Wellness, Translated

Level 2 Indicators

Factor	Indicative Information	Information		Wholistic Factors
AP-1(X) Oncology Gene Expression. Myrrh and Frankincense inhibit Cyclooxygenase , CFOS and CJUN, thereby also inhibiting AP1 and SP1 activation. DOI 10.1038/srep13668	A Diagnostic test for AP-1 can be found at www.abcam.co m/ap1-cfosfosbfra1cjunjundtranscriptionfactor-assay-kitcolorimetricab207196.html. 96 Tests for $1,489.00 www.tuftshealthplan.com/docum ents/providers/guidelines/medica l-necessityguidelines/genet ic-testing-geneexpression-forcan Mepacrine, Nanoquinicrine, Quinicrine, Atabrine inhibit AP1.	A study suggests the JunB and Fra-1 may be outstanding Biomarkers able to discriminately differentiate Neoplasm tissue spatially in the same adjacent tissues. DOI 10.1186/1471-240713-441 FRA-1 was useful at determining Estrogen Receptor Alpha Negative and Progesterone Receptor Negative as well as Triple Negative Oncology from other Oncology Reversions The	HMG-CoA Reductase Inhibitors utilized for High Cholesterol or Cholesterol management prevent mevalonate pathway synthesis of terpenoids and Isoprenoids which inhibit AP-1. Inhibitors of AP-1 also include Cycloinumakiol Inumakal, Inumakoic acid, Norditerpenes from an the large Evergreen Tree Podocarpus Latofolius. Heparin decreases the affinity of AP-1 to DNA, particularly reducing its integration into the TPA/PMA response element. DOI 10.1161/01.RES.75.1.1. Tanshinone IIA from Salvia P. Mormordin I analog of Ampelopsis Radix Oleanolic Acid Glycosides. Avoid Doxycycline unless a specific phenotype match has been generated, although Doxycycline can be effective. www.focusbiomolecules.com/tanshinone-iiaap-1-transcription-factor-inhibitor/. DOI 10.1016/j.bbrc.2005.09.113. www.marketreportscenter.com/reports/170707/transcription-factor-activator-protein-1-ap-1inhibitors-pipeline-insights-2016. AP-1, however, is required to be activated to induce Apoptosis when Leukemia is being treated using Bufalin. Oncogene, Volume 16, Pages 779 to 787, 1998. AP1 inibition also occurs with resveretrol, Quercetin, Chlorogenic Aicd, Red Raspberry Anthocyanins, Honokiol,	Choline, Trimethylglycine, Folate/Methylfolate, Glutathione, Probiotic/Prebiotic, Complete-B Vitamins, Omega-3 Fatty Acids, Whole Food Organic Vitamins, Complete Minerals, Flavonoid/Carotenoid/Phytochemical Supplement, Glandular Mix, KAL SOD3 or other Antioxidant Mix with Catalase and Superoxide Dismutase, Choline Kinase Inhibitors, Tyrosine Kinase Inhibitors, Inhibitors of AP-1(x), including Citrus Fruit with Peelings/Rinds, Inhibitors of SP-1(X), Management of Homocysteine, Management of S-Adenosyl Homocysteine or S-Adenosyl Homocysteine inhibitors, inhibitors of Inducible Nitric Oxide Synthase, Inhibitors of Uncouple Nitric Oxide Synthase and its Reactive Molecular Species (L-Arginine, Tetrahydrobiopterin, NADPH, Superoxide

		literature was not able to present a precise typical or optimal molarity for AP-1 and it is recommended that a practice establish optimal or typical from healthy tissues in patients with optimal health. Harpagophytum procumbens is known to inhibit AP-1.	Pycnogenol, Licorice, Naringenin, Kaempferol, Astragulus/Astragaloside IV, Andrographis, Apigenin, Pycnogenol, Retinoic Acid and other factors.	Dismutase, Catalase, Glutathione, Citrulline/Arginine/Ornithine), NAD+, Hyaluronic Acid, Complete B-Vitamins with B-12 Methylcobalamin, Uridine, Prebiotic/Probiotic to Manage Inflammation Factors Produced during Ingestion of some Choline Dense Foods, Enzymes which metabolize these factors or synthesize these factors as well as precursors to these factors, Water, Phosphatidyl-Monomethylethanolamine (Phosphatidylmonomethylethanolamine or PMME), Human Rubisco, Recombinant Rubisco, Rubisco Agonists or Rubisco Modulators, Polyacetylates, Phosphatidylethanolamine, Phosphatidylethanolamine Methyltransferase, Methyltetrahydrofolate Reductase, Betaine Homocysteine Methyltransferase, Ancient Pink Himalayan Sea Salt instead of Table Salt.

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AP-1(X) Oncology Gene Expression. Gold is among the Divalent Metal Ions which can enable PEMT function. DOI: 10.1038/nchem.2836.	AP-1 is activated by Protein Kinase A. AP-1 inhibits PEMT. AP-1 inhibits Telomerase. AP-1 upregulates Choline Kinase. AP-1 stabilizes emerged genetic, epigenetic and differentiation associated change by potentiating decreased telomeric repeats and cellular linage senescence.	Analytically Significant Ranges Exhibited by Healthiest Patients Observed in Practice. DHA and EPA from Omega 3, but not Arachidonic Acid inhibit Epidermal Growth Factor, AP-1, and TPA/PMA, but Arachidonic Acid abrogates DHA/EPA inhibition of these factors. PMCID PMC34699 AP-1 levels have been found to require increased levels of exhibition to result in Oncology. This increased level is higher than that required for optimal biological activity. 10.1006/bbrc.2000.3777 Clinical studies confirm Berberine and AP1 Inhibition are therapeutic for HPV and HPV enabled Oncology.	Berberine, Nordihydroguaiaretic acid, citrus fruits with the Rinds, Pulp and Peelings. Interestingly, Nobiletin from citrus peelings of C. Unshiu. C Unshiu or Satsuma Mandarin, Citrus Sinensis or other citrus fruits which are polymethoxylated flavones. Circumin, Sulforaphane, Gingerol, Naproxen, and Aspirin inhibit AP-1 Neoplasm activity. DOI 10.1016/J.BBRC.2013.08.029. AP-1 Inhibitors, TAM67 in particular, are known to completely, that is completely, abrogate or impede Breast Oncology Proliferation that involves IGF-1, EGF, HeregulinBeta2, BFGF, and Estrogen including when AP-1 was specifically induced by Upregulators and including when AP-1 was constitutively expressed. Myricetin inhibits AP1, 12-Tetradecanoylphorpbol-13acetate (TPA) activity which is required by AP-1 as well as inhibits Epidermal Growth Factor (EGF).	Choline, Trimethylglycine, Folate/Methylfolate, Glutathione, Probiotic/Prebiotic, Complete-B Vitamins, Omega-3 Fatty Acids, Whole Food Organic Vitamins, Complete Minerals, Flavonoid/Carotenoid/Phytochemical Supplement, Glandular Mix, KAL SOD3 or other Antioxidant Mix with Catalase and Superoxide Dismutase, Choline Kinase Inhibitors, Tyrosine Kinase Inhibitors, Inhibitors of AP-1(x), including Citrus Fruit with Peelings/Rinds, Inhibitors of SP-1(X), Management of Homocysteine, Management of S-Adenosyl Homocysteine or S-Adenosyl Homocysteine inhibitors, inhibitors of Inducible Nitric Oxide Synthase, Inhibitors of Uncouple Nitric Oxide Synthase and its Reactive Molecular Species (L-Arginine, Tetrahydrobiopterin, NADPH, Superoxide Dismutase, Catalase, Glutathione, Citrulline/Arginine/Ornithine), NAD+, Hyaluronic Acid, Complete B-Vitamins with B-12 Methylcobalamin, Uridine, Prebiotic/Probiotic to Manage Inflammation Factors Produced during Ingestion of some Choline Dense Foods, Enzymes which metabolize these factors or synthesize these factors as well as precursors to these factors, Water, Phosphatidyl-Monomethylethanolamine (Phosphatidylmonomethylethanolamine or PMME), Human Rubisco, Recombinant Rubisco, Rubisco Agonists or Rubisco Modulators, Polyacetylates, Phosphatidylethanolamine, Phosphatidylethanolamine Methyltransferase, Methyltetrahydrofolate Reductase, Betaine Homocysteine Methyltransferase, Ancient Pink Himalayan Sea Salt instead of Table Salt.

Factor	Indicative Information	Information	Wholistic Factors to Accompany Therapeutics
Homocysteine. Over a decade of utilization experience, Homocysteine below 7 Micromoles per liter predicts a 500 to 1 decrease in demise among populations in study of Aged. Homocysteine Aggregately or lower as therapeutic priorities. However, Homocysteine should be managed to between 3.7 and 7 or 6 um/L, although 3.7 um/L or lower can be increasingly optimal, with 10 um/L used as therapeutic	Homocysteine at between 6 and 3 Micromoles Per Liter. Homocysteine Aggregately or lower as therapeutic priorities. However, Homocysteine should be managed to between 3.7 and 7 or 6 um/L, although 3.7 um/L or lower can be increasingly optimal, with 10 um/L used as therapeutic gateway threshold that requires continued therapeutic management to lower levels. Focused therapeutic intervention of homocysteic acid, homocysteine thiolactone, s adenosyl homocysteine or homocysteine may be produce increasingly beneficial effect. Homocysteine begins to cause detrimental effects including	S-Adenosyl Homocysteine and Homocysteine Inhibitors or chelators/depleting of these Homocysteines, Cystathionine Beta-Synthase or CBS, BHMT, MTHFR, Methionine Synthase, Choline/Phospholipid Pathway, Choline Kinase Pathway. DZ2002 [methyl 4-(adenin-9-yl)-2hydroxybutanoate]. DOI: 10.1124/jpet.104.080416 . Ribavirin inhibits S-Adenosyl Homocysteine Hydrolase and is an Immunosuppressant. DOI 10.1016/j.bmc.2007.08.029. Thetins are known to reduce Homocysteine 700 times more efficiently that Betaine or Glycine-betaine. Danshen or Red Sage is known to assist in reducing Homocysteine. Zinc, Iron, and Diatomic Metal Cations, including Magnesium and Manganese can assist. Dithiothreitol, Mercaptans, Dimethylacetothetin, S-Methylmethione, Dimethylsulfonioacetate, Methylsulfonylmethane, Danshen or Red Sage, Choline, Folate, Trimethylglycine, Glutathione, Reduced Glutathione, Glutathione Peroxidase, a Complete B Vitamin Supplement, B-12 Methylcobalamin, B6, N-Acetyl L-Cysteine, Sulfobetaines, Sulfocholines, as well as depletion of Dimethylglycine through GNMT by providing Glycine, as depletion of Dimethylglycine by using Riboflavin, Zinc and 5,6,7,8 Tetrahydrobiopterin, and other factors presented here can enable Homocysteine to be lower than 6 Micromoles per liter and even become much nearer to 1 Micromole per Liter.	Choline, Trimethylglycine, Folate/Methylfolate, Glutathione, Probiotic/Prebiotic, Complete-B Vitamins, Omega-3 Fatty Acids, Whole Food Organic Vitamins, Complete Minerals, Flavonoid/Carotenoid/Phytochemical Supplement, Glandular Mix, KAL SOD3 or other Antioxidant Mix with Catalase and Superoxide Dismutase, Choline Kinase Inhibitors, Tyrosine Kinase Inhibitors, Inhibitors of AP-1(x), including Citrus Fruit with Peelings/Rinds, Inhibitors of SP-1(X), Management of Homocysteine, Management of S-Adenosyl Homocysteine or SAdenosyl Homocysteine inhibitors, inhibitors of Inducible Nitric Oxide Synthase, Inhibitors of Uncouple Nitric Oxide Synthase and its Reactive Molecular Species (L-Arginine, Tetrahydrobiopterin, NADPH, Superoxide Dismutase, Catalase, Glutathione, Citrulline/Arginine/Ornithine), NAD+, Hyaluronic Acid, Complete B-Vitamins with B-12 Methylcobalamin, Uridine, Prebiotic/Probiotic to Manage Inflammation Factors Produced during Ingestion of some Choline Dense Foods, Enzymes which metabolize these factors or synthesize these factors as well as precursors to these factors, Water, Phosphatidyl-Monomethylethanolamine (Phosphatidylmonomethylethanolamine or PMME), Human Rubisco, Recombinant Rubisco, Rubisco Agonists or Rubisco Modulators, Polyacetylates, Phosphatidylethanolamine, Phosphatidylethanolamine Methyltransferase, Methyltetrahydrofolate Reductase, Betaine Homocysteine Methyltransferase, Ancient Pink Himalayan Sea Salt instead of Table Salt. Cobalamin and AdenosylCobalamin.

gateway threshold that requires continued therapeutic management to lower levels. Focused therapeutic intervention of homocysteic acid, homocysteine thiolactone, s adenosyl homocysteine or homocysteine may be produce increasingly beneficial effect.	activation of Monocytes at 0.000000000014794606 Micromoles per liter. PMID 16157236. Homocysteine at 0.000000000184932581 Micromoles per Liter results in MRNA and Protein of Inflammation and Cytokines including TNF-Alpha, IL1-Beta, IL-6, IL-8, IL12, as well as downregulation of Migration Inhibitor Factor MRNA/Protein.		

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Homocysteine depletion factors include Sulfur exhibition molecules, Sulfobetaines, Sulfocholines, Thetins, Thetines, Methylmercaptains, Sulphones and molecules with Sulfur particularly when the sulfur is not obscured or prevented from being accessed by the attachment of Chiral molecular factors.	Dimethylthetin. Sulfobetaine or S-Methylmethionine. Dimethylacetothetin. Acetylated Factors. dimethylsulfonioacetate. Acetate, Sulfonium factors such as sulfur exhibiting Methionine, Cysteine or others, as well as Methylatioin factors. Ethylmethylthetin Dimethyl-Alpha-Propriothetin Dimethyl-beta-Propriothetin. Methylation factors, Sulfobetaine or S-methylmethionine, or Methylation factors and Methionine. Ethylmethyl-Beta-Propriothetin Dimethyl-Gamma-Butyrophenone. The Chem Spider suggests Phenones and Phenols are exchangeable within the Properties of 2-Acetylphenol. Methylation factors. Butyryl factors. Methionine Methylsulfonium. Sulfur and Methyl factors. Trimethylsulfonium. Sulfur and Trimethylated factors. Butyldimethylsulfonium Ethyldimethylsulfonium Dimethylpropriothetin S-Adenosyl-Methionine Sulfonate 5 - Methylthioadenosine Methylethylacetothetin Sulphocholine Trimethylselenonium + SelenoBetaine, Selenobetaine Methylester, and Sulfobetaine Phosphate, pyrophosphate. Methionine, suggesting competitive inhibition between methionine sulfoxide dimethyl sulfone Thetins include S-methylmethione, and does not reduce the requirement for ATP and Methionine Methionine sulfoxide. S-Methylmethionine Sulfonium is known to improved wound healing and prevent digestive pathway ulceration, as well as if exhibited in Cabbage, Cabbage Juice, and Satsuma Mandarin Oranges. Thetin-Homocysteine Methylpherase Catalyzes Thetins, particularly Dimethylthetin, Dimethylacetothetin discovered in 1878, Dimethylsulfonioacetate, and Dimethlpropriothetin 700 to 400 times more potently than other factors. Thioglycolic Acid is a central component of Medicinal Chemistry. NAD+ depletion occurs also resultant of inadequate choline, inhibited PEMT, PEMT2 in particular, and upregulated P53, resulting Hyperproliferation of Mitotic capable cellular entities and Apoptosis through Parthanatos of Senescent/Completely Differentiated Cellular Entities. NAD+/Niacin may be essential.

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Homocysteine. It is likely that Homocysteine at lower level thresholds describe outcomes among younger populations but include Behavioral, Biophysiological and more Behaviorally integrative and lifestyle integrative outcomes.	These suggest that Homocysteine can be inherently perilous without anti-inflammatory accompaniment, PEMT regulates itself out of necessity, ancillary sources of Homocysteine can be perilous, the few pathways of its depletion may be essential to health and therapeutic objectives of 6 Micromoles per liter may be conservative, while optimal may be closer to less than four or less than 2. Homocysteine Aggregately or lower as therapeutic priorities. However, Homocysteine should be managed to between 3.7 and 7 or 6 um/L, although 3.7 um/L or lower can be increasingly optimal, with 10 um/L used as therapeutic gateway threshold that requires continued therapeutic management to lower levels. Focused therapeutic intervention of homocysteic acid,	Managing Choline, Betaine, Folate, Methionine, Glutathione, Cysteine, Methyltetradydrofolate availability are primary ways of managing Homocysteine. Catecholamines, Bioflavonoids, Tea Catechins inhibit Homocysteine from COMT.	www.sciencedaily.com/releases/2006/07/060709125148.htm. 5-Aminoimidazole-4carboxamide-1-β-dRibofuranoside inhibits Phosphatidylethanolamine Methyltransferase although the literature does not suggest that PEMT is a contributor to Pathogenic Homocysteine Levels, particularly since it is selfregulated through Homocysteine and particularly since impaired PEMT is correlated with increased levels of Homocysteine. Studies clearly show the level of PEMT activity is inversely correlated with Homocysteine Levels. Journal of Nutrition, Volume 136, Number 12, Pages 3005 to 3009, December 2006.	Choline, Trimethylglycine, Folate/Methylfolate, Glutathione, Probiotic/Prebiotic, Complete-B Vitamins, Omega-3 Fatty Acids, Whole Food Organic Vitamins, Complete Minerals, Flavonoid/Carotenoid/Phytochemical Supplement, Glandular Mix, KAL SOD3 or other Antioxidant Mix with Catalase and Superoxide Dismutase, Choline Kinase Inhibitors, Tyrosine Kinase Inhibitors, Inhibitors of AP-1(x), including Citrus Fruit with Peelings/Rinds, Inhibitors of SP-1(X), Management of Homocysteine, Management of S-Adenosyl Homocysteine or S-Adenosyl Homocysteine inhibitors, inhibitors of Inducible Nitric Oxide Synthase, Inhibitors of Uncouple Nitric Oxide Synthase and its Reactive Molecular Species (L-Arginine, Tetrahydrobiopterin, NADPH, Superoxide Dismutase, Catalase, Glutathione, Citrulline/Arginine/Ornithine), NAD+, Hyaluronic Acid, Complete B-Vitamins with B-12 Methylcobalamin, Uridine, Prebiotic/Probiotic to Manage Inflammation Factors Produced during Ingestion of some Choline Dense Foods, Enzymes which metabolize these factors or synthesize these factors as well as precursors to these factors, Water, Phosphatidyl-Monomethylethanolamine (Phosphatidylmonomethylethanolamine or PMME), Human Rubisco, Recombinant Rubisco, Rubisco Agonists or Rubisco Modulators, Polyacetylates, Phosphatidylethanolamine, Phosphatidylethanolamine Methyltransferase, Methyltetrahydrofolate Reductase, Betaine Homocysteine Methyltransferase, Ancient Pink Himalayan Sea Salt instead of Table Salt. Cobalamin and AdenosylCobalamin.

	homocysteine thiolactone, s adenosyl homocysteine or homocysteine may be produce increasingly beneficial effect. Homocysteine Assay Details. www.cdc.gov/nchs/data/nhanes/nhanes_03_04/l06_c_met_homocysteine.pdf www.questdiagnostics.com/testcenter/BUOrderInfo.action?tc=31789&labCode=AMD 100 tests for $549.00 www.eaglebio.com/homocysteine-hplc-assay-kit/			

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S-Adenosyl Homocysteine The pathogenic Nature of S-Adenosyl Homocysteine Compared to Homocysteine generally, particularly when S-Adenosyl Homocysteine is increased compared to Homocysteine otherwise is described by the Literature as being enhanced.	S-Adenosyl Homocysteine Specific Test. www.eaglebio.com/content/SAH31-K01_S_Adenosyl_L_Homocysteine_SAH_ELISA_Assay_Kit.pdf $1,330.00 for 96 Assay Kits.	Management of Phospholipid/Choline Pathways, Inhibitors or modulator of SAdenosyl Homocysteine and S-Adenosyl Homocysteine Hydrolase. R-(+)- or S-(-)nicotine enantiomers decrease S-Adenosyl Homocysteine 60-Fold as well as reduces Homocysteine by 15 Fold, but this suggests that both PEMT inhibition may be occurring. R-(+)- or S-(-)-nicotine 9-Fold and 15-Fold reduction in S-Adenosyl Methionine respectively. PEMT function decreases S-Adenosyl Homocysteine and decreases Homocysteine. This suggest. Clearly, a direct invoking of a Pathogenic influence to PEMT by Nicotine which every Pathology also invokes either directly or indirectly. PMID 3715913. Methionine supplementation increases Homocysteine, suggesting the PEMT function may be essential during Methionine availability because alternative sources of Homocysteine may utilize S-Adenosyl Methionine without an inhibitor Influence.	Choline, Trimethylglycine, Folate/Methylfolate, Glutathione, Probiotic/Prebiotic, Complete-B Vitamins, Omega-3 Fatty Acids, Whole Food Organic Vitamins, Complete Minerals, Flavonoid/Carotenoid/Phytochemical Supplement, Glandular Mix, KAL SOD3 or other Antioxidant Mix with Catalase and Superoxide Dismutase, Choline Kinase Inhibitors, Tyrosine Kinase Inhibitors, Inhibitors of AP-1(x), including Citrus Fruit with Peelings/Rinds, Inhibitors of SP-1(X), Management of Homocysteine, Management of S-Adenosyl Homocysteine or SAdenosyl Homocysteine inhibitors, inhibitors of Inducible Nitric Oxide Synthase, Inhibitors of Uncouple Nitric Oxide Synthase and its Reactive Molecular Species (L-Arginine, Tetrahydrobiopterin, NADPH, Superoxide Dismutase, Catalase, Glutathione, Citrulline/Arginine/Ornithine), NAD+, Hyaluronic Acid, Complete B-Vitamins with B-12 Methylcobalamin, Uridine, Prebiotic/Probiotic to Manage Inflammation Factors Produced during Ingestion of some Choline Dense Foods, Enzymes which metabolize these factors or synthesize these factors as well as precursors to these factors, Water, Phosphatidyl-Monomethylethanolamine (Phosphatidylmonomethylethanolamine or PMME), Human Rubisco, Recombinant Rubisco, Rubisco Agonists or Rubisco Modulators, Polyacetylates, Phosphatidylethanolamine, Phosphatidylethanolamine Methyltransferase, Methyltetrahydrofolate Reductase, Betaine Homocysteine Methyltransferase, Ancient Pink Himalayan Sea Salt instead of Table Salt.

