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# Nutritional cardioretinometry® reveals "`not so dry eye' (NSDE) focal occult scurvy, pathognomonic of coronary disease, retinal atherosclerosis and neural atrophy?

## Abstract

Diagnostic and educational failures described by Hickey and Roberts as "Genocidal" misled physicians and public. CardioRetinometry® discoveries continue revealing important contradictions. Occult scurvy generates astronomic pharmaceutical profits, unimagined hardship to all, optometrists, patients, and even physicians. Scurvy's fifty diseases are Man's genetic - ultimately fatal - vitamin C deficiency, missing from 1,000,000,000 death certificates. Idiopathic, spontaneously reducing ascorbate / dehydroascorbate ratio signals impending death. Every illness depletes ascorbate. >10,000,000 of 26,000,000 archived medical papers should but don´t mention scurvy. A "BLACK HOLE" occupies the archive. The author's research is forcing a dramatic editorial policy review, discrediting high impact journals. Western medical school curricula and textbooks minimise vitamin C needs. Levy links 36 identified scurvy connections to preventable/reversible coronary artery disease, antihistamine development, statins, insulin, linking to contact lens comfort drops and $Millions spent fruitlessly seeking more contact lens 'wetness.' This paper, triggered by the enigmatic NSDE with normal tear prism, identifies corruption so extensive as to require several papers. This is therefore the third of perhaps ten papers to reveal the depth of the dishonesty that overtook pharmaco-medicine. The honest researchers, Nobellists Szent-Gyorgyi, and Linus Pauling, will be featured, with Nobel deserving Dr Frederick R. Klenner, Denham Harman, Robert Cathcart, Robert Hollenhorst. James Lind (1750) and Captain Cook, disgracing those who in the 20th Century obfuscated the subject and brought a BILLION people to premature death for pharmaco-medical gain. METHOD: Suspicions of a conspiracy to suppress vitamin C started in the 1940s. The chance discovery of nutritional CardioRetinometry® set in train many discoveries. Every successive violent and criminal attack by pharmaco-medicine confirmed author Bush in his determination to throw his entire resources into fighting the evil. CONCLUSION: The evidence is now overwhelming to prove malfeasance and full investigations must scrutinise the acts of the General Optical and Medical Councils.

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## Introduction

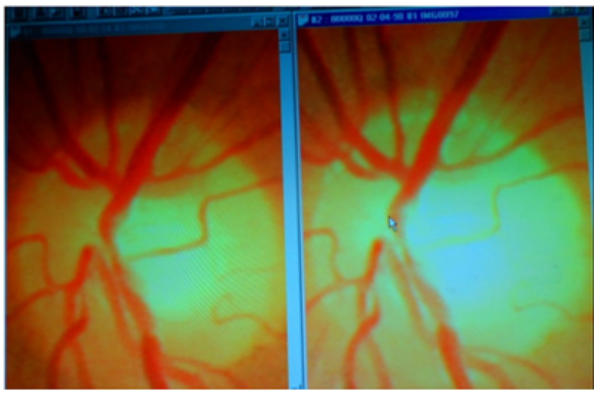
In this fifth paper of the series (the second for this journal) superficial evidence available to every doctor is shown together with deeper images of the retina. Today´s mobile cameras are capable of recording the external circumcorneal vasculature very well but it is of limited value. Red eyes can have many causes from U/V light, atmospheric irritants, uncorrected eyestrain, lack of sleep, anxiety, and of course degrees of scurvy. No attempt is made in this paper to attribute to sources. It is simply an example of the sort of evidence that is to be presented with a detailed, logical account of the history of the great deception. The paper "sets the stage" for better understanding of the following papers. Author Bush states that everyone on Earth suffers from Scurvy some of the time and most people most of the time. Despite the "Black Hole" of Pub Med papers over 100 will be cited in due course. And again, discovery being seeing what everybody else has seen and nobody else has thought, the real cause of the dry eye feeling (long before the stage of giant cell papillary conjunctivitis) will be revealed. Good quality digital cameras will enable a database to be established. However eventually, every family doctor will need to be equipped with a 45° fundus camera to enable sequential comparison of the retinal microvasculature and retraining in nutritional CardioRetinometry®. Here are two kinds of photographic evidence pointing to coronary artery disease. The first is the kind that every physician can capture with a 45° fundus camera and enlarge the picture. These images are an invaluable guide to health and every family doctor is failing in his duty to patients if he doesn´t first have the images from within the last six months. Training in CardioRetinometry will then equip him to interpret them properly revealing past and present risks of hypertension, diabetes, glaucoma vulnerability (far better than any Optometrist´s tonometry that can miss cases of 18mms Hg passing them as safe). No physician has any idea of the cerebral circulation without the ability and experience of CardioRetinometry in evaluating retinal and neural perfusion as seen in the Optic disc or papilla. In short, doctors practising without fundus cameras are dangerous. The fundus camera can identify and inform the family doctor when to expect a patient to be vulnerable and at extra risk of angina, hypertension, fainting, thrombosis, stroke, kidney failure, cerebral degeneration, Alzheimer´s, depression, apathy, coronary insufficiency, cancer and chronic upper respiratory infections. The second series is unreliable as an indicator of *degree* of coronary atherosclerosis. This kind of evidence indicates progressive coronary atheroma. Nothing more. It can be obtained via a slit lamp biomicroscope or close up with many ordinary digital cameras especially on a megapixel ccd chip.

These images can–if chronic–betray advancing coronary artery disease but are unreliable. The image is ephemeral. This is like measuring vitamin C in plasma. It means very little as the result indicates only a transient, fleeting picture of the corpus humanus for a few hours. Six hours later the result can be the exact opposite. So all those tests done with strips and dye as used in the LAAT procedure are worthless unless repeated three times a day every day. The slit lamp biomicroscope cannot reveal any plaque in the circumcorneal vessels and this may surprise, for, when used in conjunction with a condensing lens in indirect ophthalmoscopy to gain a magnified view of the retina, the vessels there will usually be seen to carry a white line or reflex often along most of their length. This is not a true reflex. It is intraluminal plaque and is very accurately representative of degrees of coronary artery disease after some training and experience. Sequential changes ideally measured to +/-1%, will show if coronary atherosclerosis is increasing or decreasing. This is far more accurate than any amount of X-ray photography which is severely limited because each session causes 2% of cancer amongst heart x-ray patients.

After Michelson, Morganroth, Nichols and MacVaugh determined the up to 100% accuracy of fundus photography, even working with the primitive cameras and crude film emulsions of the era, it is disgusting that X-Ray procedures with injections and catheterisation with radio opaque dyes were continued. Even more disgusting is it that after the first images were uploaded to the internet in December 2003, showing reversal of arterial disease, that vitamin C continued to be rejected. Even more disgusting is it that McGilivray in Edinburgh sought to encourage the public that retinal photography would be used in the diagnosis of coronary heart disease without, of course, either mentioning or any apparent intention of using vitamin C. He doesn´t reply to e-mails.

In the "normal" course of events over a period of 16years, from 1998 to 2014 as shown below, the expected change would be from Left to Right as atherosclerosis develops, circulation deteriorates and death slowly approaches. Here we see the deterioration not only arrested but reversed. All the vessels are functioning better, Neural recovery is evident. Blood flow is greatly improved and if the peripheral vasculature were shown it would be seen to be better perfused with reduced tortuosity of the vessels. The images are of the retinae belonging to author Bush´s older son born in 1956. His fundi now resemble more what we might expect to see in a very healthy 20year old, and definitely better than we would expect to find in a sportsman engaged in competitive events with corresponding stress.

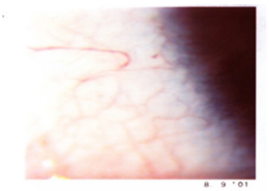
(Figure)



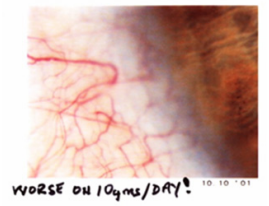
The biochemistry of the mechanism controlling NSDE by ascorbate will be shown later together with evidence for its linking to control and reversal of coronary heart disease. Curing one cures both.

Sample Photomicrographs of contact lens wearers' eyes showing, with one exception, typical improvements achieved within a week or two of supplementation with at least 1000mgs vitamin C. In all the author´s cases there is never more than one grade (out of ten) difference between the eyes in monocular wear of contact lenses. Siloxane elastomer lenses generally produce 1 to 1½ grades (of ten) improvement in the 'average' vessel state.

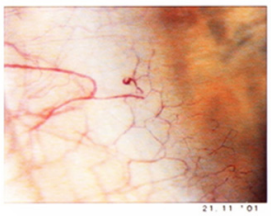
(Figure)



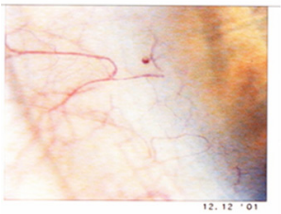
P1a.
Grade 61%
Incipient microaneurysms do not allow grading into 70's



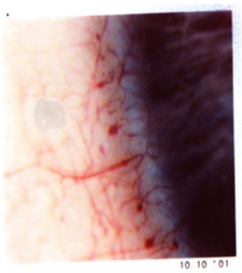

P1b.
Grade 48%
This patient's vessels deteriorate as his stressful and dangerous job affects him.



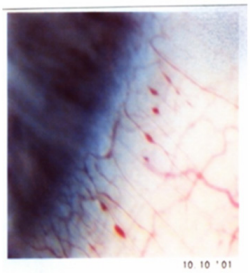
P1b.
Before vitamin C
Grade 52%
Few microaneurysms
Prominent 'dotty' appearance.



P1c.
Grade 58%
After vitamin C And retiring to A less stressful life.
Incipient microaneurysms
Limit to grade under 70%
Note the persisting 'dotty' Appearance.



P2a
Mr AR no VIT C Grade 31%
Considers himself fit enough to play squash. Doesn't believe intakingvitamins.



Probably eating more fruit and vegetables as the appearance since then has slightly improved and is now more like the lower picture showing the other eye.
P2b.
Grade38%

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The ten grades optometric grading system evolved by the author.

Grades up to 10, Degrees of subconjunctival crimson lake. No vessels visible. (At point of death from scurvy - as in haemorrhagic fevers - eyes begin to 'bleed').

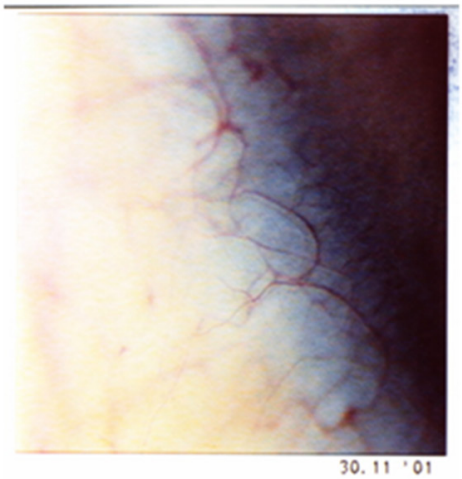
Grades 11 to 20 Subconjunctival haemorrhages. Small vessels becoming visible.

Grades 21 to 30 Subconjunctival haemorrhages fading. No 'fresh' haemorrhages.

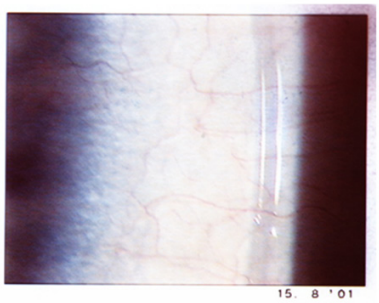
Grades 31 to 40 No subconjunctival haemorrhages but large microaneurysms. Maximum 60 microaneurysms in this range

Grades 41 to 50 Maximum five microaneurysms. Vessels distorted variable width.


P4a
Grade 48%

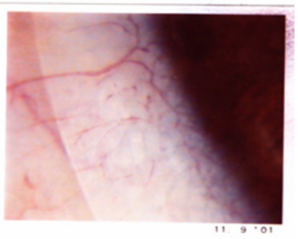



P4b.
Grade 55%

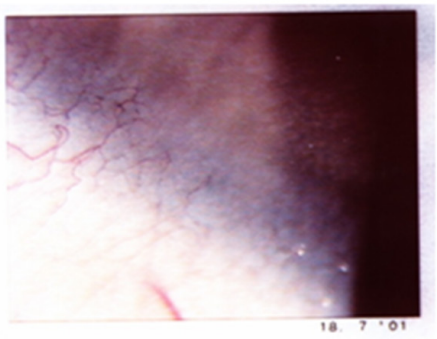



P3
Mrs DR 1 gm x 5/day
No linear distortion (sausage)
No congestion
No 'Dotty' appearance
very slight 'cotton thread'
Grade 89%
These vessels would grade in the 90's If the vessels were more like smooth nylon.
One would expect the vessels
Seen here under the contact
Lens, to indicate the prospect of a good expectation of life with reduced threats of cardio-vascular disease if accompanied by minimal retinal atheroma.

