

## Arteriosclerosis – causes, prevention and treatment

A non-authoritative summary of personal experiences and learnings from a long term sufferer of arteriosclerosis.

Draft release 5, Nov 2019 – in the hope it may prove useful to somebody

About myself: I self diagnosed severe angina at age 42 and ended up shortly after that with a quadruple bypass. I recovered only gradually after this but soon enough complications became a regular feature of my life ending with a collection of some half a dozen stents.

A year ago I failed my flight medical renewal unexpectedly and once again had an angiogram. I was advised I needed another triple bypass, possibly high risk as effectively only my circumflex was still open – everything else closed up and occluded. In fact it was so bad I should not really have been lying there breathing. Yet I was not really aware of any symptoms and cycled up a lengthy, steep hill twice a week.

I decided to decline the offer of the second bypass. I just could not stand the thought of going through that again.

Back home I decided I have nothing to loose and let's see what Google could tell me. Of course I am aware of Dr. Google. I am a scientist and definitely at that point in time a follower and believer in western medicine. I still am. But with qualifications.

Dr.Google must be taken with great care – there really is a lot of rubbish out there. However it does give access to a great number of medical studies and research. Various consumer orientated websites are useful to give pointers to various research that may have happened – in any case one good thing about medical research is that it relies heavily on references. Reading these documents at first is tough going – you have to learn a new language. But very quickly you learn how these documents are structured – read the introduction and the last page. If it is interesting start looking at the rest. If not throw it away. You need to do this. The amount of relevant research out there is staggering. Both “negative” as well as “positive” results must be looked at. Read websites such as Quackwatch as well as those claiming miracle cures – both at arms length – you are only interested in qualified references.

Without going into great detail which would be out of the scope of this write up – a picture starts emerging. You see, I am an electronics designer. I have done this all my life and there is a certain structure to solving problems using “reseaching research” I am very familiar with. This was no different.

Eventually over weeks of pouring over anything interesting I could find I decided to combine a few possible treatment options in a sort of complementary way. Recognizing that there are multiple issues at play a solution is needed that addresses each one of them. Medical science does not like this kind of solution – it is too complicated for ease of dispensing and monitoring. Sadly, this is not a “one pill” magic bullet. Nevertheless, it is actually quite simple.

I am now typing this just over one year later. When I started I said to my then very skeptical wife: “If I am still alive a year from now – then it's working”. Well, I am not only alive – I am doing much better than at any time since my bypass 14 years ago. My time up the hill on my bicycle improved rapidly from 12 minutes (needing a good rest once on top) to 8 minutes with a quick recovery. I now wait for my wife on top. She used to wait for me.

Enough introduction. Here goes:

Arteriosclerosis is classed a disease and it affects many of us. Sometimes it can cause you severe issues at young age, for most of us the trouble starts at 40 or 50 years of age.

What exactly is it ? Whatever follows here in this text should be read once you understand what an arteriosclerosis lesion is. Why is it there ? How does it form ? What events or conditions must be present for it to form. Why does it only form seemingly in a few locations ? Why does it only occur in humans, primates and guinea pigs ?

If you are reading this, chances are that you have the condition and perhaps you are intolerant of the medication prescribed to you.

You likely have been told to improve your diet, exercise and take statins and perhaps blood pressure medication. Statins are really the only known medication that have shown direct benefits. There are several cholesterol lowering drug types (statins, fibrates, absorption blockers and absorbers). While these all help to improve your lipid profile, it appears only statins show a traceable improvement in the possible outcome of your condition. In some cases it can cause regression of your condition but will at least slow it down. There is some suspicion that the benefits you can obtain from statins are due to its strong anti-inflammatory action on the arteriosclerosis lesion.

Unfortunately, some individuals like myself have developed strong adverse effects (side effects) from using statins for a prolonged period so these are no longer a therapeutic option.

There is also a rapidly growing body of concern on the possible negative effects of statins taken over a prolonged period which may negate the positive effects.

There are alternatives that do not focus so much on cholesterol but rather on its indirect contribution as well as basic conditions needed to favor the start and growth of such lesions. Further to this it appears possible to dismantle the lesions essentially using bio-chemical processes and ultimately heal the damaged artery in many cases, further preventing any new startups.

We have been focusing on cholesterol perhaps a bit too much, we have a pill to alter it and we have a nice, widely available blood test to check up on it. This has caused it to move into center focus – to the detriment of the bigger picture which is a little more complex.

OK, let me start with a disclaimer. I am not a medical doctor. This text here is an observational study on myself and I make no claims other than those pertaining to myself. Please obtain advice from your physician should you want to try any of this first. Also, educate yourself as to what all of this is doing – it's all there and I encourage you to spend some time on Google. You will find a wealth of good information if you are prepared to spend a little time digging.

So what is arteriosclerosis ? Picture a nasty festering wound on the inside wall of your artery that just does not want to heal, scar tissue, puss, bacteria, oil, grease – the works. Just keeps growing and getting worse. That's what it is. That is what you need to get rid of and prevent.

I'll start with what I am taking to help me:

I am taking a therapeutic dose based on my severe starting condition. Once certain criteria are met, this will change to a maintenance dose. This will remain for the rest of my life. We are fixing what is mostly a deficiency related problem (with or without genetics as a contributing factor) – not a disease as such.

You will note that the doses of some of the ingredients are very high – in cases as much as 100 times the official recommended dose. Many will tell you this is not a good idea. But bear with me. There are reasons and mechanisms that do indeed require high doses. Some can experience mild side effects from these doses – I am lucky here, any possible side effect I can report after about 9 months is positive. Very positive in fact. Many small little ailments I had but ignored in the past have completely disappeared or are no longer noticeable.