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S-Adenosyl Homocysteine The best study of a 500 to 1 decrease in demise from Homocysteine at less than 7 Micromoles per liter cannot be utilized since the only statistical instance of demise occurs in the Tenth or concluding annum. Resulting in 0 instances of demise compared to 500 in the Tenth Annum with any manner of improvement. Homocysteine Aggregately or lower as therapeutic priorities. However, Homocysteine	S-Adenosyl Homocysteine Specific Test. www.eaglebio.com /content/SAH31K01_S_Adenosyl_L_Homocysteine_SAH_ELISA_Assay_Kit.pdf $1,330.00 for 96 Assay Kits.	Specifically, although Folate may be presumed to assist in Homocysteine depletion and it is present in cellular entities generally, Folate cannot replace Choline and PEMT as source of sustain methionine availability, while Choline enables the synthesis of Betaine which BHMT uses to deplete Homocysteine. Choline is also known to increase PEMT although assuring inhibition of AP-1, SP-1, and Thrombin seem to be priorities in assuring PEMT also. SAdenosyl Homocysteine Hydrolase is inhibited by 3Deazaneplanocin A (DZNep). DOI 10.1016/j.bbrc.2013.07.128. Aristeromycin-5‘carboxaldehyde inhibits S-Adenosyl Homocysteine Hydrolase. DOI 10.1021/jm950916u. There are numerous inhibitors of S-Adenosyl Homocysteine Hydrolase. DOI 10.1016/j.bmc.2009.07.061. The availability of S-Adenosyl Homocysteine Hydrolase for any directional processing of S-Adenosyl Homocysteine or Homocysteine decreases with the availability of any of its Products/Substrates. Folate and Betaine unavailability, then, can constrain Genetic Transcription to accompany an apportionment of Genetic Transcription to Inflammation Factor Synthesis additionally impairing S-Adenosyl Hydrolase Activity.	Choline, Trimethylglycine, Folate/Methylfolate, Glutathione, Probiotic/Prebiotic, Complete-B Vitamins, Omega-3 Fatty Acids, Whole Food Organic Vitamins, Complete Minerals, Flavonoid/Carotenoid/Phytochemical Supplement, Glandular Mix, KAL SOD3 or other Antioxidant Mix with Catalase and Superoxide Dismutase, Choline Kinase Inhibitors, Tyrosine Kinase Inhibitors, Inhibitors of AP-1(x), including Citrus Fruit with Peelings/Rinds, Inhibitors of SP-1(X), Management of Homocysteine, Management of S-Adenosyl Homocysteine or S-Adenosyl Homocysteine inhibitors, inhibitors of Inducible Nitric Oxide Synthase, Inhibitors of Uncouple Nitric Oxide Synthase and its Reactive Molecular Species (L-Arginine, Tetrahydrobiopterin, NADPH, Superoxide Dismutase, Catalase, Glutathione, Citrulline/Arginine/Ornithine), NAD+, Hyaluronic Acid, Complete B-Vitamins with B-12 Methylcobalamin, Uridine, Prebiotic/Probiotic to Manage Inflammation Factors Produced during Ingestion of some Choline Dense Foods, Enzymes which metabolize these factors or synthesize these factors as well as precursors to these factors, Water, Phosphatidyl-Monomethylethanolamine (Phosphatidylmonomethylethanolamine or PMME), Human Rubisco, Recombinant Rubisco, Rubisco Agonists or Rubisco Modulators, Polyacetylates, Phosphatidylethanolamine, Phosphatidylethanolamine Methyltransferase, Methyltetrahydrofolate Reductase, Betaine Homocysteine Methyltransferase, Ancient Pink Himalayan Sea Salt instead of Table Salt.

should be managed to between 3.7 and 7 or 6 um/L, although 3.7 um/L or lower can be increasingly optimal, with 10 um/L used as therapeutic gateway threshold that requires continued therapeutic management to lower levels. Focused therapeutic intervention of homocysteic acid, homocysteine thiolactone, s adenosyl homocysteine or homocysteine may be produce increasingly beneficial effect.			

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Choline Pathway Inadequacy. Lipid Panel, Choline.	Homocysteine unequal to Above 7 for Clinical Pathology and above 1 Micromole per liter for subclinical pathology. Choline is typically about 27 Micromoles Per Liter at Birth, 6.8 for Adult Female and 6.0 for Males. The University of North Carolina at Chapel Hill suggests 550 Milligrams a Day as a minimum ingestion level while the FDA suggest 425 as an alternate Minimum for Women Specifically and 550 MG for Men. 7500 MG ingestion is suggested as the highest level of ingestion and 3500 as tolerable upper limit by Linus Pauling Instituted at the University of Oregon.	Choline CPT Code Lipid Panel CPT Code 80061. www.causenta.com/our-testing/ www.sigmaaldrich.com/catalog/product/sigma/mak056?lang=en&region=US 100 Diagnostic Tests for $429.50, 50 Choline and 50 Acetylcholine. . Choline Diagnostic Assay. www.aatbio.com/resources/catalog/BQAP.pdf $195 per individual Kit. Consider Bulk Purchase. Choline/Acetylcholine Diagnostic Assay hwww.abcam.com/CholineAcetylcholine-Assay-Kitab65345.html Choline, Folate, Betaine or Trimethylglycine, Lysophosphatidycholine, Phosphatidylcholine, factors which downregulate Inhibitors of PEMT, Choline Kinase inhibitors which prevent Phosphorylation of Free Choline, Acetyl-CoA which enables Acetylcholine Synthesis from Free Choline, PEMT which enables de novo Synthesis of Phosphatidylcholine, Recombinant PEMT, Phosphatidylethanolamine, 17 Beta Estradiol, Pregnenolone. Acetyl-CoA increases potential for Choline to be become Acetylcholine compared to Choline Kinase Upregulation which transforms Free Choline into Phosphocholine. Causes upregulation of Choline Kinase and Phosphocholine synthesis resulting in overactive cellular survival signaling, hyperactivation of complements Immune Systems, is a constitutive aspect of Platelet Activating Factor, accumulates on cellular interfaces to cause, increases C-Reactive Protein, cause immune response, independently activates Platelets to Stroke, vascular deterioration, and circumvent Tissue Plasminogen Activator as well as circumvents Platelet Activation Factor inhibitors like Clopidogrel.	Choline, Trimethylglycine, Folate/Methylfolate, Glutathione, Probiotic/Prebiotic, Complete-B Vitamins, Omega-3 Fatty Acids, Whole Food Organic Vitamins, Complete Minerals, Flavonoid/Carotenoid/Phytochemical Supplement, Glandular Mix, KAL SOD3 or other Antioxidant Mix with Catalase and Superoxide Dismutase, Choline Kinase Inhibitors, Tyrosine Kinase Inhibitors, Inhibitors of AP-1(x), including Citrus Fruit with Peelings/Rinds, Inhibitors of SP-1(X), Management of Homocysteine, Management of S-Adenosyl Homocysteine or SAdenosyl Homocysteine inhibitors, inhibitors of Inducible Nitric Oxide Synthase, Inhibitors of Uncouple Nitric Oxide Synthase and its Reactive Molecular Species (L-Arginine, Tetrahydrobiopterin, NADPH, Superoxide Dismutase, Catalase, Glutathione, Citrulline/Arginine/Ornithine), NAD+, Hyaluronic Acid, Complete B-Vitamins with B-12 Methylcobalamin, Uridine, Prebiotic/Probiotic to Manage Inflammation Factors Produced during Ingestion of some Choline Dense Foods, Enzymes which metabolize these factors or synthesize these factors as well as precursors to these factors, Water, Phosphatidyl-Monomethylethanolamine (Phosphatidylmonomethylethanolamine or PMME), Human Rubisco, Recombinant Rubisco, Rubisco Agonists or Rubisco Modulators, Polyacetylates, Phosphatidylethanolamine, Phosphatidylethanolamine Methyltransferase, Methyltetrahydrofolate Reductase, Betaine Homocysteine Methyltransferase, Ancient Pink Himalayan Sea Salt instead of Table Salt.

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PEMT Impairment Oncology Gene Expression	Impairment. Choline Diagnostic Assay. www.aatbio.com/resources/catalog/BQAP.pdf Choline/Acetylcholine Diagnostic Assay hwww.abcam.com/CholineAcetylc holine-Assay-Kit-ab65345.html. PEMT can be inhibited by Estrogen Receptor Inhibitors although it is not recommended by these analysis to conduct such activity or at least not for any more than very short duration in specific tissues or specific cellular entities. 10.1074/jbc.M110.109843 .	Analytically Significant Ranges Exhibited by Healthiest Patients Observed in Practice. Poiglitazone prevents inflammation and hepatic detriment when PEMT is genetically or functionally impaired. DOI 10.1152/ajpgi.00243.2015 96 Tests for $710.00 www.mybiosource.com/prods/ELISAKit/Human/phosphatidylethanolamine-Nmethyltransferase/PEMT/datasheet.php?products_id=924990 Gold is among the Divalent Metal Ions which can enable PEMT function. DOI: 10.1038/nchem.2836 . Myrrh and Frankincense inhibit Cyclooxygenase , CFOS and CJUN, thereby also inhibiting AP1 and SP1. DOI 10.1038/srep13668 . PEMT, 17beta-Estradiol, Pregnenolone, Testosterone, S-Adenosyl Methionine, S-Adenosyl Homocysteine Inhibitor, BHMT, Phosphatidylethanolamine, AP-1 Inhibitor, SP1 Inhibitor, Choline Kinase Inhibitor. Studies clearly show the level of PEMT activity is inversely correlated with Homocysteine Levels. Journal of Nutrition, Volume 136, Number 12, Pages 3005 to 3009, December 2006. Managing Homocysteine, while inhibiting AP-1, SP-1, iNOS, Thrombin, and other factors assure PEMT function. Cuties, Food Oils such as Olive Oil, Sugar Beets, Whole Wheat, Meat, Chicken, Eggs, Fish, or foods within increased levels of Choline, Betaine and Folate all can enhance the function of PEMT, although managing inhibitors of PEMT can enable these to be more effective. Causes upregulation of Choline Kinase and Phosphocholine synthesis resulting in overactive cellular survival signaling, hyperactivation of complements Immune Systems, is a constitutive aspect of Platelet Activating Factor, accumulates on cellular interfaces to cause, increases C-Reactive Protein, cause immune response, independently activates Platelets to Stroke, vascular deterioration, and cirvument Tissue Plasminogen Activator as well as circumvents Platelet Activation Factor inhibitors like Clopidogrel.	Choline, Trimethylglycine, Folate/Methylfolate, Glutathione, Probiotic/Prebiotic, Complete-B Vitamins, Omega-3 Fatty Acids, Whole Food Organic Vitamins, Complete Minerals, Flavonoid/Carotenoid/Phytochemical Supplement, Glandular Mix, KAL SOD3 or other Antioxidant Mix with Catalase and Superoxide Dismutase, Choline Kinase Inhibitors, Tyrosine Kinase Inhibitors, Inhibitors of AP-1(x), including Citrus Fruit with Peelings/Rinds, Inhibitors of SP-1(X), Management of Homocysteine, Management of S-Adenosyl Homocysteine or S-Adenosyl Homocysteine inhibitors, inhibitors of Inducible Nitric Oxide Synthase, Inhibitors of Uncouple Nitric Oxide Synthase and its Reactive Molecular Species (L-Arginine, Tetrahydrobiopterin, NADPH, Superoxide Dismutase, Catalase, Glutathione, Citrulline/Arginine/Ornithine), NAD+, Hyaluronic Acid, Complete B-Vitamins with B-12 Methylcobalamin, Uridine, Prebiotic/Probiotic to Manage Inflammation Factors Produced during Ingestion of some Choline Dense Foods, Enzymes which metabolize these factors or synthesize these factors as well as precursors to these factors, Water, PhosphatidylMonomethylethanolamine (Phosphatidylmonomethylethanolamine or PMME), Human Rubisco, Recombinant Rubisco, Rubisco Agonists or Rubisco Modulators, Polyacetylates, Phosphatidylethanolamine, Phosphatidylethanolamine Methyltransferase, Methyltetrahydrofolate Reductase, Betaine Homocysteine Methyltransferase, Ancient Pink Himalayan Sea Salt instead of Table Salt.

Factor	Indicative Information	Information		Wholistic Factors to Accompany Therapeutics
Arachidonic Acid.	The principal Pathway to Inflammation, Leukotrienes, Prostaglandins, Thromboxanes and Reactive Oxygen Species of an Inflammatory nature. 150 test for an unknown amount. www.progen.com/products/diagnosticassays/coagulation/arachido nic-acid-50mm.html. Commercial literature suggests typical when = or < 0.2 Micromoles per liter. www,pdl.testcatalog.org/show/OMEG36 www.progen.com/products/diagnosticassays/coagulation/arachido nic-acid-50mm.html. Commercial literature suggests typical when = or < 0.2 Micromoles per liter. www,pdl.testcatalog.org/show/OMEG36	Aspirin inhibits Arachidonic Acid Metabolism by inhibiting both COX and LOX. PMID 6812163 Rye Pollen Extract. www.graminex.com/graminex/file/49_inhibition_of_the_arachidonic_acid_metabolism_by_an_extract_from_rye_pollen.pdf. 10 tests for an unknown amount www.gtauk.co.uk/app/download/5782586310/Plateletworks+Arachidonic+Acid+Data+Sheet.pdf Lifocelone and NSAIDS inhibit Arachidonic Acid. www.onlinelibrary.wiley.com/doi/10.1111/bcpt.12134/full Ascidiathiazone as alkaloid inhibits Neutrophil activity. Cembranolides inhibit COX-2. Durumolides inhibit iNOS and COX – 2. Frajunolides as Diterpenoids inhibit Neutrophil activity. Manzamine, as alkaloids, inhibit Thromboxane B2. Cateramine A, as an Alkaloid, inhibits Neutrophil Chemotactic Activity.	The Imidazole derivatives ketoconazole, clotrimazole, Nordihydroguaiaretic acid (NDGA), Eicosatetranoic acid (ETYA), and indomethacin inhibit Arachidonic Acid's transformation into Eicosanoids or Inflammatory Factors. DOI 10.1016/0003-9861(88)90340-2. Omega-3 Fatty Acids, DHA, EPA, Gamma-Linoleic Acid, Vitamin E, Vitamin C, Polyphenols, Flavonoids, St Johns Wort, Rosemary, Curcumin, Cats Claw. Khalsa Chiropractric Website. Plakortide P, as a Polyketide, is an Antineuroinflammatory factor. Rubrolide O as Halogenated Furanone inhibits Neutrophil activity. DOI 10.1155/2013/572859	Choline, Trimethylglycine, Folate/Methylfolate, Glutathione, Probiotic/Prebiotic, Complete-B Vitamins, Omega-3 Fatty Acids, Whole Food Organic Vitamins, Complete Minerals, Flavonoid/Carotenoid/Phytochemical Supplement, Glandular Mix, KAL SOD3 or other Antioxidant Mix with Catalase and Superoxide Dismutase, Choline Kinase Inhibitors, Tyrosine Kinase Inhibitors, Inhibitors of AP-1(sx), including Citrus Fruit with Peelings/Rinds, Inhibitors of SP-1(X), Management of Homocysteine, Management of S-Adenosyl Homocysteine or S-Adenosyl Homocysteine inhibitors, inhibitors of Inducible Nitric Oxide Synthase, Inhibitors of Uncouple Nitric Oxide Synthase and its Reactive Molecular Species (L-Arginine, Tetrahydrobiopterin, NADPH, Superoxide Dismutase, Catalase, Glutathione, Citrulline/Arginine/Ornithine), NAD+, Hyaluronic Acid, Complete B-Vitamins with B-12 Methylcobalamin, Uridine, Prebiotic/Probiotic to Manage Inflammation Factors Produced during Ingestion of some Choline Dense Foods, Enzymes which metabolize these factors or synthesize these factors as well as precursors to these factors, Water, Phosphatidyl-Monomethylethanolamine (Phosphatidylmonomethylethanolamine or PMME), Human Rubisco, Recombinant Rubisco, Rubisco Agonists or Rubisco Modulators, Polyacetylates, Phosphatidylethanolamine, Phosphatidylethanolamine Methyltransferase, Methyltetrahydrofolate Reductase, Betaine Homocysteine Methyltransferase, Ancient Pink Himalayan Sea Salt instead of Table Salt.

Factor	Indicative Information	Information	Wholistic Factors to Accompany Therapeutics
Viral DNA and Viral RNA Polymerase	Vistide or HPMPC is known to be effective in managing viral DNA polymerases. A Blend of Phytochemicals, flavonoids, polyines, thiophenes, proteins and peptides in such regard. terpenoids, lignans, sulphides, polyphenolics, coumarins, saponins, furyl compounds, alkaloids, as well as cooking herbs, culinary herbs and oils used for flavoring food, provides a variety of Viral DNA Polymerase and Viral RNA Inhibition. Favipiravir is an inhibitor of Diverse Viral RNA including RNA viruses considered to be untreatable otherwise. United States National Library of Medicine PMID 28769016. Viral RNA Polymerase inhibitors are presented at this digital objective Identifier. NLS-RIG-I is know to destabilize the CV Membranous Web and inhibit HCV Replication.	Natural Viral DNA Polymerase Inhibitors. Diverse Polyphenols, Bioflavanoids, including extract of Phy Niruri, extract of Phy. Amarus, Phy. Urinaria, licorice root Glycyrhiza glabra, Rosemarinic acid, Caffeic Acid, eugeniin (ellagitannin) extracted from Geum japonicum and eugeniin (ellagitannin) extracted from Syzygium aromaticum, triterpene acids of Geum japonicum such as Ursolic acid and Maslinic acid, the Triterpene Moronic Acid, extract of Rhus javanica, Geranium sanguineum (L.), lignans isolated from Larrea tridentates as well as from Rhinacanthus nasutus and Kadsura matsudai, Calophyllum inophyllum, Cal. lanigerum, Cal. teysmannii latex and Cal. cerasiferum, Morin is from Maclura cochinchinensis, extracts from Rhus succedanea and Garcinia multiflora (amentoflavone, agathisflavone, robustaflavone, rhusflavanone and succedaneflavanone) Flavonol Iridoid glycosides and phenylpropanoid glycosides (uteoside A, luteoside B and luteoside C) from Barleria prionitis and from the roots of Markhamia lutea, Dianella longifolia which exhibits Flavanoid Chrysosplenol C and Pterocaulon sphacelatum which exhibits the Anthraquinone Chrysophanic Acid, Theaflavin from Black Tea, Diverse fruits, vegetables, tea, grains, bark, roots, stems and flowers, which are edible and considerably nontoxic. Digital Objective Identifier 10.1046/j.1365-2672.2003.02026.x provides specific information about Viral Specific Phytochemicals. Digital Object Identifier 10.1046/j.1365-2672.2003.02026.x presents DNA Polymerase inhibitor therapeutics. Molnupiravir and paxlovid are both direct antiviral therapeutics and are applicable for SARS viral vectors. Information. “FDA Authorizes Additional Oral Antiviral for Treatment.” FDA News. December 23, 2021. Information. “Molnupiravir vs Paxlovid.” Geneticliteracyproject.org January 10, 2022.	Choline, Trimethylglycine, Folate/Methylfolate, Glutathione, Probiotic/Prebiotic, Complete-B Vitamins, Omega-3 Fatty Acids, Whole Food Organic Vitamins, Complete Minerals, Flavonoid/Carotenoid/Phytochemical Supplement, Glandular Mix, KAL SOD3 or other Antioxidant Mix with Catalase and Superoxide Dismutase, Choline Kinase Inhibitors, Tyrosine Kinase Inhibitors, Inhibitors of AP-1(sx), including Citrus Fruit with Peelings/Rinds, Inhibitors of SP-1(X), Management of Homocysteine, Management of S-Adenosyl Homocysteine or S-Adenosyl Homocysteine inhibitors, inhibitors of Inducible Nitric Oxide Synthase, Inhibitors of Uncouple Nitric Oxide Synthase and its Reactive Molecular Species (L-Arginine, Tetrahydrobiopterin, NADPH, Superoxide Dismutase, Catalase, Glutathione, Citrulline/Arginine/Ornithine), NAD+, Hyaluronic Acid, Complete B-Vitamins with B-12 Methylcobalamin, Uridine, Prebiotic/Probiotic to Manage Inflammation Factors Produced during Ingestion of some Choline Dense Foods, Enzymes which metabolize these factors or synthesize these factors as well as precursors to these factors, Water, Phosphatidyl-Monomethylethanolamine (Phosphatidylmonomethylethanolamine or PMME), Human Rubisco, Recombinant Rubisco, Rubisco Agonists or Rubisco Modulators, Polyacetylates, Phosphatidylethanolamine, Phosphatidylethanolamine Methyltransferase, Methyltetrahydrofolate Reductase, Betaine Homocysteine Methyltransferase, Ancient Pink Himalayan Sea Salt instead of Table Salt.

