is flat and rather limp, you should definitely consider changing how you squat. The lower you go, the faster you'll achieve a nice, ample, rock-hard bum.

7.6d: Exercises

1. **Squats**: These should be taken as low as possible. Remember, the bar should be across your traps, not your neck. Try varying your stance to see what works best for you- a closer stance or a wider one. A wide stance will allow you to lift more, but will put less stress on the quads. Also try feet positioning- toes pointing forward or off to the side. A necessary movement if your goal is leg development. One final point to note is that you should be working on sitting back and down. Most squat down and forward. This is not correct and will lead to power minimization and potential knee injuries. The best way to practice sitting down and back is with just the bar. Imagine that you are going to sit on the toilet (in fact, most people have better squat form when they sit on a toilet than when they are squatting!).

2. **Front squats**: Similar to the back squat, except the bar is in front of you. Can be done with either a clean (from a clean+press) grip or a cross-armed grip. I prefer the cross-armed grip as it keeps the bar (in my opinion) steadier and places less stress on the wrists. Front squats place more stress on the quads than regular back squats.

3. **Deadlifts**: Thought of by most as a lower back exercise. While this may be true, it is more effective to think of them as a leg exercise. Better gains are made this way. Remember not to pull with the lower back. As you lift the bar, it might be helpful, at the top of the rep, to imagine yourself coming to attention and throwing your shoulders back a bit. Directly works the legs, lower back, and traps.

4. **Stiff-leg deadlift**: These work the hamstrings and lower back. Try to bend over until your back is parallel to the ground, or is as low as you can comfortably bring it. Bend with the hips and remember to keep the back straight.

5. **Good mornings**: Not a leg exercise, but since you're training your legs with the lower back, you can do these here. Remember not to use too heavy a weight so as not to lose your balance. When your back is bent, make certain the weight is balanced and under control. And remember, keep the back straight.

6. **Sissy squat**: A good warm-up movement, but that's about it.

7. **20 rep squats**: Take a weight that you can normally handle for 12 reps, then try to force out 20 reps through sheer will power. This is very demanding and challenging, hence you'll only be able to do 1 set at most. One set of a proper 20 rep squat can constitute your entire leg workout for the week- they're that demanding. They're very exhausting on your nervous system; I wouldn't recommend these to beginners.

8. **Hack squat**: An excellent way to finish off your workout. Can be done either on a machine or with a barbell. If using the barbell, make certain it is in constant contact with your bum.

9. **Leg extensions/leg curls/leg press**: Some feel these are necessary for any leg routine. In my opinion, they're a waste of time- better to focus your energy on heavy compound lifts to build big legs. Try them and see what your preference is.

10. **Dumbbell shrug**: Excellent way to work the traps. Don't use too heavy a weight. Most common mistake is taking a heavy db and doing partial shrugs. Shrug and hold it at the top. Do not roll your shoulders when shrugging. This WILL cause an injury. Many think that you have to do a load of shrugs to grow huge traps- untrue. While shrugs are a nice way to finish off a routine, deadlifting is the key to developing huge traps.

11. **Barbell shrug**: Similar to db shrug. I prefer the db, mainly because I find it easier to handle. The choice is yours.

12. **Box squat**: I added this movement to the list because you may hear of it. It is a powerlifting move; the purpose is to strengthen the squat by teaching you to sit down and back, as opposed to the standard down and forward. In essence, you're doing a regular back squat down onto a box that is ~10-12'' high. On the box, you pause, release tension, then explode up. Not necessary for a beginner or for a bodybuilder for that matter.

7.6e: Top 3 picks

- Squatting (past parallel)
- Deadlift
- Front squat

7.6f: Reasons

Fact is, if you want massive legs you must squat and deadlift. It's as simple as that. The fact they also encourage more hormone release for added overall growth is another goodie that causes both of these to be on the list. I'll be honest with you- you can get away with leg pressing and leg curling, but you will never make the same progress as with squatting and deadlifting. Front squats were chosen because of the extra emphasis placed on the quads (as compared to regular back squatting). For traps and lower back, I am a firm believer that all one needs is deadlifting. Movements such as shrugs and good mornings are nice, but not as effective. In the gym I want max results with minimal time.

7.7) Abs

A common assumption is that a perfect 6-pac results from hundreds upon hundreds of sit ups. This is not true. Not only can sit ups injure your lower back, but they are completely ineffective at helping you reveal your abs and attain a slimmer waistline.

Everybody has rock-hard abs, even people who weigh 500pds. It's just a matter of seeing them- they're covered beneath a layer of fat. To see your abs, you must do cardio as well as have an excellent diet. I would say that revealing a perfect 6-pac is done through 49.5% cardio, 49.5% diet, and 1% (at most) exercises that work the abs. It's possible to have rock-hard abs and to have never trained them in your entire life.

The only reason to train abdominal muscles is to strengthen them for extra support and to prevent injuries (e.g., hernias) on intense lifts such as the deadlift. However, even this point can be argued. When you do core compound movements (military press, bench, squat, deadlift) you are working abdominals, whether you realize it or not. For this reason, many people (including world class powerlifters) feel it is unnecessary to train them.

You may have heard some preaching about how you have to work your abs every day or second day- this is a waste of time. Heck, these same people probably also preach that if you do sit-ups you will reveal a perfect 6-pac. If you are going to work them, only a few minutes a week are need for them to be effectively trained. Going for marathon sessions (i.e., training them for at least an hour) is a complete waste of time. When training, try rotating through various rep ranges each week. Like calves, abs seem to respond better to higher reps.

7.7a: Exercises

1. **Hanging knee lifts**: The most effective ab exercise there is. Remember to bring your knees as high as you can; do not cheat on the range of motion.