Dosages of the following are shown per day taken in three equal measures at meal times.

Vitamin C as ascorbic acid (pure ascorbic): 9000mg.

Vitamin A: 7mg

Vitamin B6: 150mg

Vitamin E: 900mg

Folic acid: 1200mg

L-Arginine: 600mg

L-Lysine: 9000mg

L-Proline: 1500mg

As maintenance dose the above can typically be halved. The above ingredients are not easy to get in the correct types and would require many pills. We are lucky in that we can buy a locally packaged product at very reasonable cost. It is called CholesterolEase (NOT the product by the same name sold by Vital which is completely different). The name is a bit misleading as combating Cholesterol is not the primary function of this product – that does happen but tends to take 4-8 months and is a secondary effect. I get mine at Dischem but you can also order online.

The above is augmented by the following, taken twice daily (so double the quantities shown here per day).

Lecithin granules, one table spoon (I get this at Spar, also available at Dischem and most health shops). This one is important, don't skip it.

LinSeed (FlaxSeed), one tea spoon (Also at Spar – I prefer the seeds rather than the ground seeds)

Niacin 1000mg (Vitamin B3). Do NOT take the “flush free” - that does absolutely nothing. Do not take a slow release either. Yes, this causes flushing of your skin. That's good. You can modulate the dose so the flushing is tolerable – it tends to last a minute or so and after a while you hardly even notice.

Magnesium glycinate 1000mg

Omega 3 1000mg

Vitamin D3 in liquid form (two drops).

Once daily:

Vitamin K2 in the MK-7 form. 100 mcd (Micrograms).

This one is highly relevant – if you don't do any of the above, do at least this one. Excellent research released last year (Maastricht study) shows conclusively dramatic reduction of arterial hardening in all subjects. MK7 in particular is required in tiny quantities to complete your calcium metabolism – in short, it is responsible for transporting calcium to where it is needed. Lacking this it ends up deposited in your arteries. Better still, re-introduce it and it assists in removing the calcium deposits from your arteries. This little, relatively recent discovered mineral used to be in our diet – but we have all but engineered it out, quite unintentionally.

Calcium is not the cause of arteriosclerosis but contributes significantly to the lesion in a bad way. The K2 is needed to prevent free calcium in your serum from depositing. It is also vital in the process of transporting calcium away from an existing lesion over time to weaken it.

Everything else your body needs should be available if you follow even just a halfway reasonable diet. There is a breakfast cereal new on the market that you might want to look at: Futurelife high protein. This is packed with large quantities of about any vitamin, amino-acid and other minerals your body could possibly want. Perhaps not the best tasting cereal on the planet but there is no other way to get this kind of valuable nutrition in such an easy to consume form.

Get your heart at least twice a week to 80% of target rate for a few minutes (220 – your age as a rough figure) and if possible, to 100% briefly. If you don't have – buy one of the many pulse rate monitors you can now easily get. Jog, cycle or do whatever to get there – but get there. The action of your blood pumping through your hearts arteries at elevated blood pressure that goes with the effort is very important with respect to the actions of the ingredients mentioned in this text. This aids the deconstruction of existing arterial lesions.

Now to the reference. What does all of this do exactly ? Well, it needs a book. There is a lot to say. We need to delve into biochemistry a bit. Luckily I found such a book that explains it all (except for the K2 which is too new for the current edition). It's cheap and you can get it through google books, also in digital form (I paid around R113 – well worth it). You can find the full text of the Maastricht study (K2) and other studies that lead to this one using Google, I managed to download a copy at the U.S. Cardiologists associations website (they have a treasure trove of research papers, a nice resource).

The book is called “The 8 week+ program to reverse cardiovascular disease”, ISBN 978-1-944014-67-4 in paperback – or get it via google books.

I would recommend you have a read if you are interested in this – the book is a start to finish account of all that is known and addresses everything relevant and how it works, including exercise and diet. Some of it is slightly outdated in my opinion (mostly the diet side) but nevertheless as a whole well presented and readable.

The book of course also contains references to the relevant research on the various topics so you can follow up yourself. You may be surprised just how much research is available and has been done over decades. You will be even more surprised when you realize that treatment is in fact quite possible, quite successful and quite low cost. Spend some time on Google on the subject. Have a go at reading the multitude of study results both for and against (you always must take a balanced view – you will find any answer you like on the internet. It is all too easy to get convinced on the wrong answer).

Back to the treatment protocol: In a nutshell, what we are attempting to do is attack the problem from all angles at the same time, rather just focusing on one or two factors. This is “throwing everything we've got” at the issue – almost military style if you like.

The reason is simple – arteriosclerosis is a complex condition. It does not have one cause. It is the result of a combination of events and conditions that happen over a prolonged period. By the time you notice something is not right – you are well advanced into really dangerous territory. Merely undergoing a bypass or angioplasty may attend to an acute problem but it absolutely does not fix any of the underlying causes. If you do nothing, it will simply carry on

killing you slowly. Lifestyle changes, assuming this is a contributing factor, will help. However, it may not be all that is causing your problem. Genetics comes into it. But even this is not a direct cause – at least such a link is not proven – instead, it is indirect but still very real. Genetics, for the most part, dictates how you age. Most cases of arteriosclerosis are related to the process of aging. It's simply a result of your bodies biochemical processes slowing down or changing – while at the same time many external factors can contribute from nutrition to life style and simple lack of exercise.