Factor	Indicative Information	Information	Wholistic Factors to Accompany Therapeutics
Viral DNA and Viral RNA Polymerase	Cynaropicrin inhibits iNOS, CD29, CD98, as well as cellular surface CD29 and CD147, while its mechanisms of action seems to be through inhibition of Extracellular Signal Associated Kinase ERK such that it may be a potent therapy for conditions involving Cytoskeleton rearrangements. A study exhibits that Amyloid Beta (versions between 40 and 1) administration could have its detrimental effects inhibited through inhibition of TNF-Alpha or inhibition of Inducible Nitric Oxide Synthase, suggesting that TNF-alpha and iNOS cyclically potentiate one another. Silymarin/Silibinin with IC50s between 100 and 40 Micromoles per Liter, inhibits Viral entry, Fusion, Replication, RNA/Protein Synthesis, Viral Particle Secretion and intercellular transport of Viral Proteins through NS5B Inhibition. EGCG from Camellia Sinensis, with IC50s between 21 and 5 Micromoles per Liter, inhibits Early Viral Entry Glycoprotein Viral Adhesion, intercellular transport, replication and affects supernatant clearance through inhibiting Virion, RNA, NS3 Protease, and NS5A. Ladanein – BJ486K from Marrubium Peregrinum L, with IC50s between 10 and 2.5 Micromoles per Liter, inhibits Viral Entry. Naringenin from Grapefruit, particularly peelings, inhibits Viral Assembly and Secrection of Viral Particles as well as Secretion of HCV RNA. Quercetin from Embelia Ribes inhibits IRES Translation and inhbits NS5A Protein, Viral Replication and Viral Production through inhibition of NS3 Protease. Luteoloin – Apigenin, with IC50s between 7.9 and 1.1 micromoles Per Liter, inhibits HCV pathology and replication by inhibiting NS5B Polymerase. Honokiol from Magnolia Grandiflora, with IC50s of 4.5 Micromoles Per Liter inhibits Viral Entry and Replication through downregulation of NS3 Protease, NS5A, and NS5B. 3-Hydroxy Caruilignan C from Swietenia Macrophylla, with IC50s of 37.5, inhibits Viral RNA, and NS3 Protease. Exoecariphenol D Coilagin from Exoecaria Agallocha L, with IC50S between 13.5 and12.6 Micromoles per Liter, inhibits Viral Replication through inhibition of NS3 Protease. These factors have been effective in inhibiting HCV along with Polyphenols 3',4',5,6,7,8 M Hexamethoxyflavone or Nobilietin from Citrus Unshiu Peel Aurantii Nobilis Pericarpium, Oligophenolic SCH 644343 and SCH 644342 from Peruvian Stylogne Cauliflora, 1,2,3,4,6 Penta-O-Galloyl-B-D-Glucoside from Saxifraga Melanocentra Franch, Polyphenols 1,2,5-tri-O-galloyl-Beta-D-Glucose, 1,2,4,6-tetra-0-galloyl-Beta-D-glucose, and 1,2,3,4,6-Penta-OGalloyl-Beta-D-Glucose from Ethyl Acetate of Galla, as well as excoecariphenol D and Corilagin from Excoecaria Agallocha L (Euphorbiaceae) the Mangrove Plant.		Choline, Trimethylglycine, Folate/Methylfolate, Glutathione, Probiotic/Prebiotic, Complete-B Vitamins, Omega-3 Fatty Acids, Whole Food Organic Vitamins, Complete Minerals, Flavonoid/Carotenoid/Phytochemical Supplement, Glandular Mix, KAL SOD3 or other Antioxidant Mix with Catalase and Superoxide Dismutase, Choline Kinase Inhibitors, Tyrosine Kinase Inhibitors, Inhibitors of AP-1(sx), including Citrus Fruit with Peelings/Rinds, Inhibitors of SP-1(X), Management of Homocysteine, Management of S-Adenosyl Homocysteine or S-Adenosyl Homocysteine inhibitors, inhibitors of Inducible Nitric Oxide Synthase, Inhibitors of Uncouple Nitric Oxide Synthase and its Reactive Molecular Species (L-Arginine, Tetrahydrobiopterin, NADPH, Superoxide Dismutase, Catalase, Glutathione, Citrulline/Arginine/Ornithine), NAD+, Hyaluronic Acid, Complete B-Vitamins with B-12 Methylcobalamin, Uridine, Prebiotic/Probiotic to Manage Inflammation Factors Produced during Ingestion of some Choline Dense Foods, Enzymes which metabolize these factors or synthesize these factors as well as precursors to these factors, Water, Phosphatidyl-Monomethylethanolamine (Phosphatidylmonomethylethanolamine or PMME), Human Rubisco, Recombinant Rubisco, Rubisco Agonists or Rubisco Modulators, Polyacetylates, Phosphatidylethanolamine, Phosphatidylethanolamine Methyltransferase, Methyltetrahydrofolate Reductase, Betaine Homocysteine Methyltransferase, Ancient Pink Himalayan Sea Salt instead of Table Salt.

Factor	Indicative Information	Information		Wholistic Factors to Accompany Therapeutics
Uncoupled Nitric Oxide Synthase. Nitrosamine, Nitrosamide and Morpholine cause expression of iNOS, NFKB and AP1 while Nitrosating many factors including Tyrosine. D-Roms Test may be useful. SuperWater by Bodyarmour can help manage Nitrosamine Levels.	The literature suggests that Citrulline levels are indicative of Nitric Oxide Synthase Activity particularly when compared to other Oxidative Distress indicators. Levels of Peroxynitrite were a median 4.47 with range of + and - 0.38 in Healthy controls whereas 7.23 with a range of + and - 0.92 was exhibited in Patients with Lupus using Micromoles Per Liter in Blood. Peroxynitrite is suggested as ubiquitous oxidation factor affecting BH4, Uric Acid and other factors. Reference Arch Biochem Biophys, Volume 372, Number 2, Pages 285 to 294. Peroxynitrite inhibits eNOS and Prostacylcin Synthase, antagonizes Thromboxane Synthase A2 inhibiting Vasodilation.	Citrulline is produced in direct correlation to Nitric Oxide which can occur in mixed levels with Superoxide as Nitric Oxide Synthase becomes uncoupled and coupled as substrate availability changes. Management of ONOOor Peroxynitrite such as Carbon Dioxide, Thiols Ascorbate, Synthetic Metalloporphyrins, Selenocompounds, Particular Peroxidases, Albumin, Selenoproteins and Hemoglobin. Scavengers of Peroxynitrite can include 2 - Phenyl - 1, Selenium compounds, 2 Benzisolenazol – 3 (2H) – One or Ebselen, Selenocysteine, Selenomethionine, Glutathione Peroxidase and Thioredoxin Reductase, Epicatechin, Flavonoids, 5,10,15,20tetrakis(4-sulfonatophenyl) porphyrinato iron III chloride (FeTTPs), and Uric Acid from Purine Synthesis. Bodyarmour Superwater with Potassium Bicarbonate can be used to managed Peroxynitrate produced from Nitrosamine as well as managed Nitrosamine.	Angiotensin Converting Enzymes, Statins, AT1 Receptor Inhibitors, Resveratrol and Nebivolol exhibit inhibition of Uncoupled NOS.DOI 10.1016/j.coph.2013.01.006 Tetrahydrobiopterin is presented in some literature as Cofactor for Endothelial Nitric Oxide Synthase. DOI 10.1152/ajpheart.01315.2010 Superoxide seems to be the best indicator here as do reactive Oxygen Species or Reactive Molecular Species generally. There is a possibility that excessive Neopterin from Cellular Immune response, such as with Phosphocholine accumulation which actives Complements Immunological System and C Reactive Protein, can depleted Tetrahydrobiopterin. The Bioflavonoid Complex Kolaviron from Garcinia Kola seed Extract can prevent detriment from Nitrosamines, Nitrosamide and potentially Morphaline. Citrulline is produced from iNOS catalysis when not uncoupled, while available L-arginine can be sequestered away from Arginase. Arginase produces Ornithine from L-arginine and Ornithine is essential to extracellular matrix production.	Choline, Trimethylglycine, Folate/Methylfolate, Glutathione, Probiotic/Prebiotic, Complete-B Vitamins, Omega-3 Fatty Acids, Whole Food Organic Vitamins, Complete Minerals, Flavonoid/Carotenoid/Phytochemical Supplement, Glandular Mix, KAL SOD3 or other Antioxidant Mix with Catalase and Superoxide Dismutase, Choline Kinase Inhibitors, Tyrosine Kinase Inhibitors, Inhibitors of AP-1(x), including Citrus Fruit with Peelings/Rinds, Inhibitors of SP-1(X), Management of Homocysteine, Management of S-Adenosyl Homocysteine or S-Adenosyl Homocysteine inhibitors, inhibitors of Inducible Nitric Oxide Synthase, Inhibitors of Uncouple Nitric Oxide Synthase and its Reactive Molecular Species (L-Arginine, Tetrahydrobiopterin, NADPH, Superoxide Dismutase, Catalase, Glutathione, Citrulline/Arginine/Ornithine), NAD+, Hyaluronic Acid, Complete B-Vitamins with B-12 Methylcobalamin, Uridine, Prebiotic/Probiotic to Manage Inflammation Factors Produced during Ingestion of some Choline Dense Foods, Enzymes which metabolize these factors or synthesize these factors as well as precursors to these factors, Water, Phosphatidyl-Monomethylethanolamine (Phosphatidylmonomethylethanolamine or PMME), Human Rubisco, Recombinant Rubisco, Rubisco Agonists or Rubisco Modulators, Polyacetylates, Phosphatidylethanolamine, Phosphatidylethanolamine Methyltransferase, Methyltetrahydrofolate Reductase, Betaine Homocysteine Methyltransferase, Ancient Pink Himalayan Sea Salt instead of Table Salt.

Factor	Indicative Information	Information	Wholistic Factors to Accompany Therapeutics
Uncoupled Nitric Oxide Synthase. www.depts.washington.edu/androl/prices.html Uncoupled Nitric Oxide Synthase produces Peroxynitrites which can Nitrosate Nitrosamine, Nitrosamide and Morpholine Precursors.	www.ncbi.nlm.nih.gov/pubmed/10424368?access_num=10424368&link_type=MED&dopt=Abstract. Reactive Oxygen Species test www.tools.thermofisher.com/content/sfs/manuals/88-5930.pdf 200 Tests for $249.00 www.thermofisher.com/order/catalog/product/88-5930-74?SID=srchsrp-88-5930-74 Hydroxyl/Peroxynitrite Diagnostic Assay, 150 Tests for $175. www.biokits.com/productinfo/3862/HydroxylPeroxynitrite-Detection-Kit.html Tetrahydrobiopterin, supplemented at 400 MG per day, has been shown to substantially and stably improve Blood Pressure and improve endothelial Function in Hypertensive subjects. DOI 10.1038/sj.jhh.1002329	S-nitrosoglutathione (GSNO) manages Peroxynitrite indicative of uNOS. Therapeutics factors include Citrulline, Watermelon, Dark Cocoa, Pomegranate, Walnuts, Spinach, Oranges, Beets, Cranberries, Garlic, Black Tea, Cayenne, Pepper, Pistachios, Honey, Salmon, Kale, Animal Organs, Onions, Shrimp. Boydr www.amrapnutrition.com/interesting_other/fuelperformance-18-foods-nitric-oxide-production/ Uretic Output can be visually reviewed to determine its Hue. Lipid peroxidation info at www.biotek.com/resources/white-papers/an-introduction-to-reactive-oxygenspecies-measurement-of-ros-in-cells/ Urine Specific Gravity, particularly considering Peroxynitrite or Nitrites is indicative of Uncoupled Nitric Oxide Synthase. The clarity of Urine is correlated to decreases Reactive Nitrogen or Peroxynitrites, whereas diminished clarity indicates that reactive molecular species are increased. L-arginine, Tetrahydrobiopterin, NADPH, Superoxide Dismutase, Catalase, Glutathione, Vanadium, L-Ornithine and L-Citrulline in Equal Amounts, Flavin Adenine Dinucleotide, Flavin Mononucleotide, HEME, Iron, Ca2+, Calmodulin, O2, H+. Sapropterin as Kuvan the Pharmacological Factor. Managing any of the principle Super Indicators Presented here, particularly those which are Primary stimulators of Inducible Nitric Oxide Synthase. Article on Uncoupled Nitric Oxide Synthase and its Pharmacological Therapeutic Reversal. DOI 10.1016/B978-0-12-3738660.00005-8 NADPH Oxidase can enhance Uncoupled Nitric Oxide Synthase and is inhibited by the Xanthine Oxidase inhibitor Allopurinol. L-arginine, Tetrahydrobiopterin, NADPH, Superoxide Dismutase, Catalase, Glutathione, Vanadium, L-Ornithine / L-Citrulline in Equal Amounts, Flavin Adenine Dinucleotide, Flavin Mononucleotide, HEME, Iron, Ca2+, Calmodulin, O2, H+. Sapropterin as Kuvan the Pharmacological Factor. Managing any of the principle Super Indicators Presented here, particularly those which are Primary stimulators of Inducible Nitric Oxide Synthase. Article on Uncoupled Nitric Oxide Synthase and its Pharmacological Therapeutic Reversal. DOI 10.1016/B978-0-12-373866-0.00005-8 NADPH Oxidase can enhance Uncoupled Nitric Oxide Synthase and is inhibited by the Xanthine Oxidase inhibitor Allopurinol. Antioxidants also assist in managing uNOS.	Choline, Trimethylglycine, Folate/Methylfolate, Glutathione, Probiotic/Prebiotic, Complete-B Vitamins, Omega-3 Fatty Acids, Whole Food Organic Vitamins, Complete Minerals, Flavonoid/Carotenoid/Phytochemical Supplement, Glandular Mix, KAL SOD3 or other Antioxidant Mix with Catalase and Superoxide Dismutase, Choline Kinase Inhibitors, Tyrosine Kinase Inhibitors, Inhibitors of AP-1(x), including Citrus Fruit with Peelings/Rinds, Inhibitors of SP-1(X), Management of Homocysteine, Management of S-Adenosyl Homocysteine or S - Adenosyl Homocysteine inhibitors, inhibitors of Inducible Nitric Oxide Synthase, Inhibitors of Uncouple Nitric Oxide Synthase and its Reactive Molecular Species (L-Arginine, Tetrahydrobiopterin, NADPH, Superoxide Dismutase, Catalase, Glutathione, Citrulline/Arginine/Ornithine), NAD+, Hyaluronic Acid, Complete B-Vitamins with B-12 Methylcobalamin, Uridine, Prebiotic/Probiotic to Manage Inflammation Factors Produced during Ingestion of some Choline Dense Foods, Enzymes which metabolize these factors or synthesize these factors as well as precursors to these factors, Water, Phosphatidyl-Monomethylethanolamine (Phosphatidylmonomethylethanolamine or PMME), Human Rubisco, Recombinant Rubisco, Rubisco Agonists or Rubisco Modulators, Polyacetylates, Phosphatidylethanolamine, Phosphatidylethanolamine Methyltransferase, Methyltetrahydrofolate Reductase, Betaine Homocysteine Methyltransferase, Ancient Pink Himalayan Sea Salt instead of Table Salt.

Factor	Indicative Information	Information	Wholistic Factors to Accompany Therapeutics
Inducible Nitric Oxide Synthase. Oncology Gene Expression The Plasma Inducible Nitric Oxide Synthase (iNOS) Assay and Sepsis Study (PliNOSa® Test) has been utilized in studies.	Anything but Ephemeral exhibition after Gestation and after a Gravitational challenge may be pathogenic. Analytically Significant Ranges Exhibited by Healthiest Patients Observed in Practice. Circumin as an SP1 inhibitor and iNOS inhibitor are therapeutic for HPV, HIV and other Viral Pathology, including Oncology.	Aminoguanidine, Magnesium, any of the Selective Inducible Inhibitors of Nitric Oxide Synthase. Inhibitors of Nitric Oxide Synthase include natural factors also, such as Isothiocyanates, Proanthocyanidins, Terpenoids/Isoprenoids, Carotenoids, Omega-3 Fatty acids, Polyunsaturated Fatty Acids, Circumin, and Flavonoids. Flavonoids are diverse plant factors derived from Benzo-gammapyrone rings that include Phenolic compounds, Pyran groups, linkages between A and B rings, such that their Hydroxyl, Methoxy and Glycosidic ancillary structures distinguish them from one another while 3-O-Glycosides, Anthocyanins and Polymers are the most prevalently exhibited versions. Natural food sourced inhibitors of Inducible Nitric Oxide Synthase (iNOS) include Cyanidin-3-rutinoside from Raspberries and cherries, Silibinin from Milk thistle, Cyanidin-3-sambubioside from Peanut, Malvidin-3-arabinoside from Blueberries, Malvidin-3-galactoside from Berries, Petunidin-3-arabinoside from Bilberry, Resveratrol from Grape skins, Cyanidin from Strawberries, Delphinidin-3-arabinoside from Blueberries, Petunidin-3-glucoside from Blueberries from Peonidin-3-glucoside from Black rice, Malvidin-3-glucoside from Berries, Apigenin from Celery, Carnosol from Rosemary, Delphinidin, Dark berries, Proanthocyanidins from Berries, Epigallocatechin-3-gallate, Cyanidin-3-galactoside from Lingonberry, Delphinidin-3-glucoside from Berries, Quercetin from Broccoli, Cyanidin-3-glucoside from Black rice, Pelargonidin-3-glucoside from Strawberries, Curcumin from Curcuma, Kaempferol from Broccoli. Peroxynitrite, iNOS and Uncoupled Nitric Oxide Synthase are known to reverse the activity Selective Serotonin Reuptake Inhibitors, clearly presented a role for their inclusion in Obsessive, Compulsive, Behavioral, and Physiological disorders, therefore also clearly presented how iNOS, uNOS, and Peroxynitrite produced by Communications fields, Electromagnetic Fields and Magnetic or other fields can be modulated or with plainly exhibited activity change or produce Human behavior.	Choline, Trimethylglycine, Folate/Methylfolate, Glutathione, Probiotic/Prebiotic, Complete-B Vitamins, Omega-3 Fatty Acids, Whole Food Organic Vitamins, Complete Minerals, Flavonoid/Carotenoid/Phytochemical Supplement, Glandular Mix, KAL SOD3 or other Antioxidant Mix with Catalase and Superoxide Dismutase, Choline Kinase Inhibitors, Tyrosine Kinase Inhibitors, Inhibitors of AP-1(x), including Citrus Fruit with Peelings/Rinds, Inhibitors of SP-1(X), Management of Homocysteine, Management of S-Adenosyl Homocysteine or S-Adenosyl Homocysteine inhibitors, inhibitors of Inducible Nitric Oxide Synthase, Inhibitors of Uncouple Nitric Oxide Synthase and its Reactive Molecular Species (L-Arginine, Tetrahydrobiopterin, NADPH, Superoxide Dismutase, Catalase, Glutathione, Citrulline/Arginine/Ornithine), NAD+, Hyaluronic Acid, Complete B-Vitamins with B-12 Methylcobalamin, Uridine, Prebiotic/Probiotic to Manage Inflammation Factors Produced during Ingestion of some Choline Dense Foods, Enzymes which metabolize these factors or synthesize these factors as well as precursors to these factors, Water, Phosphatidyl-Monomethylethanolamine (Phosphatidylmonomethylethanolamine or PMME), Human Rubisco, Recombinant Rubisco, Rubisco Agonists or Rubisco Modulators, Polyacetylates, Phosphatidylethanolamine, Phosphatidylethanolamine Methyltransferase, Methyltetrahydrofolate Reductase, Betaine Homocysteine Methyltransferase, Ancient Pink Himalayan Sea Salt instead of Table salt.

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Inducible Nitric Oxide Synthase. Oncology Gene Expression www.clinicaltrials.gov/ct2/show/NCT01371929 www.medip hos.com/mms/images/stories/medip hosdocs/RD/K1600-PM1-V2.0.1-EN-NL.pdf	iNOS can be inhibited by shielding, coating, covering, painting with EMF inhibiting Paint, covering EMF inhibiting cloth, devices, electrical outlets, communications wiring and devices, appliances, lighting, etc. EMF inhibiting clothing,, building material, Eyewear, makeup, devices. iNOS exhibits about %300 percent increase in potential for demise among particular conditions. ISBN 9781603272506.	The referenced Article here provides precise information regarding the preferred interactive loci between natural inhibitors of Inducible Nitric Oxide Synthase and Inducible Nitric Oxide Synthase Itself. Allosteric integration loci were found to be less prominent than substrate/inhibition Loci, such that there were diverse spatial poses exhibited by natural compounds that fit into the inhibitory/substrate groove, explaining why many natural compounds with inhibitory effect to iNOS may inhibit inflammation widely. Fucoidan reverses iNOS reshaping of Cellular structure to Amoeboid Shape. Selective inhibition of iNOS is potentiated by N - (3-(aminomethyl) benzyl)acetamidine (1400W). Reference DOI 10.1124/jpet.106.108100 Other inhibitors of iNOS include Pimagedine, AMT, N(G)-iminoethylornithine, L-NIL, Targinine, Nitroarginine, AR-C95791, CID10398018, Etiron and numerous other CID factors. Included also are Flavones Apigenin, Tangeretin, 5-Hydroxy-3,6,7,8,3,4-Hexamethoxyflavone, Flavonol Quercetin, Flavanols Epicatechin, Epigallocatechin-3-Gallate, Flavanone Naringenin, Isoflavone Genistein, Terpenoids All-Trans Retinoic Acid, Methone, Omega-3 PUFAs DHA/EPA, Isothiocyanates Phenethylisothiocyanate, Sulforaphane, Benzyl Isothiocyanate, 13 Anthocyanins of diverse nature, Proanthocyanidin (B2), Flavonolignan Silibinin, Carotenoids Lutein, Lycopene, Beta-Carotene, as well as Polyphenolic Factors Curcumin, Resveratrol, Pterostilbene, [6]-Shogaol, [6]-Gingerol, and Carnosol. DOI 10.3390/molecules17078118 Aminoguanidine also scavenges Advanced Glycation End Products, including Alpha 2Carbonyls, Beta 2Carbonyls. DOI 10.1016/j.abb.2003.08.013 Acacia Ferruginea inhibits iNOS and COX-2. Saponins from Platycodon Grandiflorum also inhibits iNOS. inOS may be principle cause of HPV16 high Pathogenic Potential and Oncology Potentiation.	Choline, Trimethylglycine, Folate/Methylfolate, Glutathione, Probiotic/Prebiotic, Complete-B Vitamins, Omega-3 Fatty Acids, Whole Food Organic Vitamins, Complete Minerals, Flavonoid/Carotenoid/Phytochemical Supplement, Glandular Mix, KAL SOD3 or other Antioxidant Mix with Catalase and Superoxide Dismutase, Choline Kinase Inhibitors, Tyrosine Kinase Inhibitors, Inhibitors of AP-1(x), including Citrus Fruit with Peelings/Rinds, Inhibitors of SP-1(X), Management of Homocysteine, Management of S-Adenosyl Homocysteine or S-Adenosyl Homocysteine inhibitors, inhibitors of Inducible Nitric Oxide Synthase, Inhibitors of Uncouple Nitric Oxide Synthase and its Reactive Molecular Species (L-Arginine, Tetrahydrobiopterin, NADPH, Superoxide Dismutase, Catalase, Glutathione, Citrulline/Arginine/Ornithine), NAD+, Hyaluronic Acid, Complete B-Vitamins with B-12 Methylcobalamin, Uridine, Prebiotic/Probiotic to Manage Inflammation Factors Produced during Ingestion of some Choline Dense Foods, Enzymes which metabolize these factors or synthesize these factors as well as precursors to these factors, Water, Phosphatidyl-Monomethylethanolamine (Phosphatidylmonomethylethanolamine or PMME), Human Rubisco, Recombinant Rubisco, Rubisco Agonists or Rubisco Modulators, Polyacetylates, Phosphatidylethanolamine, Phosphatidylethanolamine Methyltransferase, Methyltetrahydrofolate Reductase, Betaine Homocysteine Methyltransferase, Ancient Pink Himalayan Sea Salt instead of Table salt.

