

Interruptive Linear Undulation

TLDR: a linear progression that undulates daily between high and low intensity; whereas low intensity refers to the development of power endurance and high intensity refers to the development of strength and speed.

Forward

Hi, I'm Ryan Booth, and I'm a personal trainer and an actor living in Vancouver, Canada. I'm a former bodybuilder (amateur) turned rugby player. I was a bouncer for 10 years. I used to get hurt a lot and I took my rehab very seriously.

At the time I received my first certification as a personal trainer, you could get just about anyone to teach you anything. In my case, I wanted to learn about valuable, active release therapy, roofing and neurological treatments programs, such as Trigenics, And NKT.

I was not a science mind. In fact, I failed out of grade 10 biology by November. But what I found in all these courses of manual therapy in neurological treatment programs systems that my retention was quite high. Able to use these teachings immediately in a practical environment was a tremendous advantage for me and I thrived.

These ideas aren't mine, they are Charlie Frances's. He popularized them. He got the major principles from Russians who made incredibly difficult and hard to understand training protocols that were based in the best science of the time.

Charlie Frances was a sprint coach. I wanted to see if I applied his knowledge to barbell training if it would work out. It did. It just did. It stands to reason: if Francis developed his approach based on the work of strength trainers, then it should follow that strength training can benefit from the work of Charlie Francis.

Then I started a progression of trying to find out what the least amount of activity a person could do. That would still result in strength, gains well past the accumulation phase.

I started implementing this with clients who consented to the process. Over the course of several years, I refined it. Then I presented it as the exclusive programming for my executive initiative.

The program yielded several interesting results. The first is that we have found that voluntary adherence to the programming is almost 100% going on two years. The second is that through the use of power endurance protocols on low intensity days here in, we were able to hold onto maximal strength gains (or near maximal) even in the absence of maximal strength training for a period of up to four months.

The result is this ebook. It's not mine. It Belongs to everyone. Information has always been there. Trainers just seem to ignore it. I'm shocked that more people don't use this type of training.

Introduction

We aren't training athletes here. This programming is not intended for those who can withstand the rigors of intense daily training. This programming is for everyone else: the busy executive, the debilitated client, the obese, the poor guy who's hurt himself within 3 months at a gym pulling some dipshit internet programming that ignores basic principals of physiology, all and men and women and non binary over 40 who have yet to be able to adhere to long term lifestyle choices despite their best efforts.

By manipulating the factors, involved with adaptation (volume intensity and load), we can see favorable, adaptation without subjecting someone to the rigors of a full sprinting or strength/powerlifting program.

This programming manipulates volume, intensity, and load by drastically, reducing intensity, and replacing it on non-consecutive days with volume of sets at submaximal load. Whereas on a high intensity day, they may be up to three sets only performed; on a low intensity day between 10 and 20 sets are often achieved.

High intensity days are always followed by low intensity, recovery days. We rarely program more than two high intensity days in one week. Our high intensity days employ no more than three sets at working weight (above 65%). This drastically reduces injury risk and promotes necessary recovery, even in the face of Our clients busy, stressful lives.

One possible reason for this apparent reduction in injury is that this programming drastically reduces contributions from the blood lactate energy system. Reducing overall acidity promotes recovery and reduces chance of injury. This has yet to be evaluated. It's just a theory.

CHAPTER 1

Key Concepts

Stress:

I like to explain to the people I coach, that I can make them sweat by making them do infinity Burpee's, or I can make them sweat by holding a gun to their head. The former the domain of the central nervous system; the latter, the domain of the autonomic nervous system. Both are stresses or loads that need to be reckoned with and recovered from:

Few people recognize the fact that, there is a metaphoric gun to the head of each and everyone of us, every day: Sick kids; busy school schedules; deadlines at work; traffic; idiot politicians; walk the dog; The 6 PM News and the rat race of life in general amounts to a ton of stress. We humans probably weren't design for it. Adding further stress through training is often times ill-advised.

Indeed, one can live a long, healthy life without stepping foot in a gym. In many cases, the gym reduces quality of life. How much quality of life can there be if you're bedridden with back pain for two weeks?

What do we do as trainers to reduce these injury risks? Well, we coach optimal movement and hopefully we get the progression right.