Browsing on the net for options after I was effectively diagnosed “terminal” yielded a remarkable number of glowing reports based on only small parts of this therapy – this in itself caused me to ignore this until I ran out of viable options. Things just can't be that good. Right ? No really, I am a scientist – I believe in science and strict methods of research. You will find this subject to be controversial. You will also find a lot of positives. From many studies validating parts of the treatment to some apparently disproving (or at least used to disprove) parts of the treatment or the actions of some of the ingredients. Time also needs to be taken into account – research done decades ago tends to stick around even though it has been superseded.

After some two months of sifting through medical texts, observational studies, studies on the effects of various medications, vitamins and supplements and just about anything that seemed even vaguely relevant – going back to the 1950's even. I decided I have to give this a try. There was nothing to loose. I would use my own body to perform an observational study – it was a good candidate. After all, I had been written off. It really was bad – Only my circumflex artery was still open. Everything else gone and blocked.

At time of writing this I have been on this therapy for some 12 months. I experienced a fairly dramatic improvement of my general energy levels within just a week or two, likely symptomatic relief so let's not give that much value.

I cycle three times a week as a means of trying to stay fit and generally use the same route which involves a fairly steep uphill. My time used to be around 12 minutes to get to the top. Mild angina sometimes radiating into the arms would accompany me until I rested for a while at the top.

This stopped very quickly, in about 3 weeks the angina was gone and my times up the hill started to improve. A little later I received a small portable 6 lead ECG recorder which now accompanied me up the hill. The most visible trace of my conditions was a ST depression on the V5 lead. This started out at about 4mm noticeable after stress exercise before I started the therapy (ECG done at doctors office at the time). My first recordings showed the depression was still there but much less – I could only really show it if I remained standing after reaching the top of the hill – sit down and it is much less. I have attached some recording and my comments to the end of this text.

I regularly checked my cholesterol using a strip tester (total only). The levels rose sharply up to the maximum the machine could display (8.5). After about two to three weeks the reading slowly came down again eventually hovering around the 6.0 and refusing to improve further. My performance continued to improve and so did my general well being. Several minor health niggles that had been pestering me for decades started to go away. My time up the hill has now improved to 7 minutes (8 if I take it easy) and I don't bother stopping at the top anymore (unless I have to wait for my wife – she used to beat me up the hill). There is no sign of angina but the wound left from a bypass operation some 12 years ago tends to get a bit sensitive due to the heavy inhalation movements of the chest.

About 4 months ago (after about 8 months on the therapy) I started noticing an improvement in my total cholesterol level and eventually decided to do a proper lab test. The result had me extremely excited. I did not believe that I could ever get these kind of levels.

Typically I would get results like:

Total 6.5  
HDL: 1.0 (or less).  
LDL 4.0 (or higher)  
TG about 4.0.

Now the result is:

Total 3.4  
HDL 1.5  
LDL 1.7  
TG 0.34.

There is a line of thought that suggests that in some cases at least elevated LDL is a result of arteriosclerosis. It does seem to make sense as LDL is of course used to make cells and your body produces more of it in direct response to injury as well as exercise stress – athletes have elevated LDL according to one Dutch study because of this. So the thought goes – if you banish arteriosclerosis – or any chronic inflammation for that matter – after some time your LDL will normalize. I am not saying this is the case with me – but clearly, something drastic and good has happened. It does start to sound plausible.

A friend of mine that also had a bypass many years ago and struggled with cholesterol levels while using 80mg of Lipitor statin a day started this therapy after noting my progress and in his case his cholesterol levels dropped to similar levels than mine after just three months. His cardiologist reduced the Lipitor to 10mg a day – but it seems he does not need it anymore.

When I started this therapy my blood pressure was on the high side – not hugely high but I would perhaps get around 150/110 or slightly worse. Blood pressure was the first thing that showed an improvement, very quickly normalizing to more normal levels, even low levels. While the low blood pressure was at first welcome it did cause some issues, I once passed out with little warning while walking rapidly up a hill finding an ambulance in attendance as I woke up. I also had low blood pressure when exercising hard. This period however passed within weeks and blood pressure started rising nicely with exercise as it should.

So, where does this leave us ?

We think we understand fairly well what the various ingredients do. The question whether or not this works has been answered for me. It does and in my case it works extremely well. My only regret is that I did not bother with this earlier.

Where does all of this come from ?

You will find many references on the internet on this kind of treatment in various variations. As you go back in time you will find the list of ingredients getting less and less.

This is effectively the result of common experience and patients experimenting on themselves, reporting the results that are gathered on some websites. Of course, that is not the only source – we now have easy access to thousands of medical studies and trials and

many of these are quite interesting – proving or disproving. It is vital to read not just the results that prove a theory or therapy but also those that disprove it. Yes – you will get both on just about everything – making judgment much harder. But even those results that disprove something can yield valuable information that, when taken with other results finds a new avenue previously unexplored.

The work behind this involves many individuals, medical professionals, researchers and scientists of many disciplines.

However, the strongest possible proof is what you can create for yourself. That is the bottom line and all that matters. There is little risk of dangerous side effects so what do you have to loose ?

Can I use a statin with this ?

Yes. But be aware that some of the ingredients will have the effect of multiplying the efficacy of your statin (i.e. it works much better). Unfortunately this also increases the toxicity. You may need to reduce your statin to about ½ the dose to have an equal overall effect.

(This from my personal experience when I was still experimenting with statins and niacin – also confirmed by some medical trails).

How long do I need to do this ?

Well, the bad news is: For the rest of your life.

If you are in a bad condition right now, you need to start with a high dose and maintain this for a few months until you feel much better.