2. **Crunches**: At the top of the crunch, pause and squeeze your abs for a second or two, then release. Don't just crunch up and down without pausing; make certain you feel it in your abs. Also, do not place your hands behind your neck when doing this movement- this can lead to neck problems. Can also be performed at a decline angle (on a decline ab board) to work the abs more.

There are hundreds of possible exercises out there, but the above two are really the only ones of merit. Just remember- abs are made in the kitchen, not in the gym. In addition, one can get by doing 1-2 sets per week (or not doing them at all) because of the work received when doing core lifts.

As a side fact, believe it or not, some championship level bodybuilders have never trained abs a single day in their entire life.

7.8) Upper Back (lats)

If you want to create the illusion of having a V-shape, then all you have to do is have a bit of lat development and then cut down your body fat percentage. However, if you want to have a massive back, you have to get serious about training your lats.

7.8a: Mistakes

The most common mistake is to not fully extend your arms when doing pull-ups or rows. It's far easier to stop short of a full ROM than it is to fully extend your arms. However, the main benefit from these movements is the stretch. By not going all the way down, you're cheating yourself out of development. It is far better to do fewer reps with a full ROM than it is to do more reps but with only partial ROM.

7.8b: Very helpful tip

When training the lats, make certain to use a thumbless grip. When a thumbless grip is employed in back exercises, the biceps, to a certain degree, become removed from the exercise. The benefit of this is that you can lift more because your arms aren't becoming fatigued as fast, in addition to having more weight transferred and placed on the lats. Always use a thumbless grip for pull-ups or rows; you'll experience far greater gains than if you use a regular thumb'd grip.

If you doubt me, try it next time you do bent over rows. Do your first set with a thumb'd grip. If you're like most people, your biceps will be just as exhausted, if not more, as your lats. Now try using a thumbless grip. The first thing you should notice is how easy the movement has become. Since the biceps are not as involved, they can't hinder you. You should really find your row poundage sky rocketing in a few weeks once you get used to this grip.

7.8c: But I can't do pull-ups

A lot of people, especially beginners, lack the upper body strength to do pull-ups. There are two simple solutions around this problem. The first is focus on lat pulldowns. Pulldowns are a great way to supplement your pull-up strength- just be certain that you focus on getting a full stretch and going for a full ROM in order to benefit from them.

In addition, do assisted pull-ups. What this means is that you go do the pull-up motion as high as you can, then you have somebody help you by giving you a boost. Slowly, and in a controlled manner, lower yourself. Do this a few times and eventually you'll be able to do them on your own.

7.8d: How high in pull-ups

The bottom part of the pull-up is a no brainer- you make certain that your arms are fully extended and not bent. The most common question about the upper part of the

pull-up is if it's necessary to touch the upper chest to the pull-up bar. My answer is 'No'. A complete pull-up will have occurred once the bar is parallel to your chin, or slightly below. There is no difference between going until the bar is at your chin, versus touching the bar to your upper chest. In fact, some people, due to their genetics and bone structure, cannot touch their chest to the bar. However, this is a moot issue as lat growth is the same whether you touch or come to chin level.

7.8e: Vertical and horizontal training

Rowing motions are referred to as horizontal lat training. Pull-ups/chin-ups and pulldowns are known as vertical lat training. The difference is in the plane you are training your lats, as well as strength carryovers. Training lats on the horizontal plane aides your bench press- lats are incorporated when you drive the bar off of your chest. You can do vertical training until you are blue in the face, but you will not receive the benefit to your bench press that horizontal lat training can give.

Note that simply training one plane will not strengthen the other. You could row 300pds but be unable to do one pull-up. It's important to train both planes equally (which is why in routines I encourage spreading your work out evenly between horizontal and vertical lat training).

7.8f: Grip width

Many come to believe that the wider a grip they chose on different exercises (either for horizontal or vertical lat training), the more lat growth they will experience. This is wrong. If you go too wide, you have less leverage, less range of motion, and an increased chance for a shoulder injury (depending on your shoulder flexibility).

Ideal grip width is more or less shoulder width. The reason I say more or less is because some may find it slightly more comfortable to have it an inch or two past shoulder width. This is fine, just remember that the purpose is more comfort, not to blast the lats harder. It is acceptable to move the grip width closer together; however, some experience wrist discomfort when going too close.

7.8g: Exercises

1. **Pull-ups/chin-ups**: These are a staple to any back routine. A pull-up is done with palms facing away, and chin-ups are done with palms facing you. Proper distance is shoulder width. You can try adjusting this distance, but do not move too far away (in either direction) from a distance of shoulder width. Once you can do 8 or 9 reps of pull-ups without any weight, use a weight-belt and start adding on a few weight plates. Weighted pull-ups/chin-ups are far more effective than bodyweight only.

2. Bent over barbell rows: Make certain your back is roughly parallel to the ground. Keep your head straight and looking forward, not down at the floor (if your head is down,

some of the stress is taken off the lats, in addition to placing the neck at risk for injury). Also, make certain you pull the bar towards your belly button (abs), not towards your chest. Do not rest the bar on the ground between reps as this will take away from your overall lat development. You can use either an overhand or underhand grip. The underhand grip (which is similar to the grip used on a chin-up) stresses the biceps more, allowing you to lift more.

3. **Dumbbell rows**: Can be done either two handed or as a 1-arm db row. 1-arm db rows allow you to focus on each side separately. Similar to barbell rows.

4. **Cable rows**: At the top of the movement (when the bar is touching your stomach), your back should be straight, not leaning backwards. At the bottom of the movement, you should be stretching forward with the cable row bar. These are not a substitute for bent over rows and, although useful, do not have much of a place in a routine because of the variations on free-weight rowing.