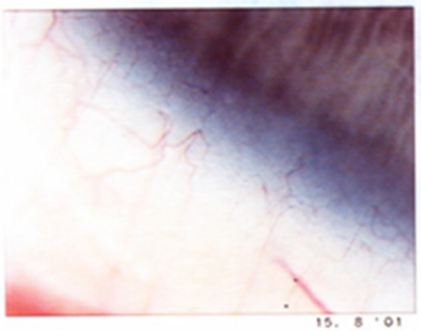

P5a.
Mr PK before vitamin C
Grade 37%
After seeing the difference this farmer now buys and brings books on nutrition.



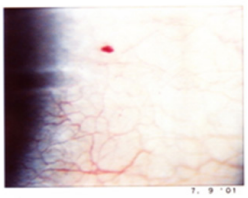

P5b.
Grade 42%

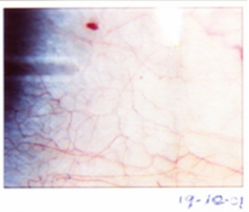



P6a.
Grade
59%%




P6b.
Grade
67%




P7a
Grade 61%
Incipient microaneurysms disappearing in these two Images. This physician was most impressed with the improvement in the next picture and now takes his vitamin C.

P7b.
Grade 68%
In 2003 this large aneurysm Remains unchanged and appears permanent.

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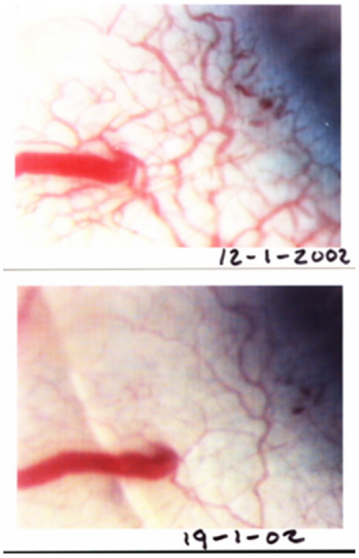


How ascorbate deficiency connects to hundreds of conditions is easily shown. Future papers will show how extensive is the range of illness and potential created for medical opportunism enabled by the simple expedient of placing an "upper tolerable limit" on the least toxic substance on earth. Prescribing beyond this amount qualifies the medical practitioner in the UK for striking off the register, and as author Bush found in the USA, places such a limitation on CardioRetinometry research with older veterans of the armed forces as to render the research study useless. To illustrate the range of what these papers have in store, a short list of problems associated with either ignoring vitamin C needs, limiting their treatment or spreading false information will suffice until the next paper in the series.

## Cardio Retinometry and vulnerability to disease

ALL the following diseases are in some way connected to vitamin C and its evaluation at optimal levels can only be accomplished and that level maintained by Nutritional CardioRetinometry®.

## Some actions and benefits of supplementary vitamin C

Here is a short list of areas insufficiently taught in medical school, most not being taught at all. After reading the list the following questions might be addressed.

a. Is it the case (studying the economic implications of the following list of actions and properties of vitamin C) that pharmacy and medicine perceive vitamin C as such a threat that it must be opposed at all costs?

b. Is it the case that this deprivation must include every means possible even if it means publishing text books that exclude the information for medical students?

c. Is it the case that diabetologists too, must have their text books doctored. We know of five that exclude all mention of vitamin C. Is the reason so that specialists can more honestly say they know of no benefit when asked by their patients, because "there is nothing in the literature?"

d. Is it the case that by deliberately starving the public of the essential knowledge which is the same as starving the public of vitamin C itself, that the desired objective is achieved, guaranteeing a steady and reliable flow of continuing heart disease, blood pressure, stroke, by-passes and arthritis to pain people so that the hospitals will always have work factories can produce 'medicines' and the public will always have pain and be forced to seek relief from painkillers and heart medicines?

**New Coronary and Retinal Vessel Gradings for Optometrists: CardioRetinometry® vs. Cardiology X-Ray Grading Scales. (Sydney J.Bush©2015)**

Because of obstruction by Cardiologists this is hypothesised. Grading scales are approximations: Atherolysis allows the underlying vessels to be seen, e.g. at arterio-venous crossovers..'Rule' of 4; e.g. 4/4ths blocked is Grade 4. (Patient dead or dying) Current cardiology grades are untruthful, dangerous, and immoral; designed to mislead because of the failure of official medical advice to prevent universal heart disease that cannot be admitted. Medicine kills by default watching the Bush/Pauling system save lives. Systemic factors affect blood pressure and vessel tonus. Michelson, Morganroth, Nichols

**BIFURCATIONS: No trace of grey spot (atheroma) or colour change** at any arterial bifurcations or within disc. This grade is rarely seen occurring in < 1% of subjects. Retina is uniformly red with no pale areas or spots. < 1% of patients.
**ARTERIOLES:** No spots of cholesterol (atheroma) visible anywhere in the fundus. This grade is unlikely ever to be seen. BIFURCATIONS: No bifurcations show spots of cholesterol. None shows in veins. The 'copper wire' so faithfully recorded probably dates from zinc batteries and tungsten bulbs. Ret: Gr.0

**ARTERIOLES:** No atheroma in straight sections within 1 disc diameter, this qualification due to 3rd dimension revealed only by haemodynamics of Pauling/Rath principle. First appearance of atheroma in CAOR 1st bifurcation. **NO EQUIVALENT ANGIOGRAPHY GRADE**. <20% of patients. Ret: Gr.0.5

**BIFURCATIONS:** Over half arterial bifurcations show spots on or associated. Easily curable.
**ARTERIOLES:** Up to 50% of straight lengths of arteries show atheroma. NO EQUIVALENT ANGIOGRAPHY GRADE. (Grade 1.5 must be judged between 1.0 and 2,0) Ret: Gr.1.0

**BIFURCATIONS:** Average' fundus. Easily seen atheroma at all arterial bifurcations especially in disc. **DANGEROUS - DANGER OF DEATH AT ANY TIME DUE TO THROMBOSIS 'CORRESPONDS' WITH HOSPITAL CORONARY GRADE 0.0** Veins will show similar ~90% atheroma. THREATENING CONDITION. This is why cardiologists admit that even though you are Grade Zero, you can still drop dead with thrombosis walking out of the hospital? **NO EQUIVALENT ANGIOGRAPHY GRADE.** There is probably no angina. Macular degeneration is incipient? 'CORRESPONDS' WITH HOSPITAL CORONARY GRADE 0.0 Veins will show similar ~90% atheroma.

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| | |
|---|---|
| BIFURCATIONS: Average' fundus. Easily seen atheroma at all arterial bifurcations especially in disc.<br>**DANGEROUS - DANGER OF DEATH AT ANY TIME DUE TO THROMBOSIS** ARTERIOLES: Arterial reflex visible continuously in most up to 90% of vessel lengths. Optometrist strongly advises PAULING THERAPY Inform physician of patient's LIFE THREATENING CONDITION. This is why cardiologists admit that even though you are Grade Zero, you can still drop dead with thrombosis walking out of the hospital? **NO EQUIVALENT ANGIOGRAPHY GRADE.** There is probably no angina. Macular degeneration is incipient?<br>CORRESPONDS' WITH HOSPITAL CORONARY GRADE 0.0 Veins will show similar ~90% atheroma. | Ret: Gr.2.0 **Cardiology GRADE 0.0**<br>all major heart arteries blocked up to 49% |
| **BIFURCATIONS:** Every bifurcation is affected without exception.<br>**ARTERIOLES:** ALL arterioles show continuous cholesterol. Occasional distortion of pre and post bifurcation vessels more noticeable. **ADVISED STOP ALL SPORT – EXERTION: VEINS:** Occasional distortion of pre and post-bifurcation vessels becomes more noticeable. **URGENT TO REDUCE RISK OF THROMBOSIS.** One Major Heart Artery Blocked to 70%. ? **CORRESPONDING HOSPITAL CORONARY GRADE** 0.5? A/V 'nicking'! | Retinal Gr.2.5 **Coronary GRADE 0.5?**<br>This is still easily curable with vitamin C and vitamin E |
| **VEINS:** Commonly distortion of pre and post-bifurcation vessels becomes more noticeable. VERY URGENT TO REDUCE RISK OF THROMBOSIS. **SHOULD NOT BE DRIVING OR PILOTING PLANES. CORRESPONDS WITH HOSPITAL CORONARY GRADE 2?**<br>Michelson et al. found no case at or beyond Retinal Grade 3.0 Refusal of Cardiologists to cooperate prevents grade correspondence beyond this. | Ret: Gr.3.0<br>**GRADE 2.0?** This is still easily curable with vitamin C and vitamin E |
| **BIFURCATIONS:** In Arteries: Some appear completely blocked. Post bifurcational vessel markedly reduced in diameter and occasionally disappearing. These cases have angina, probably mental problems, confusion, intermittent claudication (Leg pains walking) and many other illnesses.<br>**ARTERIOLES:** Over half the arterioles completely filled with cholesterol, tortuous, thin. **VEINS:** Distended before bifurcations. Pre bifurcation veins often distorted. **JUDGED TO CORRESPOND WITH CORONARY ANGIOGRAPHY GRADE 3.** Should be in hospital with liposomal C every two hours. | Ret: Gr.3.5<br>**GRADE 3.0?** |
| Optometrists outside or inside a hospital will never see this grade. It is a theoretical grade. They would be unconscious before reaching Grade 4.0, on oxygen at point of death. BIFURCATIONS: Blocked: Eyes would be blind. Sudden 'irreversible' blindness may happen at any time as blood flow and plaque becomes more of a risk with any grade over 2.5 **ARTERIOLES: BLOCKED.** Silver wire covers a pale retina. No Red vessels. Near death. | Ret: Gr.4.0<br>**GRADE 4.0** |

**Note:** In the following list "Preventable? Curable?" is considered highly probable by authorities, accustomed to treating these and very similar conditions regularly by injected ascorbate. It is believed by many (until proved otherwise) that there are no bacteria or viruses which have so far been demonstrated as able to resist ascorbate in sufficient (non-toxic) concentration. As an adjuvant, ascorbate potentiates the antibiotics.

1. Abandoned Hippocratic Oath. 'First do not harm!' Vitamin C is less toxic than glucose and every medication. Injections of and oral vitamin C are non-toxic and harmless. The vast majority die scurvy related deaths. Honest physicians would ensure that every person admitted to hospital and every ill person always has sufficient vitamin C by injection especially when their condition becomes more critical. Principle of Medicine adhered to By Members of the Orthomolecular Medical Association and Orthomolecular Medical Centres. To do less, like sending ambulances without a vitamin C drip or oral vitamin C immediately available for the sick and injured is criminal neglect.
2. Absolute refusal of doctors to follow this basic rule proves them dishonest, promoting sickness
3. Abruptio placentae (Spontaneous abortion) prevented.
4. Abscess formation prevented and cured.
5. Absorption. Differential between the mouth and gut. Animals suffused directly from the liver.
6. Accommodation. Preservation of. (Anascorbaemia is also cataractogenic.)
7. Acetaminophen poisoning: Glutathione/ascorbate protection against hepatotoxicity. (Milk thistle is remarkable)
8. Actinic keratosis delay & prevention.
9. Actinomycosis: prevention and cure?
10. Actomyosin and muscle contraction vitamin C dependent.
11. Acute yellow atrophy of the liver. Preventable. ? Treatable?
12. Acyclovir actions of: Provided by ascorbate; especially in combination with Lysine.
13. Addison's Disease: occult scurvy a factor in? Supplementation an essential precaution.
14. Adhesions – peritoneal and ocular prevented. (see symblepharon)
15. Adjuvant action: Potentiation of other medications, nutrients and hormones by ascorbate e.g. potentiation of insulin by ascorbate and in addition by vitamin E and mutual potentiation of ascorbate and vitamin E by each other. Ascorbate can act to stimulate antibody production.