There is recorded experience with individuals who have reduced their dose (in particular of the ascorbic acid) too much and ended of with a relapse after as little as six months. There does appear to be a minimum maintenance dose you need and this is dependent somewhat on your body size and personal circumstance.

I have attempted to reduce my dose three times now and have failed each time. The first attempt made me go back to full strength after just two weeks, the second one perhaps a month and the last attempt lasted perhaps 6 weeks. I notice a gradual deterioration also confirmed by ECG but back on full strength restores within a week or so. I must take into account my severe starting condition of course but I am still encouraged that I will be able to maintain a reduced dose at some time in the future. Careful self monitoring is needed and I suspect this may be the case for any individual where this therapy works. It may well be that the actual dose required is so highly individual that a general rule cannot be recommended.

Individual action of some of the more important ingredients in a nutshell:

Ascorbic acid: Celation of calcium (forms calcium ascorbate), vital ingredient in numerous biochemical processes, major ingredient in the production of collagen – also required to keep your arteries healthy. This is probably one of the most important of our ingredients and in combination with many other compounds has numerous benefits. Also a very potent anti-oxidant in this kind of dosage..

Vitamin E: Thought to prevent blood clots, appears to boost cariovascular health, lower cholesterol. But ONLY if applied with a co-antioxidant like ascorbic acid. Several trails confirm

that on its own it does nothing or could even be detrimental. One trial shows cholesterol lowering ability but mostly only in hypercholesterolemic men. This is likely a secondary effect.

Vitamin B3 (Niacin). Causes dilation of small arteries, the flushing action further producing higher levels of HDL and lowers triglycerides. It's thought to have several other benefits as well.

Vitamin K2 (MK7): This interesting vitamin owes its reputation with respect to heart disease to fairly recent Dutch research in several trials and studies. It completes your calcium transport metabolism and is thought to be vital. Without it calcium ends up deposited in your arteries and other undesirable places. Better still, re-introduce it and it can remove calcium from arterial deposits. There are few sources of this vitamin and our modern diets have all but eliminated it. You only need tiny amounts.

Lecithin: This is an important ingredient. Lecithin binds to oil and is water soluble. In addition it is a rich source of phosphor lipids (the building blocks of HDL). It is used as a chelate as well due to its ability to bind to LDL. Together with ascorbic acid which takes care of calcium and a few other minerals it likes to bind to the lecithin takes care of the fatty deposits which includes LDL and in particular free lipoprotein(a). Note: DO NOT BUY LECITHIN CAPSULES unless they are properly qualified medical grade – not the stuff sold at health shops. That does nothing. The Lecithin granules however work well.

Lycine and Proline: These two amino-acids are available in large quantities in your body, They exist in the inner wall of your arteries and veins. We introduce these to our blood serum for two reasons: To bind to free lipoprotein(a) which has binding sites for these as well as extract the lipoprotein from deposits. These two amino-acids neutralize the lipoproteins ability to stick. Lipoprotein(a) is the stuff your body creates to fix damaged interior walls of your arteries. This starts a chain reaction that eventually can lead to a developed arterial lesion.

Arginine: This amino-acid is converted into nitric oxide in your body. It relaxes your blood vessels and improves bloodflow. Long term use promotes the “waking up” of collateral arteries on your heart muscle. When you start on this therapy you will notice your veins in your hands and feet will seemingly start growing fatter and very elastic – you will start seeing veins where you never thought you had any. Don't panic – all good.

Folic acid: This is a strong anti-oxidant (together with the ascorbic acid). This helps to prevent LDL that has overstayed its welcome from oxidizing (basically, turning rancid).

### Goal of this therapy:

This therapy can be quite successful as it attempts to address the problem from several different angles at the same time:

- a) Removal of the arteriosclerosis plaque build up and transport of the constituents for disposal.
- b) Healing of the arterial wound left when done.
- c) Preventing new plaques from forming by:
  - 1) repairing the inner arterial wall health in particular in high stress areas
  - 2) neutralizing as much free lipoprotein(a) as possible
  - 3) ensuring health of arterial walls not yet compromised



## So what about Cholesterol ?

If you browse the internet you will quickly find many words dedicated to telling you that cholesterol is not the problem and statins are an evil way that big pharmaceuticals make huge amounts of money with (yes, they do that).

However, please keep a level head on this. Cholesterol in my opinion is not a cause of heart disease. I agree with that. However it is a contributor and plays a major role. The actual cause is poor arterial health in high stress areas (those areas where arteries have to withstand the highest blood pressure fluctuations). That and nothing else is the root of the problem. Everything else follows.

Cholesterol contributes a particle named lipoprotein(a) or lp(a) for short. It is a good thing to. You would die without it. This is the putty that repairs your arteries internal walls when they start to break down. It is only found in humans, primates and guinea pigs that due to a common genetic defect cannot produce their own vitamin C. All other animals do and surprisingly large amounts of it (about equivalent to the dose recommended in this text). Those animals that have their own vitamin C production simply do not have arteriosclerosis. This little fact alone should have everybody take notice. If you ever needed a smoking gun – this is it.

Once you have an active lesion, patched with lp(a), other flotsam starts to add to it. Including oxidized LDL. It ends up in a mess and keeps growing. Unless you have something in your serum that can bind to the building blocks of the plaque and transport it away for disposal.

Lowering cholesterol (LDL and triglycerides – the “bad” cholesterol) may have some benefit – but it seems what a statin really does is reduce the inflammation contained in the plaques surrounding. Any lowering of cholesterol seems at best to be of secondary benefit. It should be noted that other cholesterol lowering medication such as fibrates which I used myself for some time (in the hope of fewer side effects) has shown no tangible improvement to cardiac outcomes despite several trials.