We as trainers are concerned with skill acquisition and development. We are concerned with training adherence of our clients who've already been through so much. We as trainers believe that humans are designed to protect themselves in order to survive. We believe these protections require properly loaded movement and resistance training. We as trainers create appropriate resistance programs that cause favorable adaptation.

We are training neither powerlifters nor sprinters. I don't think this program would be very good at developing those skills in the appropriate amount of time. However, We employ the skills involved with those two sports in an effort to create improvement in speed and strength with our general population clients. We train people to become better at barbell training and treadmill or track work. The client comes to us, hoping for improvements in body, composition, or health, and we "flip the script" for them, so that they can see that the real goal is to become better at a thing. When one Gets better at a thing, concern for body composition will become less relevant. Indeed, by the time a person is a good sprinter or a good squatter, they invariably will have their body composition well in hand.

The skills involved in barbell training are every bit as complex and nuanced as that of a golf swing. One can continue to hone the skills over a lifetime and never be assured that they get it 100% right.

As a personal observance of the fitness industry does the exact opposite: six to throw a ton of exercise at someone in the hopes of making them tired, so that they think they had "a good work out".

Fatigue is the enemy of performance. Therefore, working out just to get tired is stupid.

We train people to get better at a thing; not to work harder, and eat less.

We base our programming on the following rules:

- 1 – if you're not running faster, you're training your body to run slower.
- 2 – if you're not jumping higher, you're training your body to jump lower.
- 3 – if you're not lifting heavier, you're training your body to lift lighter.

The priority of physiology is to create fitness to improve survival and to become fast and strong. Because the mechanisms for becoming fast and strong are the first to be utilized(relegated to the anaerobic a lactic system), it stands to reason that they "burn out" before anything else, so they must be trained first.

CHAPTER 2

The Power Endurance Continuum

Fact, check this

Speed training is the thing that requires the greatest neurological adaptations. In order to become fast, one must already be strong and possessed of the ability to repeat (power endurance) that speed over and over.

Following speed, plyometrics and power should be trained next.

Then strength,

strength endurance,

and finally endurance.

Training these attributes in the wrong order results in sub optimal adaptation. Further, it's ill-advised to train all of these attributes at the same time(ie. At some point training endurance, will affect your top speed or top power. They are competing energy systems and neurological adaptations).

Programming herein is designed with this in mind for optimal adaptations in speed, strength, and (special)endurance. We correct for the fact that these people are not athletes subject to the rigor of heavy training schedules. We understand the stress in their lives is every bit as equal to the stress of an athlete. We try to program least amount for them to do that produces the most effect.

Speed is prioritized, and therefore trained first; power comes next, and can be trained on the same day at speed. Strength is third, and we employ tactics to improve these fields.

The following is an example of our six week meso-cycle employing barbell training(the major lifts), and also a rudimentary sprint protocol(treadmill). This program trains a different lift each day and is designed to keep the client active five days a week.

In standard block periodization schemes this programming would be considered general preparation phase. This programming alternates high intensity days with low intensity days, never repeating consecutive high intensity days. At the end of each six weeks mesocycle the training maximum is increased by 10 pounds for lower body movements at 5 pounds for upper body. We continue with this progression until the client stops improving.

In the several years since I have adopted this plan, I have yet to see anyone stop improving nor plateau.

CHAPTER 3

Blood lactate

This program is designed to reduce contributions from the blood lactate energy system(anaerobic lactate). There are no “gassers”. We use few long duration sets that force production of blood lactate. We do not want the client to feel the ‘burning’ feeling in their muscles. The trainer is to be vigilant, watching for form breakdown to ensure that fatigue never reduces integrity of form. A long stride in sprinting, or a sudden loss of tension through a barbell movement can lead to injury.

This programming is set on a Monday to Friday micro cycle to cater to our executive clientele who work in an office five days a week.

Monday: squats

Tuesday: Bench

Wednesday: back or Hip accessory

Thursday: dead lift

Friday: stand press

Questions:

Does it have to be exactly these exercises on these days? No.
Can I modify these exercises? Yes. Can it be modified for use with other populations? Yes. Is this program effective with fewer than five days of training? Yes. Can this programming be modified for people younger than 40? Yes.