6. **Lat pulldowns**: These are supplements to pull-ups, not compliments. Like pull-ups, the most important thing is the stretch- make certain your arms are fully extended. Try to touch the bar to your upper chest if possible. Make certain you aren't leaning backwards too much- a bit of arch is acceptable, bit being the key word.

7. **T-bar row**: Some people swear by them for the upper/middle back, but I've never found them to be effective. Use them if you like, otherwise don't bother.

7.8h: Top three picks

- Pull-ups/Chin-ups
- Bent over barbell rows
- 1-arm dumbbell rows

7.8i: Chin-ups versus pull-ups

A final note for this section is the distinction between a chin-up and a pull-up. A chin-up is performed when your palms are facing towards you when you grip the bar. A pull-up is when palms are facing away from you. The key difference is that chin-ups really recruit more biceps than pull-ups do. Which is more effective- personal preference. As with any aspect of lifting, people respond differently to different stimuli. My recommendation is to use both. However, I would always do pull-ups before chins as they will be harder to do due to less bicep involvement.

7.8j: Reasons

Pull-ups/chin-ups were chosen because they provide excellent lat growth and satisfy the requirement for vertical lat work in a back routine. Many trainees do not like them because they find them 'hard' and 'not worthwhile'. They are hard, but the reason most do not like them for results is because very few do a full range of motion. If you are not fully extended at the bottom of the rep, you shouldn't be wasting your time with

them. Bent over barbell rows were chosen because these not only benefit your bench press (remember- training lats on the horizontal plane strengthens your bench press), but because they also provide excellent results in terms of growth. Using an underhand and overhand grip are both effective; in my opinion, one should rotate between these two grips every week or two for a change of pace. Finally, 1-arm dumbbell rows were chosen because of the ability to isolate each side of the body for rowing. One can cheat with a barbell- one side can pick up the slack for the other. However, dumbbells will prevent this and will train each side to work independently to ensure one isn't taking over for the other.

7.9) Shoulders (deltoids)

Shoulders are a muscle group that are constantly worked. Whether it's pull-ups or bench pressing, they're involved in the movement. For this reason they do not need a day all to themselves. It's best to use low volume (in terms of sets) when training shoulders.

There are three heads to the shoulder- lateral, anterior, and posterior. Once again, you should never try to emphasize one over the other, as they're all worked pretty evenly throughout a regular split. The posterior deltoid is the hardest to work, but it is usually hit when doing movements such as bent over rows (on upper back day) with proper form.

7.9a: Mistakes

The most common mistakes are poor form, momentum, or a weight far too heavy for you to handle. When doing exercises like laterals, there's no need to use 40pders. It's far better to use a lighter weight that you can control with good form. Nothing is gained from heaving the weight up and using momentum to help you.

Another mistake, commonly made when performing laterals, is to bend backwards. This makes the movement easier, but is essentially wasting your time. Whenever you do lateral exercises, focus on leaning forward slightly.

7.9b: Eliminating momentum

If you find yourself swinging the weight up on laterals, lower the weight. Also, at the top and bottom of the rep, pause for about one second. This should cut down on your momentum. With shoulder movements, the weight you use is not important- form is.

7.9c: Exercises

1. **Overhead press**: Necessary for shoulder growth. Can be done either seated or standing (military press), with the bar in front of you or behind your neck. Stick with taking it to the front, as going behind the neck can cause shoulder problems if you are not built (genetically) for shoulder flexibility. If one says that behind-neck pressings will

cause injury, they are wrong as a shoulder injury can result IF shoulder flexibility is lacking (which it is for most). Shoulder flexibility is a complex area, and for our purposes it's good enough to know that one should stick to pressing in front, rather than behind, as results will be similar. Back should be relatively straight. Works the anterior deltoid. This is a similar motion to a bench (in terms of shoulder work), so there's no need to spend a lot of sets on overhead pressing.

2. **Clean+Press**: A great way to work many body parts at once. You may want to consider rotating between military pressing and this movement every so often. Works the anterior deltoid, in addition to other body parts.

3. **Laterals**: Can be done either seated or standing. Seated is preferred as it's harder to cheat. Try to bend over a bit, and focus on not righting yourself when you do the movement. This works the lateral deltoids. When doing laterals, at the top of the movement, do not allow your pinky to be higher than your thumb. This may place more stress on the delts, but is asking for a shoulder injury. At the top, many like to say you should imagine that you're holding a bucket of water, and you're tipping it over getting ready to pour it out. This is wrong. Keep the dumbbell straight and level, do not do a pouring motion.

4. **Upright row**: Works the lateral delts and traps. However, the top portion of the movement impinges the rotator cuff. This type of damage will be a gradual buildup, so you may not see the results until 15 or 20 years from now. Stay away from upright rows.

5. **Arnold press**: This may be a rumor, but I've heard that Arnold just threw together some exercise to see if people would follow him. Whether or not it's true, it is not one of the better lifts to do. Shoulders are shifted through multiple planes, and although the shoulders can do this, the way they're going through the planes is not ideal for shoulder health.

6. **Dumbbell shoulder press**: Similar to a military press but with dumbbells. Try not to lean back too far. Consider rotating military press with dumbbell shoulder presses from time to time.

7. **Cuban rotations**: These are useful for increasing shoulder strength and improving rotator cuff health. The movement will not increase muscle mass, but should be considered because of the other benefits. This is a very hard movement to describe and is best shown either in person or with pictures. For this reason, I suggest an internet search for 'cuban rotations'. Practice with a broomstick or similar object before attempting them. A word of caution- if you find you're rapidly increasing in the amount of weight used, chances are your elbows are dropping and your form is slacking. This is one of those lifts where you will never be able to use a huge amount of weight (I'd be surprised if you could, with perfect form, get up to 100pds, even with years of training).