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16. Adrenaline. Epinephrin (adrenaline) stress hormone formed from tyrosine and phenylalanine in the adrenal glands, mediated by ascorbate, half life 2minutes, acts on both alpha adrenergic (vasoconstriction) and beta cells (vasodilation) Adrenaline production stimulated by bright lights, noise, excitement.
17. Adverse ascorbate: dehydroascorbate ratio: Prodromal of death. <0.5 very poor prognosis.
18. Adenopathy: Reduction of when due to infection
19. Adenitis. Reduction of when due to infection.
20. Adenocarcinoma: Cases of regression. (see familial colorectal polyposis)
21. Adenoviral infection: Suppression of especially in contact lens wearers keratitis.
22. Adrenal glands. Ascorbate concentrated in the adrenals converts tyrosine to DOPA, to dopamine, to noradrenalin, to adrenaline (epinephrine)
23. African sleeping sickness. (Trypanosomiasis) curable? Risk to benefit ratio compels evaluation.
24. Agranulocytosis: Toxic, potentially fatal complication of antibiotics. A response to sulphonamides or antibiotics killing bone marrow and depleting white cells, leading to sore throat, septicaemia and perhaps death. All avoided by electing for the zero risk to benefit ratio of ascorbate as treatment of first resort. Thousands have died as a direct result of medical preference for antibiotics and now banned sulphonamides.
25. AIDS cure and prevention. Disease put into suspense.
26. Algid malaria. Dangerous form of malaria leading to condition resembling bacterial shock. Standard treatment by dopamine ignores the conversion of dopamine with vitamin C to norepinephrin with significance for pituitary, gonads, thyroid, hypothalamic function and pancreas. See Malaria.
27. Alimentary canal. Thought by supporters of 'Dynamic flow' principle of ascorbate absorption and utilisation to act as a reservoir, permitting possibly tens of grams of ascorbate directly from the gut, after absorption from the tongue. Selective 'pumps' or transporters are believed to act., up to 1,000 times more being absorbed when sickness demands it. (H&R 128).
28. Alkaline phosphatase enzyme test for obstructive jaundice and certain bone pathologies which is confounded by large intakes of ascorbate, requiring alternative testing or the passage of perhaps 6 hours before applying the test.
29. Allele (allelomorph) Genetic variant. Two of three polymorphic haptoglobin alleles (2-1 and 2-2) are linked to vulnerability to scurvy and the 1-1 type conferring resistance to the disease. Any RDA that ignores this basic physiological handicap condemned many explorers to death and may account for the survival of others on long sea voyages. The most aged are more likely to possess the type 1-1 haptoglobin allele and cannot therefore account for their longevity.
30. Allergic conjunctivitis and 'dry eye'.
31. Allergic reactions reduced/cured.
32. Alternative Medicine: Stated by Allopathic physicians to be "placebo based," "often worthless," "having successes of short duration," "seldom having useful long term effects." Vitamin C is often described as belonging to alternative medicine when, in fact it is the most fundamental basis on which rests the foundation of human physiology from which al medical studies spring, for without an understanding of the basic workings of the body in health (physiology) no attempt at understanding pathological processes is possible.
33. Amalgam. A metallic dental filling mistakenly used and now known to have depleted the body's antioxidant reserves. The mercury component is countered in part by frequent and adequate dosing with vitamin C which chelates the cardiovascular system of al heavy metals e.g. lead, cadmium and hopefully strontium, beryllium, uranium etc.
34. Amoebic dysentery cure and prevention.
35. Amygdalin: Believed by some to be anticancer with the adjuvant action of ascorbate Also known as Laetrile. Found in the stones of bitter almonds.
36. Anabolism: One of the most important roles of ascorbate. Doubling of the birth weight of babies in the first 6 months is a good example and may be aided by ascorbate formed endogenously in the baby's liver if the mother's milk is depleted.
37. Anaesthetics detoxified with rapid complication free recovery if some sodium ascorbate powder is present on the tongue as long as possible until anaesthesia begins.
38. Analgesic action of large doses (5-10 grams).
39. Analgesic doses and corneal graft.
40. Anaphylactic shock. Vitamin C is 'the missing Anti-stress' hormone.
41. Anascorbaemia and acute anascorbaemia. Cathcart's description e.g. in haemorrhagic fevers when plasma level falls to very dangerously low levels.
42. Anastomosis: A confluence of capillaries from different vessels as in the anal region. CardioRetinometry suggests that with lower blood pressures aided perhaps by avoidance of cholesterol in the venous system, swelling of these vessels and associated tissues (Haemorrhoids).
43. Aneurysms cured (Micro-aneurysms in conjunctiva).
44. Aneurysm prevented e.g. aortic aneurysm.
45. Angina pectoris. Chest pain with oppressive feelings with exertion or anxiety. The result of occult scurvy causing coronary stenosis, not always visible by X-rays, either not noticed, ignored or denied by the medical profession who are known to suffer from and die of coronary thrombosis themselves. Particularly embarrassing for cardiologists. Easily preventable and curable with careful monitoring by optometrists qualified in CardioRetinometry®.
46. Angiography: Obsolete medical first choice procedure for evaluation of heart (coronary) arteries. Occasionally fatal, the procedure is unpleasant; extremely expensive; often completely inconclusive; unrepeatable at any meaningful frequency because of the high dosage of X-rays; cannot indicate the true extent of blockages and merely represents blockages by lines on a negative type film. Ultrafast computed tomography is a little better and electron beam tomography a slight improvement. None can begin to indicate the subtle changes in stenosis as the cholesterol begins to be dissolved away as demonstrable by a qualified doctor of CardioRetinometry® who can image it daily.

47. Angioplasty: A crude and dangerous distension of a blocked heart vessel, already weakened which is why the cholesterol is supplied by the body for strengthening and waterproofing of the vessel.
48. Angioscopy: A 'fightback' procedure by cardiologists anxious to retain credibility in the evaluation of coronary artery blockage visualization using fibre optics and cameras pushed into the heart. The cholesterol is much more safely studied in the retina of the eye which mirrors the state of the heart blood vessels. It is completely unnecessary to locate the blockages in the heart. It is enough to know that they are there proportionately and disappearing with a harmless, non-toxic pleasant and inexpensive supplementation.
49. Angiitis: Inflammation of a blood vessel. Whether due to histamine, or any other cause, oral ascorbate will assist healing cure.
50. Ankylosing spondylitis. Cured (Norman Cousins).
51. Antagonism (See Glucose ascorbate antagonism theory of Ely - Type 2 diabetes).
52. Anthrax cure and prevention. The Sterne strain of mice cannot be killed by anthrax spores blown directly into their lungs. (Bethesda. US Naval Lab). Presumabley they are able to make more hepatic ascorbate to overcome the threat to life.
53. Anti-allergic conjunctivitis, 'dry eye' prevention and cure.
54. Antibacterial properties of ascorbate.
55. Anticataractogenic properties in UVB wavelength conversion.
56. Antithrombotic effect. (Spittle 1973 and 1974) Scurvy increases clotting (Will et al. 1999).
57. Anxiety: Increase of need in state of.
58. Aortic aneurysm: Caused by chronic occult scurvy. Unusual in animals. Preventable.
59. Appendicitis: Prevention and possible cure.
60. Arsphenamine dermatitis (syphilis treatment) controlled.
61. Aqueous of eye. High concentration to protect lens and convert UVB-UVA.
62. Arthritis said to occur in or following many infections. The common factor is the scurvy induced by these many organisms. Preventable. Curable.
63. Artificial sweeteners. Saccharin and cyclamate are probably detoxified. Aspartame metabolites formic acid, formaldehyde and methyl alcohol unlikely.
64. Ascorbic Acid. First isolated by Albert Szent-Gyorgyi. Purest vitamin C. Unsuitable for injection. Dibasic acid with enediol group included in heterocyclic plane lactone ring. The molecule is said to be stabilised by delocation of the pi electron over the carbonyl and enediol system. (Tsao).
65. Ascorbic acid synthesis in murine liver is stimulated by glycogenolysis. (Braun et al. 1994).
66. Ascorbyl glucoside. Manufactured to increase ascorbate in skin. Glucose problematic/unknown.
67. Ascorbyl salts. E.g. palmitate, oleate and stearate, Anti staling agent in Bakery. Neutralised salts of calcium, magnesium, potassium etc. Ascorbyl salts applications mainly in pharmacy and cosmetics.
68. Aspirin: Detoxified by ascorbate and its analgesia aborted.
69. Aspirin as a cause of heart disease. Attacks vitamin C. depleting the body pool and causing occult scurvy.
70. Asthma. Cathcart reports cures with 15-50 grams/day in 4 to 8 doses/24 hrs.
71. Atherolysis. Dissolving of atheroma: (in the retina = retolysis). US patent Pauling L. Rath M. (1994) Prevention and treatment of occlusive cardiovascular disease with ascorbate and substances that inhibit the binding of lipoprotein (a) U.S. Patent 5,278,189.
72. Atherosclerosis prevented in rabbits injected with cholesterol by supplemental vitamin C. (Sadava et al. 1982).
73. Atherosclerosis and total body cholesterol increased in Guinea pigs with scurvy. (Banerjee and Singh. 1958).
74. Atherosclerosis; Reductions to suboptimal levels of plasma ascorbate before symptoms become visible (occult scurvy) initiate the endogenous formation of lipoprotein alpha [Lp(a)] which impacts in the endothelial lining of the arteries and arterioles to preserve the waterproof barrier and assist in strengthening the vessel helping to cement new cells into place. High VLDL cholesterol is therefore a risk 'marker' not a risk 'factor' in atherosclerogenesis. Histamine levels rising as ascorbate falls, contribute to the process encouraging white cells (monocytes) to stick in the arteries. (Clemetson 1999) Harman demonstrated antihistaminic action reduced atherosclerosis in rabbits (1961) confirmed by Hollander (1974).
75. Atherosclerosis X-ray evidence for reduction (Spittle 1971) After 30 months on 1 to 3 grams of vitamin C/day during which period no strokes or heart attacks in 60 patients.
76. Avitaminosis C. Absence from the plasma of vitamin C. (Riordan after spider bite and 5 consecutive days of 15 ram intravenous injections of sodium ascorbate before plasma vitamin C became detectable.) Death was a possibility without the injections.
77. Bacillary and amoebic dysentery curable/ preventable.
78. Back pains. Collagen and muscular weakness are both ascorbate related. (Greenwood of Baylor: 1964. advice to Pauling.) See Carnitine.
79. Bacteraemic shock. Preventable? Curable?
80. Bacterial bronchopneumonia: Preventable, Curable.
81. Balanced diet belief of doctors to provide all the vitamins needed. A principal cause of early death. The amount of vitamin C needed is unpredictable due to food storage and without individual assessment nobody knows how much vitamin C any person needs at any period in his life.
82. Bedsores where due to peripheral circulatory failure may be ameliorated especially in cases of institutionalised occult scurvy. Preventable? and curable?
83. Bile acid synthesis.
84. Biphasic characteristic in plasma.
85. Blepharitis Cured (Eyelid inflammation).
86. Blood brain barrier. Protective mechanism preventing passage of many drugs to the brain and spinal cord but easily passed by vitamin C. Probably also protects the retina and uveal tract from many antibiotics and medications which, whilst this would make

ascorbate doubly important as one of a limited range of anti-infectives, is deliberately and forcefully ignored by the medical profession as in so many cases of obvious potential benefit with a 'no cost' and 'no risk' implication. This attitude again supports the view that too many physicians would allow the patient to die (in this case go blind perhaps) rather than admit the power of vitamin C beyond the range of a vitamin a claim published originally by Klenner.