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Symmetrical Dimethylarginine	The IDEXX SDM A Test can be used for SDMA. www.idexx.com/files/small-animalhealth/solutions/articles/intro-kidneytest-sdma.pdf A Particular study found Asymmetrical Dimethylarginine above 1.45 Micromoles per Liter, Cardiovascular Risk increased. DOI 10.1007/s00228005-0014-x.	Analytically Significant Ranges Exhibited by Healthiest Patients or Healthy Patients Observed in Practice. Inhibitors of PRMT5 inhibit SDMA. The Hazard Ratio or 3.4 Risk Coefficient suggest that SDMA at its highest levels in a study results in a 340 percent increase in risk of Demise of all manner of causality. Typical levels are about 0.5 Micromoles Per Liter. Resource, www.hmdb.ca/metabolites/HMDB0003334.	Inhibitors or Modulation of Symmetrical Dimethylarginine. Homocysteine and Asymmetric Dimethylarginine inhibiting factors. Omega-3. Lipoic Acid. Vitamin C. Vitamin E. L-Carnitine. Fruits and Vegetables. Protein. Alpha Lipoic Acid. Managing Homocysteine assist with SDMA levels. Inhibitors of PRMT5 manage SMDA levels. www.epizyme.co m/wp-content/uploads/2014/12/ASHPRMT5-Presentation-Final.pdf Symmetrical Dimethylarginine is Known to introduce a Hazard Ratio for All Cause Demise which one study exhibits as 3.4, while some other studies exhibit much more substantial increases. The study presented here uses the Risk exhibited after Ischemic Conditions because TrimethylamineN-Oxide, Asymmetrical/Symmetrical Dimethylarginines promote Vasoconstriction that may ephemeral occurring for substantial duration before a health event emerges. DOI 10.1016/j.atherosclerosis.2009.06.039	Choline, Trimethylglycine, Folate/Methylfolate, Glutathione, Probiotic/Prebiotic, Complete-B Vitamins, Omega-3 Fatty Acids, Whole Food Organic Vitamins, Complete Minerals, Flavonoid/Carotenoid/Phytochemical Supplement, Glandular Mix, KAL SOD3 or other Antioxidant Mix with Catalase and Superoxide Dismutase, Choline Kinase Inhibitors, Tyrosine Kinase Inhibitors, Inhibitors of AP-1(x), including Citrus Fruit with Peelings/Rinds, Inhibitors of SP1(X), Management of Homocysteine, Management of SAdenosyl Homocysteine or S-Adenosyl Homocysteine inhibitors, inhibitors of Inducible Nitric Oxide Synthase, Inhibitors of Uncouple Nitric Oxide Synthase and its Reactive Molecular Species (L-Arginine, Tetrahydrobiopterin, NADPH, Superoxide Dismutase, Catalase, Glutathione, Citrulline/Arginine/Ornithine), NAD+, Hyaluronic Acid, Complete B-Vitamins with B-12 Methylcobalamin, Uridine, Prebiotic/Probiotic to Manage Inflammation Factors Produced during Ingestion of some Choline Dense Foods, Enzymes which metabolize these factors or synthesize these factors as well as precursors to these factors, Water, Phosphatidyl-Monomethylethanolamine (Phosphatidylmonomethylethanolamine or PMME), Human Rubisco, Recombinant Rubisco, Rubisco Agonists or Rubisco Modulators, Polyacetylates, Phosphatidylethanolamine, Phosphatidylethanolamine Methyltransferase, Methyltetrahydrofolate Reductase, Betaine Homocysteine Methyltransferase, Ancient Pink Himalayan Sea Salt instead of Table salt.

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Indoleamine 2,3dioxygenase Methanol extracts of Myoga Flowers and Labdane Diterpene Galanol inhibit IDO while Galanol Exhibited a 7.7 Micromole IC50 while cellular level IC50 was 45 Nanomoles per Liter. IDO has its catalytic activity extensively inhibited by Quercetin, Luteolin, Curcumin, Galanol, Andrographolide Angelica, Crysanthemums, Burock, Zedoary, Andrographis. PMCID PMC3923053.	Indoleamine 2,3 – 2Oxygenase (IDO) transforms Tryptophan to Kynurenine. GTP – Cyclohydrolase I (GTP – CH – I) produces Neopterin and enables Tetrahydrobiopterin production. Interferon – gamma activates GTP – CH – I as well as activates IDO, along with iNOS, particularly in Monocyte – Derived Macrophages and Dendritic Cellular Entities. IDO is an immunological factor and can be the mechanism by which T Cellular Entities and Natural Demise Inducing Immune Cellular Entities activate iNOS, thereby inhibiting PEMT and upregulating Choline Kinase. Pivotally, Combination therapy utilizing both Programmed Cellular Demise Protein 1, PD1, inhibitors and Inhibitors of Indoleamine 2,3-dioxygenase, IDO, are considered to be potent and encompassingly therapeutic enough to require a change in practice in managing Melanoma. Such combination PD1 inhibitor and IDO Inhibitor therapy are considered therapeutic in Cervical, Bladder, Nonsmall Cellular Lung Oncology, and these analysis suggest that these may be widely applicable to oncology which has an Immunological Inflammatory Component, those otherwise, as well as Oncology and Metastatic Oncology for which no therapy has previously been available. These include Malignant Melanoma, Renal Cellular Carcinoma, Nonsmall Cellular Lung Oncology, Hodgkin Lymphoma, Head Squamous Cellular Carcinoma, and Neck Squamous Cellular Carcinoma. IDO is prognostic for Melanoma. 10.1016/j.ejca.2011.09.007. IDO inhibits PEMT an PD1 conjugates inhibit AP1 to enable PEMT although the downregulation of PEMT and AP1 promote SP1 and its regulation of Telomerase as well as iNOS and other pathways to clinical prominence. IDO can be inhibited by preventing inflammation, preventing activation of the Adaptive Immune System, use of Hyaluronic Acid, alleviating upregulation of CDP-Choline Pathway, alleviating upregulation of Choline Kinase Pathway, managing CReactive protein which is upregulated by Complements Immune Function in response to overproduction of Phosphocholine. Nitrosamines/Nitrosamide/Arsenic can be managed by Kolaviron or Garcinia Kola Seed Extract. Keytruda with Yervoy and Opdivo inhibit PD1 or PD-1.	Choline, Trimethylglycine, Folate/Methylfolate, Glutathione, Probiotic/Prebiotic, Complete-B Vitamins, Omega-3 Fatty Acids, Whole Food Organic Vitamins, Complete Minerals, Flavonoid/Carotenoid/Phytochemical Supplement, Glandular Mix, KAL SOD3 or other Antioxidant Mix with Catalase and Superoxide Dismutase, Choline Kinase Inhibitors, Tyrosine Kinase Inhibitors, Inhibitors of AP-1(x), including Citrus Fruit with Peelings/Rinds, Inhibitors of SP-1(X), Management of Homocysteine, Management of S-Adenosyl Homocysteine or S-Adenosyl Homocysteine inhibitors, inhibitors of Inducible Nitric Oxide Synthase, Inhibitors of Uncouple Nitric Oxide Synthase and its Reactive Molecular Species (LArginine, Tetrahydrobiopterin, NADPH, Superoxide Dismutase, Catalase, Glutathione, Citrulline/Arginine/Ornithine), NAD+, Hyaluronic Acid, Complete B-Vitamins with B-12 Methylcobalamin, Uridine, Prebiotic/Probiotic to Manage Inflammation Factors Produced during Ingestion of some Choline Dense Foods, Enzymes which metabolize these factors or synthesize these factors as well as precursors to these factors, Water, PhosphatidylMonomethylethanolamine (Phosphatidylmonomethylethanolamine or PMME), Human Rubisco, Recombinant Rubisco, Rubisco Agonists or Rubisco Modulators, Polyacetylates, Phosphatidylethanolamine, Phosphatidylethanolamine Methyltransferase, Methyltetrahydrofolate Reductase, Betaine Homocysteine Methyltransferase, Ancient Pink Himalayan Sea Salt instead of Table salt.

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Trimethylamine N-Oxide. www.chlcme.com/wp-content/uploads/2016/03/TMAO-Practition er-OnePage r-CHLD074.pdf	γ-butyrobetaine or 4Trimethylammoniobutanoic acid or (3-carboxypropyl) Trimethylazanium are considered to be Precursors to TMAO in Microflora Metabolism. Trimethylamine is Precursor in Human Metabolism. TMAO also correlates to up a %297 increase in potential for demise when above 2.94 Micromoles per Liter particularly with Carotid, Carotid Uninvolved and lower Extremity Peripheral Artery Disease. DOI 10.1161/JAHA.116.004237	Analytically Significant Ranges Exhibited by Healthiest Patients Observed in Practice. Trimethylamine and its conversion to other factors is utilized by Marine Organisms at much depth in order to manage pressurization Characteristics of Biophysiology. Surface organisms utilize N,N,N Trimethylglyci ne.	3,3 Dimethylbutanol (DMB) found in Balsamic Vinegar, Virgin Olive Oils, Grapeseed Oils, Balsamic Vinegars, Red Wines. DMB inhibits Foam Cellular exhibition/migration, Choline/Carnitine/Microbial TMAO, Arteriosclerosis by inhibiting Microbial TMA Synthesis and promoting Decarbamoylation of Acetylcholinesterase to exhibit Free Amyl factors that integrate with Nitrite to produce Amylnitrates which are potent Vasodilators. Nitrites are a feature of Uncoupled Nitric Oxide Synthase. Amylnitrite is an Anti-Angina Drug. DMB metabolized into Carbamate can be a Convulsant. Prebiotics, Antibiotics or modulators of Trimethylamine-N-Oxide are therapeutic. Avoidance of Carnitine/Phospholipid Dense Foods. Use of Liquid and easily digestible Carnitine, Phospholipids and other factors which do not accumulate progressively in Digestive pathway since Meat, Chicken, Eggs and Fish, although healthy can accumulates for months in digestive pathways.	Choline, Trimethylglycine, Folate/Methylfolate, Glutathione, Probiotic/Prebiotic, Complete-B Vitamins, Omega-3 Fatty Acids, Whole Food Organic Vitamins, Complete Minerals, Flavonoid/Carotenoid/Phytochemical Supplement, Glandular Mix, KAL SOD3 or other Antioxidant Mix with Catalase and Superoxide Dismutase, Choline Kinase Inhibitors, Tyrosine Kinase Inhibitors, Inhibitors of AP-1(x), including Citrus Fruit with Peelings/Rinds, Inhibitors of SP-1(X), Management of Homocysteine, Management of S-Adenosyl Homocysteine or SAdenosyl Homocysteine inhibitors, inhibitors of Inducible Nitric Oxide Synthase, Inhibitors of Uncouple Nitric Oxide Synthase and its Reactive Molecular Species (L-Arginine, Tetrahydrobiopterin, NADPH, Superoxide Dismutase, Catalase, Glutathione, Citrulline/Arginine/Ornithine), NAD+, Hyaluronic Acid, Complete B-Vitamins with B-12 Methylcobalamin, Uridine, Prebiotic/Probiotic to Manage Inflammation Factors Produced during Ingestion of some Choline Dense Foods, Enzymes which metabolize these factors or synthesize these factors as well as precursors to these factors, Water, Phosphatidyl-Monomethylethanolamine (Phosphatidylmonomethylethanolamine or PMME), Human Rubisco, Recombinant Rubisco, Rubisco Agonists or Rubisco Modulators, Polyacetylates, Phosphatidylethanolamine, Phosphatidylethanolamine Methyltransferase, Methyltetrahydrofolate Reductase, Betaine Homocysteine Methyltransferase, Ancient Pink Himalayan Sea Salt instead of Table salt.

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Trimethy lamineN-Oxide. www.chl cme.com /wpcontent/u ploads/20 16/03/T MAO-Practitio ner-OnePage r-CHLD074.pdf	Another study shows up to a 3.97 Risk Ratio or 2.97 increase in risk from baseline in a range of TMAO beginning with 2.9 at baseline and concluding at 21.9 at the highest level. This suggests that for each integer micromolar increment in TMAO there is an increase of 0.16 in risk of Demise. The risk, based upon quartile information seems to begin no higher than 3.3 Micromoles Per liter and is probably lower. DOI 10.1161/JAHA.116.004237	Pressurization characteristics may assure vascular volume, although these factors seem to have a priority function in assuring the shape, twist and writhe of molecules as they incur changes in metabolism (Plasticity). A monthly Laxative at a minimum assists in removing accumulation of Carnitine, Phospholipids, or other factors in digestive pathways, resetting the cycle of cumulative remnants of foods which supply less than optimal bacteria with sustaining material.	There is .0329 risk of demise with every micromolar increase of TMAO above the best or most optimal level. The presumption is that Risk of Adverse Behavior and Adverse Health Events are higher. Much higher. NAD+ and Water are required to transform y-Butyrobetaine into its Acid in Digestive Pathway Microflora. DMB is suggested as an inhibitor of Clostridales and Firmicutes Microflora. . Importantly, Trimethylamine can be reduced to Trimethylamine-N-Oxide not only by Flavin Monooxygenase, but also by Peroxynitrite, Superoxide, Hydrogen Peroxide and Hypochlorite. Peroxynitrite, Superoxide, H202, and Hypochlorite are known to be able to reduce TMA to TMAO, as does FMO, TMA Lyase from Microbes and Processing of Butyryl Betaine, all of which can be prevented by optimal Choline Metabolites, Antibiotics, Probiotics, Glutathione, Catalase, Glutathione Peroxidase, Catalase, Vitamin C, N – Acetyl Cysteine, or Other Antioxidants as well as assurance of Coupling of Nitric Oxide Synthase activity.	Choline, Trimethylglycine, Folate/Methylfolate, Glutathione, Probiotic/Prebiotic, Complete-B Vitamins, Omega-3 Fatty Acids, Whole Food Organic Vitamins, Complete Minerals, Flavonoid/Carotenoid/Phytochemical Supplement, Glandular Mix, KAL SOD3 or other Antioxidant Mix with Catalase and Superoxide Dismutase, Choline Kinase Inhibitors, Tyrosine Kinase Inhibitors, Inhibitors of AP-1(x), including Citrus Fruit with Peelings/Rinds, Inhibitors of SP-1(X), Management of Homocysteine, Management of S-Adenosyl Homocysteine or S-Adenosyl Homocysteine inhibitors, inhibitors of Inducible Nitric Oxide Synthase, Inhibitors of Uncouple Nitric Oxide Synthase and its Reactive Molecular Species (L-Arginine, Tetrahydrobiopterin, NADPH, Superoxide Dismutase, Catalase, Glutathione, Citrulline/Arginine/Ornithine), NAD+, Hyaluronic Acid, Complete B-Vitamins with B-12 Methylcobalamin, Uridine, Prebiotic/Probiotic to Manage Inflammation Factors Produced during Ingestion of some Choline Dense Foods, Enzymes which metabolize these factors or synthesize these factors as well as precursors to these factors, Water, Phosphatidyl-Monomethylethanolamine (Phosphatidylmonomethylethanolamine or PMME), Human Rubisco, Recombinant Rubisco, Rubisco Agonists or Rubisco Modulators, Polyacetylates, Phosphatidylethanolamine, Phosphatidylethanolamine Methyltransferase, Methyltetrahydrofolate Reductase, Betaine Homocysteine Methyltransferase, Ancient Pink Himalayan Sea Salt instead of Table salt.

Factor	Indicative Information	Information		Wholistic Factors to Accompany Therapeutics
Monocyte Chemoattractant Protein 1. Oncology Gene Expression.	Biomarker Testing for MCP-1. www.crlcorp.com/product/monocytechemotacticprotein-1/ Bindarit and Cilostozal inhibit MCP1, MCP-1.	Analytically Significant Ranges Exhibited by Healthiest Patients Observed in Practice. Phyllostachys edulis or Tortoise Shell Bamboo inhibits MCP-1. Inhibiting Oxidized Low Density Lipoprotein inhibits MCP-1. Parthenolide and Arglabin from Feverfew, Tenacetum Parthenium as well as from Artemisia Glabella, Smooth Wormwood, inhibits MCP1, is Oncology Therapeutic, inhibits Interleukin mediated Islet Beta Cellular Apoptosis from Caspase-1 and causes Apoptosis in Acute Chronic Myelogenous Leukemia Stem/Progenitor Cellular entities.	www.google.com/patents/US6953809 exhibits Inhibitors of MCP-1. DHA and Omega-3 inhibit MCP-1. digital object identifier 10.1002/mnfr.201400196. A Murine Inhibitor of MCP-1 is mNOX-E36.	Choline, Trimethylglycine, Folate/Methylfolate, Glutathione, Probiotic/Prebiotic, Complete-B Vitamins, Omega-3 Fatty Acids, Whole Food Organic Vitamins, Complete Minerals, Flavonoid/Carotenoid/Phytochemical Supplement, Glandular Mix, KAL SOD3 or other Antioxidant Mix with Catalase and Superoxide Dismutase, Choline Kinase Inhibitors, Tyrosine Kinase Inhibitors, Inhibitors of AP-1(x), including Citrus Fruit with Peelings/Rinds, Inhibitors of SP-1(X), Management of Homocysteine, Management of S-Adenosyl Homocysteine or S-Adenosyl Homocysteine inhibitors, inhibitors of Inducible Nitric Oxide Synthase, Inhibitors of Uncouple Nitric Oxide Synthase and its Reactive Molecular Species (L-Arginine, Tetrahydrobiopterin, NADPH, Superoxide Dismutase, Catalase, Glutathione, Citrulline/Arginine/Ornithine), NAD+, Hyaluronic Acid, Complete B-Vitamins with B12 Methylcobalamin, Uridine, Prebiotic/Probiotic to Manage Inflammation Factors Produced during Ingestion of some Choline Dense Foods, Enzymes which metabolize these factors or synthesize these factors as well as precursors to these factors, Water, Phosphatidyl-Monomethylethanolamine (Phosphatidylmonomethylethanolamine or PMME), Human Rubisco, Recombinant Rubisco, Rubisco Agonists or Rubisco Modulators, Polyacetylates, Phosphatidylethanolamine, Phosphatidylethanolamine Methyltransferase, Methyltetrahydrofolate Reductase, Betaine Homocysteine Methyltransferase, Ancient Pink Himalayan Sea Salt instead of Table salt.

Factor	Indicative Information	Information		Wholistic Factors to Accompany Therapeutics
Monocyte Chemoattractant Protein 1. Oncology Gene Expression.	Micheliolide (MCL) and Isoalantolactone also inhibit MCP-1, NF kB, IkBalpha, TGF-beta1, and FN. digital object identifier 10.3390/molecules18 1013061 Ciclesonide inhibits MCP-1, TNF-alpha and Interluekin-1b. Phyllostachys edulis or Tortoise Shell Bamboo inhibits MCP1. Inhibiting Oxidized Low Density Lipoprotein inhibits MCP-1	Blood, Volume 105, Issue 11, Page 4163. www.wur.nl/en/articl e/New-method-forthe-production-of-thecompounds-with-anticancer-activityArglabin-and-Parthenolide-1.htm digital object identifier /10.1124/jpet.116.23 2934	N,N,N′,N′Tetrakis(2pyridylmethyl)ethylenediamine (TPEN) and the heavy metal chelator 2,3dimercapto-1propanesulfonic acid (DMPS) inhibit MCP-1. digital object identifier 10.1152/ajplung. 00406.2002	Choline, Trimethylglycine, Folate/Methylfolate, Glutathione, Probiotic/Prebiotic, Complete-B Vitamins, Omega-3 Fatty Acids, Whole Food Organic Vitamins, Complete Minerals, Flavonoid/Carotenoid/Phytochemical Supplement, Glandular Mix, KAL SOD3 or other Antioxidant Mix with Catalase and Superoxide Dismutase, Choline Kinase Inhibitors, Tyrosine Kinase Inhibitors, Inhibitors of AP-1(x), including Citrus Fruit with Peelings/Rinds, Inhibitors of SP-1(X), Management of Homocysteine, Management of S-Adenosyl Homocysteine or S-Adenosyl Homocysteine inhibitors, inhibitors of Inducible Nitric Oxide Synthase, Inhibitors of Uncouple Nitric Oxide Synthase and its Reactive Molecular Species (L-Arginine, Tetrahydrobiopterin, NADPH, Superoxide Dismutase, Catalase, Glutathione, Citrulline/Arginine/Ornithine), NAD+, Hyaluronic Acid, Complete B-Vitamins with B-12 Methylcobalamin, Uridine, Prebiotic/Probiotic to Manage Inflammation Factors Produced during Ingestion of some Choline Dense Foods, Enzymes which metabolize these factors or synthesize these factors as well as precursors to these factors, Water, PhosphatidylMonomethylethanolamine (Phosphatidylmonomethylethanolamine or PMME), Human Rubisco, Recombinant Rubisco, Rubisco Agonists or Rubisco Modulators, Polyacetylates, Phosphatidylethanolamine, Phosphatidylethanolamine Methyltransferase, Methyltetrahydrofolate Reductase, Betaine Homocysteine Methyltransferase, Ancient Pink Himalayan Sea Salt instead of Table salt.

Factor	Indicative Information	Information		Wholistic Factors to Accompany Therapeutics
Testosterone Free Testosterone CPT Code 84402 and Aggregate Testosterone CPT Code 84403 www.blog.supercoder.com/cpt-codes-2/whatdocumentation-isneeded-forcoding-atestosterone-shot/	Females exhibit 1, 9, 14, 19, and Adult Testosterone at 0.00001, 0.00001, 0.0000173, 0.00125 Micromoles per Liter.	Analytically Significant Ranges Exhibited by Healthiest Patients Observed in Practice Males typically exhibit 1, 9, 14, 18 and adult Testosterone at 0.000198, 0.0000035, 0.0025, 0.000017/0.00049, 0.013 Micromoles per liter. Androgens include Testosterones and Estrogens. Pregnenolone is known to be an intermediary in production of Estrogens and Testosterone. Human Metabolome Database Information.	Phospholipids, START Proteins, Cholesterol and Wholistic Factors, Pregnenolone, Testosterone, NADPH, Choline, 17Beta-Estradiol.	Choline, Trimethylglycine, Folate/Methylfolate, Glutathione, Probiotic/Prebiotic, Complete-B Vitamins, Omega-3 Fatty Acids, Whole Food Organic Vitamins, Complete Minerals, Flavonoid/Carotenoid/Phytochemical Supplement, Glandular Mix, KAL SOD3 or other Antioxidant Mix with Catalase and Superoxide Dismutase, Choline Kinase Inhibitors, Tyrosine Kinase Inhibitors, Inhibitors of AP-1(x), including Citrus Fruit with Peelings/Rinds, Inhibitors of SP-1(X), Management of Homocysteine, Management of S-Adenosyl Homocysteine or S-Adenosyl Homocysteine inhibitors, inhibitors of Inducible Nitric Oxide Synthase, Inhibitors of Uncouple Nitric Oxide Synthase and its Reactive Molecular Species (L-Arginine, Tetrahydrobiopterin, NADPH, Superoxide Dismutase, Catalase, Glutathione, Citrulline/Arginine/Ornithine), NAD+, Hyaluronic Acid, Complete B-Vitamins with B-12 Methylcobalamin, Uridine, Prebiotic/Probiotic to Manage Inflammation Factors Produced during Ingestion of some Choline Dense Foods, Enzymes which metabolize these factors or synthesize these factors as well as precursors to these factors, Water, Phosphatidyl-Monomethylethanolamine (Phosphatidylmonomethylethanolamine or PMME), Human Rubisco, Recombinant Rubisco, Rubisco Agonists or Rubisco Modulators, Polyacetylates, Phosphatidylethanolamine, Phosphatidylethanolamine Methyltransferase, Methyltetrahydrofolate Reductase, Betaine Homocysteine Methyltransferase, Ancient Pink Himalayan Sea Salt instead of Table salt.

