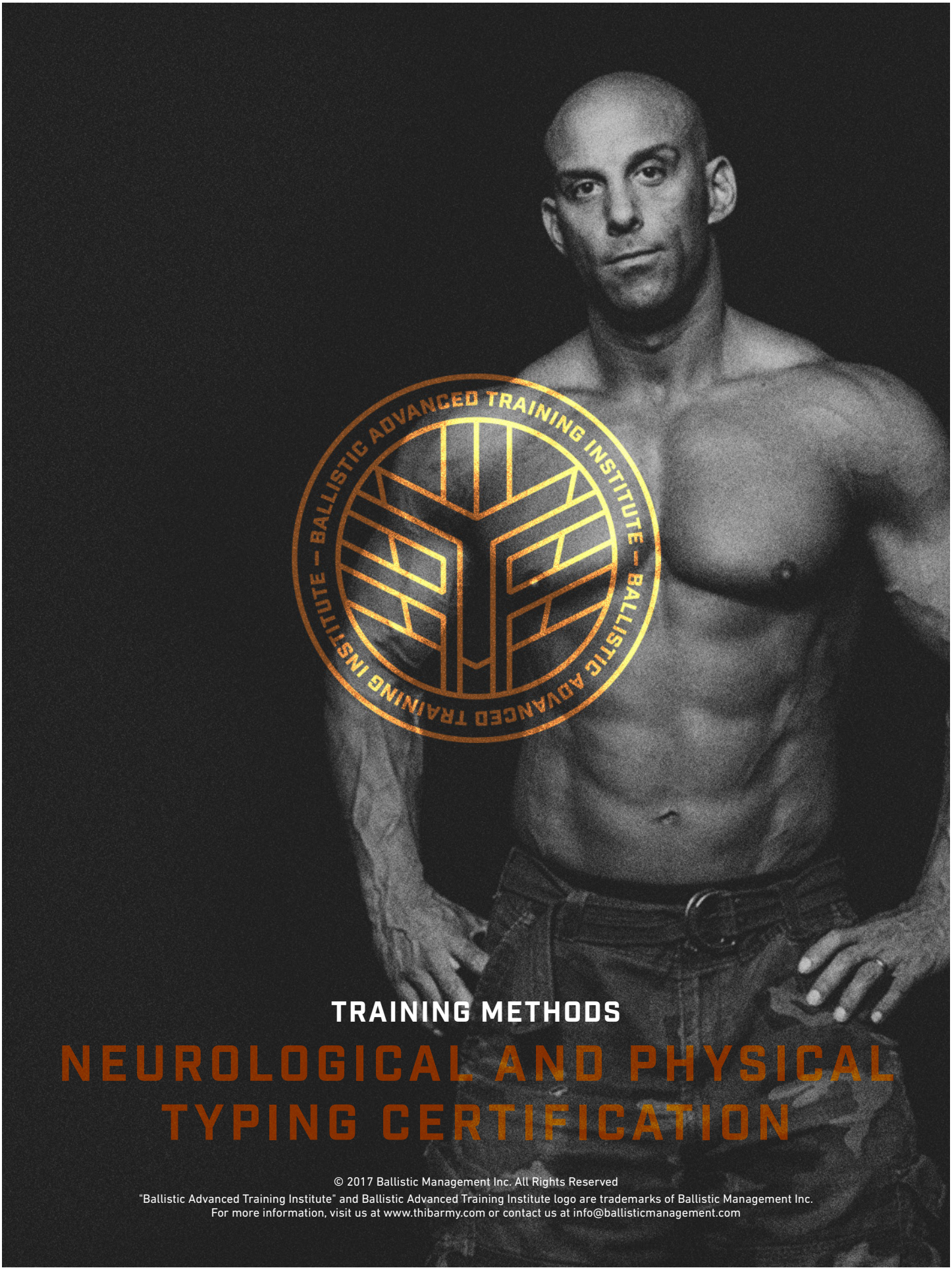

TRAINING METHODS

NEUROLOGICAL AND PHYSICAL TYPING CERTIFICATION

SCALE OF NEUROLOGICAL DEMANDS

LEVEL 1 – Complex gymnastic exercises, Olympic lift variations

LEVEL 2 – Olympic pulls, multi-joint movements involving the whole body or having a significant axial/spinal loading

LEVEL 3 – Multi-joint exercises with free weights involving half the body and without significant axial/spinal loading

LEVEL 4 – Multi-joint exercises on pulley

LEVEL 5 – Multi-joint exercises on machines

LEVEL 6 – Isolation exercises on free-weights

LEVEL 7 – Isolation exercises on pulley or machines

EXAMPLES:

LEVEL 1 – Snatch, power snatch (floor, blocks, hang), clean, power clean (floor, blocks, hang), jerk (split, power), front lever, back lever, handstand walks, etc.

LEVEL 2 – Snatch pull, clean pull (high/low; floor/blocks/hang), squat, deadlift, push press, bent over row, lunges, split squats, etc.

LEVEL 3 – Bench press, shoulder press, pull-ups, dips, etc.

LEVEL 4 – Lat pulldown, seated row, cable split squat, face pulls, pull-through, etc.

LEVEL 5 – Leg press, hack squat, Smith machine exercises, machine press, machine seated row, reverse hyper, etc.

LEVEL 6 – Barbell/DB curls, barbell/DB triceps extension, barbell/DB front raise, DB lateral raise, etc.

LEVEL 7 – Leg extension, leg curl, cable curl, triceps pressdown, straight-arms pulldown calf raises, etc.

Neural adaptations:

- Fiber recruitment (order, speed, number)
- Firing rate
- Intramuscular coordination
- Intermuscular coordination
- Protective inhibition

Muscular adaptations:

- Increase in muscle fiber size
- Increase in muscle fiber number
- Increase in non-contractile volume

Metabolic adaptations:

- Muscle fibers properties
- Conversion
- Efficiency of energy systems
- Efficiency of metabolite clearance

APPLICATIONS

Neural adaptations

- High force production (F=MxA)
- High velocity
- High Coordination
- Heavy, explosive
- Frequency more important than quantity

Muscular adaptations

- Require high protein synthesis (mTor, growth factors, muscle fatigue)
- Fatigue more important than force production (Wilson study)
- Fatigue/intensity in a set more important than volume, but volume plays role
- Force is least important

METHODS BY CATEGORY

1. NEUROLOGICAL HEAVY

1.1 LOADING SCHEMES

1.1.1 Straight sets

Straight sets refer to doing a certain number of work sets for the same number of repetition and (ideally) the same weight. It is okay, if fatigue accumulates to decrease the weight a bit, but in an ideal world all work sets would use the same weight.

1.1.1.1 – Sets of 5
1.1.1.2 – Sets of 4
1.1.1.3 – Sets of 3
1.1.1.4 – Sets of 2
1.1.1.3 – Sets of 1

1.1.2 Ascending (weight) Pyramid

Ascending pyramids refer to gradually increasing the weight from work set to work set, decreasing the number of reps in the process. The advantage of the ascending pyramid when training for strength is that you gradually "wake-up" the nervous system and get used to heavier and heavier weights which puts you in a good state for the last and heaviest set. The downside is that you can build up too much fatigue and have a decrease in performance at the end. But this rarely occurs when working in the neurological zone since the amount of work (reps) is low.