87. Blood cholesterol; CardioRetinometry exposed the sham. The most 'dangerous' type is reduced by vitamin C. Once thought to be an indicator of heart disease. Very Low Density cholesterol is now known to be a risk 'marker' of coronary heart disease not a risk 'factor.' Control by statins has been exaggerated and more truthful studies now show no benefit in primary prevention with slight benefit in secondary prevention. It appears that the entire cholesterol programme has been a myth that has been exploited for the greatest swindle in history. Central medical characters are being lampooned and scorned on the Internet without having responded with legal action for several years. The main heart and blood organisations are falling into ever greater disrepute as the full story emerges of tens of millions continued to die the more funding became available for 'research' and dying whilst the truth was ignored for gain. See cholesterol.
88. Blood cholesterol–high and raised by lack of vitamin C. Now recognised as a sign of greater life expectancy e.g. in Russia and many other countries where pharmaceutical advertising has less influence.
89. Blood cholesterol – low and lowered by vitamin C. Now recognised as a sign of shorter life expectancy e.g. in Russia and many other countries where pharmaceutical advertising has less influence.
90. Blood clotting. Impaired by scurvy when haemorrhage can be the ultimate cause of death.
91. Blood poisoning, (toxaemia, septicaemia) Preventable. Curable.
92. Blood pressure control.
93. Blood glucose (sugar) control in diabetes, (Dice & Daniel 1973).
94. Boils (Furunculosis) cured.
95. Bronchitis; preventable curable.
96. Bronchopneumonia; Infection of lung substance due to various bacteria and viruses all of which are expected to be - Preventable, Curable.
97. Brucellosis preventable - probably curable.
98. Bruising; Tendency to easy bruising is a positive sign of scurvy. The arms can eventually resemble a continuous bruise with very large reddened areas.
99. Bubonic plague. Preventable, Curable. Such diseases with very high incidence of fatality rarely killed everybody, suggesting that whilst communities had no natural antibody defence, some fortunate individuals are always likely to survive if fortunate to have a gamma gulon lactone gene able to convert more blood glucose into ascorbic acid.
100. Buerger's disease. An arterial disease mainly of smokers. Preventable, Curable.
101. Buffy coat evaluation.
102. Burkitt's lymphoma; Preventable? Curable?
103. Burns:
104. Bypass operation; entirely preventable when performed to remedy obstructive coronary atery disease due to prolonged chronic occult scurvy. Preventable. Curable if caught early enough.
105. Calcium ascorbate; preferred by some nutritionists especially in osteoporosis cases.
106. Cancer control by ascorbate injection (Riordan J. Orthomol Med. 1990).
107. Cancer & vitamin C orally e.g. Bladder about 20% cured (Euan Cameron Vale of Leven study
108. Breast about 10% cured
109. Bronchus ~ 5% cured
110. Colon about 20% cured
111. Kidney about 10% cured
112. Ovary about 18% cured
113. Rectum ~ 15% cured
114. Stomach ~ 10% cured
115. Cancer: Ehrlich Ascites killed (Benade et al. 1969. Oncology. 23, 33-43).
116. Cancer, familial colonic polyposis regressed (DeCosse et al on 3 grams or more/day).
117. Cancer; Japanese Fukuoka Torikai study 25% survivors on 30 grams/ascorbate/day.
118. Cancer killed by concentration of 400mgs/Kg or Litre of plasma. (Riordan J.Orthomol Med 1996).
119. Cancer killed by hydrogen peroxide when catalase conversion/ protection weak in cancer cells.
120. Cancer; Mayo Clinic falsified study by Moertel et al. Pauling page 234. (1986 book).
121. Cancer regressed by quenching of free radical dependent hypoxic factor 1b enzyme.
122. Candida CAN be cured (Cancer link).
123. Capillary fragility and easy bruising classical signs of scurvy. Prolonged bleeding. See Histamine.
124. Carbon monoxide poisoning. Pioneering physician Dr. Klenner discovered that ascorbate injected could act as what he called a 'flash oxidiser' of carbon monoxide in potentially fatal cases. Quoted in British Medical Journal Rapid Responses by the author but ignored. It is obvious that every fire engine should be equipped with an intravenous drip or hypodermic for immediate injection with one or two members of the crew trained in its administration.
125. CardioRetinometry® Name coined by Sydney Bush to define the activity of relating retinal arterial changes to occlusive coronary artery changes. See Nutritional Preventive and Therapeutic CardioRetinometry®.
126. Cardiovascular disease; the most widespread disease in the West affecting heart and blood vessels. It is the most common cause of death. Nutritional Preventive CardioRetinometry is the

first system of effective prevention and whatever is eventually found to be the actual cause, is the first system to have shown consistent reversal of the arterial plaque. Believed by the author to be mainly due to the ascorbate or ascorbic acid in vitamin C tablets, or in an improved vitamin C bearing diets, or as a result of lessened stress due to the education that has accompanied the demonstration of consistent and continuing visible reductions of arterial plaque, patients readily sign testimonials to their belief that vitamin C is the main effective agent. Physicians may wish to argue and remain infatuated with low dosages but the contact lens wearing population in which the phenomenon was discovered in 1999, has been exposed to and encouraged to persist in gram and mega gram doses for over 20 years.

127. Carnitine production from L-Lysine is ascorbate dependent. 80% from L-Lysine. See Lysine. Ascorbate and Carnitine. Ascorbate converts (2 of 5 stages of hydroxylation) lysine to Carnitine for muscular contraction. Acts on the adrenergic and weakly on beta receptors in muscle.

128. Carotid endarterectomy; similar to a heart bypass but without grafting. The carotid arteries are opened and the plaque surgically removed. Carotid stenosis in exactly the same way as coronary artery disease is entirely preventable and the plaque can be easily redissolved back into the plasma whence it came. Ib cases of observing hundreds of plaque reductions in the retinal arteries the experience for both examiner and patient has been 'like watching paint dry.'Carpal tunnel syndrome. Shown by Ellis, Folkers et al. in 1982 to be reversible with vitamin B6 now thought to be assisted by the adjuvant actions of ascorbate.

129. Cataract prevented/reduced.

130. Cellulitis – if caused by infection - Preventable? Curable?

131. Cerebral haemorrhage (subarachnoid haemorrhage) all risks increased by scurvy.

132. Cerebrospinal fluid pressure control and reduction.

133. Cerebrospinal fever / meningitis; Preventable? Curable?

134. Cerebrostriate artery blockage or rupture or both are forms of stroke to all of which risks people become exposed when living for years with chronic occult scurvy. Preventable; Curable.

135. Chelation of heavy metals from the system.

136. Chemokinesis,

137. Chemotaxis and

138. Chickenpox cure and prevention.

139. Chirality (handedness) and ascorbate. (Greek cheir = hand) Left handed molecule. The Right handed stereo molecule is not recognised by the body.

140. Cholangitis. Probably due to blockage by small gall stones. Preventable? Curable?

141. Cholecystitis; Due to abnormal cholesterol excretion leading to gallstone blockage of the bile duct. Preventable? Curable?

142. Cholecystotomy and gall bladder removal Preventable.

143. Cholera. Infectious waterborne disease. Preventable? Curable?

144. Cholesterol excretion normalised by ascorbate.

145. Cholesterol induced scurvy when injected demonstrating high cholesterol increases need. (Dent et al. 1951; Booker et al. 1957).

146. Cholesterol synthesis normal liver function, more important than dietary cholesterol in regulating blood cholesterol.

147. Cholesterol Very Low Density Lipoprotein alpha reduced (not a heart disease 'factor' - it's a 'marker')

148. Cholesterol – very low density.

149. Cholesterolysis - Vitamin C dissolves arterial plaque (Bush 2004).

150. Chondritis. Not necessarily prevented by ascorbate when of mechanical origin but excessive wear and slow repair are probably associated with prolonged chronic occult scurvy.

151. Chondroitin sulphate deficient in guinea pigs with scurvy. (Boumans and Mier 1970).

152. Chondroitin sulphate: (acid mucopolysaccharides or glycosamine glycans) Ground substance foundation optimised by adequate ascorbate.

153. Choriomeningitis. Inflammation of the meninges and choroid plexus. Preventable? Curable?

154. Choroiditis cured/prevented.

155. Chromium detoxification.

156. CHRPE Congenital Hyperplasia of Retinal Pigment Epithelium. (see familial colorectal polyposis regression).

157. Circadian atheroma and vitamin C.

158. Cirrhosis of the liver; Risk increased by chronic prolonged occult scurvy. Preventable? If caught early, partially curable?

159. Cl-esterase component of complement is, without doubt, increased by ascorbate. The Cl-esterase component of the immune system is vital for the functioning of the entire complement cascade and there is no doubt that it would become inoperable and would be unable to differentiate between 'self' and 'non-self.'

160. Clotbusting Vitamin C. Fibrinolytic (dissolving) action demonstrated. (Bordia et al. 1978).

161. Collagen first formed as a three stranded structure from amino acids Glycine and proline.

162. Collagen formation stage: Glycine and Hydroxyproline coiled in Left handed helix.

163. Collagen is a right handed superhelix of three strands of the double L.H. helix.

164. Cold sores. Due to herpes virus. Combination of Lysine and vitamin C ends the condition. Preventable. Temporarily Curable.

165. Common cold cure and prevention (16 studies prove it).

166. Complement – entirely vitamin C dependent component of the immune system – see Cl-esterase.

167. Congestion; Nasal. Curable with drops of sodium ascorbate dripped into the nose reclining.

168. Congestion; Sinus; frontal and maxillary, treatment systemically to bowel tolerance plus drops, as in nasal congestion.

169. Conjunctival hyperaemia cured.

170. Conjunctivitis cured.

171. Control of pro-oxidant ferric iron release in red blood corpuscle lysis in Haptoglobin 2-1 and 2-2 types,

172. Controversy. Maintained by pharmaco-medicine whose profits depend very heavily on public ignorance of the healing and preventive power of vitamin C. A deliberate programme of obscurantism to persuade the public that scurvy has 'gone away.' - 'No longer in the West.'

173. Comfort drops. Typical allopathic symptomatic medical treatment for 'dry eye.' The cause of true dry eye requires to be addressed. In Contact lens wearers, Bush states that 'not so dry eye' a condition of 'loss of gloss' or micropapillary conjunctivitis causing increased blink friction is reversible and due to histaminaemia or anascorbaemia, a lack of vitamin C in the plasma). Plasma histamine is inversely proportional to ascorbate.

174. Copper and trace element effects.

175. Corneal ulceration may be curable with guttae sodium ascorbate alone, instilled every few minutes, or in combination with antibiotics.

176. Coronary angiography; extremely imprecise quantification of degree of coronary atheroma compared with visual inspection of microscopic degrees of arterial plaque by CardioRetinometry®.

177. Coronary artery calcium reduced.

178. Coronary artery spasm. Relieved (Kaufmann et al. 2000).

179. Coronary insufficiency; entirely preventable and curable where caused by atheroma.

180. Coronary occlusion; entirely preventable and curable where caused by atheroma.

181. Coronary thrombosis; entirely preventable and curable where caused by atheroma.

182. Cortisone therapy.

183. Coxsackievirus infection cure.

184. Croup; Inflammation of the principal airways leading to a typical 'barking' cough. Preventable and curable.

185. Crystalline lens of eye. High concentration believe protective against cataract. Believed to prevent - cross linking thus preserving elasticity for accommodation. UVA - UVB conversion.

186. Cures all viral infections / preventable.

187. Cures all bacterial infections / preventable.

188. Cyclitis cured/prevented?

189. Cystic fibrosis; cannot be cured by ascorbic acid but its troublesome symptoms can be partially relieved and complications reduced compared with the dangerous alternative of continuous antibiotics. The mucolytic property of ascorbate and its anti-inflammatory power help with breathing.

190. Cystitis. Prevented and cured.

191. Cystic fibrosis: Congestion relieved.

192. Cytomegalovirus infection; (Liver enlargement and jaundice in children) Preventable, curable.

193. Dacroadenitis; occasionally follows mumps. Preventable and curable.

194. Dacrocystitis prevented and cured.

195. Dacryoblennorrhoea. Lachrimal sac inflammation. Preventable and curable.

196. Deep vein thrombosis prevention.

197. Deficiency - like depletion - arbitrary and meaningless except as leading to early death.

198. Dehydroascorbate excretion by non-return from glomerular filtrate c.f. ascorbate.

199. Dehydroascorbate (oxidised ascorbic acid) Re-reduced by vitamin E and glutathione system. Glutaredoxin is part of the system thought to prevent lipid peroxidation.

200. Dengue fever believed curable/preventable.

201. Denigration of vitamin C: In the following otherwise excellent works Dr Ernst. Wynder's "The Book of Health" (American Health Foundation 1981); Dr. J.A. Adams "Viruses and Colds; The Modern Plague (1967) Dr. Benjamin A Kogan's "Health" (1972) Dr. G.T. Johnston "What you should Know About Health Care Before You Call A Doctor" 1975. and in a multitude of 'papers' and 'scientific reviews' with obvious political motives e.g. the John Major Government's supposedly 'Ministry of Food' funded Lunec cancer suggestion now known to have *caused* cancer deaths. Dr. W.T.Hughes fails to mention in his paper on Cancer in Children. (Primary Care and Cancer October pp66-72) Dr. Mark Levine (NIH) dissociates himself from mutagenesis, rebound scurvy, infertility and destruction of B12 scares.