Factor	Indicative Information	Information		Wholistic Factors to Accompany Therapeutics
17Beta-estradiol Levels Ultrasenstitive 17beta-Estradiol. www.rmlonline.com/site/labtests/3600375	Lowered levels of Estrogen, Estradiol, 17Beta-Estradiol, Estrone or Estriol. 17Beta Estradiol is transformed into Testosterone. Female 9, 11, 12, 14, 19 and adult levels levels of Estradiol are typically 0.00037, 0.000176, 0.000345, 0.0000f4/0.000631, 0.000936, and 0.00015 Micromoles per Liter..	Analytically Significant Ranges Exhibited by Healthiest Patients Observed in Practice. Androgens include Estrogens and Testosterones. Pregnenolone is known to be an intermediary in production of Estrogens and Testosterone. Male 11, 13, 15, 19 and Adult levels of Estradiol are typically 0.000048, 0.000095, 0.000103, 0.00014 and 0.000220 Micromoles Per Liter. Human Metabolome Database Information.	Phospholipids, START Proteins, Cholesterol and Wholistic Factors, Pregnenolone, Testosterone, NADPH, Choline, 17Beta-Estradiol each enhance Steroidogenesis. Inhibiting AP-1 and Choline Kinase, as well as SP-1.START Protein D2.	Choline, Trimethylglycine, Folate/Methylfolate, Glutathione, Probiotic/Prebiotic, Complete-B Vitamins, Omega-3 Fatty Acids, Whole Food Organic Vitamins, Complete Minerals, Flavonoid/Carotenoid/Phytochemical Supplement, Glandular Mix, KAL SOD3 or other Antioxidant Mix with Catalase and Superoxide Dismutase, Choline Kinase Inhibitors, Tyrosine Kinase Inhibitors, Inhibitors of AP-1(x), including Citrus Fruit with Peelings/Rinds, Inhibitors of SP-1(X), Management of Homocysteine, Management of S-Adenosyl Homocysteine or S-Adenosyl Homocysteine inhibitors, inhibitors of Inducible Nitric Oxide Synthase, Inhibitors of Uncouple Nitric Oxide Synthase and its Reactive Molecular Species (L-Arginine, Tetrahydrobiopterin, NADPH, Superoxide Dismutase, Catalase, Glutathione, Citrulline/Arginine/Ornithine), NAD+, Hyaluronic Acid, Complete B-Vitamins with B-12 Methylcobalamin, Uridine, Prebiotic/Probiotic to Manage Inflammation Factors Produced during Ingestion of some Choline Dense Foods, Enzymes which metabolize these factors or synthesize these factors as well as precursors to these factors, Water, Phosphatidyl-Monomethylethanolamine (Phosphatidylmonomethylethanolamine or PMME), Human Rubisco, Recombinant Rubisco, Rubisco Agonists or Rubisco Modulators, Polyacetylates, Phosphatidylethanolamine, Phosphatidylethanolamine Methyltransferase, Methyltetrahydrofolate Reductase, Betaine Homocysteine Methyltransferase, Ancient Pink Himalayan Sea Salt instead of Table salt.

Factor	Indicative Information	Information	Wholistic Factors to Accompany Therapeutics
Thrombin. A summarization of the Coagulation Cascade seems to present a more complete understanding of why Thrombin inhibits PEMT. These pathways seem to compete for control of Serine Proteases within Biophysiology, while PEMT promotes both inhibition of Scaring and enables regenerative Blastema exhibition, along with preventing of Apoptosis and Necrosis. The activity of PEMT is compared with the promoting of Inflammation Pathways by the Coagulation Cascade Pathways	There are potent direct Thrombin inhibitors www.nejm.org/doi/full/10.1056/NEJMra044440 Tissue Factor is expressed and requires Phospholipids to participate in Coagulation, requires any phospholipid other Phosphatidylcholine to become active when low levels of Phosphatidylserine are available, as well as can be optimal when Phosphatidylserine is adequately available. Phosphatidylserine may enhance Coagulation in an emergency condition or circumstance otherwise. Inhibiting the availability of Phosphatidylserine, then, can inhibit coagulation when it is not considered to be required or optimal. Phosphatidylcholine, then, also inhibits Coagulation as may Choline Constitutively, although Choline can enhance genetic transcription of many factor. A summarization of the Coagulation Cascade, thus, seems to present a more complete understanding of why Thrombin inhibits PEMT. These pathways seem to compete for control of Serine Proteases within Biophysiology, while PEMT promotes both inhibition of Scaring and enables regenerative Blastema exhibition, along with preventing of Apoptosis and Necrosis. The activity of PEMT is compared with the promoting of Inflammation Pathways by the Coagulation Cascade Pathways. Thus, it may be prudent to determine a condition which requires Inflammation pathways and the detriment to biophysiology which is potentiated by such pathways comparatively to a condition in which structural aspects of biophysiology are assured such that regenerative pathways should be promoted over Coagulation/Inflammation Pathways. Intracellular influx of Ca2+ promote Coagulation, thus iNOS may be a coagulation stimulator. Molecules with the amino acid sequence Glycine, Proline, Arginine, and Proline Sequence is suggested to be a potent inhibitor of Fibrin associated Coagulation are consider to be potent inhibitors of Coagulation by Fibrinogen. PMID 8428923. Homocysteine Occupies Fibronectin and increases Free Fibrin which can promote Coagulation or Fibrin Polymerization. DOI 10.1002/dvdy.10303 DOI 10.1161/01.ATV.	Choline, Trimethylglycine, Folate/Methylfolate, Glutathione, Probiotic/Prebiotic, Complete-B Vitamins, Omega-3 Fatty Acids, Whole Food Organic Vitamins, Complete Minerals, Flavonoid/Carotenoid/Phytochemical Supplement, Glandular Mix, KAL SOD3 or other Antioxidant Mix with Catalase and Superoxide Dismutase, Choline Kinase Inhibitors, Tyrosine Kinase Inhibitors, Inhibitors of AP-1(x), including Citrus Fruit with Peelings/Rinds, Inhibitors of SP-1(X), Management of Homocysteine, Management of S-Adenosyl Homocysteine or S-Adenosyl Homocysteine inhibitors, inhibitors of Inducible Nitric Oxide Synthase, Inhibitors of Uncouple Nitric Oxide Synthase and its Reactive Molecular Species (L-Arginine, Tetrahydrobiopterin, NADPH, Superoxide Dismutase, Catalase, Glutathione, Citrulline/Arginine/Ornithine), NAD+, Hyaluronic Acid, Complete B-Vitamins with B-12 Methylcobalamin, Uridine, Prebiotic/Probiotic to Manage Inflammation Factors Produced during Ingestion of some Choline Dense Foods, Enzymes which metabolize these factors or synthesize these factors as well as precursors to these factors, Water, Phosphatidyl-Monomethylethanolamine (Phosphatidylmonomethylethanolamine or PMME), Human Rubisco, Recombinant Rubisco, Rubisco Agonists or Rubisco Modulators, Polyacetylates, Phosphatidylethanolamine, Phosphatidylethanolamine Methyltransferase, Methyltetrahydrofolate Reductase, Betaine Homocysteine Methyltransferase, Ancient Pink Himalayan Sea Salt instead of Table salt.

Factor	Indicative Information	Information	Wholistic Factors to Accompany Therapeutics
Thrombin. Coagulation duration test Thus, it may be prudent to determine a condition which requires Inflammation pathways and the detriment to biophysiology which is potentiated by such pathways comparatively to a condition in which structural aspects of biophysiology are assured such that regenerative pathways should be promoted over Coagulation/Inflammat ion Pathways. Detailed information on Coagulation influencing therapeutics and foods. Digital Object Identifier. 10.1016/j.blre.2017.02. 001	Super Thrombolytics or Clot Busters, Heparin and other factor can inhibit, prevent or reverse Thrombosis or Coagulation otherwise. www.webmd.com/heartdisease/guide/medicine-clot-busters. Short duration inhibition of Vitamin K with longer duration management of causes of inflammation and Coagulation cascade may be optimal. 3 Pharmacological capabilities of inhibiting Thrombin, Ximelagatran, Dabigatran Etexilate, and Argatroban, each seem to share an Aryl Hydrocarbon that exhibits either a connected Sulfur or Carbon, which then exhibits angle branched Nitrogen. www.labtestsonline.org/understanding/analytes/thrombin-time/tab/test. Vasoconstriction from Trimethylamine-N-Oxide can modulate the Thrombin associated Serine Protease Cascade that include Kinin, Kallikrein, Bradykinin, Vasomodulation, Cardiac Pace, Pressurization, Coagulation, Inflammation, Discomfort and other Characteristic. PEMT Enzyme function typically downregulates these except for Serine Protease activity which PEMT enables, suggesting why Thrombin inhibits PEMT. exhibition. Managing Reactive Oxygen Species, Uncoupled Nitric Oxide Synthase and Inducible Nitric Oxide Synthase can reduce the Negatively Polarized Reactive Molecular Species which induce Coagulation. Thrombin is inversely correlated with Stroke, presumably because TMAO is correlated with Stroke while TMAO is upregulated when factors exhibiting Choline and Carnitine are increased in level of obtainment. Because of less than optimal digestive pathway Microflora, TMAO can replace Homocysteine as a principle Risk Factor. A research article, although suggesting the Thrombolytics and ‘Clot Busters’, as well as Mechanical Procedures are among highest performing potential candidates for therapeutic Validation by Clinical Studies, observes that the clinical literature pervasively presents the use Recombinant Tissue Plasminogen Factor Activation as a preferred method of Stroke Intervention. These analyses suggest that management of TMAO, Gamma Butyryl Betaine, TMA Lyase, Digestive Pathway Bacteria, Uncoupled NOS. iNOS, Homocysteine, Peroxynitrite, Superoxide, H2O2 and Hypochlorite may be the best primary intervention capability which can begin before being accepted into the Emergency Department. DOI 10.1161/STROKEAHA.107.181486 Metalloproteinases may also require management as these may cause Vascular Plaque Rupture. Aminocaproic Acid inhibits Plasmin, which deteriorates Plaque and clots.	Choline, Trimethylglycine, Folate/Methylfolate, Glutathione, Probiotic/Prebiotic, Complete-B Vitamins, Omega-3 Fatty Acids, Whole Food Organic Vitamins, Complete Minerals, Flavonoid/Carotenoid/Phytochemical Supplement, Glandular Mix, KAL SOD3 or other Antioxidant Mix with Catalase and Superoxide Dismutase, Choline Kinase Inhibitors, Tyrosine Kinase Inhibitors, Inhibitors of AP-1(x), including Citrus Fruit with Peelings/Rinds, Inhibitors of SP-1(X), Management of Homocysteine, Management of S-Adenosyl Homocysteine or S-Adenosyl Homocysteine inhibitors, inhibitors of Inducible Nitric Oxide Synthase, Inhibitors of Uncouple Nitric Oxide Synthase and its Reactive Molecular Species (L-Arginine, Tetrahydrobiopterin, NADPH, Superoxide Dismutase, Catalase, Glutathione, Citrulline/Arginine/Ornithine), NAD+, Hyaluronic Acid, Complete B-Vitamins with B-12 Methylcobalamin, Uridine, Prebiotic/Probiotic to Manage Inflammation Factors Produced during Ingestion of some Choline Dense Foods, Enzymes which metabolize these factors or synthesize these factors as well as precursors to these factors, Water, Phosphatidyl-Monomethylethanolamine (Phosphatidylmonomethylethanolamine or PMME), Human Rubisco, Recombinant Rubisco, Rubisco Agonists or Rubisco Modulators, Polyacetylates, Phosphatidylethanolamine, Phosphatidylethanolamine Methyltransferase, Methyltetrahydrofolate Reductase, Betaine Homocysteine Methyltransferase, Ancient Pink Himalayan Sea Salt instead of Table salt.

Factor	Indicative Information	Information		Wholistic Factors
Asymmetrical Dimethyl Arginine. Diagnostic Assay for Asymmetrical Dimethylarginine CPT code 82542. www.pdl.testcatalog.org/show/ADMA	Uncoupled Nitric Oxide Synthase, Nitrites or Specific Gravity Test for Uretic Output. 0.30 Micromoles per Liter or less is considered typical for Asymmetrical Dimethylarginine although there was a range that could be estimated to be as high as 0.40 Micromoles per Liter, particularly because Health Conditions exhibit levels as low as 0.66 Micromoles per Liter.	Analytically Significant Ranges Exhibited by Healthiest Patients Observed in Practice. Asymmetrical Dimethylarginine is Known to introduce a Hazard Ratio for All Cause Demise which one study exhibits as 2.07, while some other studies exhibit much more substantial increases. Asymmetrical Dimethylarginine is an endogenous inhibitor of iNOS at least . Asymmetrical Dimethylarginine ADMA also is depleted by Dimethylarginine dimethylaminohydrolase, DDAH. Inhibition of DDAH prevents ADMA depletion and increases ADMA levels in manner that also enhances ADMA inhibition of iNOS. Interleukin 1B, thus as an stimulator of DDAH upregulates iNOS by both direct stimulation of iNOS and by upregulating DDAH to deplete ADMA and relieve ADMA negative regulation of iNOS. However, importantly, ADMA inhibition of iNOS is not relegated to the pathogen phase of iNOS expression and ADMA can ablated the beneficial affects of iNOS that occurs before depletion L -arginine, depletion of Ca2+ and uncoupling of iNOS. Information. Circulation Research. Volume 92. Issue 2. February 7, 2003. ADMA is an exacerbator of renal risk factors and renal disease, such as high cholesterol and brain natriuretic peptide. ADMA is an inactive substrate for eNOS and is linked to uncoupling of eNOS. Information. “Fundamental Biology and Mechanisms of Disease. Volume 2. Pages 1219 to 1229. 2012.	Inhibitors or modulation of Asymmetrical Dimethyl Arginine, Including L – Arginine, Dimethylarginine Dimethylaminohydrolase 1 (DADH1), Dimethylarginine Dimethylaminohydrolase 2 (DADH2), Nitric Oxide Synthase, Estrogen Factors, Oestradiol, Retinoic Acid, Rosglitiazone, Choline, Betaine, Phosphatidylcholine, Complete B Vitamins, Citrulline, Ornithone, Nitric Oxide Synthase, Vitamin E, Probucol, Xanthones, Calcitonin Gene Associated Peptide (CGRP), Low levels of Capsaicin, Farnesoid X Receptor Agonist GW4064, Other supplements, Other pharmacological capabilities, Co-Factors to Nitric Oxide Synthase (Tetrahydrobiopterin or BH4, Calmodulin CaM, NADPH, FMN, and FAD), Nitrate, Glycine Propionyl-L-Carnitine, Vitamin E, Probucol, Xanthones, Diphenyliodonium, Symmetric Dimethylalamine, Betaine may inhibit changes to Quaternary structure which might potentiate Asymmetric Methylation, particularly of ADMA. ADMA suppresses NF -kB and suppresses iNOS, which prevents lipopolysaccharide enabled iNOS and prevents M1 inflammatory polarization of Macrophages. M1 inflammatory phenotype for macrophages are considered to be oncology resistant through inflammatory processes and activation of phagocytosis which contrasts with canonical oncology phenotype that is reliant upon upregulated proteolysis by 20S proteasome and exacerbated effect of ubiquitinase selection of pathogenic metabolites to escape proteolysis. Information. Eur J Pharmacol. Volume 713. Number 1, 3 and 3. Pages 68 to 77. 8th Month, 5th Day, 2013. Information. Oncology ‘Cellular’ Int. Volume 21. Number 389. 2021. PMID 34289846. ADMA activates Akt1 through nitrosylation and enables eNOS translocation to the Mitochondria, preventing eNOS activation in the caveolae that is essential for vasculator function and caveolae dilatation. Mitochondrial uncoupled eNOS may contribute to dysfunction of PINK1 and dissociation of the mitochondrial associated membrane from the endoplasmic Reticulum. Information. AM J Respir ‘Cellular’ Mol Bio. Volume 55. Number 2. Pages 275 to 287. 8th Month, 2016.	Refer to previous visualization

Factor	Indicative Information	Information		Wholistic Factors to Accompany Therapeutics
Asymmetrical Dimethyl Arginine. Diagnostic Assay for Asymmetrical Dimethylarginine CPT code 82542. www.pdl.testcatalog.org/show/ADMA	Uncoupled Nitric Oxide Synthase, Nitrites or Specific Gravity Test for Uretic Output. 0.30 Micromoles per Liter or less is considered typical for Asymmetrical Dimethylarginine although there was a range that could be estimated to be as high as 0.40 Micromoles per Liter, particularly because Health Conditions exhibit levels as low as 0.66 Micromoles per Liter.	The study presented here uses the Risk exhibited after Ischemic Conditions because Trimethylamine-N-Oxide, Asymmetrical/Symmetrical Dimethylarginines promote Vasoconstriction that may be ephemerally or consistently occurring for substantial duration before a health event emerges. DOI 10.1016/j.atherosclerosis.2009.06.039	Choline may contribute Methyl resources which may enable Methyltransferases to also Methylate the Cys His Glu domain, Pioglitazone, Ornithine, Trascarbamylase, Leeks, Aliskiren, Vitamin A, Beta Carotene, Soy, Sesame Seeds, Aspirin and Aspiring exhibiting Nutritional factors, Simvastatin, Other Statins, Angiotensin Converting Enzyme Inhibitors (ACEs) or Factors Exhibiting ACEs, Angiotensin 2 Receptor Blockers (ARBs) or Factors Exhibiting ARBs, Metformin or Metformin exhibiting factors, Water. Alpha Lipoic Acid. Phenols and Polyphenols such as in honey, legumes, apples, blackberries, blueberries, cantaloupe, pomegranate, cherries, cranberries, grapes, pears, plums, raspberries, Aronia berries, stra2berries, broccoli, artichoke, cabbage, celery, onion, parsley, red wine, chocolate, black tea, white tea, green tea, olive oil, grains	Choline, Trimethylglycine, Folate/Methylfolate, Glutathione, Probiotic/Prebiotic, Complete-B Vitamins, Omega-3 Fatty Acids, Whole Food Organic Vitamins, Complete Minerals, Flavonoid/Carotenoid/Phytochemical Supplement, Glandular Mix, KAL SOD3 or other Antioxidant Mix with Catalase and Superoxide Dismutase, Choline Kinase Inhibitors, Tyrosine Kinase Inhibitors, Inhibitors of AP-1(x), including Citrus Fruit with Peelings/Rinds, Inhibitors of SP-1(X), Management of Homocysteine, Management of S-Adenosyl Homocysteine or S-Adenosyl Homocysteine inhibitors, inhibitors of Inducible Nitric Oxide Synthase, Inhibitors of Uncouple Nitric Oxide Synthase and its Reactive Molecular Species (L-Arginine, Tetrahydrobiopterin, NADPH, Superoxide Dismutase, Catalase, Glutathione, Citrulline/Arginine/Ornithine), NAD+, Hyaluronic Acid, Complete B-Vitamins with B-12 Methylcobalamin, Uridine, Prebiotic/Probiotic to Manage Inflammation Factors Produced during Ingestion of some Choline Dense Foods, Enzymes which metabolize these factors or synthesize these factors as well as precursors to these factors, Water, Phosphatidyl-Monomethylethanolamine (Phosphatidylmonomethylethanolamine or PMME), Human Rubisco, Recombinant Rubisco, Rubisco Agonists or Rubisco Modulators, Polyacetylates, Phosphatidylethanolamine, Phosphatidylethanolamine Methyltransferase, Methyltetrahydrofolate Reductase, Betaine Homocysteine Methyltransferase, Ancient Pink Himalayan Sea Salt instead of Table salt.

Factor	Indications	Information	Wholistic Factors to Accompany Therapeutics
Choline Kinase Inhibitors Choline Kinase A and B Elisa Test, Oncology Gene Expression. However, inhibition of choline kinase alpha is particularly regarded because inhibition of choline kinase beta can cause hindlimb anomalies and hindlimb deterioration. Choline kinase alpha is essential during two or three phases of gestational development and immediately after birth because upregulation of choline kinase causes rapid xenobiotic response by enhancing phosphatidylcholine integration into membranes without requirement of DHA and anti-inflammatory fatty acids as well as not requiring ether linked antihistamine fatty acids. www.mybiosourc e.com/prods/ELI SA-Kit/Human/choli ne-kinasebeta/CHKB/datas heet.php?product s_id=920777 www.mybiosourc e.com/prods/ELI SA-Kit/Human/choli ne-kinasealpha/CHKA/dat asheet.php?produ cts_id=909230.	Inhibitors of choline Kinase can often exhibit Hexameter structure while also being linked through linkages to other ringed moieties that are Aryl Hydrocarbons or themselves being Aryl Carbon Hexameters. Morpholine inhibits Choline Kinase and is structural aspects of Tannins and Polyphenols from Teas, Fruits, Vegetables, and Red Wines.	www.pubs.acs.org/doi/abs/10.1021/acs.jmedchem.5b01552?journalCode=jmcmar, carbocyanine dye, JAS239. Hemicholinium-3. 2-dimethylaminoethanol DMAE(also inhibits Choline Endocytosis). ASAH1 Acid Ceramidase Inhibitors to help with resistance. Betaine inhibits both Choline Kinase and Ethanolamine Kinase. Purinyl-6-Histamine specifically inhibits Choline Kinase and induces Cytotoxicity only in Oncology Exhibiting Cellular Entities. These clearly suggest that Choline Kinase, which is upregulated by the Xenobiotic Response System, is a member of the Xenobiotic, Allergy, Pruritus, and Immunologic Response Systems. Inhibition of Protein Kinase A inhibits choline Kinase Beta. Managing iNOS, Thrombin, AP-1 and SP-1 can downregulate Choline Kinase Alpha. Hexadecyltrimethylammonium Bromide inhibits Choline Kinase Alpha in Plasmodium Falciparum. The erectile dysfunction therapies Sildenafil, Tadalafil and Vardenafil are carbocyanines and exhibit required Dual Ringed Pentameter/Hexameter Pyrimidine/Imidazole Ring. DMAE and Betaine as N,N,N, Trimethylglycine or N,N,N,Glycine Betaine, each inhibit Choline Kinase although these have been shown to also downregulate PEMT. Other inhibitors of Choline Kinase include Hemicholinium-3, Bis-quinolinium factors, Acyclic Biscationic Pyridophane factors, Acyclic Biscationic Quinolinephane Factors, Bispyridinium Cyclophanes, as well as 5,5’ Dithiobis (2 - Nitrobenzoic Acid), as well as 4’ – Bispyridyl – 5,5’ Perfluoroalkyl – 2,2’ – Bisoxazol, also 4 – Chloro – N Methylanilino, also 5 – Fluorouracil, Adenosine, Choline Analogues, MN58b, TCD828, TCD – 717, Piperazine, CK37, P1-103, Cyclophane, N – Methylmaleimide, Quinacrine, and Stearoyl-CoA. Symmetrical Bisquinolinium US20150338425 A1, United States Patent and Trademark Office Publication Number. ICL-CCIC-0019 inhibits choline Kinase. DOI 10.18632/oncotarget.9466 TCD-717 inhibits Choline Kinase Alpha. www.cancer.gov/publications/dictionaries/cancer-drug?cdrid=687183 Hemoicholinium-3 inhibits Choline Kinase. RSM-932A inhibits Choline Kinase Alpha. Near-Infrared Fluorescent Carbocyanine inhibits Choline Kinase PMCID PMC4209917. The Viral DNA Polymerase Inhibitor CidifoVIr CDV or HPMPC may be therapeutic in pervasive viral oncology, because it also performs as a Choline Kinase Inhibitor by storing of Choline as CDVp Choline.	Choline, Trimethylglycine, Folate/Methylfolate, Glutathione, Probiotic/Prebiotic, Complete-B Vitamins, Omega-3 Fatty Acids, Whole Food Organic Vitamins, Complete Minerals, Flavonoid/Carotenoid/Phytochemical Supplement, Glandular Mix, KAL SOD3 or other Antioxidant Mix with Catalase and Superoxide Dismutase, Choline Kinase Inhibitors, Tyrosine Kinase Inhibitors, Inhibitors of AP-1(x), including Citrus Fruit with Peelings/Rinds, Inhibitors of SP-1(X), Management of Homocysteine, Management of S-Adenosyl Homocysteine or S-Adenosyl Homocysteine inhibitors, inhibitors of Inducible Nitric Oxide Synthase, Inhibitors of Uncouple Nitric Oxide Synthase and its Reactive Molecular Species (LArginine, Tetrahydrobiopterin, NADPH, Superoxide Dismutase, Catalase, Glutathione, Citrulline/Arginine/Ornithine), NAD+, Hyaluronic Acid, Complete B-Vitamins with B-12 Methylcobalamin, Uridine, Prebiotic/Probiotic to Manage Inflammation Factors Produced during Ingestion of some Choline Dense Foods, Enzymes which metabolize these factors or synthesize these factors as well as precursors to these factors, Water, Phosphatidyl-Monomethylethanolamine (Phosphatidylmonomethylethanolamine or PMME), Human Rubisco, Recombinant Rubisco, Rubisco Agonists or Rubisco Modulators, Polyacetylates, Phosphatidylethanolamine, Phosphatidylethanolamine Methyltransferase, Methyltetrahydrofolate Reductase, Betaine Homocysteine Methyltransferase, Ancient Pink Himalayan Sea Salt instead of Table salt.