1.1.2.1 – 5 sets ascending: 5/4/3/2/1
1.1.2.2 – 4 sets ascending no.1: 5/4/3/2
1.1.2.3 – 4 sets ascending no.2: 4/3/2/1
1.1.2.4 – 3 sets ascending no.1: 5/4/3
1.1.2.5 – 3 sets ascending no.2: 4/3/2
1.1.2.6 – 3 sets ascending no.3: 3/2/1
1.1.2.7 – 3 sets ascending no.4: 5/3/1

1.1.3 Descending (weight) Pyramid

In a descending pyramid, you start with your heaviest work set (after a proper warm-up of course). The benefit of that is doing the heavier work in a fresher state. The heavy work also has the greatest impact on activating the CNS which will facilitate the subsequent sets (they will feel lighter). The downside is that if you do not properly warm-up and activate the nervous system prior to the heavy set you might turn in a subpar performance.

1.1.3.1 – 5 sets descending: 1/2/3/4/5
1.1.3.2 – 4 sets descending no.1: 1/2/3/4
1.1.3.3 – 4 sets descending no.2: 2/3/4/5
1.1.3.4 – 3 sets descending no.1: 1/2/3
1.1.3.5 – 3 sets descending no.2: 2/3/4
1.1.3.6 – 3 sets descending no.3: 3/4/5
1.1.3.7 – 3 sets descending no.4: 1/3/5

1.1.4 Full Double Pyramid

While you can do a full double pyramid either starting with the ascent (from lighter sets to heavier and then going back down) or the descent, when working with low reps like in the neurological zone the option of starting with the ascent (e.g. 5/4/3/2/1/2/3/4/5) is the best option. It allows you to gradually ramp up to the heaviest weight of the day, amping up the nervous system in the progress then taking advantage of the CNS activation from the heaviest lift to turn in a better performance during the "descent". It is not unusual to get a better performance in the second half of the pyramid, for example 1 x 5 @ 200, 1 x 4 @ 210, 1 x 3 @ 220, 1 x 2 @ 230, 1 x 1 @ 240, 1 x 2 @ 235, 1 x 3 @ 225, 1 x 4 @ 215, 1 x 5 @ 205. The other type of double pyramid (starting with the descent) works mostly for types 1A and 1B who don't need a lot of sets to get the CNS going.

1.1.4.1 – 9 sets full pyramid no.1: 5/4/3/2/1/2/3/4/5
1.1.4.2 – 9 sets full pyramid no.2: 1/2/3/4/5/4/3/2/1
1.1.4.3 – 7 sets full pyramid no.1: 5/4/3/2/3/4/5
1.1.4.4 – 7 sets full pyramid no.2: 4/3/2/1/2/3/4
1.1.4.5 – 7 sets full pyramid no.3: 2/3/4/5/4/3/2
1.1.4.6 – 7 sets full pyramid no.4: 1/2/3/4/3/2/1
1.1.4.7 – 5 sets full pyramid no.1: 5/3/1/3/5
1.1.4.8 – 5 sets full pyramid no.2: 1/3/5/3/1
1.1.4.9 – 3 sets full pyramid no.1: 5/3/5
1.1.4.10 – 3 sets full pyramid no.2: 4/2/4
1.1.4.11 – 3 sets full pyramid no.3: 3/1/3
1.1.4.12 – 3 sets full pyramid no.4: 3/5/3
1.1.4.13 – 3 sets full pyramid no.5: 2/4/2
1.1.4.14 – 3 sets full pyramid no.6: 1/3/1

1.1.5 Tailed Pyramid

A tailed pyramid is like the regular ascending or descending pyramid but with the addition of one last set at the tail end of the pyramid. That set goes "in the other direction" and allows you to either get more pure neurological work (in the case of adding a set of 1 or 2 after higher reps) or overall volume to build more tissue (e.g. by adding a set of 5 after a single or double), taking advantage of CNS potentiation from the max set to get a better performance.

1.1.5.1 – 6 sets ascending tail pyramid no.1: 5/4/3/2/1/3
1.1.5.2 – 6 sets ascending tail pyramid no.2: 5/4/3/2/1/5
1.1.5.3 – 6 sets descending tail pyramid no.1: 1/2/3/4/5/3
1.1.5.4 – 6 sets descending tail pyramid no.2: 1/2/3/4/5/1
1.1.5.5 – 5 sets ascending tail pyramid no.1: 5/4/3/2/5
1.1.5.6 – 5 sets ascending tail pyramid no.2: 4/3/2/1/3
1.1.5.7 – 5 sets ascending tail pyramid no.3: 4/3/2/1/4
1.1.5.8 – 5 sets ascending tail pyramid no.4: 4/3/2/1/5
1.1.5.9 – 5 sets descending tail pyramid no.1: 1/2/3/4/1
1.1.5.9 – 5 sets descending tail pyramid no.2: 1/2/3/4/3
1.1.5.10 – 5 sets descending tail pyramid no.3: 2/3/5/1
1.1.5.11 – 5 sets descending tail pyramid no.4: 2/3/4/5/3
1.1.5.12 – 4 sets ascending tail pyramid no.1: 5/4/3/5
1.1.5.13 – 4 sets ascending tail pyramid no.2: 5/3/1/5
1.1.5.14 – 4 sets ascending tail pyramid no.3: 4/3/2/5
1.1.5.15 – 4 sets ascending tail pyramid no.4: 4/3/2/4
1.1.5.16 – 4 sets ascending tail pyramid no.5: 3/2/1/5
1.1.5.17 – 4 sets ascending tail pyramid no.6: 3/2/1/4
1.1.5.18 – 4 sets ascending tail pyramid no.7: 3/2/1/3
1.1.5.19 – 4 sets descending tail pyramid no.1: 3/4/5/1
1.1.5.20 – 4 sets descending tail pyramid no.2: 3/4/5/2
1.1.5.21 – 4 sets descending tail pyramid no.3: 3/4/5/3
1.1.5.22 – 4 sets descending tail pyramid no.4: 2/3/4/1
1.1.5.23 – 4 sets descending tail pyramid no.5: 2/3/4/2
1.1.5.24 – 4 sets descending tail pyramid no.6: 1/2/3/1
1.1.5.25 – 4 sets descending tail pyramid no.7: 1/3/5/1
1.1.5.26 – 4 sets descending tail pyramid no.8: 1/3/5/3

1.1.6 Uneven Pyramid

The uneven pyramid has the advantages of the full double pyramid but with a lower volume of work.