202. Denigration of Vitamin C. Dr Mark Levine (NIH) rebuts above scares but insists on kidney stone 'no matter how small the risk' disregarding the greater danger to millions of understating the minimum on the same grounds – deprivation and early death no matter how small the risk.

203. Dental caries; Infection due to immune system weakened, perhaps by amalgam fillings, creating downward spiral of health and more fillings. Brushing and 'flossing' do not reach into the sulcus between tooth and gum where only a mouthwash or ascorbate can penetrate and kill the bacteria. Frequent use of a dental mouthwash four times per day would be necessary but would be harmful with eventual fatal results as whatever kills bacteria (ascorbate excepted) kills us.

204. Depletion. A concept of deficiency that is very arbitrary. Best considered as leading to early death.

205. Depression, In many cases preventable and curable.

206. Detoxification Acetaminophen: poisoning reversed.

207. Detoxification Barbiturate poisoning. 350mgs/kilo *minimum/and every hour intravenously*.

208. Detoxification of Snake venoms

209. Detoxification of Aluminium

210. Detoxification of Anaesthetics.

211. Detoxification of Arsenic.

212. Detoxification of Cadmium harmlessly chelated.

213. Detoxification of Carbon monoxide.

214. Detoxification of Chromium dermatitis cured.

215. Detoxification of Endotoxins.

216. Detoxification of Endotoxins poisoning.

217. Detoxification of Fluoride (sodium fluoride = insect poison = toothpastes!) detoxed.

218. Detoxification of Insect venoms.
219. Detoxification of Lead poisoning.
220. Detoxification of Mercury (teeth) detoxed (Huggins-Levy.)
221. Detoxification of Methaemoglobinaemia.
222. Detoxification of Mushroom poisoning.
223. Detoxification of Nickel toxic dermatitis 20% sol. Better than 1% hydrocortisone.
224. Detoxification of Nitrosamine by inhibition of nitrosation of amines and amides (packed meats) --- nitrosamines are very carcinogenic demanding vitamin C as an accompaniment to the meal.
225. Detoxification of Paraquat.
226. Detoxification of Snake venoms.
227. Detoxification of Strychnine poisoning – protects.
228. Detoxification of Tobacco smoke.
229. Detoxification of Vanadium - chelated. Liver, kidneys, (animals.) Better than glutathione.
230. Diabetic ascorbate levels lower: Insulin production lower in scurvy. (Banerjee and Ghosh1943; Banerjee 1944; Dou et al. 1947; Kodama 1993).
231. Diabetic atherosclerosis hypothesised (Mann 1974) to predispose to vascular endothelial degeneration due to competition for insulin transporter by high blood glucose, increasing requirement of the cell wall due to a localised scurvy.
232. Diabetes Blood sugar inversely proportional to plasma ascorbate. (Banerjee and Bandyopadhyay 1963).
233. Diabetic control of collagen production more vitamin C dependent. High blood glucose impairs collagen and proteoglycan production until more vitamin C is made available – shown in vitro (Fisher 1991)
234. Diabetic gangrene. Preventable? and curable?.
235. Diabetic insulin production mediated by plasma ascorbate. (Kodama 1993)
236. Diabetic pancreatic Insulin producing islet cells increased in number by ascorbate (Banerjee 1944).
237. Diabetic pathologies due to scurvy of reduced plasma vitamin C (Ginter et al. 1981; Stankova et al. 1984; Som et al. 1981; Mooradian and Morley 1987; Simon 1992).
238. Diabetic pathology of atherosclerosis reversible with vitamin C (Price et al. 1996).
239. Diabetes scurvy? (Banerjee 1943) Guinea pigs showed return of normal glucose metabolism with vitamin C.
240. Diabetic thrombosis associated with low vitamin C and more fatty and widespread plaque. (Burke et al. 2001).
241. Diabetic thrombosis prevention shown to be more vitamin C dependent supported by extra vitamin E. (Karpen et al. 1984; Sarji et al. 1979).
242. Diastasis: Separation of cells lining blood vessels. Controlled by vitamin C acting to reduce the plasma histamine level. (Gore et al. 1965) This may be the cause of the capillary fragility of scurvy. (Clemetson 1999).
243. Diathesis. Inherited predisposition to a disease. – 100 free radical diseases of scurvy.
244. Diphtheria curable / preventable.
245. Diphtheritic Myocarditis. Preventable and Curable.
246. Disinfection. Ascorbic acid was used to wash the air of US public buildings after the US Mail's postal scare of anthrax spores.
247. Dissecting aneurysm of the aorta. Preventable.
248. Diuretic without potassium complications.
249. Dopamine production pathway vitamin C is an essential step in manufacture.
250. Dry Eye - affliction of contact lens wearers eliminated from a contact lens practice.
251. Dry Gangrene. Preventable.
252. Duodenal ulcer. Preventable and curable.
253. Dynamic flow.
254. Dysentery. Preventable? Curable? (depending on which cause)
255. Ebola fever believed curable/preventable
256. Ecchymosis. Cutaneous bleeding spots. Curable/preventable.
257. ECHO cure.
258. Elastosis (Senile) accelerated by chronic prolonged occult scurvy.
259. Embolism. Sudden blocking of a vessel by solid matter. Preventable.
260. Encephalitis, bacterial; Preventable? Curable?
261. Encephalomyelitis. Inflammation of brain and spinal cord. Preventable – Curable.
262. Endarterectomy; Surgical removal of intra-arterial plaque. Preventable – Curable.
263. Endarteritis; Inflammation of the endothelium of an artery. Preventable – Curable.
264. Endarteritis obliterans. Preventable, Curable?
265. Endometritis ; Preventable. Curable?
266. Endophthalmitis. Preventable. Curable.
267. Enema; Rendered unnecessary by suprabowel tolerance ascorbate.
268. Endocarditis, bacterial: Preventable? Curable?
269. Endogenous vitamin C. In vitamin C exclusion studies occasionally, individuals are found who, like the Guinea Pig in Willams and Deason's experiment, that not only survived when the others died, but grew bigger than some in better vitamin C supplied groups, proving that biological individuality condemns some to early death who try to live by the Medically conceived RDA.
270. Endurance improved.
271. Enteritis. Depending on which cause – Preventable. Curable.
272. Enterococcus. Preventable. Curable.
273. Enterorrhagia. Intestinal bleeding. Preventable – Curable?

274. Enterotoxin. Preventable. Curable.
275. Eosinophil control.
276. Epidemiology. Study of disease in populations. Major application is pandemic scurvy.
277. Epididymitis. Preventable. Curable.
278. Epididymo-orchitis. Preventable. Curable.
279. Epinephrine production pathway.
280. Epinephrine synthesis. (Injection as good as epinephrine). Phenylalanine forms dopamine dopamine + vitamin C forms epinephrine.
281. Episcleritis. Preventable. Curable.
282. Epistaxis. (nosebleed) Preventable.
283. Epstein-Barr virus infection Preventable. Curable.
284. Erysipelas; Cellulitis with fever and streptococcal skin infection. Preventable, curable.
285. Erythema. A reddening of the skin especially associated with heat and UV.
286. Erythema nodosum. A form of vasculitis affecting small blood vessels. Many cause many cases directly or indirectly scorbutic. Preventable and curable.
287. Eukaryotes. Essential for functions of.
288. EVM. Expert Group on Vitamins and Minerals. Name designed to instill confidence in the public that their interests are guarded. Like NICE - National Institute of Clinical Excellence. Its only excellence is in guarding medical funds. No equivalent anywhere in the world - like Primary Care Trusts - not at all what they sound like. Act against the public interest - e.g. in suppressing Nutritional Preventive CardioRetinometry. See RDA.
289. Exercise: Increase of need during.
290. Exhaustion delayed.
291. Exotoxin produced by bacteria. (Diphtheria very destructive) Preventable. Curable.
292. Extra-intracranial bypass. Surgical theatricals to reduce stroke risk when hypertension and haemorrhage are preventable in the same way as heart disease.
293. Fertility improved (weakens de-potentiates 'the pill).
294. Fever. When due to free radicals as is usually the case, quenching reduces the cause. Curable.
295. Flash oxidiser of Carbon Monoxide (Bush Letter to BMJ).
296. Folliculitis; when due to infection preventable, curable.
297. Food poisoning prevented. A gram after any meal. (Personal medical advice by an experienced practitioner).
298. Free radical quenching.
299. Free Radical Theory of Ageing and Disease. (Nov. 1954) Dr Denham Harman. MD., PhD. Prof. of Cardiovascular Research. Univ. of Nebraska. Vitamin C as principal antioxidant.
300. Furunculosis prevented/cured.
301. Gallstones. Formed by improper cholesterol excretion due to chronic occult scurvy. Preventable? Curable?
302. Gangrene. When following ischaemia due to scurvy, Preventable. Curable.
303. Gas gangrene. When caused by Clostridium welchii or Clostridium oedematiens preventable and curable.
304. Gastric ulcer due to Helicobacter pylori. Cure and prevention.
305. Gastritis from virtually whatever cause almost certainly preventable and curable.
306. Gastroenteritis due to infections by Salmonella and Escherichia coli, Preventable, Curable.
307. Gender and atherosclerosis. Men now considered by Levy to need 6 to 12 grams/day more than women to avoid coronary disease. (Based on work by Loh et al. 1974).
308. Gender and deficiency; the sexes found to be equal up to 12yrs of age. Females found to have higher levels from age 12 even when both genders supplemented. (Dodds 1969).
309. Gender and deficiency. Males found to need more than females at every age and markedly increasing deficiency over 50yrs. (Morgan et al. 1955).
310. Gender and nubile women. Before supplementation nursing and medical students found to have 20% more blood vitamin C than males. After supplementation women had 40% more blood vitamin C. (Franz et al. 1956).
311. Gender and the aged. No differences were found in requirements in old age.
312. Gingivitis; invariably due to immune deficiency caused by scurvy. Preventable, Curable.
313. Glandular fever. (Infectious mononucleosis) Preventable. Curable.
314. Glaucoma; Primary open angle; Prevented and blindness risk cured if caught early.
315. Glomerulosclerosis. Preventable. Probably curable if caught early.
316. Glossophayngitis; Preventable, Curable.
317. Glycine and ascorbate; see collagen.
318. G6PD and vitamin C. (Glucose-6-phosphatase deficiency) No confirmation of the original report can be obtained. Not confirmed by Cathcart in 20,000 intravenous applications. Another denigration? (Another sophisticated hoax?) It now appears that this was an elaborate hoax following a tragic death of a negro due to mistakenly injecting ascorbic acid – the disaster being turned to good use by those who saw an opportunity to prevent the procedure becoming popular.
319. Gonococcal epididymitis. Preventable? Curable
320. Gonorrhoea Preventable? Curable.
321. Gumboil. Preventable. Curable.
322. Haemodialysis. Preventable when due to glomerular atherosclerosis.
323. Haemorrhage control.
324. Half life. Above renal threshold.
325. Half life below renal threshold.

