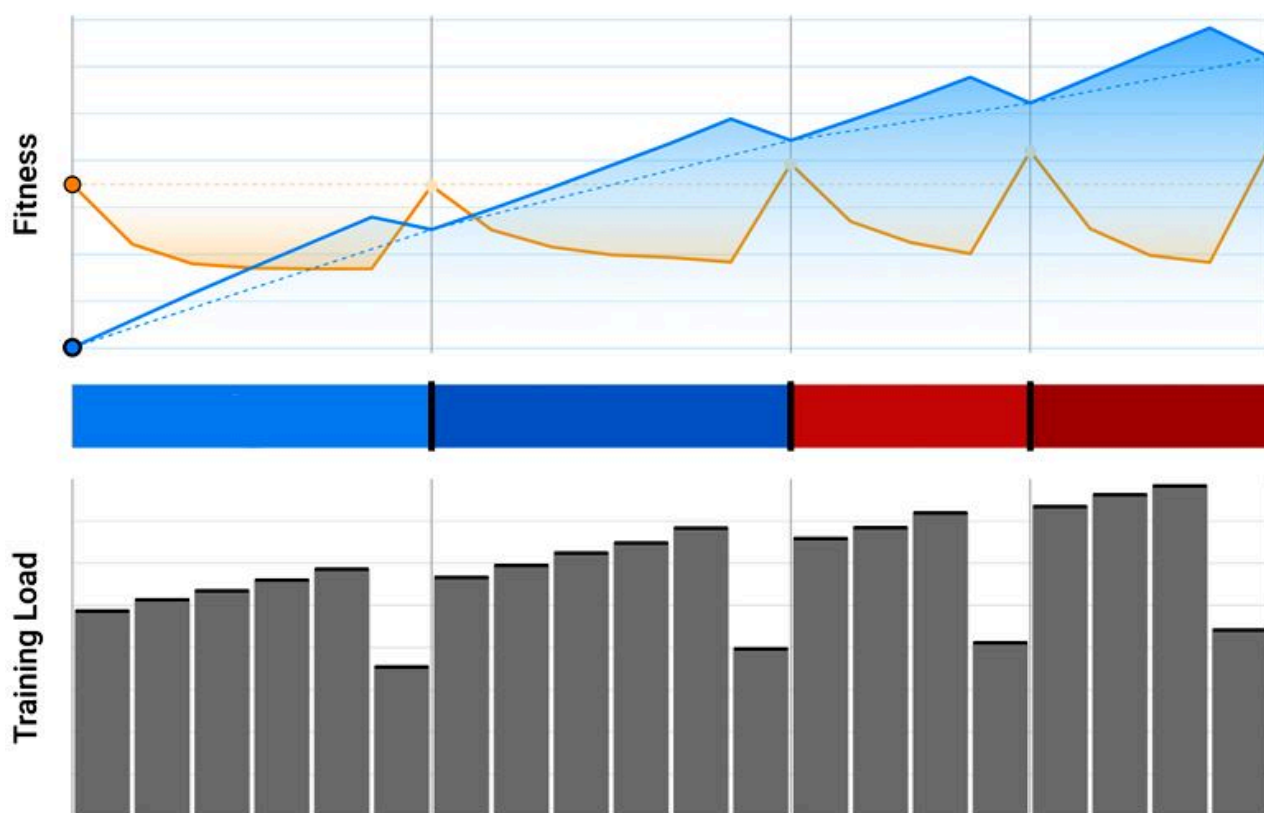


Why Training Periodization Matters for 50+ Athletes

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As previously discussed in my 50+ articles, the rate of recovery after exercise slows down as we age (due to a whole range of reasons, hormonal, structural, muscle damage post exercise, etc).

It is due to the slow recovery rate that it is important we effectively periodize our training programs to ensure we maximise training load but minimise overtraining/overreaching.

Firstly, some definitions:

Periodization – Periodization is training that may be defined as the strategic implementation of specific training phases. These training phases are based upon increasing and decreasing both volume (total amount of the specific load (kg, km, etc) and intensity (which is the amount of load, speed of km, etc) when designing a training program.

Microcycle – Typically a week of training.

Mesocycle – Typically 4-8 weeks of training.

Macrocycle – Typically an entire year of training.

Overtraining – Overtraining occurs when a person exceeds their body's ability to recover from strenuous exercise (a chronic condition).

Progressive Overload - Progressive overload is the gradual increase of stress placed upon the body during exercise training.

Most clients' understanding of PERIODIZATION is that of a *"regular change in training load"* (training weeks alternated with recovery weeks). Very few understand the different cycles that can be undertaken, what sort of loading (volume/intensity) variations could be undertaken throughout any cycle and what a recovery week should look like (and more importantly what to expect after a period of deloading).