1.1.6.1 – 7 sets uneven ascending pyramid no.1: 5/4/3/2/1/2/3
1.1.6.2 – 7 sets uneven ascending pyramid no.2: 5/4/3/2/1/3/5
1.1.6.3 – 7 sets uneven descending pyramid no.1: 1/2/3/4/5/4/3
1.1.6.4 – 7 sets uneven descending pyramid no.2: 1/2/3/4/5/3/1
1.1.6.5 – 6 sets uneven ascending pyramid no.1: 5/4/3/2/3/4
1.1.6.6 – 6 sets uneven ascending pyramid no.2: 5/4/3/2/3/5
1.1.6.7 – 6 sets uneven ascending pyramid no.3: 4/3/2/1/2/3
1.1.6.8 – 6 sets uneven ascending pyramid no.4: 4/3/2/1/2/4

1.1.6.9 – 6 sets uneven ascending pyramid no.5: 4/3/2/1/2/5
1.1.6.10 – 6 sets uneven ascending pyramid no.6: 4/3/2/1/3/5
11.6.11 – 6 sets uneven descending pyramid no.1: 2/3/4/5/4/3
11.6.12 – 6 sets uneven descending pyramid no.2: 2/3/4/5/4/2
11.6.13 – 6 sets uneven descending pyramid no.3: 2/3/4/5/3/1
11.6.14 – 6 sets uneven descending pyramid no.4: 1/2/3/4/3/2
11.6.14 – 6 sets uneven descending pyramid no.5: 1/2/3/4/3/1
11.6.14 – 6 sets uneven descending pyramid no.6: 1/2/3/4/2/1

1.1.7 Wave Loading

Wave loading works via a phenomenon called "Post-Tetanic Potentiation". When you have to produce a lot of force (either via heavy weights or a lot of acceleration) you potentiate the nervous system, increasing your contractile capacity. With wave loading each wave has 3 sets, the last one being the heaviest (often being a 1 rep effort with 95%+). Contrary to what a lot of people believe the key sets during wave loading are the two sets where you do slightly higher reps. The last set of a wave is used to potentiate the nervous system for the first two sets of the next wave. As such you normally increase the weight from wave to wave. The first two sets of the first wave are more conservative and they are basically to finish warming-you up for the last set of the first wave. In a sense, the real work starts on the last set of the first wave. Two to four waves are done depending on capacities that day.

1.1.7.1 – 3/2/1 waves
1.1.7.2 – 2/2/1 waves (Kazak attacks)
1.1.7.3 – 5/3/1 waves
1.1.7.4 – 5/4/3 waves
1.1.7.5 – 5/3/2 waves (Dan John)

1.1.8 Contrast loading

Contrast loading is similar to wave loading in that it uses a heavy effort to potentiate the body for a set of higher reps. Just like with wave loading the most important sets are the sets of higher reps, not the sets of 1 or 2 reps. You normally use 2 to 4 pairs, trying to increase the weight on the higher rep sets with every pair. The goal is not to do a max effort with the sets of 1-2 so the weight remains the same for all pairs. For example: 92% x 1/82% x5, 92% x1/85% x 5, 92% x 1/87% x 5

1.1.8.1 – 1/5 contrast
1.1.8.2 – 2/5 contrast
1.1.8.3 – 3/5 contrast
1.1.8.4 – 1/3 contrast

1.1.9 Plateau loading

Note: plateau loading is the same as pyramid loading. So, you have both ascending, descending and ascending-descending plateau loading. The difference is that you have two or more sets at the same weight/reps before going up/down.
For example, 5/5/3/3/1/1

1.1.10 Ramping

Note: Ramping refers to starting with around 50-60% of your max on the barbell and gradually working up to the maximum weight you can do for the prescribed rep number. As soon as you get to the more challenging sets (70-80% depending on the rep number selected) you only do the number of rep prescribed. For the earlier sets, you can do 1-2 more reps than prescribed, without ever going higher than 5. For example, ramping to a 3RM could look like:

1. 135 x 5
2. 185 x 3
3. 205 x 3
4. 225 x 3
5. 245 x 3
6. 265 x 3
7. 270 x 3 ... 3RM end of ramp

The number of sets you take to reach your 1RM depends on your neuro type: Type 1A and Type 1B take the less sets. 2A higher sets. 2B and 3 should rarely use this approach, if ever.

1.1.10.1 – Single ramp to 5RM
1.1.10.2 – Single ramp to 4RM
1.1.10.3 – Single ramp to 3RM
1.1.10.4 – Single ramp to 2RM
1.1.10.5 – Single ramp to 1RM
1.1.10.6 – Double ramp: Ramp to 5RM and continue to 3RM
1.1.10.6 – Double ramp: Ramp to 3RM and continue to 1RM

1.2 TRAINING METHODS

1.2.1 Concentric emphasis

1.2.1.1 – Heavy partials
Doing a shortened range of motion, either from pins in a power rack or by lowering the barbell through a shorter distance, to be able to lift more weight. This works but through neural factors and by gradually decreasing the protective inhibition of the Golgi Tendon Organs.

1.2.1.2 – Manual concentric overload
With this method, a training partner applies pressure on the bar/source of resistance during the concentric (lifting) portion of the exercise, increasing the amount of force needed to produce to overcome the resistance. The amount of resistance added can be modulated throughout the set to account for fatigue.

1.2.1.3 – Clusters (88-92%)
Clusters are one of the most powerful method to stimulate maximum strength gains in intermediate and advanced athletes. The basic cluster uses a load you could normally lift for 3-4 reps and do 5-6 reps with it. You do so by resting 10-20 seconds (depending on the movement and/or neurotype) between each rep. This period allows you to replenish ATP enough to increase the amount of Neurological and Physical Typing Certification – Training Overview, Applications and Programming force you can produce and will allow you to get more reps in without losing the "set effect" of fatigue accumulation of the recruited fibers.

1.2.1.4 – Rest/Pause (85-90%)
Rest/Pause is a general approach in which each set is comprised of 2 (or more) smaller sets with the same weight a very brief rest period. For example, doing 5 reps with 85%, resting 10-20 seconds and then trying to get as many additional reps as possible with the same weight. That is one set.

1.2.1.5 – Deadstart full range (lifts from pins)
Lifts from a deadstart target maximum force production/tension in the lowest position of the range of motion. A portion of the range where the stretch reflex normally contributes a lot which leads the nervous system to be less efficient at producing tension/contractile force in that position. By doing movements from a dead start you take the stretch reflex out of the equation, forcing your nervous system to learn to produce a high amount of contractile strength. You take around 3-4 seconds between reps to completely get rid of the kinetic energy accumulated during the eccentric phase.

1.2.1.6 – Breaking eccentric/concentric chain (box squat, board press, etc.)
This has a similar effect to deadstart lifts. The main difference is that you maintain some tension when you sit on the box (or put the bar on the block) so it is not a true deadstart. You also want to pause only for 1 or 2 seconds so that there is still some potentiation from accumulated kinetic energy during the eccentric phase BUT you still cannot use the stretch reflex/rebound, only the stored kinetic energy. So, it is somewhere between regular reps and deadstart reps.

1.2.1.7 – Lifts with added chains

Chains are part of a category of methods called "accommodating resistance". You attach hanging chains from a loaded bar. As you go down low the resistance is decreases and as you lift the bar up the resistance is increased. Since we are stronger at the top end of most lifts (mechanical advantage) the chains allow us to load the movement more evenly throughout the whole range of motion. It can also be used to unload the stretch position of the movement to reduce tendon stress and to work on acceleration. Different combinations of chains and bar weight can be used. Depending on your neurotype you will be advised to either use more chain/less bar weight or the opposite.