326. Hantavirus disease. Preventable? Curable?
327. Hay fever cured.
328. HDL cholesterol.
329. Heart rate (Tachycardia reduced).
330. Hemolysis of (rat) erythrocytes low concentrations of ascorbate and dehydroascorbate. Ascorbate oxidase, superoxide dismutase, catalase or scavengers of hydroxyl radicals protected erythrocytes against copper-ascorbate stimulated lysis. The serum proteins, ceruloplasmin, albumin and apotransferrin, reduce hemolytic action of copper-ascorbate.
331. Hepatitis (All types) cured / preventable.
332. Hepatotoxicity reduction and Liver repair. (Milk thistle).
333. Herpes infections Preventable? Curable?
334. Herpes zoster ophthalmicus cure and prevention?
335. Hiatus hernia. A collagen disease. Preventable. Probably needing surgical intervention.
336. High performance liquid chromatography in ascorbate status. (Omaye et al. 1987 Ann NY Acad. Sci. 498, 389-401.
337. Histamine control. Reduced by 70% - far more than all drugs safely.
338. Histamine detoxification: Acted on directly by ascorbic acid hydroxylating it to hydantoin-5-acetic acid for harmless normal metabolic breakdown but at the expense of a molecule of vitamin C lost for each molecule of histamine destroyed without risk of drowsiness, giddiness, headache, nausea, lack of appetite, dryness of the mouth and nervousness first researched c. 1936. (Chatterjee 1975; Subramanian 1978).
339. Homocysteine (not a heart disease 'factor' - it's a 'marker').
340. Hyperactivity. Often curable. Probably preventable. Brighthope speaks of placid more contented children when not undersupplied with vitamin C.
341. Hypertension Preventable and – if caught early- curable.
342. Hypertensive retinopathy. May be preventable and curable depending on degree.
343. Hyperglycaemia; May be proportionate to anascorbaemia depending on degree of type 1 diabetes mellitus.
344. Hypoascorbaemia. Irwin Stone's term for deficiency.
345. Hypopyon. May be preventable and cure assisted by ascorbate depending on how early the infection is caught, the virulence of the infection and a willingness to give ascorbate Intravenously in sufficient quantities.
346. Hypothermia.
347. Hypothermia improved.
348. Hypoxic factor 1b deprived of energy from free radicals by ascorbate in cancer remission.
349. Immunoglobulins Ig A, IgG and IgM. Shown by Vallance (1977) Prinz (1977 & 1980). increased by ascorbate.
350. Infection - ALL known bacterial infections ended.
351. Infection. All known viral pathogenic infections ended.
352. Inflammation.
353. Immunodeficiency disorders. Preventable. Curable.
354. Impetigo; Preventable. Curable.
355. Indolent ulcers. Preventable. Curable.
356. Infections especially opportunistic cutaneous; Preventable. Curable.
357. Infecundity very often cured.
358. Inferiority complex. If associated with depression is helped by ascorbate increasing happiness. (Pauling).
359. Inflammation whenever associated with infection or injury is probably preventable and curable.
360. Influenza; Preventable. Curable.
361. Injury: accelerated recovery.
362. Insulin production.
363. Intelligence improved up to 9 points (Benton et al) Kubal and Katz 1960 Straight line increase from mean IQ 110 at 10mgs/litre plasma ascorbate to I.Q. 116 at 16mgs/L.
364. Interferons. Production increased.
365. Intermittent claudication. Preventable. Often curable.
366. Interstitial cholesterol. Seen between retinal vessels as plasma penetrates between endothelial cells (Majno and Palade 1961) (Majno 1961).
367. Interstitial keratitis. If vigorously treated with intravenous ascorbate expected to be Preventable. Curable there being no risk and much to lose.
368. Intraocular Pressure lowered.
369. Iritis; Preventable. Curable.
370. Iron absorption improved when necessary. Over absorption not found.
371. Ischaemia. Preventable. Curable when not due to mechanical causes.
372. Ischaemic necrosis; Preventable. Curable.
373. Ischaemic neuropathy; Preventable. Curable.
374. Islets of Langerhans protected from viral damage in youth thus Type 1. diabetes preventable?
375. Japanese 'B' encephalitis. Preventable. Curable.
376. Kawasaki disease; Preventable. Curable.
377. Keratocoele. (Corneal blister) possibly prevented.
378. Keloid. 'Overgrown' abnormal scars Preventable. Curable.
379. Keratitis prevention. Cure?
380. Kidney stones prevented.
381. Klebsiella pneumonia Preventable. Curable.
382. Kyasanur Forest disease. Preventable. Curable.
383. Laryngitis; Preventable, Curable.
384. Laryngotracheobronchitis Preventable. Curable.

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385. Lassa Fever. Preventable. Curable with vigorous intravenous injection caught early before organ damage becomes extensive.
386. Lead poisoning. From low level sources – e.g. air and lead pipe sources – probably Preventable. Curable if caught early.
387. Leptospirosis; Preventable. Curable.
388. Life extension. Chope and Bresslow. Enstrom. Ascorbate biggest single factor: Enstrom found 250mgs extra ascorbate over the 50mgs RDA gave men 10% longer life.
389. Listeriosis. Preventable. Curable.
390. Low Density Lipoproteins (LDL) preserved against oxidation also by dehydroascorbate.
391. Kidney stone prevention.
392. Kidneys protected against atherosclerosis.
393. Kidneys protected against ischaemia.
394. Kidneys protected against mercuric chloride.
395. Kidneys protected against nanobacter stone forming nuclei.
396. Laat estimation 1/340 2,6 N dichloroindophenol sodium.
397. Lassa fever believed curable/preventable?
398. Laxative without complications.
399. Lecithin and vitamin C synergistically dissolve/prevent arterial plaque. ((Altman et al. 1980).
400. Leucocytes; White phagocytic cells of the blood. There is a three stage dependence on vitamin C for their effectivity. (1) Genesis (2) Kinesis (movement) (3) phagocytosis.
401. Leucoyte formation (blastogenesis) observed to progressively increase every day as extra and then more vitamin C is added until at 18 grams ascorbic acid per day the production of the leucocytes had increased by a factor of four compared with less than double when on 5 grams/day. (Yonemoto, Chretien, and Fehniger 1976). It is noteworthy that the author's applications for vitamin C studies in a Western Hospital have been disallowed by the 'ethics' committee at over 2 grams/day.
402. LDL cholesterol.
403. Leprosy cured/preventable?
404. Lobar pneumonia. Preventable. Curable.
405. Low blood pressure.
406. Ludwig's angina Preventable. Curable.
407. Lung cancer. Preventable. Curable?
408. Lupus improved / prevented?
409. Lymphomas. Preventable? Curable?
410. Lysine and vitamin C dissolve plaque. Rath and Pauling believe vitamin C binds to Lp(a) chemically and reduces 'stickiness' of Lp(a) to sites containing lysine. (Pauling and Rath 1990).
411. Lysine reduces plaque with vitamin C over 19 months from 75% to 40% stenosis of the Right Coronary Artery. (Katz 1996).
412. Lysyl hydroxylase: Enzyme catalyzing step in collagen formation (Myllylä 1984).
413. Lysine. L-Carnitine. NOT the 'D' isomer that may be harmful. (L-Lysine) essential amino acid precursor of carnitine via 2 stages of vitamin C mediated hydroxylation (Biochemical pathway for Scurvy causing muscular weakness.) The 5 stage conversion involves methionine, vitamin B6 and iron.
414. Macula concentration gradient. (Similar to vitamin E gradient. From macula).
415. Magnesium ascorbate used to balance calcium ascorbate.
416. Magnesium Ascorbyl Phosphate. Used in skin-lightening preparations.
417. Malaria (Falciparum) infection aborted. It has been reported that the most dangerous form of malaria, falciparum, has been cured by ascorbate. Again, the risk to benefit ratio compels the evaluation of ascorbate intravenously if necessary as a treatment of last resort at least, but ideally treatment of first resort. See Algid Malaria.
418. Malaria there are four kinds. All are curable. The two most serious are given here.
419. Measles Preventable. Curable.
420. Meningitis, bacterial Preventable? Curable?
421. Mesenteric adenitis Preventable. Curable.
422. Microaneurysms. Preventable. Curable.
423. Mononucleosis Prevented and cured.
424. MRSA cured (Nakanishi - Japan reported by me in BMJ TWICE!.
425. Mucolytic action.
426. Multiple Sclerosis improved / prevented?
427. Mumps cure and prevention.
428. Murray valley fever. Preventable. Curable.
429. Mycoplasma infection. Preventable. Curable.
430. Nasal congestion. Preventable. Curable. (repeated drops of 5% ascorbate solution).
431. Neoarsphenamine dermatitis (syphilis treatment) controlled
432. Neuromodulation action (Packer).
433. Nitrosamines. Carcinogenic. Preventable if meats preserved with nitrites are followed by ascorbate.
434. Noraderenaline produced from ascorbic acid.
435. Obesity reduced by Carnitine's fat transport into the mitochondria (see L-Lysin) all ascorbate dependent.
436. Occult scurvy and vitamin C.
437. Oliguria improved where due to obstructive arterial disease. Preventable. Curable.
438. Osteoporosis, Role in prevention of;
439. Oxidative stress
440. Pancephalitis; Preventable. Curable.
441. Panophthalmitis. Enucleation avoided. Preventable. Curable.
442. Panuveitis; Preventable. Curable.

443. Peritonitis; Preventable. Curable with abdominable ascorbate lavage?
444. Pernicious occult scurvy.
445. Peroxidases: Protective haem proteins scavenging H2O2 in the cytosol and chloroplasts of plants.
446. Petechiae. Preventable. Curable.
447. Pertussis cured. / preventable
448. PGE1 anti-inflammatory, stimulated (inhibited by aspirin).
449. PGE2 and PGF2 alpha (inflammatory) reduced (Only action of aspirin).
450. Phagocytosis.
451. Phagocytosis effectivity increased with rising plasma level.
452. Phagocytosis and respiratory burst with myeloperxidase.
453. Phagocytosis and superoxide.
454. Pharmacokinetics and vitamin C.
455. Pharyngitis; Preventable, Curable.
456. Phlebitis.
457. Phototoxicity: Goldenseal / Berberine etc., eyewashes etc., cataract risk
458. Physical endurance potentiation.
459. Pleurisy; Preventable. Curable.
460. Pneumonia (Viral) cured.
461. Pneumonia (Bacterial) Preventable. Curable.
462. Pneumocystitis pneumonia; Preventable? Curable?
463. Pneumonic plague. Preventable. Curable.
464. Pneumonitis; Preventable. Curable.
465. Polio (all types) cured / preventable
466. Polyarteritis nodosa; Preventable. Curable.
467. Polypeptide chains see collagen.
468. Yposis, familial colorectal; Although inherited risk detectable in the eye as CHRPE (Congenital hypertrophic retinal pigment epithelium) the condition is said by DeCosse et al. to be preventable/reversible at the premalignant stage.
469. Postsynaptic regulator of neurotransmitters in brain and interneuronal communications.
470. Potassium ascorbate. Of limited value. Cannot be injected. Unlike sodium sodium ascorbate.
471. Potentiates Cancer Chemotherapy (all types).
472. Presbyopia delayed.
473. Prevention of retinal solar burn.
474. Prevention of reperfusion injury (stroke).
475. Prevents bone marrow mutations due to malathion /dimethoate.
476. Primary open angle glaucoma,
477. Procollagen. OH (hydroxyl) radical substitutes for a H atom in the proline residues of the polypeptide chains converting these to Hydroxyproline. This secures the triple helix. The hydroxylation of the Lysine residues then forms hydroxylysine which cross links the triple helices into the fibres and networks of the tissues. Because a molecule of vitamin C is destroyed in each hydroxylation step, showing that ascorbate is acting here as an essential component not an enzyme or vitamin.
478. Prokaryotes - absence from metabolic processes. Eukaryote essentiality.
479. Prolapsed intervertebral disc; Preventable. Curable. (Prof. Greenwood/Pauling).
480. Proline; see collagen.
481. Prolyl-4-hydroxylase: Enzyme catalyzing step in collagen formation. (Myllylä 1984).
482. Pro-oxidant action of oxidised ascorbate in Phagocytosis. Not believed to be damaging to DNA in vivo. Generates peroxide in phagocytes.
483. Protection of mitochondria in vessel walls.
484. Protective against Carbofuran.
485. Protective against Chlordane.
486. Protective against Fenarimil.
487. Protective against Gamma Radiation.
488. Protective against Pirimiphos-methyl.
489. Protective against Lindane? Protective against Chlordane?
490. Protective against Retinal Pigment and cataract damage by sunlight.
491. Protective against X-Rays.
492. Protective against Thiotox (fish) Hexachlorocyclohexane.
493. Protects leucocytes and erythrocytes against singlet oxygen and free radicals.
494. Protects immune system against radiation.
495. Pseudomonas Aeruginosa keratitis burns spray treatment.
496. Pseudomonas corneal ulcer cure and prevention.
497. Psittacosis. Preventable. Curable.
498. Public health. Without ascorbate available in restaurants and cafes and advised at 2 grams/day minimum for adults – there is no such thing as an effective public health measure apart from piped water and vaccines, some of doubtful effectivity.
499. Pulmonary embolism. Preventable.
500. 'Purification' in emergency of suspect drinking water. (2 Grams of ascorbic acid to the litre and wait an hour if it cannot be boiled and no other alternative exists. (Personal advice by an experienced medical practitioner).
501. Pyelonephritis; Preventable. Curable.
502. Queensland tick typhus. Preventable. Curable.
503. Quinsy. Preventable. Curable.
504. Quotidian fever (malaria) Preventable. Curable.
505. Rabies Preventable/curable (caught early).
506. Radiation. Reaction and damage greatly reduced.