Factor	Indicative Information	Information		Wholistic Factors to Accompany Therapeutics
NF kB. Oncology Gene Expression.	NF kB Diagnostic Assay. www.fivephoton.com/index.php?route=product/product&product_id=83	DHA and Omega-3. Lutein from Citrus Bioflavonoids, Basil, Artichoke, Celery, Thyme, Peppermint, Parsley, Green Pepper. www.raysahelian.com/luteolin.html. Aucubin from Plantain. Oestrogen. Carahealth.com Website. emetine, fluorosalan, sunitinib malate, bithionol, narasin, tribromsalan, and lestaurtinib. ectinascidin 743, chromomycin A3 and bortezomib. Numerous others. PMCID PMC2834878. Supplementing with Omega – 3 Fatty acids enables up to a 25 percent decrease in potential for demaise. DOI 10.3390/nu9040363	Inflammation indicators are generally associated with a 50% increase risk of Demise. www.joshmitteldorf.scienceblog.com/2017/03/08/nf-kbbeyond-inflammation/ Flavone, Isorhamnetin, Pelargonidin and Naringenin inhibit NF –KappaB while Genistein, Daidzein, Kaempferol and Quercetin inhibit STAT - 1 and NF - kB. DOI 10.1155/2007/45673	Choline, Trimethylglycine, Folate/Methylfolate, Glutathione, Probiotic/Prebiotic, Complete-B Vitamins, Omega-3 Fatty Acids, Whole Food Organic Vitamins, Complete Minerals, Flavonoid/Carotenoid/Phytochemical Supplement, Glandular Mix, KAL SOD3 or other Antioxidant Mix with Catalase and Superoxide Dismutase, Choline Kinase Inhibitors, Tyrosine Kinase Inhibitors, Inhibitors of AP-1(x), including Citrus Fruit with Peelings/Rinds, Inhibitors of SP-1(X), Management of Homocysteine, Management of S-Adenosyl Homocysteine or S-Adenosyl Homocysteine inhibitors, inhibitors of Inducible Nitric Oxide Synthase, Inhibitors of Uncouple Nitric Oxide Synthase and its Reactive Molecular Species (L-Arginine, Tetrahydrobiopterin, NADPH, Superoxide Dismutase, Catalase, Glutathione, Citrulline/Arginine/Ornithine), NAD+, Hyaluronic Acid, Complete B-Vitamins with B-12 Methylcobalamin, Uridine, Prebiotic/Probiotic to Manage Inflammation Factors Produced during Ingestion of some Choline Dense Foods, Enzymes which metabolize these factors or synthesize these factors as well as precursors to these factors, Water, Phosphatidyl-Monomethylethanolamine (Phosphatidylmonomethylethanolamine or PMME), Human Rubisco, Recombinant Rubisco, Rubisco Agonists or Rubisco Modulators, Polyacetylates, Phosphatidylethanolamine, Phosphatidylethanolamine Methyltransferase, Methyltetrahydrofolate Reductase, Betaine Homocysteine Methyltransferase, Ancient Pink Himalayan Sea Salt instead of Table salt.
TNF-Alpha	www.questdiagnostics.com/testcenter/BUOrderInfo.action?tc=34485&labCode=DLO	Naltrexone. Xanthohumol from Hops. Glycine. Omega-3 and Phospholipids as in Fish Oil. Quercetin. www.lifeenhancement.com/magazine/article/2428-painrelief-starts-in-the-brain-blockade-of-tnfalpha-tumor-necrosis-factor-alpha-inhibits-thebr. infliximab, adalimumab, or etanercept each inhibit TNF-Alpha. Aucubin from Chaste Tree Berry. TNF Alpha is inhibited by Curcumin from turmeric, Catechins from green tea, and Aucubin from plantain. Carahealth Website.	Inflammation indicators are generally associated with a 50% increase risk of Demise. www.joshmitteldorf.scienceblog.com/2017/03/08/nf-kbbeyond-inflammation/	

Factor	Indicative Information	Information		Wholistic Factors to Accompany Therapeutics
Interleukins	Cytokine Laboratory tests, numerous interleukins. www.ltd.arupl ab.com/tests/p ub/0051394	Circumin. Lutein from Citrus Bioflavonoids, Basil, Artichoke, Celery, Thyme, Peppermint, Parsley, Green Pepper. Pharmacological factors include Arcalyst, Dupixent, Kineret, Stelara, Actemra, Cinqair, Taltz, Nucala, Cosentyx, Ilaris, Kevzara, Siliq, Simulect, Sylvant, Zenapx, and Zinbryta. www.drugs.com/drugclass/interleukin-inhibitors.html. Increased levels of Interluekin-6 at are associated with an 364% increased risk of demise in a study. DOI 10.1016/j.jfma.2017.02.002	Clinicians can begin with Interluekin 6 thresholds at 2.08 pg/ml although the levels of those with the most optimal health status should be therapeutic goals as well as analytic thresholds. Reference, Am J Med, Volume 1999, Number 106, Pages 506 to 512, 1999. Interluekin 1b is also important for iNOS.	Choline, Trimethylglycine, Folate/Methylfolate, Glutathione, Probiotic/Prebiotic, Complete-B Vitamins, Omega-3 Fatty Acids, Whole Food Organic Vitamins, Complete Minerals, Flavonoid/Carotenoid/Phytochemical Supplement, Glandular Mix, KAL SOD3 or other Antioxidant Mix with Catalase and Superoxide Dismutase, Choline Kinase Inhibitors, Tyrosine Kinase Inhibitors, Inhibitors of AP-1(x), including Citrus Fruit with Peelings/Rinds, Inhibitors of SP-1(X), Management of Homocysteine, Management of S-Adenosyl Homocysteine or S-Adenosyl Homocysteine inhibitors, inhibitors of Inducible Nitric Oxide Synthase, Inhibitors of Uncouple Nitric Oxide Synthase and its Reactive Molecular Species (L-Arginine, Tetrahydrobiopterin, NADPH, Superoxide Dismutase, Catalase, Glutathione, Citrulline/Arginine/Ornithine), NAD+, Hyaluronic Acid, Complete B-Vitamins with B-12 Methylcobalamin, Uridine, Prebiotic/Probiotic to Manage Inflammation Factors Produced during Ingestion of some Choline Dense Foods, Enzymes which metabolize these factors or synthesize these factors as well as precursors to these factors, Water, Phosphatidyl-Monomethylethanolamine (Phosphatidylmonomethylethanolamine or PMME), Human Rubisco, Recombinant Rubisco, Rubisco Agonists or Rubisco Modulators, Polyacetylates, Phosphatidylethanolamine, Phosphatidylethanolamine Methyltransferase, Methyltetrahydrofolate Reductase, Betaine Homocysteine Methyltransferase, Ancient Pink Himalayan Sea Salt instead of Table salt.

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LLactate and LLactic Acid. Peroxynitrite can impair Cytochromes, D – Lactate Dehydrogenase, Ferric Iron to Ferrous Iron balance, as well as Histidine, Tyrosine, Tryptophan, Myoglobulin pervasive molecules.	Resting Lactate which is not between 1.5 and 0.5 Micromoles per Liter.	Analytically Significant Ranges Exhibited by Healthiest Patients Observed in Practice. Between 100 and 50 Milligrams of Thiamine for two weeks. Dichloroacetate. Potentially Methylene Blue. Plasma Exchange for Propofol Infusion Syndrome. Hemodialysis for Metformin Associated Lactic Acidosis. Carbicarb. Tromethamine. Sodium Bicarbonate NaHCO3. Vasopressors and Inotropes to assist in Oxygen availability. Catecholamines when acute Ischemia is not exhibited. Ringer's Lactate and Plasma - Lyte to avoid Acidosis but potentiates Alkalosis. Crystalloids and an Colloids for Intravascular Volume but not Hydroxyethyl Starch Solutions which are risky. Addressing empirical causality which can be any of the Super Indicators Presented here, Sepsis, Toxicity, Oncology, Pharmacological Counterindications, including chelation, Antibiotics, Methylglyoxal Management, Microbe Management, etc. Information from Lactic Acidosis Treatment and Management at Medscape.com's emedicine area. A primary cause of Lactate increase or volatility is Anaerobic Glycolysis status in which muscle tissue not actively being exercised or cellular entities generally have inhibited PEMT and inhibited Ethanolamine Kinase Pathway, resulting in P53 that inhibits Pentose Phosphate synthesis of NADPH and Nucleotides. DNA repair occurring in more than 1 Million instances in each cellular entity each day becomes deprived of NADPH Redox and Nucleotides as a result. DNA repair depletes NAD+ as PARP1 DNA Repair Signaling distributes NAD+ to produce gradients that recruit Nucleotides and other repair factors, while Nucleotides are not adequately being synthesized. This depletion of NAD+ and inability to replenish it quickly causes Pyruvate transformation to Lactate to occur because NADH is consumed to produce deficient NAD+, although Pyruvate/Lactate balance and Acetaldehyde/Ethanol participate in this balance. NAD+ Synthesis is considered can occur in the concluding phase of	Choline, Trimethylglycine, Folate/Methylfolate, Glutathione, Probiotic/Prebiotic, Complete-B Vitamins, Omega-3 Fatty Acids, Whole Food Organic Vitamins, Complete Minerals, Flavonoid/Carotenoid/Phytochemical Supplement, Glandular Mix, KAL SOD3 or other Antioxidant Mix with Catalase and Superoxide Dismutase, Choline Kinase Inhibitors, Tyrosine Kinase Inhibitors, Inhibitors of AP-1(x), including Citrus Fruit with Peelings/Rinds, Inhibitors of SP1(X), Management of Homocysteine, Management of SAdenosyl Homocysteine or S-Adenosyl Homocysteine inhibitors, inhibitors of Inducible Nitric Oxide Synthase, Inhibitors of Uncouple Nitric Oxide Synthase and its Reactive Molecular Species (L-Arginine, Tetrahydrobiopterin, NADPH, Superoxide Dismutase, Catalase, Glutathione, Citrulline/Arginine/Ornithine), NAD+, Hyaluronic Acid, Complete B-Vitamins with B-12 Methylcobalamin, Uridine, Prebiotic/Probiotic to Manage Inflammation Factors Produced during Ingestion of some Choline Dense Foods, Enzymes which metabolize these factors or synthesize these factors as well as precursors to these factors, Water, Phosphatidyl-Monomethylethanolamine (Phosphatidylmonomethylethanolamine or PMME), Human Rubisco, Recombinant Rubisco, Rubisco Agonists or Rubisco Modulators, Polyacetylates, Phosphatidylethanolamine, Phosphatidylethanolamine Methyltransferase, Methyltetrahydrofolate Reductase, Betaine Homocysteine Methyltransferase, Ancient Pink Himalayan Sea Salt instead of Table salt.

Factor	Indicative Information	Information	Wholistic Factors to Accompany Therapeutics
LLactate and -Lactic Acid. www.labtestsonline.org/understanding/analytes/lactate/tab/test	www.emedicine.medscape.com/article/167027-overview. Arterial pH less than 7.35 and Lactic Acid of any variety at 5 Micromoles per liter is consider Toxic or Septic Shock, although Methylglyoxal levels indicate Shock also. Lactic Acidosis from Medscape Website. Typical pH is between 7.45 and 7.35. DOI 10.1016/j.annemergmed.2012.10.022	Choline, N,N,N, Trimethylglycine, Folate, Vitamin B-12 Methylcobalamin, Vitamin B-6, Niacin, other B Vitamins, Glutathione, Reduced Glutathione, Cysteine, Histidine, and associated factors decrease P53 and supply the Carbonate Buffering system with Cations, Anions and unpolarized factors. L Lactate and L Lactic Acid are typically balanced by Lactate Dehydrogenase. No Paralytic Status, Ischemia or other status intervention can be complete unless Neuroprotectants are provided, Reperfusion is assured, Paralytic Status is managed into conscious ranges, consciousness repression therapeutics are removed ample regeneration duration is enabled, and ample directed activity to regenerate neurological capability has been instrumented. Other research observes that moderate levels of D Lactate and L Lactate result in higher molarity of D-Lactate and about 60% uretic clearance of D-Lactate with about 5% Uretic Clearance of L-Lactate. Higher molarity D/L Racemic infusion of Lactic Acid produce up to 100% D-Latic Acid Clearance and up to 30% L Lactic Acid Clearance. However, D-Lactate at higher the 3 Micromoles per liter seems to impair L-Lactate clearance. D-lactate is a hidden cause of Llactate and L-Lactic Acid as a Cause of Acidosis. PMID: 4010522. +. Methylene Blue converts Ferric Iron with a +3 Oxidation in which 3 Electrons have been acquired into Ferrous Iron with a +2 Oxidation status in which two Electrons have been acquired. D-Lactate Dehydrogenase Bidirectionally transforms D-Lactate and 2 Ferricytochrome C to Pyruvate and 2 Ferrocytochrome C while utilizing Flavin Adenine Dinucleotide. The reason that Methylene Blue assists in L-Lactic Acidosis seems to be its management of D-Lactic Acid, with D-Lactic Acid as a hidden variable to its effectiveness. Management of D-Lactate can assists in management of L-Lactate. NAD+ can prevent the continued production of L-Lactic Acid. Choline can introduce Hydride or basic Influence to biophysiology without exhibition of free H-. L Lactate indicates a %714 difference in potential demise between less than 2 Micromoles per liter and more than 2 Micromoles per liter in the acute setting. DOI 10.1016/j.annemergmed.2012.10.022. L – Lactate correlates to decrease of potential for demise from 1.5 down to 1 when it is at ore below 5.3 Milligrams per Deciliter.	Choline, Trimethylglycine, Folate/Methylfolate, Glutathione, Probiotic/Prebiotic, Complete-B Vitamins, Omega-3 Fatty Acids, Whole Food Organic Vitamins, Complete Minerals, Flavonoid/Carotenoid/Phytochemical Supplement, Glandular Mix, KAL SOD3 or other Antioxidant Mix with Catalase and Superoxide Dismutase, Choline Kinase Inhibitors, Tyrosine Kinase Inhibitors, Inhibitors of AP-1(x), including Citrus Fruit with Peelings/Rinds, Inhibitors of SP-1(X), Management of Homocysteine, Management of S-Adenosyl Homocysteine or S-Adenosyl Homocysteine inhibitors, inhibitors of Inducible Nitric Oxide Synthase, Inhibitors of Uncouple Nitric Oxide Synthase and its Reactive Molecular Species (LArginine, Tetrahydrobiopterin, NADPH, Superoxide Dismutase, Catalase, Glutathione, Citrulline/Arginine/Ornithine), NAD+, Hyaluronic Acid, Complete B-Vitamins with B-12 Methylcobalamin, Uridine, Prebiotic/Probiotic to Manage Inflammation Factors Produced during Ingestion of some Choline Dense Foods, Enzymes which metabolize these factors or synthesize these factors as well as precursors to these factors, Water, Phosphatidyl-Monomethylethanolamine (Phosphatidylmonomethylethanolamine or PMME), Human Rubisco, Recombinant Rubisco, Rubisco Agonists or Rubisco Modulators, Polyacetylates, Phosphatidylethanolamine, Phosphatidylethanolamine Methyltransferase, Methyltetrahydrofolate Reductase, Betaine Homocysteine Methyltransferase, Ancient Pink Himalayan Sea Salt instead of Table salt.

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DLactate and Dlactic Acid Peroxynitrite can impair Cytochromes, D lactate Dehydrogenase, Ferric Iron to Ferrous Iron balance, as well as Histidine, Tyrosine, Tryptophan, Myoglobulin pervasive molecules.	D Lactate at 3 Micromoles per liter or more. D Lactate not between 0.5 and 2 Micromoles per Liter. Lactate persistently at two or above is associated with All Cause Adverse Health statuses. Neurological Problems, Aggressiveness, Detrimental Behavior. Oral Carbohydrate Challenge.	D-Lactic Acid can be compartmentalized from other Energy and Lactic Acid Metabolism, although the literature suggests otherwise in some instances. It can be a perilous factor because it can produce Acidosis or paralytic status and organ dysfunction while not being widely tested for adequately. Acute circumstance requires Parenteral or IV supplementation of Carbohydrate but not Oral Carbohydrate obtainment. Intravenous Bicarbonate and rehydration for Acidosis. Ringer's Solutions exhibits D-Lactate and should be avoided. Intravenous Thiamine. Oral Antibiotics, particularly less easily absorbed Antibiotics that are effective for Acid Tolerant Bacteria, including Tetracycline 500 MG three instances each day, Metronidazole, Clindamycin 300 MB three instances each day, Neomycin 500 MG three instances each day, Vancomycin 125 MG four instances each day, and Kanamycin. Acute D Lactate requires Carbohydrate obtainment abatement, Rehydration, Antibiotics. Yogurt, Sauerkraut and Pickled Vegetables can have higher levels of D-lactate. Adequate Hydration is required. oley.org/?page=DLacticAcidosis. Sodium Bicarbonate is useful although risky. Peritoneal Dialysis and Hemodialysis are useful. Peritoneal Dialysis with Bicarbonate Dialysate provides a useful physiological augmentation of the Carbonate Buffering System. Methylene Blue has been suggested as having less utility than Sodium Nitroprusside which also alleviates regional Hypoperfusion. Insulin Therapy is effective for Phenformin Associated Acidosis. Dichloroacetate activates Pyruvate Dehydrogenase, thereby being useful. www.ncbi.nlm.nih.gov/pubmed/7020090/. Oncology, Toxicity, Pulmonary, Circulatory or Hemoglobin Transfer impairment results in type A Lactic Acidosis.	Choline, Trimethylglycine, Folate/Methylfolate, Glutathione, Probiotic/Prebiotic, Complete-B Vitamins, Omega-3 Fatty Acids, Whole Food Organic Vitamins, Complete Minerals, Flavonoid/Carotenoid/Phytochemical Supplement, Glandular Mix, KAL SOD3 or other Antioxidant Mix with Catalase and Superoxide Dismutase, Choline Kinase Inhibitors, Tyrosine Kinase Inhibitors, Inhibitors of AP-1(x), including Citrus Fruit with Peelings/Rinds, Inhibitors of SP-1(X), Management of Homocysteine, Management of S-Adenosyl Homocysteine or S-Adenosyl Homocysteine inhibitors, inhibitors of Inducible Nitric Oxide Synthase, Inhibitors of Uncouple Nitric Oxide Synthase and its Reactive Molecular Species (L-Arginine, Tetrahydrobiopterin, NADPH, Superoxide Dismutase, Catalase, Glutathione, Citrulline/Arginine/Ornithine), NAD+, Hyaluronic Acid, Complete B-Vitamins with B-12 Methylcobalamin, Uridine, Prebiotic/Probiotic to Manage Inflammation Factors Produced during Ingestion of some Choline Dense Foods, Enzymes which metabolize these factors or synthesize these factors as well as precursors to these factors, Water, Phosphatidyl-Monomethylethanolamine (Phosphatidylmonomethylethanolamine or PMME), Human Rubisco, Recombinant Rubisco, Rubisco Agonists or Rubisco Modulators, Polyacetylates, Phosphatidylethanolamine, Phosphatidylethanolamine Methyltransferase, Methyltetrahydrofolate Reductase, Betaine Homocysteine Methyltransferase, Ancient Pink Himalayan Sea Salt instead of Table salt.