CHAPTER 4

High Intensity And Low Intensity

High Intensity:

High intensity days refer to days in which weight and speed are performed above 60% training maximum. Fewer sets are performed and rest intervals are longer in order to allow for ATP regeneration and nervous system considerations. Only two high intensity days are to be programmed in a one week micro cycle.

On high intensity days, barbell training is limited to a maximum of three sets (and three warm up sets) performed between 65% and 95% of training maximum.

High intensity days involve no more than three sets of heavy weights (1 to 5 reps/set). There are significant rest intervals between each set(3 to 10 minutes each). During these rest intervals, the client is instructed to march on the treadmill at 70% max heart rate(3-4 RPE) in order to clear accumulated blood lactate. Alternatively, on high intensity days, the client may perform no more than 2 or 3 sprints on the treadmill. These sprints are not longer than 6 seconds at velocities above 90% max.

On the treadmill the client will be appropriately warmed up. Following appropriate recovery, the client will aim to sprint at maximum velocity for not longer than 6 seconds. Following this, the client will rest for one full minute for each second that they were running faster than 90% of their max velocity. So, if a client ran at maximum speed(ie. 10mph) for 6 seconds, and achieved 90% speed(9 mph)one full second before, then their total output was 7 seconds. Seven seconds of maximal output translates to 7 minutes of recovery. Under no circumstances are clients to perform another sprint before 7 full minutes has passed.

*Generally speaking, I start the timer at the 90% speed mark and discontinue the sprint at the six second time mark. This necessitates that the client rest for 6 minutes.

Alternatively, on high intensity days, the client could also perform a 3 to 8 minute “lactate flush” whereby they are instructed to march on a treadmill at 70% max heart rate for the duration of the recovery interval.

example of a high intensity day:

Warm-up 1: mobility/PNF/activations

Warm up two: barbell warm-up sets(35% X8; 45% X5; 60% X5)

Warm-up three: treadmill warm-up for speed (6 second intervals up to 80% speed), followed by pendulum hip warm-up, recover 2 mins, then 6 second sprint at 90%

Barbell training: 70% X 3; 80% X3; 90% X3.
(Three to 10 minute rest each)

treadmill sprint:

90% X6 seconds;

95% to 100% X6 seconds; 95% to 102% X 6 seconds.

(6-7 minute rest each)

Questions:

Can we do other things during this seven minute recovery stage?

Yes. Is there a medium intensity? Yes.

CHAPTER 5

Medium Intensity:

For the purposes of our programming, Training days are also considered high intensity when there is any forced conversion of muscle fiber types. Sprinting at max speed, for example, requires conversion of IIb to IIx fibers. Conversely, the addition of resistance sets with long duration and load (more than 5 reps) and intensity that produces more blood lactate requires conversion of fiber types from IIb to IIa. Training into that burning feeling with weights is what we will call medium intensity. Due to this IIb-IIa adaptation, medium intensity days must be treated as high intensity days where recovery is concerned. Acidity takes as long to clear from the system as it takes for musculature to recover from high intensity training days. Therefore medium intensity training requires high intensity rest.

Due to the fact that medium intensity training requires as much recovery as high intensity days but does not yield the same results in speed or strength, medium intensity training is largely excluded from this program. The possible exception to this rule might be our max effort day where the ultimate goal is an AMRAP SET at 83-85%.

example of a medium intensity day:

Warm-up 1: mobility/PNF/activations

Warm up to: barbell warm-up sets(35% X8; 45% X5; 60% X5).

Warm-up three: treadmill warm-up for speed (6 second intervals up to 80% speed), followed by pendulum hip warm-up

Barbell training: 63 to 66% X5; 73 to 76% X5; 82 to 86% X5+ (AMRAP)
(Three to 10 minute rest each)

treadmill sprint: 90% X6 seconds; 95% to 100% X6 seconds; 95% to 100% ex six seconds
(6-7 minute rest each)

Or

5 to 10 minute treadmill march at 70% max heart rate

Or

50 m treadmill tempo sprints: 60% repeated with one minute rest intervals in between. Repeated, for the duration of the barbell rest interval.

CHAPTER 6

Low Intensity:

Low intensity days employ a power-endurance protocol using barbells and very few repetitions(3-5)and treadmills at tempo speed. Alternating with one minute rest in between each. The weight on the barbell is set at 60% of training maximum and the client is instructed to maintain a static speed and employ strict form throughout the entire work out. Fatigue, burning in the muscles, breakdown or speed Changes to compensate for weakness are reasons to stop as you have chosen inappropriate working values. Both running, and barbell speeds must remain consistent throughout the entire session.