Another worrying information tidbit is that around 50% of all heart bypass patients have perfectly normal cholesterol levels. That is a concerning statistic that should really be cause for a second look at how and why we treat cholesterol.

It relates back to my earlier statement that arteriosclerosis is a complex problem with perhaps a single cause – but multiple contributing factors. It follows that our treatment should firstly address the cause and secondly the contributing factors. This makes sense to any engineer repairing a corroded, failing bridge. Hitting the problem with a statin is at best a symptomatic treatment – it certainly does not even begin to tackle the cause.

## The risk.

Yes, there is a risk. This therapy has the potential to dismantle your arterial plaques. This happens over time. During this time plaques may become unstable and larger bits may break off or internal arterial bleeding may cause a blood clot.

One can argue that this is an acceptable risk as eventually a big event will probably cause much greater issues for you.

From my own experience I can relate to perhaps a dozen smaller events in the first 4 months – they tend to be unnoticeable at first but within hours cause a noticeable decrease in cardiac fitness and even minor angina when going up a flight of stairs. In my case these were short lived events clearing within two or three days. I had one bigger one that took two weeks to

resolve (as monitored by a stress ECG every few days). These events in all of the cases I could observe happened during or shortly after a cycling session that included a period of maximum heart rates (about 165 bpm) for a few minutes. One of these events I was able to capture on my portable ECG very nicely as it happened (recording and comments at end of this text).

## Notes:

Your doctor may be concerned about high doses of ascorbic acid (the base molecule of Vitamin C) causing kidney stones. This is based on the assumption that your bodies conversion of the ascorbic into oxelate may cause one of the four types of kidney stones (calcium oxelate). It would appear that that is valid for small amounts of oxelate and large amounts of calcium but the reverse seems true if you have large amounts of oxelate – this may actually dissolve these stones (think of mud as an example – water and sand, a little water and a lot of sand results in mud clumps – lots of water however dissolves the clumps).

High dose Vitamin C can upset your stomach – it does not seem to do that for me so I'm lucky. If it does for you you can consider smaller doses spread evenly through the day. Build up to the full dose though – we need to spike the level in your serum above a certain level (this lasts for about 30 minutes). This action causes your tissues and some internal organs to absorb the ascorbic acid and tissue saturation level is obtained after about three months. This acts as buffer resulting in a slow release of ascorbic acid (also in its oxidized form which has some other benefits). The brief, high levels are needed in the chelation process. This will not work sufficiently with low levels.

Under no circumstances use high doses of Vitamin C / Calcium combinations in any shape or form. That is dangerous. In fact, whatever you do – you have enough calcium as it is – it's just in the wrong place - do not supplement in any way with calcium.

You are taking very large amounts of vitamin E – this has strong anti-blood clotting properties. If you decide to quit – ween yourself off the Vitamin E over a week or two – don't go cold turkey as this may cause blood clots due to sudden withdrawal (risk may be small but still...). Taking large doses of Vitamin E in isolation is dangerous and has been proven by several studies. You MUST take sufficient quantities of a co-antioxidant together with vitamin E. The dosages suggested in this text are good. A good study done in Finland in recent years using a large number of subjects showed very remarkable improvements to cardiac health using a Vitamin C and E combination treatment – even though the dosages were relatively low when compared to those described here.

If you are on Warfarin – be aware that this disconnects your calcium metabolism rendering K2 useless (it's purpose is to disrupt the similar Vitamin K (now called K1) – which is responsible for your blood clotting mechanism). Talk to your doctor !!!

If you have 100% blocked arteries this therapy may not be able to unblock them unless the blockage is fairly new and has not solidified. Effectively we need blood flow to be present to transport the vital ingredients past the lesion and return with whatever gets snared.

This therapy does work with stents but it cannot help if there is tissue growth causing an occlusion – a common problem with stents.

Lecithin can affect your blood pressure until your body is used to it. You may need to start with a smaller dose to avoid low blood pressure episodes.

Finally, if you have a qualifying condition, decide to try this and find it works for you – spread the word.

Please discuss this with your doctor before embarking on this (yes I know, I'm repeating this. You will be using high dosages of certain vitamins, amino-acids and supplements. Understand why you are taking them and what they do. Make sure this will not cause you any harm and is relevant to your condition (it's not going to fix a faulty heart valve for instance).

Ensure that none of the ingredients will cause any undesired interaction with medication you may be taking. Your doctor should be able to advise you.

Monitor yourself to check progress – get yourself a blood pressure monitor, do cholesterol checks regularly and if you can, do a stress ECG at intervals. If your doc is nice to you he may also do CT or MRI scans at (longer) intervals to check your calcification status or do high resolution ultrasounds. You can also monitor progress though your optician – the arteries at the back of your eye also suffer from arteriosclerosis and this can easily be seen and photos taken. Do that at intervals (say six months) to check progress.