507. Rapid Healing.
508. Rat bite fever; Preventable. Curable.
509. Raynaud's disease. Preventable. Curable (if caught early).
510. Raynaud's phenomenon; Preventable and curable when due to atherosclerosis.
511. Rate Limited and non-rate limited antioxidants:
512. RDA. Recommended Daily Amount.) An absurd and extremely dangerous political concept based on no science whatever that kills all those early who have a higher than average biological need. Maintains a pool of sickness for pharmaco-medical profit, treating the public as expendable.
513. RDA committee "Best" statement re choice of blood cells without explanation.
514. RDA committee limited considerations to doses below 200mgs/day ignoring all others.
515. RDA committee redefined 'saturation' to a biological sense causing confusion.
516. RDA committee failed to draw attention to the fact that if repeated in all cells the white cell concentration would correlate to 70 grams of ascorbate in the body. This fundamental calculation was not performed by the RDA committee.
517. RDA committee did not discuss relevance of differential concentrations in tissues.
518. RDA committee avoided explaining why phagocytic cells could be a model for other cells.
519. RDA committee avoided explaining why neutrophil production of superoxide and hydrogen peroxide and other reactive oxygen species could relate to normal body tissues.
520. RDA committee selected neutrophil as a measure of saturation and then chose a lower level based on excretion.
521. RDA committee chose a low dose saturation of white blood cells that is only 0.5% of the steady state plasma intake achieved with a 20 grams intake.
522. RDA committee Dr Mark Levine, representing the National Institutes of Health states that he is unaware of "any nutritional benefits from raising blood levels of vitamin C.".
523. RDA committee ignores Ruiz et al (2003) proving ascorbate protective of blood vessels.
524. RDA committee fails to understand the biphasic nature of plasma ascorbate levels.
525. RDA committee fails to understand Levine's error in 24hrly dosage and measuring levels.
526. RDA committee failed to understand that half life is not of the order of weeks.
527. RDA committee failed to understand that two doses 12 hrs apart have same absorption as a single dose on each occasion.
528. RDA committee failed to understand the physiology of other animals and considered vitamin C in humans as if existing in a vacuum of ignorance re comparative physiology.
529. RDA committee failed to understand the relationship between heart disease and ascorbate.
530. RDA committee ignored the high levels made in the liver of most animals.
531. RDA committee ignored the fact that kidney oxalate stones do not occur in animals.
532. RDA committee ignored the fact that animals can resist infections that kill humans but have made no attempt to discover why and ignore Klenner's successes in this area.(Polio, mumps, encephalitis etc).
533. RDA committee sample size was 7 'healthy' male students. 4 absconded.
534. RDA committee then studied 125 'healthy' young women and applied the results to the entire population of all ages and degrees of health.
535. RDA committee failed to explain why white cells with their special relationship to vitamin C (selective cellular pumps) were prioritised over red blood cells, easier to assay.
536. RDA committee failed to explain why animals excretion of vitamin C is not good also for humans.
537. RDA committee failed to explain why humans should be expected to thrive on a fraction of the ascorbate needed by animals (gorillas in captivity are dying).
538. RDA committee failed to explain why Vets order 2,000mgs of vitamin C for captive laboratory primates c.f. humans but doctors say it's a waste for humans.
539. RDA committee failed to explain why humans, subject to more pollution in food and water need less ascorbate to detoxify them than animals without pollution poisoning the blood.
540. RDA committee failed to explain why they ignore the Tolerable Upper Limit as a guide to the amount needed when Cathcart's table of dosage shows it is so practical.
541. RDA committee failed to explain why they ignore the increase in bowel tolerance in illness.
542. RDA committee failed to explain why they feel there is no need to research the increase in bowel tolerance in illness.
543. RDA committee failed to explain why when knowing that bowel tolerance increases during illness, the committee took no steps to evaluate the therapeutic value of vitamin C in shortening illnesses.
544. RDA committee failed to explain why it considered the increased bowel tolerance as of no interest.
545. RDA committee failed to explain why when some people have been found during exclusion studies to still be excreting vitamin C after some weeks with no dietary ascorbate, this has never been investigated.
546. RDA committee failed to explain why if some people on an exclusion diet continue to excrete ascorbate the susceptibility of these people to illness has never been investigated.
547. RDA committee failed to explain why the health risks for entire populations of underestimating RDA needs can involve the loss of years of life of hundreds of millions of people dying prematurely.
548. RDA committee failed to explain why, when a USA patent has been awarded for atherosclerosis (heart disease reduction by vitamin C, this is ignored and entire populations put at risk of miserable lives with hypertension, stroke angina and aneurysm.

549. RDA committee failed to explain why kidney disease cannot be related to low levels of vitamin C.
550. RDA committee failed to explain why Dementia cannot be related to the low RDA for vitamin C.
551. RDA committee failed to explain why intermittent claudication cannot be related to the low RDA for vitamin C.
552. RDA committee failed to explain why Alzheimers cannot be related to the low levels of the RDA for vitamin C.
553. RDA committee failed to explain why angina canot be related to the low RDA for vitamin C.
554. RDA committee failed to explain why Coronary thrombosis cannot be related to the low RDA for vitamin C.
555. RDA committee failed to explain why when 16 studies have shown 30 to 40% reduction of periods of illness due to cold with many times more than the RDA for vitamin C, this is ignored.
556. RDA committee failed to explain why low doses are safer than high doses.
557. RDA committee failed to explain why there has been no study to evaluate the synergism between vitamins C and other vitamins.
558. RDA committee failed to explain why if there have been no studies on the synergism between vitamin C and vitamin E, no attempt has been made to consider the need for extra vitamin C after the RDA for vitamin E was unaccountably reduced.
559. RDA committee failed to explain why when government and medical agencies advise reducing saturated fat and increasing refined oils (polyunsaturated) which greatly increase free radical damage in arteries, there has been no compensatory increase in the RDA?
560. RDA committee failed to explain why no mention is made of the greater need for vitamin C shown by diabetics.
561. RDA committee failed to explain why some diabetics might not be dependent on insulin if they had more vitamin C.
562. RDA committee failed to explain why when allergy levels are rising in the West that the RDA for vitamin C is not increasing
563. RDA committee failed to explain why when asthma is increasing in the West, that the RDA for vitamin C is not increasing.
564. RDA committee failed to explain why when vitamin C is the primary hormone precursor of adrenaline, that no increase of the RDA is ever suggested.
565. RDA committee failed to explain why when stress levels are increasing in the West, especially during periods of economic hardship, that the RDA remains unchanged.
566. Rebound scurvy. Hypothetical swing to hypoascorbaemia after hyperascorbaemia.
567. Rectal cancer; Approaching 20% curable on doses less than 10Grams/day. Probably preventable and mostly curable.
568. Reference Nutrient Intake. Another confusing, fairly meaningless term. More are expected.
569. Regulation of fibrinogen.
570. Reiter's Syndrome: some cases may be preventable and a proportion curable?
571. Relapsing fever; Preventable. Curable.
572. Renal threshold. (14mgs/Litre min. plasma level for urinary excretion of ascorbate) below this, kidney reabsorbs from glomerular filtrate.
573. Reperfusion risk following stroke and coronary thrombosis.
574. Requirement. Individual need varies by a factor of 20,000. Some people can survive with no dietary vitamin C, others need 20,000mgs/day.
575. Respiratory burst following inflammation. Met by antioxidant vitamin C in white cells.
576. Retinal detachment where due to vitreoretinal traction and peripheral tearing spontaneously curable.
577. Retinal detachment where due to vessel tortuosity caused by atherosclerosis prevention of the tortuosity would have avoided and prevented the traction. Tearing and detachment.
578. Retinal pigment epithelium protection (Berberine, and other Goldenseal alkaloids).
579. Retinitis reversed.
580. Retinal vein occlusion. Preventable.
581. Retinitis. Preventable. Curable.
582. Retinitis proliferans. In combination with other antioxidants this condition may be reversible and might have been preventable with no more than adequate daily ascorbate. It requires the close supervision of the ophthalmologist specialising in retinal surgery.
583. Retinitis, & virtually ALL condition of an 'Itis' caused by infection.
584. Retinoschisis; Preventable? Some cases ma be curable?
585. Retolysis and vitamin C.
586. Retrobulbar neuritis. Wherever due to known viruses and bacteria, Preventable. Curable. If associated with mysterious conditions like Multiple Sclerosis it is more doubtful but remissions of MS with ascorbate are well known to occur.
587. Reye's syndrome. Preventable? Curable?
588. Rheumatic fever. Preventable. Curable.
589. Rhinitis;Probably preventable and curable.
590. Rhinoviruses are very much better controlled by daily and frequent ascorbate.
591. Rickettsia. Preventable. Curable.
592. Rickettsia pox. Preventable. Curable.
593. Rocky Mountain Spotted Fever – curable. (commonly so in Klenner's practice).
594. Rocky Mountain Spotted Fever cure and prevention.
595. Role in maintenance of the arterial wall.
596. Root canal filled teeth greatly multiply vitamin C needed to detoxify the anaerobic bacteria. Predispose to cancer.
597. Rubella; Preventable. Curable.
598. Salmonella; Preventable. Curable.

599. Salpingitis; Preventable. Curable.
600. Salpingo-oophoritis; Preventable. Curable.
601. Sandfly fever; Preventable. Curable.
602. Scare stories: Completely baseless and many with the hallmarks of deliberate pharmaco-medical lies in the cause of profits. (1) Vitamin B12 destroyed thus causing anaemia. (2) Dwyer at 40th Ann. Cong of the Am. Heart Assn. suggested "high dose vitamin C could 'clog the arteries." (3) Pro-oxidant oxidised vitamin C could be carcinogenic. Lunec 1998. (4) Cause haemochromatosis (5) Cause kidney stones. (6) Cause gastric ulcers (7) cause gastrointestinal pain. (8) Cause 'rebound scurvy'. (9) Cause problems for diabetics. (10) US. Heart Protection Study Collaborative Group after a $20 million to 'prove' that "antioxidant vitamins wwere a waste of money" Who has that kind of money and the interest to try to prove that?
603. Scarlet fever; Preventable. Curable.
604. Schizophrenia (1973 Hoffer and Osmond).
605. Scleritis; Scarlet fever; Preventable. Curable.
606. Scurvy's involvement in oliguria,
607. Septic abortion risk reduced.
608. Septicaemia; Preventable. Curable.
609. Septic shock; Preventable. Curable.
610. Shigellosis; Preventable. Curable.
611. Shingles; Preventable? Curable with ascorbate and L-lysine.
612. Sinus decongestion as nose drops and orally.
613. Sleeping sickness. Preventable. Curable.
614. Sodium L-ascorbate. Neutral Sodium salt used for all intravenous infusions of vitamin C.
615. Solar elastosis. Preventable? Curable?
616. Special analgesic action via suppressed knowledge of the rôle of vitamin C in anti-inflammatory prostaglandin E1 mechanisms,
617. Spirochaete; Preventable. Curable.
618. Spondarthritis; Preventable. Curable.
619. Spondylitis; Preventable. Curable.
620. Staphylococcal infections cure and prevention.
621. Statin action imitates vitamin C vi inhibition of HMG £ Co-A Reductase enzyme.
622. Strength of heart contraction.
623. Streptococcal infections e.g. strep throat. Preventable. Curable.
624. Stress: Increase of need in cases of.
625. Stress ulcers; Preventable. Curable.
626. Stroke (Thrombotic) prevented.
627. Stroke (Haemorrhagic) prevented.
628. Stroke Reperfusion injury risk.
629. Styes Cured.
630. Subarachnoid haemorrhage. Preventable. Improved.
631. Subconjunctival haemorrhage. Preventable. Improved.
632. Subdural haematoma. Preventable. Improved.
633. Sulphate groups. Quality of Chondroitin improved with extra sulphation. (Edward and Oliver 1983).
634. Sunburn – protective.
635. Survival.
636. Supporting role in dissolving venular plaque in non-expansile organs e.g. kidney and brain and eye. (Bush 2004)
637. Symblepharon; Risk of adhesion reduced.
638. Syphilis; Preventable. Curable.
639. SVCT sodium dependent transporters.
640. Symblepharon: Prevention of.
641. Sympathetic ophthalmitis risk reduced. Enucleation risk to avoid threat to alternate eye reduced.
642. Sycosis barbae; Preventable. Curable.
643. Syphilis; Preventable, Curable.
644. Congenital Syphilis, Preventable, Curable.
645. Tachycardia,
646. Temperature control ('High dosers' like me run 0.5ºF warmer.)
647. Tetanus curable/ preventable/ preventable.
648. Thrombophlebitis; Preventable. Curable.
649. Thrombosis; Preventable. Curable.
650. Thrombosis of the cavernous sinus; Preventable. Curable.
651. Thyroid gland.
652. Tissue Saturation precondition and oxalate conversion of 'excess ascorbate.' Impossible by definition without spare metabolic capacity excluded by the precondition.
653. Tonsillitis; Preventable. Curable.
654. Toothache; Temporarily treatable and relieved unless aspirin is taken.
655. Toxaemia of pregnancy; Preventable. Curable.
656. Toxic epidermal necrolysis; Preventable. Curable.
657. Tracheitis; Preventable, Curable.
658. Transient Ischaemic attack risk reduced.
659. Trench fever; Preventable. Curable.
660. Triglycerides and atherosclerosis. Risk increased by low dietary and plasma vitamin C. (Bobek et al. 1980).
661. Triglycerides: reduced in 50 subjects by 2,000 mgs vitamin C for 2 months (Erden et al. 1985).
662. Triglycerides synergistically reduced. Vitamin E with vitamin C 500mgs reduced both cholesterol and triglycerides (Hamilton et al. 2000).
663. Tropical ulcer; Preventable? Curable.