On the treadmill the client will run at 60% of their maximum velocity for 50 m (or 0.03 miles distance).

There is a 45 second to 1 minute rest between each treadmill and barbell interval.

This protocol is repeated as many times as the session permits. The goal is to increase the amount of tempo intervals performed in each session without increasing the intensity(speed or weight). By doing this, we manipulate overall load to compensate for the fact that intensity is relatively low.

example of a low intensity day:

Warm-up 1: mobility/PNF/activations

Warm up to: barbell warm-up sets: 30%, X5, 40% X5, 50% X5

Warm-up three: treadmill warm-up for tempo (6 second intervals up to 60% speed).

Barbell training: 60% x 3

One minute rest

treadmill tempo: 50 m (0.03 miles distance) X 60% speed.

One minute rest.

CHAPTER 7

The following is a breakdown of high intensity days and their progression. For this example we will use squats(Monday):

Keep in mind that high intensity squat days are two weeks apart, because every high intensity day must be followed by a low intensity day with this programming. Therefore, if week one is high intensity (max effort); week two must be low intensity (60% X3); and week three would be the next high intensity squat day (max power:70%, 80%, 90%). Etc.

Week One:

High intensity day number one (trains maximal effort): 63 to 66% X5; 73 to 76% X5; 82 to 86% X5 plus (AMRAP)

Week Two:

Low intensity day: tempo treadmill sprint @ 60% max speed. 60% x 3 barbell. One minute rest each repeated as many times as possible.

Week Three

Hi intensity day number two (trains maximum strength): 70% x 3; 80% x 3; 90% x 3

Week Four:

Low intensity day: tempo treadmill sprint @ 60% max speed. 60% x 3 barbell. One minute rest each repeated as many times as possible.

Week Five:

High intensity day number three trains maximum power: 75% x 5; 83-86% x 3; 93-96% x 1.

Week Six:

Low intensity day: tempo treadmill sprint @ 60% max speed. 60% x 3 barbell. One minute rest each repeated as many times as possible.

The following day of this micro cycle (Tuesday) calls for benchpress. As week one of squats with high intensity, week, one of benchpress must begin low intensity. This refers our first high intensity, benchpress day to the following week. It will look like this:

Week One:

Low intensity day: tempo treadmill sprint @ 60% max speed. 60% x 3 barbell. One minute rest each repeated as many times as possible.

Week two:

High intensity day number one (trains maximal effort): 63 to 66% X5; 73 to 76% X5; 82 to 86% X5+ (AMRAP)

Week Three:

Low intensity day: tempo treadmill sprint @ 60% max speed. 60% x 3 barbell. One minute rest each repeated as many times as possible.

Week four:

Hi intensity day number two (trains maximum strength): 70% x 3;
80% x 3; 90% x 3

Week Five:

Low intensity day: tempo treadmill sprint @ 60% max speed. 60%
x 3 barbell. One minute rest each repeated as many times as
possible.

Week six:

High intensity day number three trains maximum power: 75% x 5;
83-86% x 3; 93-96% x 1.

CHAPTER 8

Training maximum

The training maximum is the maximum amount of weight that you could perform one single rep of, on any given day. The training maximum is not a single repetition maximum. Single, repetition maximums are the product of weeks of preparation building to a single repetition that is higher than you've done before, while controlling for many factors of fatigue and recovery.

The training maximum is the number upon which we base all percentages for calculation.

If a persons training maximum is 100lbs and the trainer finds himself on a max effort day (65% X 5, 75% X5, and 83 to 86% X5+), their weight would be 65X5, 75X5, and 85X5+

Tempo treadmill warm-up and design

The point of a tempo treadmill interval is to improve power endurance and running form with the goal in mind of improving sprinting.

Sprinting every day would cause instant over training and massive injury risk. It can't be done.

The problem then becomes a matter of volume. How can we achieve the volume necessary for sprinting adaptations to occur while not burning people out instantly?

The act of sprinting over short distances at 60% maximum speed, followed by requisite recovery is the best way to ensure that these volumes are met at the lowest risk.