1.2.1.8 – Lifts with reverse bands

Added band resistance to the bar is also a method of accommodating resistance. It uses thick bands that can provide up to 200lbs of added resistance each. It works in a similar way as chains but it also increases the stress during the eccentric because the bands are trying to accelerate you down. So, you either fight it (which requires more force than just lowering a normal weight) or you use the band to speed up the eccentric (overspeed eccentric can have a plyometric effect and increase concentric force production). It is also better than chains to do low barbell weight acceleration exercises. But it places a lot more stress on both the body and CNS.

1.2.1.9 – Hanging band technique

With HBT you use the big resistance bands (not the biggest ones) to hang weights from a loaded barbell. This will create instability by having the hanging weight move up/down, forward/back and sometimes sideways. It's thus a great tool to improve tension and rigidity but also technique/form because the more precise your form is the less the weights will move (instant feedback). It is also a very effective way to wake up the nervous system prior to heavy lifting.

1.2.1.10 – Compensatory Tension Training

"Make a light weight feels heavy" is what CTT is about. Basically, when lifting a light weight, you make it harder by creating maximum tension throughout the whole body. For example, when bench pressing you would squeeze the lift out of the bar, tense up your glutes and abs like crazy, squeeze both shoulder blades together HARD, engage the lats by creating a spiral tension at the shoulder (raise the chest while trying to externally rotate the shoulders, trying to bend the bar). And you maintain that tension throughout the whole set. This requires a maximal effort even though the weight can be fairly light.

1.2.1.11 – Heavy prowler/sled work

Prowler and sled work is devoid of eccentric loading. As such you can go heavy often without causing soreness and you can recover really fast from it. I like these tools to maintain strength with in-season athletes or during a deload phase with Type 1A athletes. You want to go heavy, but not so heavy that your body positions become inappropriate and the movement loses its smoothness. Neurological and Physical Typing Certification – Training Overview, Applications and Programming

1.2.1.12 – Heavy carries

Loaded carries are similar to prowler work with its low eccentric component but they have a higher isometric component. This means that they are fairly easy to recover from a muscle perspective but have a greater impact on the CNS. When using these as a neurological method we are talking about sets lasting less than 10 seconds.

1.2.2 Isometric emphasis

1.2.2.1 – Overcoming isometrics

Overcoming isometrics refer to pushing or pulling against an immovable resistance. The best way to do it is in a power rack pushing or pulling against safety pins. Overcoming isometrics are one of the best ways to strengthen a specific point in the range of motion (weak point). It can also be used as a way to potentiate the nervous system (point of greatest tension) because during a maximal isometric action you can recruit up to 10% more muscle fibers. Sets should last 6-9 seconds.

1.2.2.2 – Functional isometrics (1 set of safety pins)
In functional isometrics, you combine a very short concentric action with an isometric action. In this first version, you set the bar on safety pins, about 1" below the point you want to strengthen. You will lift the loaded bar 1" and hold it there for 6-9 seconds. You want to use the heaviest load you can maintain for 6-9 seconds.

1.2.2.2 – Functional isometrics/isometronics (2 sets of safety pins)
This is similar to the preceding method but you use a second set of safety pins set 2" above the first one. You once again lift the loaded barbell off of the first set of pins but now you lift it until it comes in contact with the second one and you pull against it for 6-9 seconds. You also want to use a heavy weight but if you underestimate how much weight you can use you can always compensate by pushing/pulling harder against the pins.

1.2.2.3 – Paused lifting (pause during concentric)
Paused lifting is very effective if you do it right. It's not enough to pause and hold the position. You must use that pause to increase overall muscle tension, to strengthen that specific position. Here you are doing the pause during the concentric (lifting) part, which is harder than doing it during the eccentric because you will have to overcome inertia twice. Normally the pause if done at a key point in the range of motion or near a weak point. The pause normally lasts 2-5 seconds.

1.2.2.4 – Paused lifting (pause during eccentric)
Same as above but the pause is performed during the eccentric. This is easier and allows you to use more weight giving you a greater loading/stimulation throughout the whole range of motion.

1.2.2.5 – Paused lifting (pause during both phases)
This is obviously the hardest paused lifting variation. You will use less weight so it's not as good as a strength-builder, but it is a great way to work on technique and control.

1.2.2.6 – Heavy lifting + post-fatigue iso hold
At the of a heavy set (after the last rep) you hold the weight at a key position in the range of motion for as long as you can (spotters are useful here). For example, after your 5 reps of bench press, lower the bar a few inches and hold for as long as possible. This will create more fatigue in the fast twitch fibers, increasing strength rapidly. But it also comes at a cost, being really hard on the CNS.

1.2.2.7 – Supra max static holds (unracking position)
This is great for the squat (front squat) and bench press. You load the barbell with 105-115% (or even more) of your max and you only unrack it, get in the starting position and go down maybe an inch and hold 6-9 seconds. This is both to desensitize the GTOs and to get used to handling very heavy weight. Weights in the 90-100% range that can feel intimidating will feel a lot lighter in contrast and boost your confidence.

1.2.2.8 – Manual overcoming isometric during set (during concentric)
During a set of regular lifting a partner apply pressure a one specific point in the concentric phase to stop the bar (you try to push him up) and releases after 2-3 seconds and you finish the lift. Another great method to learn to beat sticking points. Should be done just above or just below your sticking point.

1.2.2.9 – Manual overcoming isometric during set (during eccentric)
Same as above, but now during the eccentric. During the eccentric phase, the partner push down on the bar at one specific point, at which point you try to stop the movement. When the partner removes his hand you resume the eccentric.

1.2.3 Eccentric emphasis

1.2.3.1 – Eccentric overload (weight releasers)
Weight releasers are hooks on which you can add extra weight. You hang them from the bar. When you reach the low position, they will be released from the bar. With them you can do eccentrics overloads. Eccentric overload as one of the best methods to desensitize the GTOs, allowing you to rapidly increase strength without having to build muscle. They are increase the recruitment and stimulation of the fast twitch fibers which are preferentially recruited during eccentric actions.

1.2.3.2 – Eccentric overload in power rack (two weights method)
Works best for bench press and squat (front squat). Set the safety pins so that they are slightly higher than the bottom position. First load the bar with your concentric weight (let's say 80%). Put collars on then add extra weight after the collar to create an overload. Set up, unrack the bar and lower it slowly down to the safety pins. When it is on the pins remove the extra weight and do the concentric. If you want to do multiple reps, rack the bar and add the extra weight again.

1.2.3.3 – Eccentric overload in power rack (two positions method)
This uses a similar set-up as above. But instead of using an overload in the form of extra weight you will do the overload by doing the eccentric with a weaker variation of the lift. For example, do the eccentric as a close-grip bench, when the bar rests on the pins, take your regular bench grip and do the concentric.

1.2.3.4 – Manual eccentric overload
With this method, you have a partner apply pressure on the loaded bar, pushing it down, during the eccentric and releasing the bar during the concentric. Shoot for a 4 seconds eccentric and have the partner apply as much pressure as possible provided that you can still control the bar. The amount of force applied can vary based on fatigue level throughout the set.

1.2.3.5 – Assisted eccentric (concentric is assisted)
This is either done at the end of a set when you can't lift the bar by yourself anymore or as a stand-alone. You do the eccentric under control by yourself and your partner helps you during the concentric.