My goal of this article is to look at the basics of PERIODIZATION and how we as 50+ athletes can use this methodology to maximise our training returns.

PERIODIZATION

What practically does periodization look like?

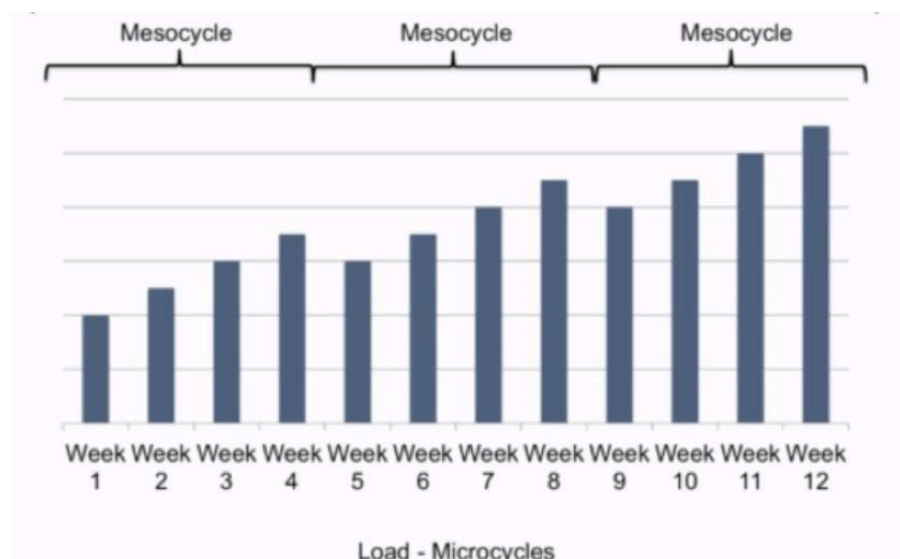


Image 1 - Microcycle/Mesocycle Periodization Model.

A typical periodized program will look something like the above.

A series of training weeks with increasing load/intensity (some combination of both) followed by a deloading/recovery week followed by another series of training weeks (higher load/intensity) with recovery and repeat.

The undulation of training load/intensity/recovery has been shown to maximise adaptation (over a more linear approach of forever increasing load/intensity with limited if any deloading/recovery cycles mixed in).

PROGRESSIVE OVERLOAD

The body is an amazing piece of machinery – with an inbuilt trend to resist change (Homeostasis). We see this in the huge challenge faced when trying to lose weight – same thing takes place with any sought after adaptation from training – if you apply a training stimulus to your body (or body part) there will be an initial adaptation phase, if you continue to load the body the same way

(volume/intensity) then the body is very quick to realise that it doesn't have to adapt any more and will plateau. In some cases, there is even a "devolution" of physical attribute as the body finds ways of being more efficient in achieving the goal of dealing with the training load being placed upon it.

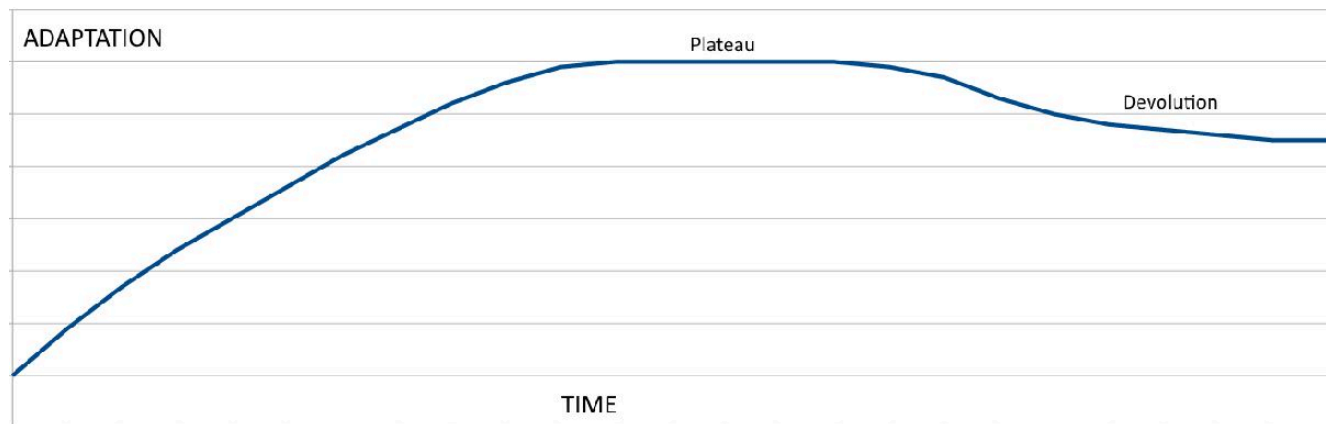


Image 2 – Adaptation – Devolution from applying the same stimulus to a body.