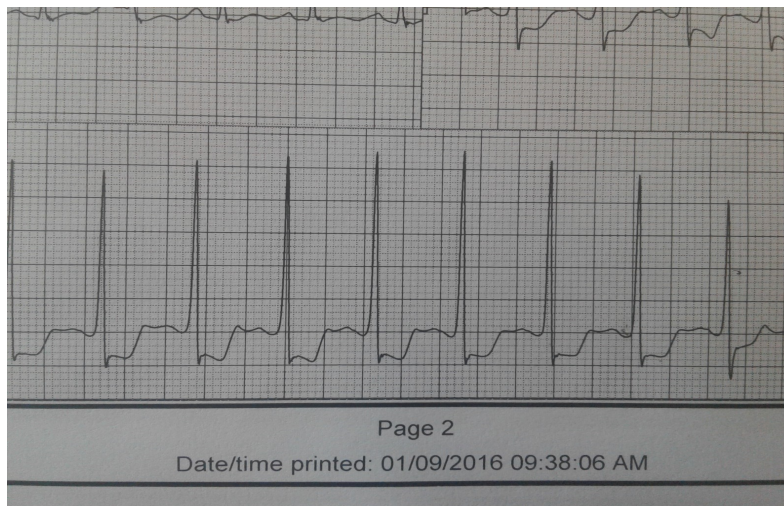
It can take two years depending on your starting condition until you can say you have significantly fixed your problem. Be patient. Your body took many years to deteriorate to the point where arteriosclerosis is a threat – it takes a little time to recover.

### ***Measuring progress***

With many medical conditions, measuring progress during treatment is not always easy. In my case I used my performance on my bicycle as measure, riding a given route so I could compare. It's the same route I always do even before I started this and I limit my maximum heart rate to no more than 165 on the climbs.

While it is true that this showed very rapid progress I needed something more tangible and thus ordered a six-lead portable EGT recorder I could take with me on the bicycle from Amazon. This device allows me to view the recordings afterwards and process them in a variety of ways. I was mostly interested in the V5 ST depression as this was the most visible sign of my problems. The recorder does V1, V3 and V5. Both V1 and V3 do not show much of an issue and are close to normal and I thus ignore them.

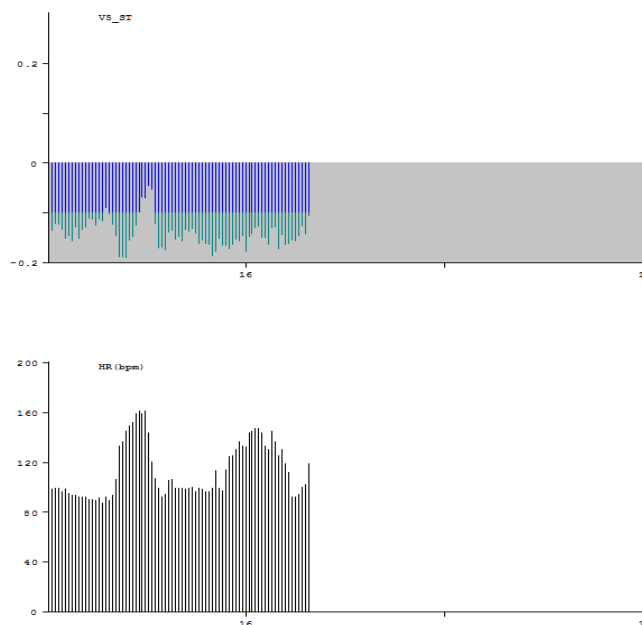
Here is my starting condition: A 4 mm depression. This led to me failing to renew my pilots flight medical.



The software that came with my EGT recorder allows the display of the V5 trend over the exercise period against heart rate. This is quite useful and has been my main method of comparison. It cuts out the subjective picking out of individual wave forms that you may like or not like at the case may be and gives a more balanced view.

In these graphs you will notice an apparent reduction of the ST depression with increase of heart rate – that is not really the case but related to the setup on the measuring points of the waveform and with higher heart rate the points start to look at different instances of the wave. In reality the depression seems little changed – I am more interested in duration of the recovery once on top of the hill. As you can see – quite rapid. That's good.

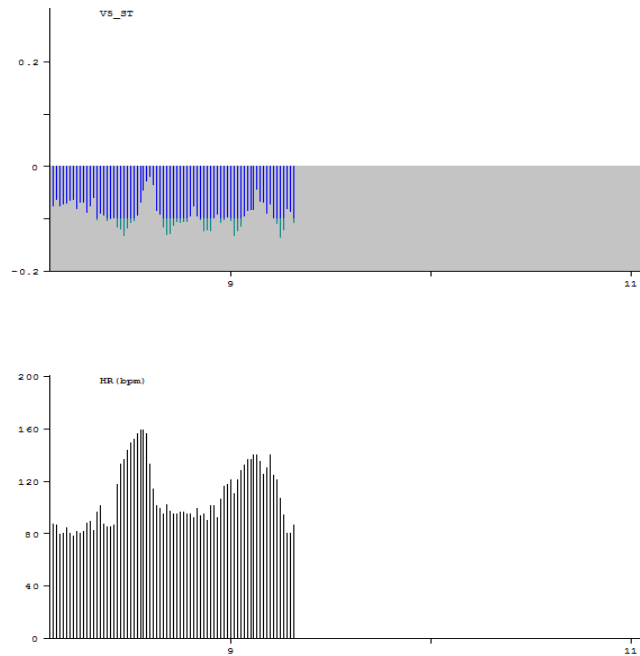
It took 6 weeks for my recorder to arrive so I was well into the protocol when this first recording shown here conformed a substantial improvement. Depression on average about 1.5mm with some peaks approaching 2mm.