Factor	Indicative Information	Information	Wholistic Factors to Accompany Therapeutics
DLactate and DLactic Acid www.nslijlab.testcatalog.org/show/DLACT	Serum or Hematopoietic Tests can be complex because it should coincide with Symptoms. Arterial pH less than 7.35 and Lactic Acid of any variety at 5 Micromoles per liter is consider Toxic or Septic Shock, although Methylglyoxal levels indicate Shock also. Lactic Acidosis from Medscape Website. Typical pH is from 7.55 to 7.35. Rapid decreases in D Lactate indicate risk, lower levels in incipient days of admittance to care indicates better prognosis independent of L-Lactate Levels. DOI 10.1515/CCLM.2006.086	The clinical indication is that ATP is required to be produced without Oxygen, which is similar to Anaerobic Glycolysis, although the literature pervasively underconsiders uncoupled and Inducible Nitric Oxide Synthase as well as Arachidonic Acid and other Reactive Oxygen Species in such regard, www.ncbi.nlm.nih.gov/pubmed/7020090/, Short Bowel Syndrome can result in D-Lactic Acidosis. Article at Electrolyte & Blood Pressure Volume 4, Pages 53-56, 2006. D-Lactic Acid persists as a low Dalton Molecular factor until typically excreted unchanged in Uretic Output. Other research observes that moderate levels of D Lactate and L-Lactate result in higher molarity of DLactate and about 60% uretic clearance of D-Lactate with about 5% Uretic Clearance of L-Lactate. Higher molarity D/L Racemic infusion of Lactic Acid produce up to 100% D-Latic Acid Clearance and up to 30% L-Lactic Acid Clearance. However, D-Lactate at higher the 3 Micromoles per liter seems to impair L-Lactate reabsorption and clearance. D-lactate is a hidden cause of Llactate and L-Lactic Acid increases as a Cause of Acidosis. L-Lactate increases also impairs both Clearance and Reabsorption of L-Lactate. PMID: 4010522 These clearly indicate that compartmentalized L and D Chiral Lactate compete for NAD+. Methylene Blue converts Ferric Iron with a +3 Oxidation in which 3 Electrons have been acquired to Ferrous Iron with a +2 Oxidation status in which two Electrons have been acquired. D-Lactate Dehydrogenase Bidirectionally transforms D-Lactate and 2 Ferricytochrome C with D-Lactate and 2 Ferrocytochrome C while utilizing Flavin Adenine Dinucleotide. The reason that Methylene Blue assists in L-Lactic Acidosis seems to be its management of D-Lactic Acid, with D-Lactic Acid as a hidden variable to its effectiveness. Management of L-Lactate can assist in D-Lactate Management. Choline can introduce Hydride or basic Influence to biophysiology without exhibition of free H-. D – Lactate is also associated with increased intraabdominal pressurization characteristics. Digestive Diseases and Sciences, Volume 51, Issue 12, Page 2400, December, 2006.	Choline, Trimethylglycine, Folate/Methylfolate, Glutathione, Probiotic/Prebiotic, Complete-B Vitamins, Omega-3 Fatty Acids, Whole Food Organic Vitamins, Complete Minerals, Flavonoid/Carotenoid/Phytochemical Supplement, Glandular Mix, KAL SOD3 or other Antioxidant Mix with Catalase and Superoxide Dismutase, Choline Kinase Inhibitors, Tyrosine Kinase Inhibitors, Inhibitors of AP-1(x), including Citrus Fruit with Peelings/Rinds, Inhibitors of SP-1(X), Management of Homocysteine, Management of S-Adenosyl Homocysteine or S-Adenosyl Homocysteine inhibitors, inhibitors of Inducible Nitric Oxide Synthase, Inhibitors of Uncouple Nitric Oxide Synthase and its Reactive Molecular Species (L-Arginine, Tetrahydrobiopterin, NADPH, Superoxide Dismutase, Catalase, Glutathione, Citrulline/Arginine/Ornithine), NAD+, Hyaluronic Acid, Complete B-Vitamins with B-12 Methylcobalamin, Uridine, Prebiotic/Probiotic to Manage Inflammation Factors Produced during Ingestion of some Choline Dense Foods, Enzymes which metabolize these factors or synthesize these factors as well as precursors to these factors, Water, Phosphatidyl-Monomethylethanolamine (Phosphatidylmonomethylethanolamine or PMME), Human Rubisco, Recombinant Rubisco, Rubisco Agonists or Rubisco Modulators, Polyacetylates, Phosphatidylethanolamine, Phosphatidylethanolamine Methyltransferase, Methyltetrahydrofolate Reductase, Betaine Homocysteine Methyltransferase, Ancient Pink Himalayan Sea Salt instead of Table salt.

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Methylglyoxal. General metabolic panel.	Methylglyoxal outperforms Procalcitonin, C-Reactive Protein, Soluble CD14, Interleukin 6, for Septic Shock Diagnosis. www.ccforum.biomedcentral.com/articles/10.1186/s13054-0140683-x Digital Object Identifier 10.1186/s13054-0140683-x Aortic Plasticity impairment is correlated with all cause demise. Methylglyoxal is associated with %99 increase in adverse health events and %54 increase in demise in a particular study. Digital Objective Identifier. 10.2337/db16-1578 Sulforaphane, L-arginine, manage Methylglyoxal while Pyridoxamine alleviates Methylglyoxal inhibition of JNK and AKT survival signaling during Ischemia. 10.1021/acs.chemrestox.5b0006 7	Analytically Significant Ranges Exhibited by Healthiest Patients Observed in Practice. Pyridoxamine inhibits Methylglyoxal Glycation, DOI 10.1155/2013/690650. Aldose reductase inhibitors decrease the concentration of methylglyoxal. Aminoguanidine Scavenges Methylglyoxal. L-arginine scavenges methylglyoxal. Digital Object Identifier. 10.1007/BF00808119. Gallic Factors and Phenolic Factors inhibit Methylglyoxal Glycation. Diagnostic Assay. www.mybiosource.com/prods/ELISA-Kit/Human/Methylglyoxal/MG/datasheet.php?products_id=756333 Methylglyoxal activates MAPK and Cyclically potentiates Choline Kinase by potentiating iNOS which upregulates Choline Kinase. www.geresdengle.com/blogs/news/86835265sulforaphane-inhibiting-glycation-new-target-foralzheimers-disease Sulforaphane is therapeutic for Methylglyoxal. Relevant Therapeutics other than presented here may also be useful. Some oncology is inhibited by Methylglyoxal although Methylglyoxal is a principal Glycation End Product, Carbonylation, Sepsis and Toxic Shock pathway. Inhibition of its Glycation Potential is best. www.sbir.gov/sbirsearch/detail/677768.	Choline, Trimethylglycine, Folate/Methylfolate, Glutathione, Probiotic/Prebiotic, Complete-B Vitamins, Omega-3 Fatty Acids, Whole Food Organic Vitamins, Complete Minerals, Flavonoid/Carotenoid/Phytochemical Supplement, Glandular Mix, KAL SOD3 or other Antioxidant Mix with Catalase and Superoxide Dismutase, Choline Kinase Inhibitors, Tyrosine Kinase Inhibitors, Inhibitors of AP-1(x), including Citrus Fruit with Peelings/Rinds, Inhibitors of SP-1(X), Management of Homocysteine, Management of S-Adenosyl Homocysteine or S-Adenosyl Homocysteine inhibitors, inhibitors of Inducible Nitric Oxide Synthase, Inhibitors of Uncouple Nitric Oxide Synthase and its Reactive Molecular Species (L-Arginine, Tetrahydrobiopterin, NADPH, Superoxide Dismutase, Catalase, Glutathione, Citrulline/Arginine/Ornithine), NAD+, Hyaluronic Acid, Complete B-Vitamins with B-12 Methylcobalamin, Uridine, Prebiotic/Probiotic to Manage Inflammation Factors Produced during Ingestion of some Choline Dense Foods, Enzymes which metabolize these factors or synthesize these factors as well as precursors to these factors, Water, Phosphatidyl-Monomethylethanolamine (Phosphatidylmonomethylethanolamine or PMME), Human Rubisco, Recombinant Rubisco, Rubisco Agonists or Rubisco Modulators, Polyacetylates, Phosphatidylethanolamine, Phosphatidylethanolamine Methyltransferase, Methyltetrahydrofolate Reductase, Betaine Homocysteine Methyltransferase, Ancient Pink Himalayan Sea Salt instead of Table salt.

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Hyperoxaluri a. Urine Panel. Genotype.	Urine test for Hyperoxalaria. www.mayomedicallaboratories. com/test-catalog/Clinical+and+Interpreti ve/86213. Genetic test for Hyperoxaluria Genotype/phenotype www.hopkinsmedicine.org/dna diagnostic/tests/tests/primaryhyperoxaluria-type-1-test Typically levels of Hyaluronic Acid are presented a 0.24 Micromoles per Liter in Cerebrospinal Fluid. Hyperoxularia indicated by eGFR, ml/min per 1.73 m2 At or above the Median Quaritle 73.0 with a stronger diagnostic threshold at or above 56.4 and with an optimal level at about 97.5, results in an up to 4.2 to 1 improvement in Adverse Health Status. DOI 10.2215/CJN.02810315.	Analytically Significant Ranges Exhibited by Healthiest Patients Observed in Practice. Magnesium Citrate. Calcium Citrate. www.lowoxalate.info. Kidney Stuff by Golden Standards. Essential Multi-Glandular by Traditionalfoods.org. Cholestyramine integrates with Oxalate in the Digestive Pathway for Ingested Oxalates, but this decreases Lanoxin and Warfarin Pharmacokinetics. www.umm.edu/health/medical/reports/articles/kidn ey-stones. The literature suggest the threshold for Hyperoxaluria Diagnosis is 30 MG of Oxalate Secreted in Urine for each Gram of Excreted Creatinine. www.emedicine.medscape.com/article/444683overview Relevant Therapeutics. www.emedicine.medscape.com/article/444683overview Pyridoxine is therapeutic for Hyperoxaluria with more responsiveness among women. Vitamin E therapy. DOI 10.1111/j.1464410X.2005.05579.x. PEMT suppression, Hyaluronic Acid Pathway suppression, and deficiency results in inhibited synthesis of Hyaluronic Acid. Magnesium Supplements and drinking increased levels of water are therapeutic for Hyperoxaluria. An inhibitor of Lactate Dehydrogenase only in the Hepatic Organ by DCR-PHXC, although the effect to Lactate Dehydrogenase Synthesis of NAD+ from NADH and synthesis of Pyruvate from Lactate has to be considered therapeutically.	Choline, Trimethylglycine, Folate/Methylfolate, Glutathione, Probiotic/Prebiotic, Complete-B Vitamins, Omega-3 Fatty Acids, Whole Food Organic Vitamins, Complete Minerals, Flavonoid/Carotenoid/Phytochemical Supplement, Glandular Mix, KAL SOD3 or other Antioxidant Mix with Catalase and Superoxide Dismutase, Choline Kinase Inhibitors, Tyrosine Kinase Inhibitors, Inhibitors of AP-1(x), including Citrus Fruit with Peelings/Rinds, Inhibitors of SP-1(X), Management of Homocysteine, Management of S-Adenosyl Homocysteine or S-Adenosyl Homocysteine inhibitors, inhibitors of Inducible Nitric Oxide Synthase, Inhibitors of Uncouple Nitric Oxide Synthase and its Reactive Molecular Species (L-Arginine, Tetrahydrobiopterin, NADPH, Superoxide Dismutase, Catalase, Glutathione, Citrulline/Arginine/Ornithine), NAD+, Hyaluronic Acid, Complete B-Vitamins with B-12 Methylcobalamin, Uridine, Prebiotic/Probiotic to Manage Inflammation Factors Produced during Ingestion of some Choline Dense Foods, Enzymes which metabolize these factors or synthesize these factors as well as precursors to these factors, Water, Phosphatidyl-Monomethylethanolamine (Phosphatidylmonomethylethanolamine or PMME), Human Rubisco, Recombinant Rubisco, Rubisco Agonists or Rubisco Modulators, Polyacetylates, Phosphatidylethanolamine, Phosphatidylethanolamine Methyltransferase, Methyltetrahydrofolate Reductase, Betaine Homocysteine Methyltransferase, Ancient Pink Himalayan Sea Salt instead of Table salt.

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SP-1 Transactivator Protein 1. Oncology Gene Expression. Assay of both SP1 and SP3 management is recommended for Oncology or other health conditions. SP1 activates Topoisomerase II alpha although SP3 dominantly inactivates it, suppressing the benefit of Doxorubicin. Inhibiting SP3 may be essential for Doxorubicin Resistant Oncology. DOI 10.1186/14712199-8-36.	SP-1 promotes immortality and survival of cellular entities because it upregulates Choline Kinase. SP-1/SP-3 Diagnostic Assay Kit www.abcam.com/ps/products/207/ab207227/documents/ab207227%20Sp1-Sp3%20Transcription%20Factor%20Assay%20Kit%20v1%20(website).pdf Curcumin is an SP1 inhibitor and iNOS inhibitor are therapeutic for HPV, HIV and other Viral Pathology, including Oncology.	(HIV Also requires uncoupled nitric oxide synthase, Inducible Nitric Oxide Synthase, Uncoupling of Inducible Nitric Oxide Synthase and TPA/PMA, such that therapeutic inhibiting all of these could be the most effective HIV Therapeutic produced) SP-1 inhibits PEMT and upregulates aspects of the Choline Kinase Pathway. SP-1 is include and required in pervasive Microbial and viral pathology, similarly to AP-1, NF kB and iNOS. Inhibitors of SP-1, AP-1 or NF kB, as well as inhibitors Choline Kinase Kinase transform microbial Pathology. SP-1 stimulates Telomerase activity which is known to confer immortality to multipole cellular Phenotypes, but is not the only way in which Telomerase is activated. Telomerase does not require upregulation for Pathology, it can become phosphorylated by AKT Protein Kinase for increased Catalytic Activity. AKT inhibition is potentiated by inhibitors of AP-1, SP-1, TPA/PMA, and inflammation inhibition generally. Mithramycin. 10.1523/JNEUROSCI.0710-11.2011. Tolfenamic Acid which has therapeutic effect along with Cisplatin. 10.1007/s13277-016-5290-9. SP1 activates Hepatocyte Growth Factor while SP3 inhibits Hepatocyte Growth Factor when SP1 is not adequately bioavailable. SP-1 is ugregulated in numerous Microbial, Oncological and other conditions including being a stimulator of Midkine expression which is increased in numerous Gliomas. DOI 10.1091/mbc.E14-10-1443	Choline, Trimethylglycine, Folate/Methylfolate, Glutathione, Probiotic/Prebiotic, Complete-B Vitamins, Omega-3 Fatty Acids, Whole Food Organic Vitamins, Complete Minerals, Flavonoid/Carotenoid/Phytochemical Supplement, Glandular Mix, KAL SOD3 or other Antioxidant Mix with Catalase and Superoxide Dismutase, Choline Kinase Inhibitors, Tyrosine Kinase Inhibitors, Inhibitors of AP-1(x), including Citrus Fruit with Peelings/Rinds, Inhibitors of SP-1(X), Management of Homocysteine, Management of S-Adenosyl Homocysteine or SAdenosyl Homocysteine inhibitors, inhibitors of Inducible Nitric Oxide Synthase, Inhibitors of Uncouple Nitric Oxide Synthase and its Reactive Molecular Species (L-Arginine, Tetrahydrobiopterin, NADPH, Superoxide Dismutase, Catalase, Glutathione, Citrulline/Arginine/Ornithine), NAD+, Hyaluronic Acid, Complete B-Vitamins with B-12 Methylcobalamin, Uridine, Prebiotic/Probiotic to Manage Inflammation Factors Produced during Ingestion of some Choline Dense Foods, Enzymes which metabolize these factors or synthesize these factors as well as precursors to these factors, Water, Phosphatidyl-Monomethylethanolamine (Phosphatidylmonomethylethanolamine or PMME), Human Rubisco, Recombinant Rubisco, Rubisco Agonists or Rubisco Modulators, Polyacetylates, Phosphatidylethanolamine, Phosphatidylethanolamine Methyltransferase, Methyltetrahydrofolate Reductase, Betaine Homocysteine Methyltransferase, Ancient Pink Himalayan Sea Salt instead of Table salt.

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SP-1 Transactivator Protein 1. Oncology Gene Expression. Assay of both SP1 and SP3 is recommended for Oncology or other health conditions. SP1 activates Topoisomerase II alpha although SP3 dominantly inactivates it, suppressing the benefit of Doxorubicin. Inhibiting SP3 may be essential for Doxorubicin Resistant Oncology. DOI 10.1186/14712199-8-36.	SP3 is inhibited by Mythramycin. PMCID PMC3717375. SP-1 is inhibited by Metformin and the Steroidal Lactone Withaferin A from Withania Somnifera, Ashwagandha, Circumin, and Benfotiamine. HIV-1 TAT only induces enough P73 for viral transcription to occur when SP-1 is expressed.	SP1 and SP3, SP-1 and SP-3, are cooperative modulators of CPT Phosphocholine Cytidylyltransferase Alpha with reversible roles in Transcription activation in the Promoter Region of the Ctpct Gene, while SP2/SP-2 is a weak Transcriptional activator. DOI 10.1128/MCB.01828-08. J Lipid Res, Volume 41. Number Pages 583 to 594. Protein Kinase C activates SP-1, through TPA/PMA, cyclically since SP-1 also activates TPA/PMA, but SP-1 can activate Protein Kinase C through these same mechanism. SP-1 inhibits PEMT. SP-1 upregulates Choline Kinase. SP-1 upregulates Telomerase. Sp-1 or SP1 is considered a factor expressed in correlation with the 8 essential causal Factors in Oncology. These 8 essential factors are characterized as Sustained Proliferative Signaling, Replicative Immortality, Resilience to Necrosis/Apoptosis, Resistance, Angiogenesis Stimulation, Avoidance of Immunological enabled Deterioration, Invasion and Metastasis, as well as unregulated Cellular Energetics. DOI 10.1111/febs.13148. Kruppel – Associated Zinc Finger Protein AP-2rep (KLF12) competes with and inhibits SP-1 transactivation in models of Ovarian Oncology. DOI 10.1186/s12943-017-0582-2. Similarly, P53 competes with SP1/SP – 1 at the SP -1 Promoter Region in HIV LTR Sequences and TATA Box Protein Promoter Regions, suggesting that SP-1 is a feature for Pathogenic Aerobic Glycolysis and impaired P53 activity. PMID 8207805. Gold is among the Divalent Metal Ions which can enable PEMT function. DOI 10.1038/nchem.2836 Myrrh and Frankincense inhibit Cyclooxygenase , CFOS and CJUN, thereby also inhibiting activation of AP1 and inhibiting activation of SP1. DOI 10.1038/srep13668.	Choline, Trimethylglycine, Folate/Methylfolate, Glutathione, Probiotic/Prebiotic, Complete-B Vitamins, Omega-3 Fatty Acids, Whole Food Organic Vitamins, Complete Minerals, Flavonoid/Carotenoid/Phytochemical Supplement, Glandular Mix, KAL SOD3 or other Antioxidant Mix with Catalase and Superoxide Dismutase, Choline Kinase Inhibitors, Tyrosine Kinase Inhibitors, Inhibitors of AP-1(x), including Citrus Fruit with Peelings/Rinds, Inhibitors of SP-1(X), Management of Homocysteine, Management of S-Adenosyl Homocysteine or S-Adenosyl Homocysteine inhibitors, inhibitors of Inducible Nitric Oxide Synthase, Inhibitors of Uncouple Nitric Oxide Synthase and its Reactive Molecular Species (LArginine, Tetrahydrobiopterin, NADPH, Superoxide Dismutase, Catalase, Glutathione, Citrulline/Arginine/Ornithine), NAD+, Hyaluronic Acid, Complete B-Vitamins with B-12 Methylcobalamin, Uridine, Prebiotic/Probiotic to Manage Inflammation Factors Produced during Ingestion of some Choline Dense Foods, Enzymes which metabolize these factors or synthesize these factors as well as precursors to these factors, Water, PhosphatidylMonomethylethanolamine (Phosphatidylmonomethylethanolamine or PMME), Human Rubisco, Recombinant Rubisco, Rubisco Agonists or Rubisco Modulators, Polyacetylates, Phosphatidylethanolamine, Phosphatidylethanolamine Methyltransferase, Methyltetrahydrofolate Reductase, Betaine Homocysteine Methyltransferase, Ancient Pink Himalayan Sea Salt instead of Table salt.

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Hyaluronic Acid.	Extracellular Matrix, Connective Tissue and Neurological deterioration or glomerulization. Hyaluronic Acid Assay. www.questdiagnostics.com/testcenter/BUOrderInfo.action?tc=19480X&labCode=QTE	Hyaluronic Acid Supplements. Glucosamine. D-Glucaronic Acid. N Acetyl-O-Glucosamine. The literature indicates that Glucosamine is safe at 500 MG three times per day or lower for diabetics. DOI 10.2337/diacare.26.6.1941. Hyaluronic acid is essential to embryonic Scarless wound healing and its decrease along with DHA and EPA is known to describe differences the ability to Regenerate Anatomy among Mammals. www.surgerysupplements.com/glucosamine-may-aid-the-surgical-healingprocess/ Lymphocytes may be unable to adhere to Hyaluronic Acid, thereby decreasing inflammation, and preventing Lymphocytes from activating Lymphocyte receptors that would inhibit PEMT activity through MAPK, PI3K, AKT, cFOS, cJUN signaling. High molecular mass hyaluronic acid is optimal compared to low molecular mass hyaluronic that is produced from inflammatory processes.	Relevant Therapeutics. Hyaluronic Acid can be of substantial Neurological, tissue and regeneration benefit when accompanied by choline pathway supplementation. Hyaluronic acid inhibits Platelet Function during Gestational Development allowing Fibronectin to be guided in development and repair according to the Gastrulation Program. Reference, Journal of Pediatric Surgery, Volume 32, Number 7, Pages 1037 to 1040, July, 1997.	Choline, Trimethylglycine, Folate/Methylfolate, Glutathione, Probiotic/Prebiotic, Complete-B Vitamins, Omega-3 Fatty Acids, Whole Food Organic Vitamins, Complete Minerals, Flavonoid/Carotenoid/Phytochemical Supplement, Glandular Mix, KAL SOD3 or other Antioxidant Mix with Catalase and Superoxide Dismutase, Choline Kinase Inhibitors, Tyrosine Kinase Inhibitors, Inhibitors of AP-1(x), including Citrus Fruit with Peelings/Rinds, Inhibitors of SP-1(X), Management of Homocysteine, Management of S-Adenosyl Homocysteine or S-Adenosyl Homocysteine inhibitors, inhibitors of Inducible Nitric Oxide Synthase, Inhibitors of Uncouple Nitric Oxide Synthase and its Reactive Molecular Species (L-Arginine, Tetrahydrobiopterin, NADPH, Superoxide Dismutase, Catalase, Glutathione, Citrulline/Arginine/Ornithine), NAD+, Hyaluronic Acid, Complete B-Vitamins with B-12 Methylcobalamin, Uridine, Prebiotic/Probiotic to Manage Inflammation Factors Produced during Ingestion of some Choline Dense Foods, Enzymes which metabolize these factors or synthesize these factors as well as precursors to these factors, Water, Phosphatidyl-Monomethylethanolamine (Phosphatidylmonomethylethanolamine or PMME), Human Rubisco, Recombinant Rubisco, Rubisco Agonists or Rubisco Modulators, Polyacetylates, Phosphatidylethanolamine, Phosphatidylethanolamine Methyltransferase, Methyltetrahydrofolate Reductase, Betaine Homocysteine Methyltransferase, Ancient Pink Himalayan Sea Salt instead of Table salt.