So how do we overcome this inherent resistance to change?

Through the application of the principle of Progressive Overload.

By regularly increasing either the volume and/or intensity of your exercise routine, you don't give the body a chance to plateau – what is important about this process is that it must be incremental (no rapid change) and it must be ongoing.

One of the big challenges with training loads is how do you measure the load day to day and week to week? If it is an aerobic activity for instance then you mostly likely can measure the time/distance/speed of your efforts and ensure that there is some increase in load over time to ensure continued adaptation.

If it is weight training then we "SHOULD" calculate total Reps/sets/loads each session (very few clients ever make this effort).

But what if it is something a little harder to measure like group circuits – This is a challenge **and it is most likely the reason why there is very little improvement over time from regularly attending circuit classes (because there is no structured overloading from session to session).**

MESOCYCLES

A mesocycle is a number of microcycles (weeks) of training/overload prior to a deloading microcycle and subsequent new mesocycle (hopefully at a higher training load).

The first mistake I see made, particularly with younger athletes is that they equate training load to performance improvement. The mindset is that the more training you do, the better you get.

In theory that is correct, BUT, it is how you increase the load over time that determines your success (or not).

If you follow a progressively overloaded training cycle, you will at some point need a recovery microcycle (week) to give you both physically and mentally a break from the grind of training.

Regarding the younger keen athlete, I regularly ask young gym goers what their microcycle/mesocycle structure looks like, and most often I get a strange look with the answer being "I don't have an easy week, I just keep training harder and harder".

What we typically see from this approach is one of the following outcomes:

1. What happens here is that the client doesn't give their body the time to get back to a baseline condition before they blast away with another training session and they then start to bounce off what I will call the "INJURY LINE" - they start to get some niggles in their joints, tendons, etc. Many clients ignore these signs resulting in them finally breaking through the INJURY LINE with a full blown injury. What ensues is a forced recovery (and associated supercompensation) and they will often come back from injury in great shape (fresh, recovered, all non-injured body parts will be supercompensated) and unfortunately many clients start the whole process again until they give up for good.

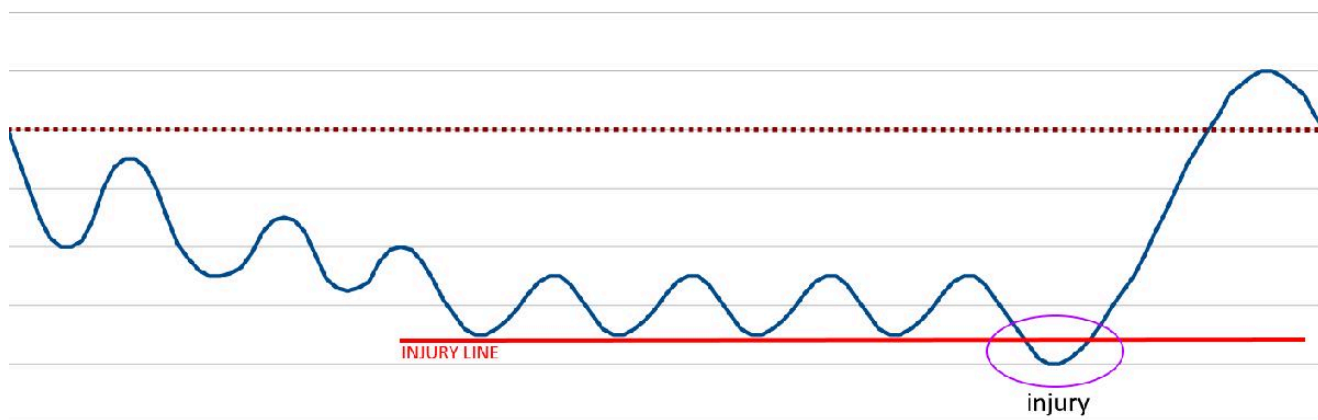


Image 3 – Over-training resulting in injury and force layoff with associated supercompensation.

What should happen is the following after each session.



Image 4 – How Supercompensation should work – there is a decrease in capacity post session, followed by an adaptation phase that exceeds the original starting condition and if applied at the appropriate times, there is a wave like improvement in performance over time.

2. The second typical scenario with training is a major performance plateau resulting in loss of motivation and the client then gives the training away.

One great example recently was from a young very strong guy at my gym – came to speak to me about a sore back he was getting from squatting – no recovery weeks at all – had plateaued and was on the verge of a real injury. I spoke to him about recovery weeks and he reluctantly agreed to an 8-week cycle (7-weeks training, 1-week recovery).

6-months later he has now voluntarily reduced his training to 4-week cycles and all his injuries are gone and his strength has continued to improve.

What about the 50+ athlete and training cycles?