7.9d: Top three picks

- Military press
- Seated laterals
- Cuban rotations

7.9e: Reasons

An obvious staple for any shoulder workout should be some form of overhead press. I chose the military press (standing overhead press) because of the additional stabilizers recruited, as compared to the seated version. However, either is fine. Laterals were also chosen because at least one set should be performed to ensure all shoulder areas are targeting. Finally, cuban rotations were chosen because of their impact on shoulder strength/health. Although they may not add great size, the health/strength aspect is a good enough reason to do them.

7.10) Training Pectorals

Contrary to popular opinion, the pectorals (pecs) are not a large muscle group. They'd be classified as a small muscle group, just like the biceps. It's funny how society has distorted our views when it comes to muscles (we've been brought up to believe that pecs and biceps are the biggest and most important muscle groups in the entire body). Remember, never listen to anything a nonlifter says; they're usually misinformed.

The standard flat bench is also highly overrated for actual pec growth. It's more of an ego lift and should be left for the middle or end of the routine- there are far better exercises that will provide much better results. This is not to say that the flat bench should be neglected, far from it!

A common misunderstanding in the bodybuilding community about the pecs is that there are multiple pectorals- inner, outer, upper, and lower pecs. This is not true; you should be thinking of your pec as one large muscle broken down into the above mentioned quadrants (inner, outer, upper, lower). Whenever somebody says, for example, "upper pec", take that to mean the upper portion/region of your pecs.

7.10a: Training different pec regions

This leads us into an interesting question- if one area is lacking, how can you bring it up to par. For the upper and lower regions, the answer is simple- change the elevation. The pecs are always worked as a whole; however, the type of exercise and the angle of elevation determines the proportion of stress being placed on each. For example, more stress is placed on the upper pec when doing an incline dumbbell bench than when doing a flat dumbbell bench. Similarily, more stress is placed on the lower region doing leaning-forward dips as compared to a flat bench press. On a side-note, you can note that most people in the gym have underdeveloped upper pecs- the reason- very few perform

incline movements. Flat, incline, and decline movements must be done to achieve balanced pecs.

The inner/outer pec area, however, cannot be trained directly. These develop over time. If your desire is to accentuate the area and have it more defined, you must lower your body fat percentage. Many sources will try to convince you that doing flyes and close-grip presses will cause this area to develop- not at all true. As simple as this sounds, ignore those areas; they will progress on their own (given that you are training your pecs).

7.10b: Always use a spotter

The most important thing to remember when working the chest with a barbell is always use a spotter. It's quite easy to drop the weight on yourself (trust me on this-it HURTS!); you need that added bit of safety.

If you do not have a spotter, there are three convenient alternatives. First, ask somebody. As long as the person is resting and not performing a set, 99% of the people in the gym will not mind assisting you. Unless you're bench pressing 400lbs, anybody, regardless of build, can help. As discussed earlier, the job of the spotter is to help you unrack the weight, re-rack the weight, as well as provide a bit of assistance, if necessary, on your last set. Their job is NOT to upright row the weight off your chest because you tried for far more weight than you should have.

The other two alternatives are to use dumbbells or to bench in a power rack. Dumbbells do not require a spotter- if something happens you can dump the weight (remember to make certain that nobody is standing beside you though). Power racks are equipped with adjustable safety spotters/catches- bars that are used to "catch" the weight if you fall or your knee buckles while you are squatting. Drag a free weight bench into the power rack, lower the safety spotters until they are slightly (i.e., 1'' or so) above chest weight and proceed.

7.10c: Barbell or dumbbell?

Unless you have a reason not to use one (e.g., shoulders hurt from dumbbell pressing), both should be used. Although the exercises are similar, there is enough difference between the two to warrant both uses. There is no right or wrong way in how to incorporate them- training one week with a barbell and the next with dumbbells is just as acceptable as mixing them together in a routine.

7.10d: Dumbbell setup

A very common question is how to do the proper setup for a dumbbell bench. There are two alternatives. The first is to have a spotter hand you the dumbbells as you lay on the bench. Although acceptable, it is a tremendous pain for a spotter to do this.

The second, and preferred way, is to roll the dumbbells close to the bench. When you are ready, grab both and straddle the bench. As you sit down, bring the dumbbells up slightly and rest them on your thighs. When you are ready to proceed with the lift, lean back and, at the same time, twist your wrists. When your back is resting against the backboard, you should be at the bottom of the pressing range of motion (i.e., dumbbells close to pec level, wrists facing forward). From here, begin the pressing movement.

7.10e: Are you a delt/tri pusher?

Some find that, when pressing, they feel it more in their deltoids/triceps and do not get much feeling in their pecs. These people usually have a close-grip bench that is very close to a regular bench press. If this sounds like you, then you're probably a delt/tri pusher. What this means is that the pecs are not doing most of the work- the aforementioned muscle groups are.

There's no real way to change this, either you are born this way or you aren't. However, have no fear. A strong a bench is built from having strong pecs, as well as triceps and shoulders. If you are a deltoid/tricep pusher, it may take longer for your bench poundages to go up but they will get there as long as you are training these muscles..

7.10f: How low should I go

Many stop benching when their arms are parallel to the ground because they've been taught that if they go any lower they're chancing a shoulder injury. Unless you're prone to shoulder injuries, there is no reason not to bring the bar down and touch your chest. Touch being the key word- don't bounce it off. Some people are forced to stop about 2'' above their chest because that's their natural ROM. That's completely fine. Stop where you feel comfortable. Don't force yourself to lower the bar anymore than you can naturally do, and don't stop prematurely.