1.2.3.6 – 2/1 technique
The 2/1 technique is normally done on machines or sometimes on pulley stations: you do the concentric with two limbs (both arms or both legs). Pause briefly at the top to remove one of the limbs and do the eccentric with only one limb.

1.2.3.7 – Post-fatigue assisted eccentrics (concentric is assisted)
Explained at 1.2.3.5

1.2.3.8 – Shock isometric eccentrics (overspeed eccentrics/abrupt stopping of bar)
This method is used to develop your capacity to absorb force. When doing a big lift, you try to go fast during the eccentric and stop the downward movement abruptly when you are a few inches short of the bottom position. Stop as solidly as possible after a fast eccentric and hold for 2 seconds creating maximum tension.

1.2.3.9 – Eccentric/concentric contrast (slow eccentric/normal concentric with 85-92%)

1.2.3.10 – Lifting with added band resistance
As I mentioned earlier (1.2.1.8) lifting against a combination of barbell weight and high band resistance increases eccentric stress either if you go slow (trying to fight the downward acceleration or using the bands to create overspeed eccentrics.

2. NEUROLOGICAL EXPLOSIVE

2.1 STARTING STRENGTH METHODS (1.5 M/S+)

2.1.1 Explosive lifts from pins (load will vary, shoot for 1.5+ m/s... around 30-40%)

2.1.2 Breaking eccentric/concentric chain (box squat, board press, etc.) with 20-30% (1.5+ m/s)

2.1.3 Jumping/Throwing exercises without countermovement

This refers to starting the jump or throw from a deadstart position; without an eccentric phase. For example, jumping from a seated position on a bench or throwing a medicine ball while the ball starts resting on your chest.

2.2 REACTIVE STRENGTH METHODS

Note: All reactive strength methods are advanced techniques and should never be done by beginners or low-level intermediates.

2.2.1 Reactive lifting

This technique has you do a rapid eccentric phase, an abrupt transition/turnaround point between the eccentric and concentric follow by an explosive concentric

2.2.2 Rapid fire

Rapid fire is fairly similar to reactive lifting in that every one of the four phases of a lift (eccentric, turnaround point, concentric, transition between reps) are done as fast as possible while maintaining tension. You try to accelerate during the eccentric as well as the concentric and do the fastest turnaround and transitions possible.

2.2.3 Overspeed eccentrics

Overspeed eccentrics are the advanced version of reactive lifting. It uses a moderate barbell weight and a high amount of band resistance, using the band to produce acceleration during the eccentric and then abruptly stopping and switching to the concentric part. The overspeed eccentric increases kinetic energy storage in the tendons/muscles, energy which can be used to potentiate the force of the subsequent concentric action.

2.2.4 Drop and catch

This is just what it sounds like! You are dropping a weight (barbell, dumbbell, plate, med ball) from the top position and catch it the position of greater tension. The goal is to "stick the catch"... catch the weight with zero absorption; be super solid upon catching the weight. This is basically plyometrics with weights.

2.2.5 High intensity plyometrics (depth jumps)

Depth jumps are deceptively demanding on both the tendons and nervous system. Most people use them too early in their training and with too much volume (per set and per session). These should be seen the same way as heavy lifting: sets of 1-5 reps. You stand on a box, drop down to the floor and upon landing you either jump up as high as possible or forward as far as possible. The goal is not to use the highest box possible. The goal is to jump higher/produce more power than during a regular jump. If your jumping height is lower than during your vertical jump the box is either too high or you are not ready for depth jumps.

2.2.6 Jump series (using the landing as preparation for next jump)

When they do maximum jumps in training beginners and intermediates should reset between every rep. Jump series are the opposite: the landing is like dropping off from a box during depth jumps, but it can actually be more technically demanding because of the greater coordination involved. So, jump series although looking fairly simple are in fact a very demanding exercise on the nervous system.

2.2.7 Hardstyle KB swings

Refers to Russian KB swings (not swinging higher than chest level) while having full body tension (not staying relaxed). When projecting the KB, you do so with maximum force, enough force so that the KB can easily reach an overhead position. But you use upper body tension (mostly lats) to stop the KB from going higher and you then accelerate the KB downward. Every phase of the movement is done with maximum tension/effort.

2.2.8 Plyo swing

This is a special apparatus on which you can do loaded "jumps". Pretty much nobody has access to that equipment but it is a form of plyometric training of the highest intensity.

2.2.9 Double bounce technique

With this technique, you perform the bottom portion of a big lift where the stretch reflex is involved (mostly bench press and squat variations but can also be done on pull-ups and dips). The goal is to do the "rebound" (using the stretch reflex to its fullest) twice per rep. You do a regular rep catching the rebound. But you only go up as high as the rebound will take you. Then you go back down as fast as you can to catch a second, even bigger rebound and you finish the lift. This is one repetition. This trains the athlete to use the stretch reflex. It is of course done with low to moderate weights and only with highly conditioned athletes.

2.2.10 Twitch reps

Twitch reps are similar to rapid fire reps (2.2.2.) in that all four phases of the movement (eccentric, turnaround point, concentric, transition) are done as fast as possible. The main difference is that twitch reps use only a very short range of motion: around 10-12 cm (4-5"). The twitches can be done either in the stretch position to work on the stretch reflex or around a weak/sticking point to correct it. Again, a light weight is used since the goal is maximum speed and rapid changes in direction.

2.2.11 Enhanced KE jump series (jump series with bands) … (series when we talk about jumps refer to using the landing as the preparation for the next jump, using the kinetic energy accumulated during the landing).

This technique uses bands (smaller ones) attached to your waist (with a weight belt) and to a specific platform or plates/dumbbells and doing a series of jumps. The bands are NOT to make the concentric action more demanding; they are to speed up the descent so that you will accumulate more kinetic energy upon landing which can be used to produce a more powerful concentric action immediately after. If we talk about enhanced KE jumps the "lower level" would be depth jumps, followed by loaded jumps (jumping with weights) and then jumping with bands.

2.3 SPEED-STRENGTH METHODS (1.0 TO 1.5 M/S)

2.3.1 Weighted jumps / Throws (target speed 1.0 to 1.5 m/s)

Normally we recommend jumping/throwing from a sport-specific position. So, half squats are generally preferred over full squats for that exercise. You can use a speed monitoring device like the Tendo unit, the Beast Sensor or something similar; but when you stick to 20-30% of your max on the full lift you normally fall in the right zone. Most people should reset after every jump. Only very advanced athletes with experience doing loaded jumps should so series (using the landing as the set up for the next jump).

2.3.2 Static jumps (static jumps refer to jumps done without using the kinetic energy accumulated from the landing)

2.3.3 Power versions of the Olympic lifts with 60-70% for max speed

For maximum power development, I find lifts from the hang or blocks to be superior because of the shorter acceleration path (you need to reach peak velocity sooner). The main difference between both lies in the use (or not) of the stretch reflex.

2.3.4 Regular strength lifts with 30-45% (no added accommodating resistance) for max acceleration

Doing the big strength lifts with a moderate weight for maximum acceleration. Even though it will feel easy, you should stick to low reps (1-5) because we don't want any deceleration, we have to stay in the 1.0 to 1.5m/s zone for maximum effect on speedstrength).