Treadmill warm-ups should be a progression of six second sprints starting very slow and proceeding to 60% total speed in 1 mile an hour (or less) increments.

For example, if the clients maximum speed is 10 miles an hour on the treadmill, the warm up would look something like this:

1 mph x 6 seconds; a little rest; 2 mph X6 seconds; a little rest; 3 mph x 6 seconds; a little rest; 4 mph X6 seconds; a little rest; 5 mph x 6 seconds; a little rest; 6 mph X6 seconds; a little rest

Then proceed at 6 miles an hour for 50 m(0.03 distance) repeated for the duration of the hour.

How much is a little rest? Well, that's up to you. There's an art form to understanding your clients. Someone who is new to this or has a particular clinical issue may require longer than the one minute requisite recovery intervals. Conversely, someone who has been at this longer, could easily be recovered fully in 45 seconds.

Any burning feeling in the musculature, or an inability to run at 60% intervals for the duration of the hour requires that you have over trained them. Either they are running too fast or you are not giving them enough time to recover in between barbell and treadmill intervals.

CHAPTER 9

Speed treadmill, warm-up and design

The point of a speed interval is to produce more speed in the client than they previously have had. To run faster. It doesn't have to be world record pace. It just has to be faster than that client has run before, it does not have to be faster by much.

The adaptations of sprinting require a tremendous amount of recovery. The act requires of running faster than before requires lengthening rest in between sets.

For this reason on a speed day, we seldom perform more than three sprints above 90% speed.

Speed days also include a particular attention to the warm-up protocols. They are more in depth than a Tempo warm-up.

Assuming the Client can run at a maximum of 10 miles an hour on the treadmill the warm-up will look something like this.

1 mph x 6 seconds; a little rest; 2 mph X6 seconds; a little rest; 3 mph x 6 seconds; a little rest; 4 mph X6 seconds; a little rest; 5 mph x 6 seconds; a little rest; 6 mph X6 seconds; a little rest; 7 mph X6 seconds; a little more rest;
8 miles an hour(80%)X6 seconds; 2 to 3 minutes recovery required at 80% speed.

Here we insert pendulum training for hip mobility.

Once 2 to 3 minutes have passed and the client is adequately, recovered from the 80% attempt, we can proceed to one 6 second sprint at 90%

9 mph X6 seconds

For every second that the client is running at 90% speed or faster. They are required one full minute of rest.

Recover six minutes

During this time, you're welcome to insert barbell training, stretching, or treadmill marching.

Maximum speed attempt number one:

Once adequate recovery has happened

10 mph X up to 6 seconds.

The trainer must begin the timer at the 9 mph mark(90%). If it takes the client one full second to go from 90% to 100% that time must be accounted for. Generally, I reduce the amount of time running at maximum speed.

So it looks like this: 90% or 9 miles an hour, X1 second; 100% or 10 miles an hour for five seconds. The total six seconds.

Now the client requires 6 full minutes to recover.

If a second speed attempt is advisable after the requisite recovery time and the trainer feels the client was able to perform the last one with the necessary skill and form, a slight increase in speed can be added.

10.1 mph X6 seconds. A third maximal attempt is not required.

So the entire speed day looks like this:

1 mph x 6 seconds; a little rest; 2 mph X6 seconds; a little rest; 3 mph x 6 seconds; a little rest; 4 mph X6 seconds; a little rest; 5 mph x 6 seconds; a little rest; 6 mph X6 seconds; a little rest; 7 mph X6 seconds; a little more rest;
8 miles an hour(80%)X6 seconds; 2 to 3 minutes recovery required at 80% speed.
Pendulum mobility work

9 mph X6 seconds

Six minute recovery.

10 mph X up to 6 seconds.

Six or seven minute recovery.

10.1 mph X6 seconds.

No more sprinting.

*Please note regarding warm up: obviously walking someone at 1 mile an hour for six seconds is not going to be an effective warm-up for most participants. I usually start people at 4 or 4.5 mph for six seconds this, generally, is enough speed to get past the walking cycle, and into a slight jog. I just gave the example of 1 mile an hour to 3 miles an hour so that you realize that you may be training clients who can only go that fast. Further, you may have to add more warm-up intervals at smaller progressions in one full mile per hour depending on the client experience in ability.

CHAPTER 10

Accumulation phase(six months)

Now that you've learned the bones of this programming, I'm going to need you to forget about high intensity for a moment. We will circle back later.