7.10g: Bar positioning when benching

One point to note on the bench press is that at the bottom of the ROM, the bar should be at nipple level or lower. There is no advantage to brining it any higher; in fact, just the opposite. Bringing it higher than nipple level can expose you to potential shoulder injuries, in addition to cutting the poundages you can handle.

7.10h: Hand width when benching

One thing you must be careful of is proper hand width- too wide and you are going to risking a rotator cuff injury. For a regular width bench, you want your pinky finger to be touching or be just before the mini-rings. It's acceptable (if it's comfortable for you) to have a slightly wider grip, but do not go much wider than that if you value shoulder health. As a point of clarification, when I refer to the mini-ring I'm talking about the bar in this manner- you have a grooved center in the middle of the barbell, followed by smooth spots on each side. Then a grooved section, a tiny smooth section

(referred to as the mini-ring) then another grooved section).

7.10i: My bench press sucks

There are a few key points to having a powerful bench press. The first is to have a strong base. Once you've set up, drive your feet into the ground. As you press the bar up and down, keep driving your feet into the ground. As mentioned, this creates a stronger base, which is essential to a strong bench.

When seated on the bench, pull your shoulder blades together. This creates a tighter, more stable surface from which to press (since your back isn't as wide when it's squeezed together, more of it is on the bench backboard- the more of your back that is off the bench, the less stable an environment you have to bench in). In addition, this tightness/tension in the upper back can help you press out another rep or two.

When gripping the bar, imagine that you want to rip it apart. Remember, the key to benching is strong triceps- you want them actively involved. The best way is to pretend you're going to rip the bar apart when you setup, and while you're benching. In general, when taking a grip for any barbell bench, pretend you are going to do a push-up- the natural distance you use for a push-up is the distance you should use for benching.

The final tip I can offer is to train your lats. What most don't realize is that the lats are involved in the bench press. When pressing the bar up, the lats help you drive it off the chest. You'll never have a strong bench with weak lats. The key though is not any type of lat training; you want to focus on horizontal plane training. Although this sounds complicated, it's not- this simply means you want to train the lats on a horizontal plane, which is achieved through barbell and dumbbell rows (pull-ups and similar movements are on the vertical plane).

Your back should not be overly arched- arching puts tremendous stress on the lower back and can result in injuries. I do want to note though that arching is a valid technique- powerlifters use it to press maximum poundage. However, the key is having a proper arch, something that is very challenging to learn, and to teach. Unless you plan on entering powerlifting competitions later (and if you do, I suggest you find a coach who can teach you the powerlifting style bench and squat), try to minimize the arching.

If you follow these tips and still can't seem to increase your bench press, try taking some time off. You will not lose your current strength and might just be able to break past your current plateau.

7.10j: Exercises

1. **Flat barbell bench press**: A highly overrated lift, although it does serve a purpose for overall pec growth. If you're going to do it, place it in the middle or end of your routine. See the above tips for proper setup and power maximization.

2. **Incline barbell press**: Works the upper region of the pec. The bench angle should be between 15 and 30 degrees. Any higher and you're involving more shoulders and may as well be doing a seated shoulder press.

3. **Incline dumbbell press**: Similar to an incline bb press, except more stabilizer muscles are recruited. Make certain to include at least one dumbbell press in your workout. Any form of dumbbell press recruits more stabilizer muscles than does a barbell movement, thus making these necessary in your training regimen. Again, an angle between 15 and 30 degrees is desirable.

4. **Flat dumbbell press**: Far better than a regular flat bb press in my opinion (because of the additional stabilizers used). One point is that the dumbbell can be held with a normal grip (palms facing away) or with a hammer grip (palms facing each other). A hammer grip will place more stress on the triceps. Try both grip types to see which you prefer (can apply to flat, incline, or decline db pressing).

5. **Decline press (db or bb)**: A good idea to rotate between a flat bench and a decline every once in a while. Decline has been shown to recruit more pec muscle fibres, as compared to a flat and incline bench; however, don't take this to mean that it is superior to these alternative angles- only your body can tell you which is best for it. I prefer incline movements over decline. In addition, declines target the lower region of the pec.

6. **Flat/Incline flyes**: Do the movement until upper arms are parallel to the ground- do not go any lower as this can result in injury. When using heavier weights, make certain the elbows are bent at the bottom of the rep to accommodate the pressure. When bringing the dumbbells up, it may be helpful to think of yourself putting your arms around a barrel and squeezing it. Flyes are a decent exercise, but don't come close to providing the overall benefit of pressing motions.

7. **Power/pause press**: Similar to a flat bench press, except at the bottom of the rep you pause for 3 seconds. This is great for building power and working on sticking points. Most people have trouble when they first start to press the bar off their chest- this lift can help take care of this problem.

8. **Parallel bar leaning-forward dips**: Can be used to work the pec IF you lean forward during the movement. If you start righting yourself, the pecs aren't working as hard as they could be. It is not necessary to have excessive lean; a slight lean will produce excellent results. In addition, keep the head looking down at the ground throughout the movement. Leaning-forward dips are an excellent way to target the lower pec and are, in my opinion, superior to decline pressing for lower pec progress.

9. **Chain bench press**: This is not a beginner technique, but I mention it because you may see people performing this movement in the gym. It is a regular bench press, except chains are hung off the ends. The point- dynamic resistance. What this equates to in simple terms is that at the lockout (top of ROM) you are holding the weight of the bar and chain. At the bottom of the ROM you are only holding the weight of the bar and a

very small percentage of the chain as most has been deloaded onto the floor. As you start pressing, the weight gradually increases as more and more chain is lifted off the floor. A very effective movement for working through sticking points, but not necessary for a beginner/intermediate trainee.