2.3.5 Prowler pushing/Sled dragging sprint with light resistance

2.3.6 Stationary bike (or assault bike) with moderate resistance, max speed for 6-9 sec.

2.4 STRENGTH-SPEED METHODS (0.75 TO 1.0 M/S)

2.4.1 Power variations of the Olympic lifts with 70-90%

2.4.2 Regular strength lifts with a total load of 70-80% (Westside uses a bar weight of 50-55% and 25% added as band resistance,

Hatfield used only bar weight with 70-80%, you can also use a bar weight of 65% and band resistance of 10-15% etc.)
The greater load versus the speed-strength version will make you move a little bit slower. But the intent should still be to accelerate as much as possible. From experience most people use too much weight for their strength-speed work.

2.4.3 Prowler pushing/Sled dragging with heaviest resistance with which you can still sprint

2.4.4 Stationary bike (or Assault bike) with the highest resistance you can still have a smooth sprint with for 6-9 sec.

3. HYBRID NEURO (HEAVY & EXPLOSIVE)

3.1 INTRA-SET CONTRASTS

3.1.1 Heavy Kahuna

88-92% x 3 heavy, drop to 50-60% x 3 reps with max speed

3.1.2 Manual concentric overload + Speed reps (60-70% bar weight)

Use a barbell weight of 60-70%, do 2-3 reps where you partner applies pressure during the concentric (enough to make it hard but still leave the lift smooth). Then he removes his hands and you do 2-3 reps with maximum speed.

3.1.3 Manual eccentric overload + Manual concentric overload + Speed (40-50% bar weight)

Same as above but your partner applies pressure both during the eccentric and concentric. Not too much because we don't want to fatigue the muscles so much that it's impossible to do the speed reps fast.

3.2 INTRA-SERIES CONTRASTS

3.2.1 Russian contrast (Heavy exercise + strength-speed or speed-strength explosive)

3.2.2 Heavy Bulgarian complex (Supramax ex. + Heavy ex. + Explosive ex.)

3.2.3 Explosive Bulgarian complex (Heavy ex. + Strength-speed ex. + Speed-strength ex.)

3.2.4 Five start complexes (supra max + heavy + str-sp + sp-str + reactive)

3.2.5. Polar complexes (Isometric ex. + Reactive or speed-strength ex.)

4. HYBRID NEURO-MUSCULAR

4.1 LOADING SCHEMES

4.1.1 Wave loading

4.1.1.1 – 7/5/3 wave
4.1.1.2 – 8/6/4 wave
4.1.1.3 – 6/4/2 wave

4.1.2 Ascending pyramid (increasing weight)

Note: I will not cover all the possible sets/reps scheme like I did earlier as you should understand the concept by now. But I will give you a general idea of the two types of ascending pyramid we can use. When pyramiding with a hybrid neuro-muscular approach we want sets that fall in the 1-5 category (neural) and 6 to 20 (muscular).

4.1.2.1 – Broad pyramid (bigger jumps between sets)
e.g. 20/15/10/5/1

4.1.2.2 – Narrow pyramid (smaller jumps between sets)
e.g. 10/8/6/4/2

4.1.3 Descending pyramid (decreasing weight)

Note: I will not cover all the possible sets/reps scheme like I did earlier as you should understand the concept by now. But I will give you a general idea of the two types of descending pyramid we can use. When pyramiding with a hybrid neuro-muscular approach we want sets that fall in the 1-5 category (neural) and 6 to 20 (muscular).

4.1.3.1 – Broad pyramid (bigger jumps between sets)
e.g. 1/5/10/15/20

4.1.3.2 – Narrow pyramid (smaller jumps between sets)
e.g. 2/4/6/8/10

4.1.4 Full pyramid

Note: I will not cover all the possible sets/reps scheme like I did earlier as you should understand the concept by now. But I will give you a general idea of the four types of full pyramids we can use. When pyramiding with a hybrid neuro-muscular approach we want sets that fall in the 1-5 category (neural) and 6 to 20 (muscular).

4.1.4.1 – Broad pyramid (bigger jumps between sets) no.1
e.g. 20/15/10/5/10/15/20

4.1.4.2 – Broad pyramid no.2
e.g. 5/10/15/20/15/10/5

4.1.4.3 – Narrow pyramid (smaller jumps between sets) no.1
e.g. 10/8/6/4/6/8/10

4.1.4.4 – Narrow pyramid (smaller jumps between sets) no.2
e.g. 4/6/8/10/8/5/4

4.1.5 Contrast sets

4.1.5.1 – 1/6
4.1.5.2 – 1/7
4.1.5.3 – 1/8
4.1.5.4 – 2/6
4.1.5.5 – 2/7
4.1.5.6 – 2/8
4.1.5.7 – 3/6
4.1.5.8 – 3/7
4.1.5.9 – 3/8

** With contrast sets we don't do reps higher than 8 because the set of one will not have a significant potentiating impact for anything over 8 reps.*

4.2 TRAINING METHODS

4.2.1 Neuro drop set

Max reps with 88-92% drop to 78-82% and do max reps

4.2.2 Neuro drop set no.2

Max reps with 88-92% drop to 68-72% and do max reps

4.2.3 Neuro double drop set

Max reps with 88-92% drop to 78-82% for max reps and drop to 58-62% and do max reps

4.2.4 Post-fatigue superset

Heavy movement 85-92% for 2-5 reps + isolation movement 50 to 70% for max reps

4.2.5 Iso pre-fatigue superset

Overcoming or functional isometric for 6-9 seconds followed by the main lift with 50-70% for max reps

4.2.6 Iso post-fatigue superset

Do a heavy exercise 85-92% for max reps then finish the last rep with a yielding isometric for 20-45 seconds in a key position

4.2.7 Explosive-Muscular superset

Start with an explosive exercise then do an exercise with 50-70% for max reps

4.2.8 3-9-15

Triple set 1st exercise set of 3, second set of 9, third set of 15

4.2.9 Triple threat superset

Explosive exercise for 3 reps, heavy exercise for 1-5 reps, isolation exercise for 8-12 reps

5. MUSCULAR

5.1 LOADING SCHEMES

5.1.1 Straight sets

Note: I only include more common rep numbers, few people do sets of 11 in training! And listing every rep from 6 to 20 would be redundant, but you understand that you CAN program sets of 11 or 13...

5.1.1.1 – Sets of 6
5.1.1.2 – Sets of 8
5.1.1.3 – Sets of 10
5.1.1.4 – Sets of 12
5.1.1.5 – Sets of 15
5.1.1.6 – Sets of 20

5.1.2 Double progression model

In the double progression model, you are given a zone. You use the same weight for all your work sets. The goal is to do all your work sets at the top of the range. When you can do that you are allowed to add weight at the next session. If you can't do the max number of reps for all your sets you stay at the same weight for the next workout.