664. Trypanosomal infection countered (Tsetse fly).
665. Tuberculosis preventable - curable.
666. Typhoid curable. / preventable/ preventable.
667. Typhus; Preventable. Curable.
668. Ulcers; Preventable. Curable.
669. Urethritis; Preventable. Curable.
670. Uveitis cured/prevented.
671. Urinary vitamin C increased in diabetics by reduced reabsorption from glomerular filtrate due to high plasma glucose. (Will and Byers 1996).
672. Vaccination encephalitis; Preventable. Curable.
673. Vaginitis; Preventable. Curable.
674. Vasculitis; Preventable. Curable.
675. Vasogenic shock; Immediate IV ascorbate can do no harm.
676. Vernal conjunctivitis; Preventable. Curable.
677. Vincent's disease; Preventable. Curable.
678. Viral encephalitis cure and prevention.
679. Viral meningitis cured / preventable.
680. Viral Pneumonia cure and prevention.
681. Vitamin B12. Untruths told about vitamin C interaction.
682. Vitamin B12. Essentiality of vitamin C for haem synthesis.
683. Vitamin B12 disinformation ideal choice for maximum damage to public health.
684. Vitamin B12. And role of editor of Journal of American Medical Association in maximizing public health damage.
685. Vitamin B12 Role of Newmark et al in correcting untruiths.
686. Vitamin B12. Role of Linus Pauling in correcting untruths.
687. Vitamin C trials (Double blind placebo controlled proving common cold reduced.
688. Pitt & Costrini (1979) Pneumonia reduced; Zero% reduction of cold illness.
689. Clegg & Macdonald (1975) 8% reduction of cold illness.
690. Anderson, Suranyi & Beaton (1974) 9% reduction of cold illness.
691. Dahlberg, Engel Rydin (1944) 14% reduction of cold illness.
692. Karlowski et al. (1975) 21% reduction of cold illness.
693. Anderson et al. (1975) 25% reduction of cold illness.
694. Coulehan et al. (1974) 30% reduction of cold illness.
695. Cowan, Dielh, Baker (1942) 31% reduction of cold illness.
696. Anderson, Reid & Beaton (1972) 32% reduction of cold illness.
697. Carr et al. (1981) 34% reduction of cold illness.
698. Franz, Sands & Heyl (1954) 36% reduction of cold illness.
699. Elliott (1973)\ 44% reduction of cold illness.
700. Glazebrook & Thomson (1942) 50% reduction of cold illness.
701. Charleston, Clegg (1972) 58% reduction of cold illness.
702. Ritzel (1961) 63% reduction of cold illness.
703. Sabiston & Radomski (1974) 68% reduction of cold illness.
704. Vitamin C informal study. Over 500 report reduction of incidence and /or severity of colds in variable degree up to 10 years.
705. Vitamin E potentiation.
706. Vitamin E concentration in tissues increased by ascorbic acid.
707. Vitamin E oxidation to tocopherylquinone prevented.
708. Vitreous detachment. High concentration of ascorbate reduces complications.
709. Vitreous haemorrhage. High concentration of ascorbate reduces complications..
710. VLDL (Lp(α) lipoprotein alpha) cholesterol.
711. Wavelength of light entering the eye and converting from UVB to UVA before entering the crystalline lens.
712. West Nile fever believed curable/preventable.
713. Whitlow. Preventable. Curable.
714. Whooping cough; Preventable. Curable.
715. Why when vitamin C is non-toxic (less toxic than glucose) is there such resistance shown by all official bodies to appeals for investigation and is it something to do with pensions?
716. Yellow fever; Preventable. Curable. Zoster; see shingles
717. "10,000 published scientific papers make it quite clear that there is not one body process (such as what goes on in cells or tissues) and not one disease or syndrome (from the common cold to leprosy) that is not influenced directly or indirectly – by vitamin C." Drs Emanuel Cheraskin, Marshall Ringsdorf and Emily Sisley.
718. In 1960 there were 18 papers published mentioning scurvy entered in the entire medical archive of millions of papers in the National Library of Medicine.

Below are personal and anecdotal accounts from which we hopefully learn before it is too late, there being no other opportunity than to listen to those with their own limited experiences as few NHS doctors either know about them or want to teach us. These results have been acquired as a result of being the only UK practice to dispense vitamin C in 200gram pots for over 20 years.

719. Sudden blindness in one eye. Bowel tolerance doses immediately i.e. 10 grams every 30 minutes until the diarrhoea starts, then reduce to a comfortable amount and seek medical attention urgently. (A radio message from a ship in mid ocean described such a case. I was consulted and by the time the vessel reached port, some sight was beginning to return. It later resolved completely without treatment. The author diagnosed scurvy due to breathing the crew's 'duty free' cigarette smoke. No treatment was possible in hospital as the eye was full of blood. The diagnosis of scurvy followed from the dietary and environmental details together with the circumstances of the sudden onset of blindness.
720. Viral infection of the middle ear – dizziness and collapse. Bowel tolerance may lead to rapid cure.
721. Unexplained swellin of lymph or neck glands. Bowel tolerance immediately with half hourly doses.

722. Septic finger, throbbing and red. Soaking in ascorbic acid or better, sodium ascorbate will cure very quicly supported by oral dosing.

723. Epididymitis cured against medical advice for tetracycline. 112 grams/day.

724. Influenza in a 15yr old grandson unable to stand on waking early am. Pulse 120. Feverish. Refuses to have doctor and asks for vitamin C cure. Consumes adult equivalent of approx 50 grams sodium ascorbate in four hours continuing at ten grams/hr. Pulse 90 by evening and normal mext morning after aking vitamin C every 2 hrs during the night. Kept in the house and mostly in bed next day and returnsd home by train for the weekend 48hrs after being unable to stand up and walk.

725. Asthmatic contact lens patient. Thanks me for giving her the Dr. Cathcart Bowel tolerance table. States that she was accustomed to six or more emergency visits to the hospital per annum but was now well controlled with no more hospitalizations after a year.

726. Colleague's wife e-mails after reading optometry e-mail forum letters and asks for elp. Daughter has reached the end with the hospital consultant who can do no more. Child is 14, now losing weight and the mother is desperate. She has not been to school for over a year because she has to go to hospital twice per day for assistance with breathing and has been on continuous antibiotics for a year. Consultant raises no objections and within two months the child is back at school, of antibiotics and gaining weight.

727. Mother of Daughter of anesthetist father asks for help. Her daughter is continually sick with upper respiratory infections and is leaving home to start medical school. Dr. Cathcart's bowel tolerance table supplied and sodium L-ascorbate. Father writes a glowing letter of thanks approx 6 weeks later to describe the transformation in his daughter.

728. Close relative diagnosed with multiple sclerosis. Comes back to Hull in panic. Hospital can do nothing for her. Takes Dr. Cathcart's bowel tolerance table and stock of vitamin C back home – a 300 mile trip and suffers no further episodes in ten years up to the present time.

729. Wife suffers intense pains doctors unable to diagnose. Started on increased vitamin C from 1 or 2 grams/day increasing to 40 grams/day of ascorbic acid in divided doses. Fever and pain worsen and become linked to periods. Hospital specialist says pain may be crystals in ureters that don't show on x-rays and tries to order me to stop giving her vitamin C. I argue with him telling him that the vitamin C is better at keeping her temperature down than the continuous antibiotic given IV in hospital with a fan and no bed coverings in an attempt to control her fever. Eventually hysterectomy with bilateral salpingo-oophorectomy ends the problem being caused by gangrene.

730. March 2007 I am hospitalised with an acute haematuria at age 78. Sodium ascorbate is consumed secretly as powder for 48 hrs as blood is lost until I am too weak to hold a newspaper. A non-cancerous prostate is removed. The surgeon states that he normally removes a prostate gland of approximately 60 grams. Mine was 360 grams and he photographed it. I awoke without nausea or pain. I refused all antibiotics, [pain killers, muscle relaxants and anticoagulants (having had 1,000 i.u. of natural vitamin E per day for approximately 40 years and not wanting a haemorrhagic stroke. Recovery was uneventful and very satisfactory partial male function returned within about 9 months.

731. At Xmas 2007 after a flight to Spain awoke with influenza and pulse 100. (normally 50) stayed in for 3 days until pulse normal, taking 150 – 200 grams of sodium L-ascorbate per day in hourly doses and as much as possible during the night. After 72 hrs appear to be fully recovered. In March 2008 experience cardiac arrhythmia with atrial pulse of 160. Ventricular pulse 70. Sweating, breathless, barely able to walk. Hospital for a week. Medication minimal digoxin and Bisoprolol 2.5 mgs bds plus furosemide diuretic. Intense abdominal pain forces hospital stay and Bumetanide 1mg bds diuretic prescribed followed by increase of digoxin to 1.25mcgs and Bisoprolol to 5mgs bds. Pulse slowly returns to normal 65 over the next 9 months with resting BP 125/65. Periodic sweating with a tendency to overheat but am very happy that Cardiologist Dr Matthias Rath's advice appears to have helped considerably. In hospital I noted – on the specialist cardiac ward, that I was offered no vitamins at all. I was offered no magnesium despite my maximal heart rate. I was offered no Co-enzyme Q-10 – essential for a weakened heart function. I was offered no caffeine free drinks, the doctors care was minimal; I had no Holter recording for over a month. The cardiologists to whom I tried to show 'before and after' images of retinal atherosclerosis dissolving with vitamin C and stressed retinal blood vessels recovering normal shape were totally disinterested. The NHS nursing was marvelous. In 2017. Pulse steady 57 with minimal Bisporoplol and Losartan.

732. Haemorrhoids that caused me to consult my doctor at age 35 disappeared after high dose vitamin C fifty years ago, never to return.

733. I had warned one of my practice nurses aged over 60, about the danger of developing Macula Degeneration if she did not stop smoking, started with the condition in one eye. I diagnosed it as wet form ARMD. I started her immediately on as much ascorbate as she could take with daily spinach and evening primrose oil. She became suicidal after an ophthalmologist told her to start training for life as a blind person. A complete series of a dozen retinal photographs record the progress of her condition from 6/6 through inability to see if the sight testing chart was switched on, and back to 6/9- in monochrome over a period of about three years.

734. Several thousand functions of vitamin C remain to be described by biochemical experts of whom I am not one. But there seems no point in continuing. By my age my father had had operations for prostate and bowel cancer and two near fatal thromboses in his late 40s, finally dying at 83. My mother had cervical cancer in her 60s. I was unable to convince either of the benefits of vitamins and my mother was deranged for the last ten years of her life until she died at 98. Her Alzheimers had gripped her for over ten years.

735. Contacted urgently Feb 2017 by public figure who has suffered stroke and feels as if he is dying. Eventually diagnose root abscess in tooth. Dental surgeon days "doesn´t understand how he is still alive". Taking 50 to 150 grams sodium ascorbate/day with liposomal C. Now recovering well. Doctor amazed at correct diagnosis after failing to identify problem.

736. Nutrition Professor referred by Dr. Owen Fonorow of the USA Vitamin C Foundation to me for glaucoma treatment, allergic to all toximolecular treatments. Cured. Wrote and published a book on nutrition and eyesight together.

In the next papers the connections between cardiovascular disease and its prevention will be exploredn in greater detail.

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## Conflicts of interest

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