When the client first begins this programming, they will enter the first of two accumulation phases.

An accumulation phase is a time when novel stimulus produces the most rapid adaptations.

First accumulation phase (three months)

Due to the nature of the skills required to adequately perform barbell training, we've eliminated high intensity training for the first three months. During this time, the client will rapidly progress with low intensity training only.

Our first accumulation phase is exclusively, low intensity. This phase lasts three months.

The goal of low intensity training is to establish and build upon a routine of 60% weights and 60% speed.

In the absence of high intensity training, how can we reliably predict what's 60% weight and speed is? We have yet to determine training, maximums, and woe is he, the trainer, that takes a new trainee to maximum velocity on the treadmill.

The process of determining running, and lifting values, requires a twofold approach.

One – rate of perceived exertion (RPE):

The trainer is to regularly check in with the client asking for feedback on how hard the client believes they are working on a scale of 1 to 10.

With regard to speed, the client is repeatedly asked how fast they think they are running on a scale of 1 to 10. And the trainer is to calibrate to 5 or 6 out of 10.

With regard to barbell training, the client is asked how hard that lift was on a scale of 1 to 10. Then the trainer calibrates to 5 or 6 out of 10.

Two – signs of fatigue:

The trainer is vigilant that the client is able to produce technically sound, repeated sets well into the training hour. The trainer watches for break down in form and repeatedly asks for feedback concerning muscle burning. In the event of early fatigue, muscle, burning, or a breakdown in form, the trainer knows that the weight or speed they've selected is too great.

Over the course of several sessions, the trainer will thereby endeavor to find the appropriate weight and speed, so that the client can perform up to 10 tempo intervals (or more) at consistent speed with no degeneration in form, burning in the muscles nor dizziness or nausea.

Once the speed is established on the treadmill, it remains relatively constant throughout the entire accumulation phase.

Once the weight on the barbell has been established, the client will begin to make adaptations. This necessitates an increase in weight. This increase in weight will never be done at the expense of form or volume of total tempo sets.

Clients will often report that they feel this is “too easy“. This is actually what we want.

Trainers are free to add up to 5 pounds per session for an upper body exercise, and up to 10 pounds per session for a lower body exercise. Trainers will not increase the weight, if that increase leads to a reduction in form in the latter intervals of the session.

The speed of movement must be established within the first two or three intervals in the session. That speed and the requisite form must be maintained throughout all tempo intervals. Failure of the client to do so, means that the trainer put too much weight on the bar.

CHAPTER 11

Second accumulation phase (three months)

Once there has been a solid foundation built upon the skill of running and barbell training, Our second accumulation phase begins. This is where we introduce high intensity training.

High intensity, conundrum

After our power endurance (low intensity) accumulation phase, the addition of high intensity weight will invariably produce this conundrum: relative strength and power has not proportionately improved.

We have been training at what we perceive to be 60%. It stands to reason, therefore, that if I am bench pressing 60lbs believing that

it is 60%, then I should be able to bench press, 95 pounds or even 100 pounds for a single. By this logic, we should just set the client training maximum at 100 pounds and proceed with the programming.

Not so.

Upon entering the high intensity accumulation phase, it is completely usual for clients to not be able to lift much more than 20 pounds more than what they were doing in low intensity. For example, If a client was bench pressing 60 pounds in low intensity accumulation and believing that that was 6 out of 10 RPE, it is common for that client to only be able to produce a single bench press at 80 pounds. Their nervous system and musculature simply is not prepared for high intensity barbell training yet. They are still lifting more weight than before. Adaptations will rapidly even out this dichotomy over the next couple of weeks. 80 pounds still counts as high intensity. However, we must be extremely cautious about the weight that we put on the bar until such time as we have actually increased training maximum to the point where 6 out of 10 is truly 60%.

Example of benchpress training through the first high intensity mesocycle:

Here, week one exemplifies values achieved during the low intensity, accumulation phase.

Week One:

Low intensity day: tempo treadmill sprint @ 60% max speed.

Bench press: 60 x 3

One minute rest each repeated as many times as possible.