7.10k: Top three picks

- Incline dumbbell press
- Power/pause press
- Leaning-forward dips

7.10l: Reasons

All of these exercises are great for pec development, but I feel that these three are the key to achieving proportional, well-developed pecs. Incline movements place the most stress on the upper portion of the pec. They're a necessity in any routine. I choose dumbbell over barbell because of the additional stabilizers involved. However, use both barbell and dumbbell. I chose power/pause pressing because while it isn't much more effective than a flat bench for growth, it is a good exercise for working on your bench press power. The sticking point for most is out-of-the-hole power (when the bar is at chest level). This lift solves works with and eliminates this sticking point. Finally, leaning-forward dips were chosen because of benefits to the lower pec, as well as for overall body growth (remember, even if you lean forward stress is still on the triceps and shoulders; however, more of it is now on the chest, as compared to a regular dip).

7.11) Neck

The neck is a very dangerous muscle to train, mainly because it can be seriously injured quite easily. For this reason, it is usually safer to let it grow at its own pace. However, there are some who insist on training it, so for them I offer the safest way to train it- neck curls.

You lay down on a flat bench, with your head (and obviously neck) hanging slightly off the bench. Take a weight plate and place it on your forehead. Now, making certain your neck is relaxed and fully extended downwards (so you can see behind you basically), slowly curl your neck upwards, almost like you're trying to touch your chin to your upper pecs. Then slowly lower it down. Make certain you aren't lifting off the bench.

The key to this exercise is to use a moderate weight. Don't start by throwing on 25pds. Start off just doing them without any weight, then slowly adding. Once you are using a 45pd plate, you are pretty much stuck at that weight. You may want to try putting a dumbbell against your head and doing the movement, but I wouldn't recommend it.

Once again, I urge you not to train your neck and to let it grow at a natural pace. Neck injuries are quite serious and will hamper your training.

Chapter 8….The Value of Recuperation

8.1) Resting for muscle growth

We've learned that when you lift, micro-tears are created in the muscle. When you are not pumping iron, these tiny tears slowly begin to heal themselves, which eventually causes increased strength and muscle mass. If you're constantly putting your body under a lot of stress (e.g., lifting three to five times a week), although the tears are healing, they are not being fully healed. For this reason, you'll want to take a break week every once in a while.

8.1a: Break weeks from lifting are important

Take a break week after every 7-9 weeks of lifting.

If you're giving 100% intensity every lifting session, your body will need to take a break. For this reason, it's best to schedule one every 7-9 weeks. By this time, some people might be showing signs of needing rest. For example, they may find that they are not gaining strength as quickly as they used to, or feel sluggish when lifting. Others may experience no signs of needing a break. In either case, simply rest and relax. Give your body time to fully heal.

During a break week you do not want to do any lifting. Simply ignore the gym and have some fun. However, don't neglect your diet. You must maintain a proper diet all the time. Cardio, on the other hand, is not essential during this time period, but, if you feel like doing some, go for it. I like to use this time period to reflect upon the past two months and re-evaluate my training. I ask myself questions like 'Am I continually growing? Am I giving it everything I have? Do I like my current routine? Should I change my music selection?'- basically just evaluating everything and seeing if I can improve on something.

8.1b: When we make our gains

We grow OUTSIDE of the gym. While pumping iron, we're not growing; rather, we're destroying our muscles. That is why rest is important.

8.2) Physical pain while lifting

Physical pain while lifting is never a good sign. If a lift is causing pain, immediately discontinue and see a doctor about your problem. Aside from simply being injured, a common cause of pain is using too much weight (as mentioned in the triceps section above). While the muscle can take the weight, your joints and ligaments can't and need to be strengthened.

It's up to you to diagnose whether you're using too much weight or are actually injured. In either case, don't ignore the signs hoping they will go away because they will not, and you'll only be making your life more miserable.

8.3) Lifting while injured / sick

I've heard some rather silly questions in my time. For example, one guy asked me if he should continue squatting, despite the fact he tore his hamstring the day before. I mean, that's just plain out crazy. If you're injured, you do not train the body part. That's pretty much common sense.

Now let's assume you tore your hamstring. This obviously affects your lower body training but has no impact on some of your upper body moves (e.g., pull-ups). Some types of injures can be worked around, but make certain if you try working around it that you are causing no discomfort to the area. You want it to heal as quickly as possible so you can get back in the game.

Another question relates to being sick (e.g., with the flu or a general cold). When you are sick, the body is fighting off the invaders inside your body. All of its energy is helping you recover from the flu/cold/whatever. Lifting during this time is quite silly for two reasons.

The first is that you're in a very weak state. If you're having trouble breathing with a stuffed up nose and sore muscles, do you really think you can go and bench press 300pds (if you normally could do that weight)? Obviously not. You're drained- you need rest.

The second reason deals with recovery. Your body is busy fighting off the flu and its last priority will be muscle recovery. Everything you're doing in the gym is simply wasting your time (if your goal is maximum hypertrophy) and can actually set you back.

So you're sick for a week, big deal. Take the time off, rest and recover. When you resume lifting, make certain to start off light and build your endurance back up. Your body has just been through hell and back and needs a few days to recover. There's no point in hitting the heavy weights right away.