5.1.2.1 – 6 to 8 zone
5.1.2.2 – 8 to 10 zone
5.1.2.3 – 10 to 12 zone
5.1.2.4 – 12 to 15 zone
5.1.2.5 – 15 to 20 zone

5.1.3 Ascending (weight) Pyramid

Note: Again, in the interest of avoiding redundancy because of the very high number of possible combinations due to the number of reps choices in the muscular zone (from 6 to 20, so 15 options) and making this into a 200 pages list we will focus only on a few illustration of the concept. While it is possible to do more than 6 work sets in an hypertrophy pyramid, it should rarely be used due to the high volume of work that it represents. As such I only present options from 3 to 6 work sets. The previous note will apply to all the section on the various types of pyramids

5.1.3.1 – 6 sets ascending. e.g. 20/15/12/10/8/6
5.1.3.2. – 5 sets ascending. e.g. 15/12/10/8/6
5.1.3.3 – 4 sets ascending. e.g. 12/10/8/6
5.1.3.4 – 3 sets ascending. e.g. 12/10/8

5.1.4 Descending (weight) Pyramid

5.1.4.1 – 6 sets descending. e.g. 6/8/10/12/15/20
5.1.4.2 – 5 sets descending. e.g. 6/8/10/12/15
5.1.4.3 – 4 sets descending. e.g. 6/8/10/12
5.1.4.4 – 3 sets descending. e.g. 6/8/10

5.1.4 Double pyramid

Note: I will include double pyramids of 9 sets even though that is a lot of volume. When I use that approach the "ascending" portion is generally with lighter weights than the descending portion and acts like the continuation of the warm-up (intensity is about 7/10 on the RPE scale versus 8-9/10 for the second half).

5.1.4.1 – 9 sets descending double pyramid. e.g. 6/8/10/12/15/12/10/8/6
5.1.4.2 – 7 sets descending double pyramid. e.g. 6/8/10/12/10/8/6

5.1.4.3 – 5 sets descending double pyramid. e.g. 6/8/10/8/6
5.1.4.4 – 9 sets ascending double pyramid. e.g. 15/12/10/8/6/8/6/10/12/15
5.1.4.5 – 7 sets ascending double pyramid. e.g. 12/10/8/6/8/10/12
5.1.4.6 – 5 sets ascending double pyramid. e.g. 10/8/6/8/10

5.1.5 Tailed pyramid

5.1.5.1 – 7 sets ascending tailed pyramid. e.g. 20/15/12/10/8/6/15
5.1.5.2 – 6 sets ascending tailed pyramid. e.g. 15/12/10/8/6/15
5.1.5.3 – 5 sets ascending tailed pyramid. e.g. 12/10/8/6/12
5.1.5.4 – 4 sets ascending tailed pyramid. e.g. 10/8/6/15
5.1.5.5 – 7 sets descending tailed pyramid. e.g. 6/8/10/12/15/20/6
5.1.5.6 – 6 sets descending tailed pyramid. e.g. 6/8/10/12/15/6
5.1.5.7 – 5 sets descending tailed pyramid. e.g. 6/8/10/12/6
5.1.5.8 – 4 sets descending tailed pyramid. e.g. 6/8/10/6

5.1.6 Uneven pyramid

5.1.6.1 – 7 sets ascending uneven pyramid. e.g. 15/12/10/8/6/8/15
5.1.6.2 – 5 sets ascending uneven pyramid. e.g. 12/10/8/6/8/12
5.1.6.3 – 7 sets descending uneven pyramid. e.g. 6/8/10/12/15/12/8
5.1.6.4 – 5 sets descending uneven pyramid. e.g. 6/8/10/8/6

5.1.7 Wave loading

Note: I do include one wave, but really the wave principle loses its efficacy with higher reps since you don't get much potentiation and you accumulate fatigue, so the increase in performance from set to set that you normally see with wave loading will not been seen here. It should be used more for variation than anything.

5.1.7.1 – 10/8/6 wave

5.1.8 Plateau loading

Note: While it is possible to use plateaus of 8 or even 10 sets these are unusual and are normally part of a program where you only have 2 exercises per muscle group and the second exercise would use 3-4 work sets. But if you understand the concept of plateau loading as illustrated it will be easy to design your own variations.

5.1.8.1 – 6 sets ascending plateau loading, narrow. e.g. 10/10/8/8/6/6
5.1.8.2 – 6 sets ascending plateau loading wide. e.g. 20/20/10/10/6/6
5.1.8.3 – 4 sets ascending plateau loading, narrow. e.g. 10/10/8/8
5.1.8.4 – 4 sets ascending plateau loading, wide. e.g. 12/12/6/6
5.1.8.5 – 6 sets descending plateau loading, narrow. e.g. 6/6/8/8/10/10
5.1.8.6 – 6 sets descending plateau loading, wide. e.g. 6/6/12/12/20/20
5.1.8.7 – 4 sets descending plateau loading, narrow. e.g. 6/6/8/8
5.1.8.8 – 4 sets descending plateau loading, wide. e.g. 6/6/12/12

5.1.9 Other random but popular schemes

5.1.9.1 – German Volume Training (10 x 10)
10 sets of 10 reps of an exercise with 60% and 60-90 seconds of rest (often using an antagonist pairing)

5.1.9.2 – Gironda's 8 x 8
8 x 8 with a moderate weight and very brief rest periods. Gironda's highest level trainees often used as little as 15 seconds but most should use 30-40 seconds to start with.

5.1.9.3 – Gironda's 6 x 6
Same as above but with slightly heavier weights and doing sets of 6.

5.1.9.4 – Gironda's 15 x 4
Same as 8 x 8 but with more weight and sets of 4.

5.2 TRAINING METHODS

5.2.1 Extended set methods

5.2.1.1 – True failure set (trying to complete the last impossible rep for 2-3 sec)
Most people claiming to train to failure really aren't. True failure is going until you cannot move the weight one more centimeter. You must in fact try very hard for 2-3 seconds (or even more) to move the weight once it stops.

5.2.1.2 – Rest/Pause
This was covered earlier. It refers to going to failure, resting 10-20 seconds and going to failure again with the same weight. That is one set.

5.2.1.3 – Double Rest/Pause
Same as above but with three micro-sets per set instead of two.

5.2.1.4 – Death by Rest/Pause
Same as above but you continue doing micro-sets until you can't get a single rep.

5.2.1.5 – Post-failure isometric hold
You perform your reps to failure or close to it and on the last rep you hold a key position (normally either stretch position or mid-range) for as long as tolerable

5.2.1.6 – Post-failure assisted eccentrics (concentric is assisted)
Once you reach failure you continue doing the eccentric by yourself (under control) and your partner assists you for the concentric portion.

5.2.1.7 – Post-failure isometric hold + assisted eccentrics (triple failure set)
Once you hit failure you hold a key position for as long as possible then you try to get a few eccentric reps in while your partner helps you during the concentric.

5.2.1.8 – Full reps + partial reps
Once you have done your reps (not to failure, but close to it) you do as many partial reps as possible.

5.2.1.9 – Post-failure partial reps + isometric hold
Same as above but when you hit failure on the partial reps you hold a key position for as long as tolerable.

5.2.1.10 – Post-failure partial reps + isometric hold + assisted eccentrics
Same as above but after the hold you try to get a few eccentric reps while your partner helps you during the concentric.