The route consists of two uphill and a bit of flat and downhill. The first uphill is quite steep and I max out at about 160 or so in this image. The second uphill is much longer but not that

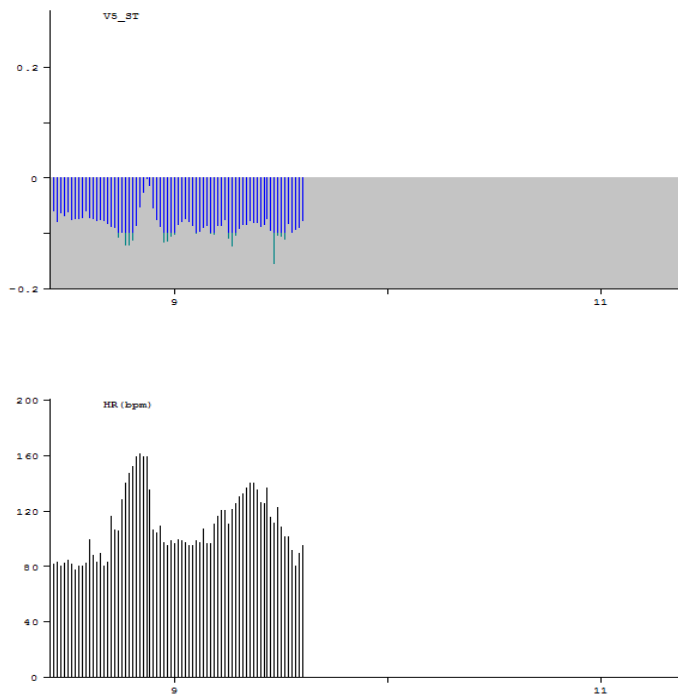
bad.

This next image shows the same route about 4 months into the protocol.

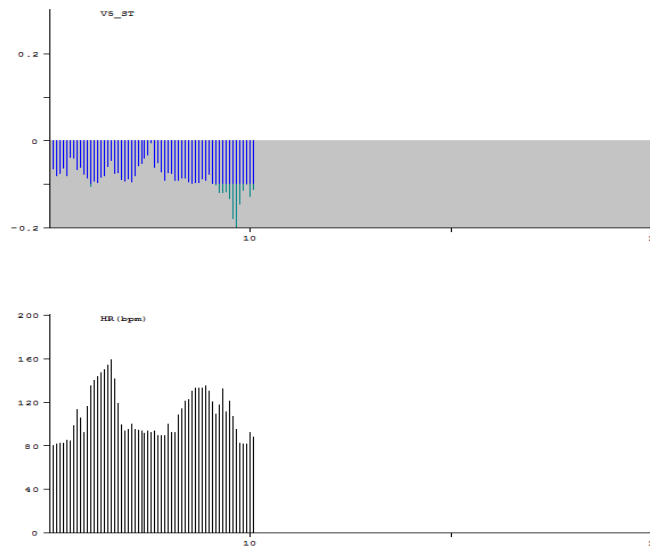


As you can see – the V5 depression is now around 1mm with some small excursions. Interesting is that the depression during normal activity as in walking around is about 0.5mm. This is getting close to what would be considered “normal”.

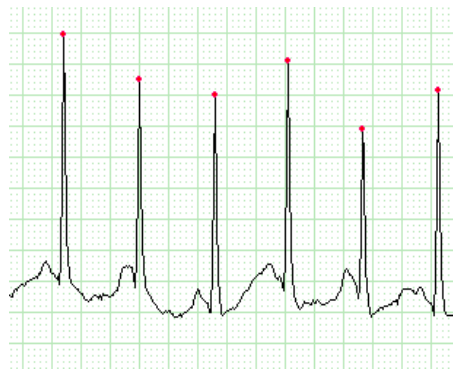
A month or so later and it's improved even more but now getting quite stable. This is more or less my “normal” that I can maintain. I am quite happy with this result.



Here is an interesting one. You may recall I mentioned that you can expect some “setbacks” in particular during the first few months. This case occurred some 12 weeks into the protocol. You can see it starts really great – excellent in fact. But after completing the second hill and now actually starting to relax a sharp increase in the V5 ST depression.



Here is the V5 recording from the moment the recorder flags the problem. This is not looking good. I have had a (very minor) heart attack – most likely a lesion bursting or a bit of debris causing a small down stream blockage.



I did not actually notice anything while riding the bicycle but only about two hours later where a bit of pressure on my chest after climbing a flight of stairs told me the recorder was not faulty.

Recordings done after this event showed it took some two weeks to clear up to get back to my normal wave forms during exercise.

These little ECG recorders are quite inexpensive and easy to use – but buy the stickers from a hospital and make sure you get good quality types. They need to stay on during a workout and you need a good electrical connection to get a good, clean recording without much noise and rubbish. I find I need to shave the spots where the stickers go and also rub with a fine sand paper just a bit to get rid of any dead skin. The recorder has a preview screen so use that to ensure the readings are stable and do not change if you move the leads.

## ***Related benefits***

I am taking many large quantity supplements. Of course your body uses these in many ways that have nothing to do with your cardiac health. I list here the positive effects I have noticed.

### **Higher energy levels**

I used to tire during the day often affecting my work. Something like “Juppy flue” perhaps. You may know the feeling. This has vanished completely and was one of the first noticeable effects.

### **No colds or flue**

Colds or flue used to be a regular part of my life – twice a year it would get me. It's gone. Completely. My wife ended up with bad flue which took her two weeks to get over a little while ago – I am normally much more sensitive to this than she is. I got no symptoms at all.

### **Fever blisters**

Ever since I was a teenager I suffered from a viral infection causing regular fever blisters. It's an affliction that many suffer from. Usually every three months or so you would get a problem. Medications help at first until the virus gets resistant and you just have to live with it. It's gone. Completely! I could not be happier.