8.4) Muscle memory

A lot of people seem to feel that if they miss even one workout session their muscles will start to atrophy (shrink) and turn to fat. Not so, to a certain degree. Missing a week or two or even three will not cause them to atrophy. You would have to stop working out for a few months for this to occur

8.4a: Muscle Memory
It's easier to re-gain lost muscle than it is to build new muscle

Muscle memory is not a myth. Your muscles remember where you left off last time you worked them. You may have noticed that if, for example, you have not lifted for three weeks, the first few days are rough on your endurance and strength. This is common; however, you should also notice that after four or five days you're back to where you used to be. That's muscle memory. Let's say you get in a horrible accident and can't lift for five months. Will your muscles start to atrophy? Yes. Can you re-gain them? Definitely. Muscle memory comes into play again. They remember where you last left off, and with a bit of prodding, your body will re-build lost muscle quite quickly.

I'm a good example of this. I was recently sick and dropped 30pds in less than one month. Did I lose a lot of muscle? Yep. However, it took less than two weeks to regain everything I lost. Muscle memory does exist and it is your friend.

8.5) Mental recovery

Bodybuilding is as much a mental game as a physical one. If your mind is weak (i.e., not focused), you'll end up injuring yourself. Concentration and focus must be absolute. You must believe in yourself. However, there are some days when this is just not possible. I've had days where my mind just wasn't there and I couldn't focus. If this is your case and you know when it is), simply take the day off.

Training with an unclear mind can result in injuries and, most importantly, you will not be lifting with 100% intensity. You may think you are, but there's no way you can with a clouded mind.

The problem is that some people will take it to the extreme- I got a paper cut today so I can't focus. That's simply silly- they're just looking for excuses not to lift. You know deep down when this is the case. Listen to your body and mind. Know what's best for yourself.

8.6) Equipment is your friend…..and enemy

There are many ways you can prevent injuries. For example, use chalk on your hands so there is no chance of the bar slipping and crushing you. When doing heavy deadlifts or squats, make certain to wear a weight belt. This can help save your lower back. When doing movements such as pull-ups or dips, and using extra poundages, use a dip belt to hold the weight- don't attempt to hold it between your feet. When squatting, wrap your knees lightly with a knee wrap to create more tension and reduce the chance of injuries.

Of course, the best way to prevent injuries is to know your limits and to use proper form. Don't attempt to do a 300pd bench press to show off if you're having trouble doing 180pds. Every time I've suffered an injury, it's been because I was careless or I let my ego get in the way.

While equipment may be your friend, it can also be your foe. Before doing any set, do a quick inspection of whatever you're using. If you're going to be doing dips, do a quick check of the weld to see if any cracks exist. If you're using dumbbells, make certain that they're not loose and ready to fall apart. Although it may sound kind of silly (because you assume the gym inspects their equipment), things can happen. For example, I broke my bench press back-board (padding you lie on while benching) doing an incline press. That's the last thing I expected to happen, but it did. Although highly unlikely, it's better to be safe than sorry- spend that extra three seconds making sure the equipment is in perfect working order.

Chapter 9….Supplementation

9.1) Food is a supplement!

The best supplement for you body is real food! Somewhere along the way, supplements have gone from just helping to supplement your diet to becoming your entire diet. I don't believe that is a good idea, mainly because it isn't healthy to live off them. Of course, this wouldn't be much of a section if this were my only comment, so I'm covering a few of the most common supplements around.

9.2) Regulation

One important fact to keep in mind is that the FDA does NOT regulate supplements. A lot of people are under the assumption that they are regulated. Not so. I could go down to my basement, take a bottle of whey powder, replace half with chalk, then re-market it as 'Alex's new AND improved whey powder'. I'm not saying this happens out there, but be careful what you buy. You must keep in mind that since they aren't closely monitored, a lot of companies have been found to overstate/understate their claims. Some common dietary items have actually been found to contain twice as many calories, but because they don't have to list certain ingredients, they're able to give you a false calorie count. Like they say, buyer beware.

9.3) Protein Bars

Protein bars are an almost absolute necessity to any bodybuilder. They provide a quick and easy source of protein and calorie replenishment after a hard workout. With bars you get what you pay for, meaning that you can find cheap bars, but they can, and will, taste like they came out of a garbage dump. Shop around and find something that's high in protein and tastes good. The main benefit, besides being a quick snack at any time of the day, is that whey protein directly after workout can help you to recover faster.

Ideally, you should try to find a bar that contains between 25-30g of protein.

9.4) Whey powder

Whey protein is derived from milk protein. However, unlike milk proteins, whey protein does not contain fat or lactose sugar. Whey protein is the best form of protein to take when using a supplement.

Studies have shown that whey powder taken directly after a workout can increase your recovery time. If you choose one supplement, I highly suggest whey power. Although it can be taken throughout the day, I prefer to take 2-3 scoops directly after workout, in conjunction with a protein bar (remember, post workout you want to consume 35-50g of protein).

9.5) Creatine (Creatine Monohydrate)

A lot of people out there seem to think that creatine can give steroid gains without the risk. Untrue. Creatine helps your body to retain more water than it normally can. You make basically water-weight gains. When you stop taking it, you'll lose a lot of your gains, both strength and muscle wise. It's far easier and rewarding (as well as less frustrating) to simply ignore this product.

Creatine is a naturally occurring substance that exists in every muscle of your body. Whenever you use your muscles, ATP (a chemical within the body) is broken down and releases energy that gives your muscles power. The problem is that your muscles only contain enough ATP to last about 10-15 seconds at maximum exertion. With the help of creatine, this problem can be fixed, to a certain degree.

People have been known to display an increase of 20-30% in their repetitions after only one week of using creatine supplements. Although this may sound like a wonder drug, like I've said above, the gains are only temporary and usually vanish when you stop taking it.

If you are going to use it, you should cycle it- use it for a few weeks then go off for a week or two, then repeat. Staying on for an extended period of time is not a smart idea as your body can start relying upon it.

On a side-note, you may have also heard of something called liquid creatine (creatine serum). Any form of liquid creatine is NOT effective. If you are going to spend money on supplements, avoid the liquid versions. By the time it's delivered to your muscles, it's become quite useless.