5.2.1.11 – Drop set
When you hit failure, you decrease the weight (anywhere between 10 to 50% depending on goal) and reach failure with the new weight.

5.2.1.12 – Double drop set
Same as above but with two drops.

5.2.1.13 – Death by drop set
Also called "Running the rack". You continue doing drops until you are using the smallest weight possible or can't do one more rep because of the lactic acid burn.

5.2.1.14 – Mechanical drop set
Here you select three variations of one movement pattern (for example DB shoulder press / Incline DB press / DB bench press). You will do a triple set using the same weight for all the exercises. You start from your weakest and you finish with your strongest. You do your set with the first exercise, rest 10 sec and do as many reps of the second, rest 10 sec and do the maximum number of reps for the last.

5.2.1.15 – Mechanical drop set with intensifier (hold, eccentrics or partials at the end) on last part

5.2.1.16 – Myo-reps
You go to failure (10-15 reps), rest 15 seconds then do as many micro sets of 3 reps as possible with no more than 15 seconds of rest. When you can't do 3 reps in a micro-set, you stop.

5.2.2 Supersets & Triple sets

5.2.2.1 – Antagonist superset
Superset of two exercises for opposing muscles (biceps/triceps, quads/hams, chest/back, front or side delt/rear delt).

5.2.2.2 – Pre-fatigue superset
Superset of two exercises for the same muscle. Starting with an isolation exercise then doing a compound movement.

5.2.2.3 – Post-fatigue superset
Same as above but starting with the compound movement.

5.2.2.4 – Isolation superset (two isolation exercises)
Doing two exercises for the same muscle group, but both exercises are isolation movements.

5.2.2.5 – Compound superset (two compound exercises)
Doing two exercises for the same muscle group, but both exercises are compound movements, but normally the second one is less neurologically draining (squat + leg press for example).

5.2.2.6. - Pre-post fatigue triple set
Three exercises for the same muscle group. Isolation + Compound + Isolation

5.2.2.7.- Post-fatigue triple set
Compound + isolation + isolation)

5.2.2.8. - Pre-fatigue triple set
Isolation + isolation + compound

5.2.2.9. - Descending neurological triple set
High CNS lift + Med CNS + Low CNS ... e.g. Back squat + Leg press + Leg extension

5.2.2.10. - Ascending neurological triple set
Low CNS + Med CNS + High CNS .. e.g. Pec deck + Machine chest press + DB bench press

5.2.3 Tempo intensifiers

5.2.3.1 – Tempo contrast (slow/slow/fast/fast/slow/slow, etc.)
We alternate between 2 (or 3) slow reps (4-5 sec eccentric and concentric) where you focus on squeezing the target muscle as hard as possible and 2 (or 3) reps where you try to lift fast.

5.2.3.2 – Slow concentric
You perform a normal eccentric (2 seconds or so) but a slow concentric (4-5 seconds). This is to take away all momentum so that you learn to produce maximum tension on every point of the range of motion. It also creates an occlusion effect that increases the release of local growth factors and can be a good tool to work on technique.

5.2.3.3 – Slow eccentric
Doing the eccentric phase of the movement very slowly. Can be as slow as 10 seconds but normally we are talking about 5-6 seconds. The key here is not to only go slow, but to create maximum tension during the eccentric (especially when using isolation movements, contract the muscle as hard as possible). The concentric phase is normal or even explosive.

5.2.3.4 – Superslow reps (concentric and eccentric)
Here both the concentric and eccentric phases are slow. This works mostly by increasing fiber fatigue as well as growth factor release due to the occlusion effect that will come from never releasing muscle tension (constant tension training).

5.2.3.5 – Tempo drop set (superslow --) slow eccentric --) normal/cheated reps)
With this method, you start with superslow reps (something like a 5050 tempo) when you fail that you are close to failure you switch to slow eccentrics with a fast concentric (something like 5010). When you are once again close to failure you speed up the reps, you can even cheat a little as long as you don't use dangerous form.

5.2.4 Others

5.2.4.1 – Isometric pre-fatigue
This is one of my favorite method to work on mind-muscle connection if you can feel a muscle properly in an exercise. You do an isometric hold at a key position (either peak contraction or mid range) for 20-30 seconds then you do your reps. For example: seated row, hold contracted position for 30 sec then do 6-8 reps.

5.2.4.2 – 21s (or this type of work)
Doing partials as pre-fatigue. You do partial reps in 1 or 2 ranges then you do your full reps. Like the traditional 21s where you do 7 partials at the top, 7 partials at the bottom and 7 full reps.

5.2.4.3 – 2/1 technique
This has been explained earlier.

5.2.4.4 – Prowler/Sled for a duration of 30-45 sec

5.2.4.5 – Loaded carries for 30-45 sec

5.2.4.6 – Yielding isometrics (30-75 seconds)
Holding the weight at a key position (peak contraction, mid range or stretch) to failure.

6. MUSCULAR-METABOLIC HYBRID

6.1 LOADING SCHEMES

6.1.1 Ascending (weight) Pyramid

Note: The concept of pyramiding should be well understood by now. The key thing to remember is that a muscular-metabolic hybrid will include sets in the muscular zone (6-20) and reps in the metabolic zone (20-40+). Depending on your objective you can have more muscular sets (e.g. 30/20/15/12/10/8), more metabolic sets (40/30/25/20/12) or an equal ratio of both (40/30/25/20/15/12).

6.1.2 Descending (weight) Pyramid

Note: The same comment as above applies to all types of pyramid work

6.1.3 Double pyramid

idem

6.1.4 Tailed pyramid

idem

6.1.5 Uneven pyramid

idem

6.1.6 Plateau loading

Note: the same applies here as for pyramiding

6.2 TRAINING METHODS

6.2.1 Hatfield triple set (Big lift for 6 reps, intermediate lift for 12 reps, isolation for 40 reps)

6.2.2 Poliquin 6-12-25 method

6.2.3 PHA training

Circuit training for sets of 8-12 reps alternating upper and lower body exercises)

6.2.4 Supersetting one hypertrophy exercise (6-12 reps) with one metabolic exercise (prowler, rowing, ski ergo, farmer's walk, battle ropes, etc.) for 60+ seconds.

6.2.5 Sarcev giant sets

Combining up to 8 exercises for the same muscle group and doing a circuit with short rest between exercises (30 sec) for 8-12 reps per exercise.

7. METABOLIC

7.1 LOADING SCHEMES

7.1.1 Straight sets

Note: Since this zone covers 20 up to 100+ reps I will not list each number individually!

7.1.1.2 – Sets of 20
7.1.1.3 – Sets of 25
7.1.1.4 – Sets of 30
7.1.1.5 – Very high reps (up to 100 reps, but normally 40-50)

7.1.2 Pyramid (all-types)

Note: While it is technically possible to do metabolic pyramids, it is not a method that will or should be used by 99% of the people.

7.2 METHODS

7.2.1 Tabata (20 sec of effort/10 sec of rest for 4-8 minutes)

7.2.2 Circuits

7.2.3 Strongman exercises medleys

7.2.4 Hybrid running (or biking, rowing, etc.) and lifting without rest

7.2.5 Typical CrossFit WODs

7.2.6 Long duration prowler/sled work