At the start of this article I mentioned that our rate of recovery gets slower as we age, therefore the accrued fatigue from training week in and week out can quickly catch up on us leading to us carrying significant “residual fatigue” from session to session – this will result in stiffness, soreness and ultimately injury if the cycle isn’t changed.

A previous article I spoke about training volumes versus intensities, volume gets harder but intensity can be maintained – so the way to factor this into your routine is to continue to train as hard as you can BUT have shorter timeframes b/w recovery weeks.

Forget about 6-8 week cycles, even 4-week cycles can be too much if you are training hard.

I have been using a 3-week cycle for the past 2 years with minimal injuries and maximal adaptation knowing that I only have two weeks of hard training before a recovery week, I can blast away without fear of overtraining and injury.

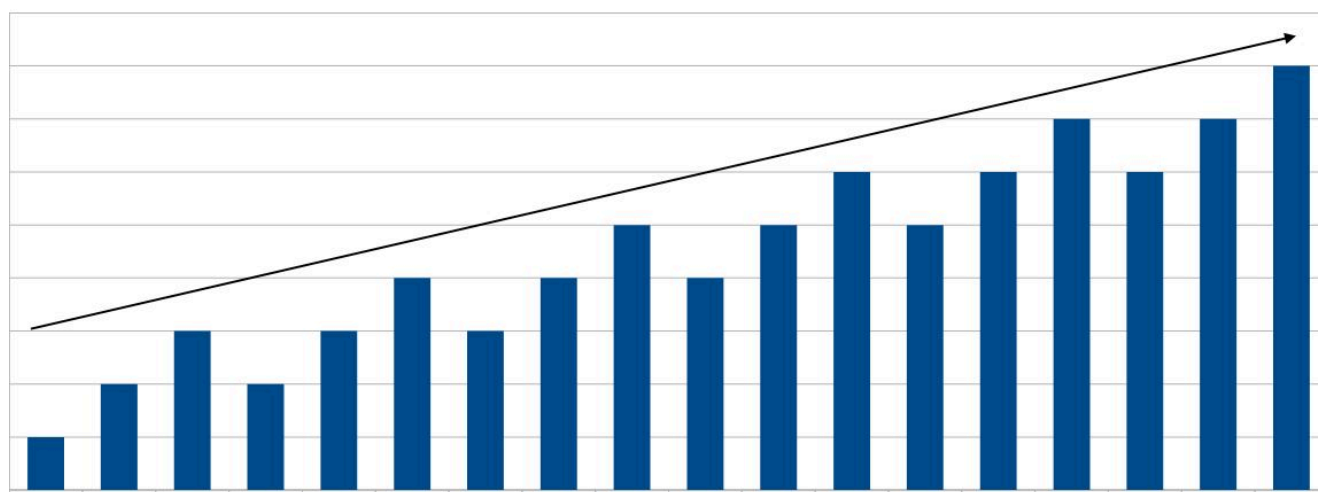


Image 5. A 3-week periodized cycle with weekly undulations but overall overload is increasing.

Whilst most of us are in denial, we just can’t recover as fast as we would like. By adopting a more conservative work:rest training ratio, you can continue to train at maximal intensity without fear of injury (which should be one of our major focuses, because any injury >50yrs will take many times longer to recover from than when we were in our 20’s).

RECOVERY WEEK

I am often asked, what should you do during your recovery week? That is a great question. I am not suggesting you do nothing, all I am saying is that you should “deload” from what you have been doing the previous 2-3 weeks to give your body a short break (psychologically as well as

physiologically) prior to starting another training cycle.

I am continually amazed at just how good I feel the start of the next cycle after having a deloading week.

So what could/should you do during this week?

I suggest you still train just as much (but don't feel guilty if you train less during this week). I would back right off on the intensity of what you would normally do (eg amount of weight lifted, intensity of effort, speed, etc).

I typically use this week to move back into a more general "circuit" type program whereby my training partner and I will move around the gym and use all the machine weights available to train as many body parts as possible – but with lower weight and in some cases more repetitions.

I will maybe do one less strength type session and add an additional interval workout or just do a full stretching/mobility session as a replacement. In the end it doesn't matter, as long as you are training with less intensity than the previous hard weeks of training, you are giving you body time to recovery/recuperate prior to starting another training cycle the following week.

In a future article I will cover other factors associated with good training theory (specificity, adaptation, reversibility).

SUMMARY

1. As older athletes, we should adopt some form of periodization into our training if we are serious about getting the most from the training effort we are putting in.
2. We should keep intensity high but reduce the total volume over time and using a shorter periodized mesocycle (2:1 or 3:1) will ensure that we include adequate rest in our routine that will keep overuse injuries at bay.
3. Get used to having recovery weeks – the more you embrace these periods of deloading, the harder you can train inbetween these phases and the better your results will be.

For more information on Periodization - check out my blog ([Periodization - Specificity...](#)).