9.6) Glutamine

Glutamine is an amino acid. Amino acids are the building blocks of protein synthesis (muscle growth). Glutamine is not just any amino acid; it is the most abundant amino acid in our body, and is highly concentrated in our muscles. The main reason bodybuilders use glutamine is the increased protein synthesis. This equates to better muscle growth and muscle recovery time. Around 5-10g of glutamine should be taken per

day. Do not exceed this or, like any supplement, it can do your body more harm than good. It should be taken post-workout.

9.7) Hydroxocut/Xenadrine

I'm certain everyone has heard of these miracle drugs. They let you shed body fat almost instantly. While that's true, what most don't know is that they contain ephedrine, which is basically the legal version of speed. Are these products effective at what they do? Yes! Are they safe? Mmm, this is a harder question to answer.

It's true that nothing is risk free in this world (people have died from overdosing on Tylenol), but these products do carry a far greater risk. They have been known to cause heart attacks in young people and the fatality rate is always increasing. I believe that similar results can be obtained, albeit a bit slower, by having a proper diet and doing some cardio. Why risk your health when there is a safe solution? (the answer is obvious- people are lazy nowadays and always want the fast way out. In this case, the fast way may be the last thing you do).

9.8) Liquid Amino Acids

We learned that amino acids are the foundation for muscle building. Although some products are quite effective at what they do (e.g., Glutamine), others are not so effective. If you're offered a form of liquid amino acids, stay away from it. They, like creatine, are almost useless in liquid form.

9.9) Weight Gainers

These products are effective at what they do- help you gain weight. They're basically empty calories consumed during the day. One serving can be the equivalent of almost 1000 calories!

It may sound great, but there are far better things you can spend your money on. I stand firmly behind the view that the best way to bulk is with real food. Given the choice between a weight gainer and chicken, or a steak with potatoes for dinner, I would definitely chose the later. Supplements help to supplement your diet, not become it.

9.10) Anabolic Steroids/Prohormones

This section will be rather short, as there is nothing to say. I could give you a good steroid cycle with the best dosages to use, but that would go against my principles, and the law. I believe in 100% natural training, and that you don't need these types of products. In the long run, they do more harm than good.

9.11) Synthol

Synthol is essentially cooking oil that people inject into themselves. This may sound crazy, but the reasoning behind it is that it swells up inside the muscle and forms a lump , making your muscles appear bigger. While this may be true, it also makes them grossly out of proportion.

Do an internet search for 'synthol users' and see what appears in order to better understand this substance.

9.12) Always know what you're using

That pretty much concludes the list of the most commonly used supplements. A word of caution- make certain you know what you're buying before you buy it. You would be surprised how many think products like hydroxocut are some magic supplement that will let them lose weight with no consequences. Make certain you know what you're using before you use it.

Closing Words

I hope this compendium has helped you in at least one way. I have tried to relate the basic keys to success, and whether or not I have succeeded is up to you. If you only learned one fact you did not know before, then I would call it a success. Remember, just one fact can change your training and kick it into high gear.

Did I include every possible exercise variation? No. Did I cover every aspect of a bulking or cutting cycle? No. Did I do my best to relate all the basics of exercise and diet that are needed in order to be successful? Yes. Could this compendium include even more? Yes, without a doubt!

Unfortunately, since I have to keep costs down, I had to neglect some issues. For example, I could have gone into greater depth on cardio, glycogen levels, or dealt with topics such as conjugated periodization. I did, however, make certain that everything needed for muscle growth was included and explained to the best of my abilities. Hopefully my end goal was achieved- that you now have a decent foundation and are able to fend for yourself in the gym without being lured down a false path by those who think they know how to train.

I would like to stress that everything in here is based on experience. These facts are not something that I've read in a textbook or on the internet and regurgitated to you. These are tried, tested, and true techniques that work.

On a final note, I would like to hear your thoughts and opinions on this compendium. What didn't you like about it? What did you enjoy? Were some concepts not explained in enough detail? Did you not understand something that was written? I'd like to hear back from you. E-mail irondog@shaw.ca

Good luck.

Key Points

Listed below are key points you should take out of this compendium. Although the previous pages were filled with important information, I feel the following are vital to your success.

- You grow outside of the gym, not while you're lifting. Consequently, you must have proper nutrition and rest to benefit from a day's workout.

- Quality over quantity- this applies to both sets, reps, and your form. It's far better to do fewer sets/reps with perfect form than it is to do more with poor form.

- Less IS more- this applies to both time spent training and the amount of volume you do (sets/reps). Don't spend hours on end in the gym- you won't benefit from that. Train smartly. 55 minutes is the limit.

- Low volume and high intensity produce results. Keep your volume low and use a fairly heavy weight that you're comfortable with.

- Change your routine. You should change your routine around every 2-3 months.

- Reps should be in the 5-7 or 9-10 range for the most part.

- When bulking, do no more than 20 minutes of total cardio a week. When cutting, do no more than 1-2hrs of total cardio a week.

- Eat every 2-3hrs. They don't have to be large meals, but be certain to eat at least 500 calories/meal. You want to eat around 6-8 total meals a day.

- Take a break week from lifting every 7-9 weeks.

- Supplements are there to help your diet, not to be your diet. Do not live off them.

- Post workout, consume at least 40g of protein, 35g of carbs, and 5g of fat

- Do not neglect to train your legs. It's possible to get big without training them, but not as big as you could possibly be. Squatting is important!

- Finally, lifting is about experimentation. What works for one will not work for another. Now that you have the basics you must apply them and try to build a lifestyle (routine, diet, etc…) that complements you.