Week two:

High intensity day number one (trains maximal effort):

Bench press: 65 x 5(supposed to be 62-66% X5);

75 x 3

(Supposed to be 73 to 76% X5);

80 x 1

82 to 86% X5 plus (AMRAP)

Week Three:

Low intensity day: tempo treadmill sprint @ 60% max speed.

Bench press: 60 x 3

One minute rest each repeated as many times as possible.

Week four:

Hi intensity day number two (trains maximum strength):

Bench press(100 TM):

Set 1- 70x3(supposed to be 70% x 3);

Set 2- 80 x 2(supposed to be 80% x 3);

Set 3- 90 x 1(supposed to be 90% x 3)

Week Five:

Low intensity day: tempo treadmill sprint @ 60% max speed.

Bench press: 60 x 3

One minute rest each repeated as many times as possible.

Week six:

High intensity day number three trains maximum power:

Bench Press(100 TM):

Set 1- 75 x 5(supposed to be 75% x 5);

Set 2- 85 x 3(supposed to be 83-86% x 3);

Set 3- 95 x 0(supposed to be 93-96%x 1).

Set 4- 80 x 2-3(set added to achieve requisite volume).

Requisite volume: high intensity:

As mentioned earlier, this program is designed to employ the least amount of volume at high intensity, while still producing favorable adaptations to strength.

Factors such as age experience, pain and enthusiasm and what I've observed other old guys like doing, inspired me to play around with volumes of intensity. After years of that, I have come up with these volume guidelines for this particular high intensity programming.

1- Approximately 10 reps above 80% training maximum total.

2- Approximately four reps above 90% training maximum total.

3- Approximately one or two reps above 95% training maximum total.

This means that in one single high intensity day, there should not be more than 10 total reps above 80%. In the event of a max strength or max power day, those reps are reduced further.

On days when we need three reps at 90%, the total reps above 80% are approximately six

On days when we need one or two reps above 93% The total reps above 80% are approximately four or five.

Exception: as observed earlier in high intensity day week six, in the event of a miss (i.e., the client did not achieve their third and final sets requirements), a drop back set is often required for requisite volume. In this case, I usually drop the weight back to 80% and have the client perform one more set. Between three and five reps.

	↑ high intensity ↓ low intensity	Monday	Tuesday	Wednesday	Thursday	Friday
Week 1	↑ 65%-85% x3 sets 6 sec sprint	Squat	Bench ↓ 60% 50m Tempo	Pull / Accessory ↑ 65%-85% x3 sets 5min Lactate Flush	Dead lift ↓ 60% x10 sets no running	Hip Accessory ↑ 65%-85% x3 sets 5min treadmill flush
Week 2	↓ 60% x10 sets + 50m Tempo	Squat	Bench ↑ 65%-85% x3 sets 5min Lactate Flush	Pull / Accessory ↓ 60% x10 sets 50m Tempo	Dead lift ↑ 65%-85% x3 sets no running	Hip Accessory ↓ 60% x10 sets + 50m Tempo
Week 3	↑ 70%-90% x3 sets 5min Lactate Flush	Squat	Bench ↓ 60% x10 sets + 50m tempo	Pull / Accessory ↑ 70-90% x3 sets 5min Lactate Flush	Dead lift ↓ 60% x10 sets + no running	Hip Accessory ↑ 70-90% x3 sets 6 sec sprint
Week 4	↓ 60% x10+ sets 50m Tempo	Squat	Bench ↑ 70-90% x3 sets 5min Lactate flush	Pull Accessory ↓ 60% x10+ sets 50m Tempo	Dead lift ↑ 70-90% x3 sets no running	Hip Accessory ↓ 60% x10+ sets 50m Tempo
Week 5	↑ 75-95% x3 sets 5min Lactate flush	Squat	Bench ↓ 35-60% x10+ sets 50m Tempos	Pull Accessory ↑ 75-95% x3 sets 6 sec sprint	Dead lift ↓ 35-60% x10+ sets no running	Hip Accessory ↑ 75-95% x3 sets 5min treadmill flush
Week 6	↓ 35-60% x10+ sets 50m Tempo	Squat	Bench ↑ 75-95% x3 sets 6 sec sprint	Pull Accessory ↓ 35-60% x10+ sets 50m Tempo	Dead lift ↑ 75-95% x3 sets no running	Hip Accessory ↓ 35-60% x10+ sets 50m tempes

Handwritten note: Horizontal was 17/70 or