### **Gout**

I started suffering from gout – mostly the feet. Rather painful. I had to watch what I eat and consume alcoholic drinks with care and great moderation. Rather unexpectedly - it's completely gone as well. I can now drink like a fish (just kidding).

### **Oily skin**

Apart from the mentioned fever blisters I suffered from oily skin since about age 30 when this started quite abruptly after a mild hepatitis infection. It got quite bad and skin infections where the order of the day. I eventually took two courses of Roaccutan to fix the issue (or at least make it sort of manageable). Once on statins this problem became fairly mild so I liked the statins just for that. But sadly in the long term I could not take them due to bad side effects. This problem has now been fixed completely – no trace of it left. This happened fairly rapidly after starting this protocol.

### **Finger/toe nails and teeth**

This is interesting. Been on the K2 for about a year. First thing I noticed after a few weeks was that my teeth felt quite smooth – you could ice skate on them. My lower front teeth where hanging on by a thread – they where a bit loose. 6 months in and that problem is gone. They are rock solid now. Amazingly – a sharp annoying gap between actual tooth enamel and a dentists cap that kept on injuring my tongue has closed. The tooth has repaired itself even though it is binding to a foreign object. Later I noticed my finger nails are much harder – noticeable when cutting them. I can use these things now too loosen screws if they are not too tight. Same applies to the toe nails. Calcium is now getting to where it needs to go. Remarkable simple fix for a multitude of supposedly calcium deficiency related conditions.

## ***The medical profession***

This is one of the more difficult things for me to comment on. As a complete outsider do I have the right ? Probably in a very qualified way. So I will choose my words carefully.

For the large part, we are dealing with an industry with a number of very strong controlling bodies and many rules. Central to this, and very much part of it are large pharmaceutical companies. We have enormous costs and complex procedures to develop drugs and test them. This guarantees that intellectual property rights become the most important asset of any owner of such. If this were not to be the case, such companies could not exist. It is obvious that the medical profession in the way that this is structured will not favor “not invented here” methods or take great interest in proving them effective (the opposite seems to be the case). This certainly does not extend to the individual doctor who might well think otherwise – but he is part of the machine and his flexibility is much limited due to legal liability concerns. So if your doctor takes a passive role in this – understand the reasons.

This does open up a market for a multitude of “alternative health professionals” in what is effectively an unregulated and uncontrolled environment. Just a brief search using Google will return an unlimited amount of “snake oil” salesmen of various descriptions and legality. There is real, good advice available and genuine helpful products can be bought. But unfortunately you need to be rather careful and use good judgment yourself. You must maintain a healthy dose of suspicion regardless of how professional a website may appear (usually with a image of a trustworthy looking person in a white coat, complete with a casually draped stethoscope around the neck and a “Dr” in the title). The harder it tries to sell you something – the more you should be careful.

It is a sad state of affairs that we have a very obvious pool of good, cheap “alternative” treatments for many ailments available in a large body of somewhat confused evidence – but despite aimed at the common goal of beneficial health applications is nearly completely separated from what you would call mainstream medical application.

We are not talking about some dubious backroom theories here – this is all very well researched and published. And then simply filed. If there is no money to be made it gathers dust. Nearly all of the research applicable to this text has been performed by universities using public funding with individual contributions prior or post research. None of it has been done by pharmaceuticals. The only pharmaceutical involvement I could find are a handful of poor studies to try and discredit. The SECURE study (Google it) is a prime and rather sad example of this. It is a small side study done, half way abandoned, into Vitamin E monotherapy (not a good idea) with the conclusion it does not help (it doesn't – things are not as simple as this). This result is often thrown about as conclusive proof that vitamins do nothing. Few I suspect actually go and look what the study is about and read the text.

What SHOULD happen – ALL research is relevant and results, in particular if positive, MUST be confirmed by trails or detailed study – regardless of source. If something is found to work it MUST be made available to patients even if there is no monetary benefit for the medical machine. Doctors have to take an oath. Does this really not mean anything ?

I can't help but feel annoyed. It is obvious to me now I could have done a lot better if I would be known about this earlier. I do not blame my doctors – they really did not know this and it certainly is not passed onto them in any lecture or presentation. The problem is systemic. Perhaps unchangeable. “Medical guide lines” - a good thing, yes - but at the same time dangerously limiting.



You're on your own. But at least – you can be your own doctor. It should not be like that. Please involve your doctor – he may very well know a good many things but may clam up unless you start the process yourself – that way he can act as a guide without necessarily jeopardizing his legal position in a negative way.

### **November 2019. Probably the final chapter of this paper.**

It has been almost 4 years since I was pretty much declared a lost cause. I'm still here.

It is time to add the final words.

I have been on this protocol pretty much unchanged all this time. The only item that has been reduced significantly is Niacin. The high dose was starting to affect my liver somewhat so that has been reduced to 500mg per day.

Based on my own experience, it is probably true that it tends to take around two years for your heart to recover completely from serious coronary artery disease – with the greatest effects occurring very rapidly into the protocol.

In February this year I judged that perhaps I had recovered enough from the statin related damages to my muscles and joints to carefully consider running again. I had not run for almost 20 years, I am 59 years of age now – and I missed jogging around the block.

I started very carefully, just 1Km. It went OK and I gradually increased the distance and speed over the following months. I ran mostly trails which I enjoy. Eventually I proudly managed my first 5Km run. Many more followed and soon I was running 10Km regularly.

Just over two weeks ago I entered my first official half-marathon run with over 3000 runners (21.1Km). I finished with a time of 2:13.56 and got my medal. I have signed up for the next one and am starting to look at perhaps doing a full marathon in a few months time. I think I can do it.