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Metabolic Alkalosis. Metabolic Acidosis is presented in Lactate Metabolism. The literature suggests that metabolic acidosis without renal impairment is typically resultant of high anion Gap, particularly resultant of Lactic Acid or Ketoacidosis, both of which are managed by optimal Pentose Phosphate/Glycolysis /Krebs pathways when P53 is not inhibiting these from PEMT inadequacy, thus relevant for Alkalosis also.	Hypoventilation is considered typical. Generally, impaired PEMT availability impairs Glycolysis, Pentose Phosphate Pathway and Krebs cycle performance as buffering and manage capabilities for systemic pH.	www.emedicine.medscape.com/article/242975-treatment. Alkalosis with Ph more than 7.55 exhibits 40 percent risk of demise and 7.65 is correlated to a 80 percent risk of abated vital being. Urine CL less than 25 mEq/L is typically associated with Regurgitation, Diuretics, Posthypercapnia, Cystic Fibrosis or Low Chloride obtainment whereas Cl above 40 mEQ/L is typically considered to occur from Primary Mineralocorticoid Excess, Barrter's or Gitelman's Syndrome, Extreme Hypokalemia with K < 2.0, or Exogenous Alkali Load. Chloride depletion Alkalosis is suggested to be alleviated by Cl- fluid along with NA+ or Choline. DOI 10.1681/ASN.2011070720 Phosphatidylmonomethylethanolamine, the intermediate of PEMT pathway, scavenges H2S and Co2, producing HS and HCO3, while Glycolysis scavenges HCO3- with ATP to produce Oxalate and scavenges CO2 toward fatty acid synthesis. Cysteine and Methionine are produce to assist in Carbonate Buffering by the PEMT, Folate/Methionine Synthase , BHMT/Methionine pathways. These suggest PEMT enables management of Cations and Anions. PEMT/Choline/Phospholipid Pathways may be essential for Alkalosis/Acidosis. PMID 16277723 Metabolic Acidosis occurs when pH moves below 7.35 whereas pH above 7.45 is considered alkalosis in some of the literature. Below 7.2 and above 7.5 introduces risk of paralytic status. PEMT function promotes background pH between 7.2 and 7.6 by packing cellular membranes with methyl groups exhibiting hydride to hydrogen ration of 1/2 or 1 to 2. PEMT also selects phosphatidylserine fraction exhibiting ether linked fatty acids that perform as insulation, causing a capacitant or battery characteristics to emerge in cellular entities while hydride's negative polarity transcends cellular membranes and influences the background environment. Similarly, redox between NAD+ and NADH releases 2 eV- for a duration that results in negative polarity or rlease of 2 eV- that is fluorescent and is recaptured by redox interactions integrating H+, by interaction with other molecules or bin spin capture.	Choline, Trimethylglycine, Folate/Methylfolate, Glutathione, Probiotic/Prebiotic, Complete-B Vitamins, Omega-3 Fatty Acids, Whole Food Organic Vitamins, Complete Minerals, Flavonoid/Carotenoid/Phytochemical Supplement, Glandular Mix, KAL SOD3 or other Antioxidant Mix with Catalase and Superoxide Dismutase, Choline Kinase Inhibitors, Tyrosine Kinase Inhibitors, Inhibitors of AP-1(x), including Citrus Fruit with Peelings/Rinds, Inhibitors of SP-1(X), Management of Homocysteine, Management of S-Adenosyl Homocysteine or S-Adenosyl Homocysteine inhibitors, inhibitors of Inducible Nitric Oxide Synthase, Inhibitors of Uncouple Nitric Oxide Synthase and its Reactive Molecular Species (L-Arginine, Tetrahydrobiopterin, NADPH, Superoxide Dismutase, Catalase, Glutathione, Citrulline/Arginine/Ornithine), NAD+, Hyaluronic Acid, Complete B-Vitamins with B-12 Methylcobalamin, Uridine, Prebiotic/Probiotic to Manage Inflammation Factors Produced during Ingestion of some Choline Dense Foods, Enzymes which metabolize these factors or synthesize these factors as well as precursors to these factors, Water, Phosphatidyl-Monomethylethanolamine (Phosphatidylmonomethylethanolamine or PMME), Human Rubisco, Recombinant Rubisco, Rubisco Agonists or Rubisco Modulators, Polyacetylates, Phosphatidylethanolamine, Phosphatidylethanolamine Methyltransferase, Methyltetrahydrofolate Reductase, Betaine Homocysteine Methyltransferase, Ancient Pink Himalayan Sea Salt instead of Table salt.

Factor	Indicator, Primary	Information	Wholistic Factors to Accompany Therapeutics
Metabolic Alkalosis. Metabolic Acidosis is presented in Lactate Metabolism.	pH above 7.4 or above 7.45 Primarily considered to occur resultant of HCO#increase in serum or inadequate H+.	Arterial Carbon Dioxide Tension is considered to increase 0.5 to 0.7 Hg for each Meq/L increase in Plasma Bicarbonate molarity, such that a lag in this ratio can produce an imbalance in Acidity and Alkalinity. Alkalosis and Acidosis can exist together at once. Respiratory and Anatomical pH are associated but not always assured to be precisely the same. Elevated HCO3- particularly more than 35 mEq/L is most indicative. Antacid ingestion can contributed to Metabolic Acidosis. Calcium, aluminum, along with base hydroxide, or carbonate, result in buffering of Hydrogen Ions in the Stomach, balancing occurs in excretion into the stool. Saline is considered therapeutic, as are H+ inhibitors, PPIs with Regurgitation, abated Diuretics, HCl or NH4Cl for Emergencies, Hemodialysis and Acetazolamide associated with Chronic Cardiac Conditions. Saline unresponsive Alkalosis can be therapeutically affected with excision of neoplasm producing mineralocorticoids, Ace inhibitor, abated Steroid usage, inhibition of Aldosterone, potassium repletion. HCl presents a risk of Hemolysis. The literature pervasively suggests managing underlying causality in Acidosis or Alkalosis conditions and these recommendations are intended to assist in understanding incipient causality and intended to assist with therapies with which clinicians may already be familiar with and experienced with.	Choline, Trimethylglycine, Folate/Methylfolate, Glutathione, Probiotic/Prebiotic, Complete-B Vitamins, Omega-3 Fatty Acids, Whole Food Organic Vitamins, Complete Minerals, Flavonoid/Carotenoid/Phytochemical Supplement, Glandular Mix, KAL SOD3 or other Antioxidant Mix with Catalase and Superoxide Dismutase, Choline Kinase Inhibitors, Tyrosine Kinase Inhibitors, Inhibitors of AP-1(x), including Citrus Fruit with Peelings/Rinds, Inhibitors of SP-1(X), Management of Homocysteine, Management of S-Adenosyl Homocysteine or S-Adenosyl Homocysteine inhibitors, inhibitors of Inducible Nitric Oxide Synthase, Inhibitors of Uncouple Nitric Oxide Synthase and its Reactive Molecular Species (L-Arginine, Tetrahydrobiopterin, NADPH, Superoxide Dismutase, Catalase, Glutathione, Citrulline/Arginine/Ornithine), NAD+, Hyaluronic Acid, Complete B-Vitamins with B-12 Methylcobalamin, Uridine, Prebiotic/Probiotic to Manage Inflammation Factors Produced during Ingestion of some Choline Dense Foods, Enzymes which metabolize these factors or synthesize these factors as well as precursors to these factors, Water, Phosphatidyl-Monomethylethanolamine (Phosphatidylmonomethylethanolamine or PMME), Human Rubisco, Recombinant Rubisco, Rubisco Agonists or Rubisco Modulators, Polyacetylates, Phosphatidylethanolamine, Phosphatidylethanolamine Methyltransferase, Methyltetrahydrofolate Reductase, Betaine Homocysteine Methyltransferase, Ancient Pink Himalayan Sea Salt instead of Table salt.

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C-Reactive Protein. High Sensitivity C Reactive Protein Assay. www.mayoclinic. org/testsprocedures/creactiveprotein/basics/definition/PRC20014480 www.cls.testcatal og.org/show/CRP-1	Increased levels of C – Reactive Protein have been observed to produce a 231 Percent increased risk of Demise in a Study. DOI: 10.1016/j.jfma.2017.02.002 Clinicians can begin with Creactive Protein thresholds at 1.57 mg/Liter although the levels of those with the most optimal health status should be therapeutic goals as well as analytic thresholds. Reference, Am J Med, Volume 1999, Number 106, Pages 506 to 512, 1999. C-reactive Protein is correlated with and causal to clotting, generation of oxygen radicals, increase in the expression of adhesion molecules and plasminogen activator inhibitor-1, plaque destabilization. NAD+ depletion occurs also resultant of inadequate choline, inhibited PEMT, PEMT2 in particular, and upregulated P53, resulting Hyperproliferation of Mitotic capable cellular entities and Apoptosis through Parthanatos of Senescent/Completely Differentiated Cellular Entities. NAD+/Niacin may be essential.	Analytically Significant Ranges Exhibited by Healthiest Patients Observed in Practice are recommended to be included for use. Atorvastatin inhibits C-Reactive Protein enabled Metalloproteinase Synthesis and Tissue Inhibitor TIMP-1 Synthesis. 10.1007/s11010-0090340-x. C-Reactive Protein requires FCYRIIB activation by FCY and Protein Phosphatase A2 PPA2 to Uncouple Nitric Oxide Synthase. Okadaic Acid from Dinoflagellates and Calyculin A inhibit Protein Phosphatase A2 while Okadaic Acid Inhibits C-reactive Proteins Vasoconstrictive eNOS impairing activity. Vitamin C, Circumin, Magnesium, Omega-7, Vitamin D each depotentiate C-Reactive Protein. www.drhoffman.com/article/12-natural-ways-to-protect-your-heart-andlower-your-crp/. Ginger, Onions, Montmorency Cherry, Balaton or Tart tasting Cherry. Vitamin E, Coenzyme Q10, Omega-3, Astaxanthin. www.naturalsociety.com/4-must-foods-reducing-inflammation-naturally/ Subacute levels of C – Reactive protein, ranging from 1 to 10 mg/L correlate to 7.3 percent increase for each 1 mg/L increase whereas change from typical regarded as less than or equal to 3 mg/L to clinical regarded as more than 3 mg/L there was a %700 percent increase in potential for Demise. DOI 10.1136/hrt.2007.118794 Inhibitors or Modulators or C-Reactive Protein or Apoptosis/Necrosis Inhibitors such as Omega-3, Choline, and Wholistic Factors. CRP-i2 and C-Reactive protein antisense oligonucleotide (ASO) inhibit C-Reactive Protein. Creactive protein is inhibited yb Cycloxygenase Inhibitors (Aspirin, Rofecoxib, Celecoxib), Platelet Adhesion Inhibitors (Clopidogrel, Abciximab), Lipid management factors (Statisn, Ezetimibe, Fenobibrate, Niacin, nutritional change), Vitamin E and other Antixoidants, Beta-Adrenoreceptor Agonists, Angiotensin Converting eNzyme (ACE) Inhibitors (Ramipril, Captopril, Fosinopril), Angiotensin Receptor Blockers (ARBS) (Valsartan, Irbesartan, Olmesartan, Telmisartan), and Diabetic Therapeutics (Rosiglitazone, Pioglitazone). ACE Inhibitors such as ACEI lisinopril, inhibit MCP-1 in excreted fluids and improve renal function. Digital Object Identifier Diabetes Care, Volume 26, Number 8, August 2003. Pages 2421 to 2425.	Choline, Trimethylglycine, Folate/Methylfolate, Glutathione, Probiotic/Prebiotic, Complete-B Vitamins, Omega-3 Fatty Acids, Whole Food Organic Vitamins, Complete Minerals, Flavonoid/Carotenoid/Phytochemical Supplement, Glandular Mix, KAL SOD3 or other Antioxidant Mix with Catalase and Superoxide Dismutase, Choline Kinase Inhibitors, Tyrosine Kinase Inhibitors, Inhibitors of AP-1(x), including Citrus Fruit with Peelings/Rinds, Inhibitors of SP-1(X), Management of Homocysteine, Management of S-Adenosyl Homocysteine or SAdenosyl Homocysteine inhibitors, inhibitors of Inducible Nitric Oxide Synthase, Inhibitors of Uncouple Nitric Oxide Synthase and its Reactive Molecular Species (L-Arginine, Tetrahydrobiopterin, NADPH, Superoxide Dismutase, Catalase, Glutathione, Citrulline/Arginine/Ornithine), NAD+, Hyaluronic Acid, Complete B-Vitamins with B-12 Methylcobalamin, Uridine, Prebiotic/Probiotic to Manage Inflammation Factors Produced during Ingestion of some Choline Dense Foods, Enzymes which metabolize these factors or synthesize these factors as well as precursors to these factors, Water, Phosphatidyl-Monomethylethanolamine (Phosphatidylmonomethylethanolamine or PMME), Human Rubisco, Recombinant Rubisco, Rubisco Agonists or Rubisco Modulators, Polyacetylates, Phosphatidylethanolamine, Phosphatidylethanolamine Methyltransferase, Methyltetrahydrofolate Reductase, Betaine Homocysteine Methyltransferase, Ancient Pink Himalayan Sea Salt instead of Table salt.

Factor	Indicative Information	Information		Wholistic Factors to Accompany Therapeutics
Protein Kinase C. It was not possible to determine reliable consistent information for the Protein Kinase C, and its versions a, g, z, e, i, or μ. It is recommended that optimal levels be determined for the healthiest patients in incurred in practice and other patients considered in such context as well as managed toward these optimal levels. The specification will include these when possible.	Protein Kinase C is known to phosphorylate and Activate Choline Kinase Beta in associated Oncology. Protein Kinase C Diagnostic Assay. kit/	Hypericin and Psuedohypericin, known to be obtainable from St John's Wort, Hypericum Japonicus, Hypericum Perforatum and Echinacea, is known to inhibit Protein Kinase C. Hypericin exhibits IC50 Value 1.7 Micrograms/Milliliter while Psuedohypericin exhibits IC50 Value 15 Micrograms/Milliliter. Both are specific inhibitors of Protein Kinase C. PMID 2558652. Isojacareubin from Hypericum Japonicus, Hypericum Sarothranol, Hypericum Roeperanum, Garcina Nigrolineata, Garcinia Xipshuanbannaensis can inhibit Protein Kinase C and inhibits Hepatocellular Carcinoma.	Protein Kinase C activates SP-1, through TPA/PMA, cyclically since SP-1 also activates TPA/PMA, but SP-1 can activate Protein Kinase C through these same mechanism. SP-1 strongly activates Telomerase. SP-1 inhibits PEMT and upregulates Choline Kinase. EGCG Epigallocatechin and Quercetin inhibit Protein Kinase C. ISBN. 9781420006452	Choline, Trimethylglycine, Folate/Methylfolate, Glutathione, Probiotic/Prebiotic, Complete-B Vitamins, Omega-3 Fatty Acids, Whole Food Organic Vitamins, Complete Minerals, Flavonoid/Carotenoid/Phytochemical Supplement, Glandular Mix, KAL SOD3 or other Antioxidant Mix with Catalase and Superoxide Dismutase, Choline Kinase Inhibitors, Tyrosine Kinase Inhibitors, Inhibitors of AP-1(x), including Citrus Fruit with Peelings/Rinds, Inhibitors of SP-1(X), Management of Homocysteine, Management of S-Adenosyl Homocysteine or SAdenosyl Homocysteine inhibitors, inhibitors of Inducible Nitric Oxide Synthase, Inhibitors of Uncouple Nitric Oxide Synthase and its Reactive Molecular Species (L-Arginine, Tetrahydrobiopterin, NADPH, Superoxide Dismutase, Catalase, Glutathione, Citrulline/Arginine/Ornithine), NAD+, Hyaluronic Acid, Complete B-Vitamins with B-12 Methylcobalamin, Uridine, Prebiotic/Probiotic to Manage Inflammation Factors Produced during Ingestion of some Choline Dense Foods, Enzymes which metabolize these factors or synthesize these factors as well as precursors to these factors, Water, Phosphatidyl-Monomethylethanolamine (Phosphatidylmonomethylethanolamine or PMME), Human Rubisco, Recombinant Rubisco, Rubisco Agonists or Rubisco Modulators, Polyacetylates, Phosphatidylethanolamine, Phosphatidylethanolamine Methyltransferase, Methyltetrahydrofolate Reductase, Betaine Homocysteine Methyltransferase, Ancient Pink Himalayan Sea Salt instead of Table salt.

Factor	Indicative Information	Information		Wholistic Factors to Accompany Therapeutics
Protein Kinase C. It was not possible to determine reliable consistent information for the Protein Kinase C, and its versions a, g, z, e, i, or μ. It is recommended that optimal levels be determined for the healthiest patients in incurred in practice and other patients considered in such context as well as managed toward these optimal levels. The specification will include these when possible.	www.link.springer.com/protocol/10.1385/159259-397-6%3A63?noaccess=true www.enzolifesciences.com/ADI-EKS-420A/pkc-kinase-activitykit/	The Xanthone groups of Antioxidants are known to have specific selectivity with varying potency in inhibiting Protein Kinase C and Hepatocellular Carcinoma. Isocajareubin is a potent Antibacterial factor that is effect therapeutically for Microbes Resistant to Methicillin. Isocajareubin is a Xanthone is also known to inhibit Matrix Metalloproteinases, C-Raf, MEK1/2, ERK1/2, MAPK, Fibroblast Growth Factor Receptor 1 FGFR-1, while increasing segmented C-PARP, P53, P21, E-Cadherin and Apoptosis. DOI 10.1038/srep12889. Ruboxistaurin. Chelerythrine. Miyabenol C. Myricitrin. Gossypol. Verbascoside. BIM-1.	Protein Kinase C activates SP-1, through TPA/PMA, cyclically since SP-1 also activates TPA/PMA, but SP-1 can activate Protein Kinase C through these same mechanism. SP-1 strongly activates Telomerase. SP-1 inhibits PEMT and upregulates Choline Kinase. EGCG Epigallocatechin and Quercetin inhibit Protein Kinase C. ISBN. 9781420006452	Choline, Trimethylglycine, Folate/Methylfolate, Glutathione, Probiotic/Prebiotic, Complete-B Vitamins, Omega-3 Fatty Acids, Whole Food Organic Vitamins, Complete Minerals, Flavonoid/Carotenoid/Phytochemical Supplement, Glandular Mix, KAL SOD3 or other Antioxidant Mix with Catalase and Superoxide Dismutase, Choline Kinase Inhibitors, Tyrosine Kinase Inhibitors, Inhibitors of AP-1(x), including Citrus Fruit with Peelings/Rinds, Inhibitors of SP-1(X), Management of Homocysteine, Management of S-Adenosyl Homocysteine or S-Adenosyl Homocysteine inhibitors, inhibitors of Inducible Nitric Oxide Synthase, Inhibitors of Uncouple Nitric Oxide Synthase and its Reactive Molecular Species (L-Arginine, Tetrahydrobiopterin, NADPH, Superoxide Dismutase, Catalase, Glutathione, Citrulline/Arginine/Ornithine), NAD+, Hyaluronic Acid, Complete B-Vitamins with B-12 Methylcobalamin, Uridine, Prebiotic/Probiotic to Manage Inflammation Factors Produced during Ingestion of some Choline Dense Foods, Enzymes which metabolize these factors or synthesize these factors as well as precursors to these factors, Water, Phosphatidyl-Monomethylethanolamine (Phosphatidylmonomethylethanolamine or PMME), Human Rubisco, Recombinant Rubisco, Rubisco Agonists or Rubisco Modulators, Polyacetylates, Phosphatidylethanolamine, Phosphatidylethanolamine Methyltransferase, Methyltetrahydrofolate Reductase, Betaine Homocysteine Methyltransferase, Ancient Pink Himalayan Sea Salt instead of Table salt.

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Telomerase Biopsy. Copy Number, availability, molarity. Telomerase in Serum. CPT Code www.ncbi.nlm.nih.gov/pubmed/15867214 Telomere Length full Panel CPT Code 88184, 88185	Shorter Telomeres is correlated to up to %808 increased potential for demise in Breast Oncology Conditions as well as up to %439 increased potential for demise of all causes among those with the condition. %238 increased potential for demise among general population might be useful statistical consideration in this regard. www.californiahealthspan.com/wpcontent/uploads/lectures/Telomeres-andTelomeraseActivation-Hollywood-2016.pdf	Vitamin B12 is correlated with increased Telomere length in Females potentially resultant of increased Estrogen which promotes Homocysteine depletion and more PEMT specific Homocysteine such that B12 is accumulates as a precursor to Methionine Synthase decreased ancillary Homocysteine being transformed into Methionine. Astaxanthin, antioxidants, and Omega - 3 Fatty Acids are associated with longer Telomeres. Vitamin K2. Probiotics. Krill Oil. Magnesium. Polyphenols. Polyphenols, Vitamin A, Circumin, Exercise and intermittent Fasting. www.articles.mercola.com/sites/articles/archive/2012/05/09/thenutrients-most-likely-to-let-youlive-to-be-much-older-than100.aspx	www.hplusmagazine.com/2015/05/04/telomere-length-and-mortalitydanish-study-of-65000people/ Zinc Carnosine provides the Choline Kinase Inhibiting Imidazole Second Ring, Scavenges Reactive Oxygen Species, Protects DNA, decreases Telomere Shortening and Increases the En Vitro highest number of cellular divisions known as the Hayflick Limit.	Choline, Trimethylglycine, Folate/Methylfolate, Glutathione, Probiotic/Prebiotic, Complete-B Vitamins, Omega-3 Fatty Acids, Whole Food Organic Vitamins, Complete Minerals, Flavonoid/Carotenoid/Phytochemical Supplement, Glandular Mix, KAL SOD3 or other Antioxidant Mix with Catalase and Superoxide Dismutase, Choline Kinase Inhibitors, Tyrosine Kinase Inhibitors, Inhibitors of AP-1(x), including Citrus Fruit with Peelings/Rinds, Inhibitors of SP-1(X), Management of Homocysteine, Management of S-Adenosyl Homocysteine or SAdenosyl Homocysteine inhibitors, inhibitors of Inducible Nitric Oxide Synthase, Inhibitors of Uncouple Nitric Oxide Synthase and its Reactive Molecular Species (L-Arginine, Tetrahydrobiopterin, NADPH, Superoxide Dismutase, Catalase, Glutathione, Citrulline/Arginine/Ornithine), NAD+, Hyaluronic Acid, Complete B-Vitamins with B-12 Methylcobalamin, Uridine, Prebiotic/Probiotic to Manage Inflammation Factors Produced during Ingestion of some Choline Dense Foods, Enzymes which metabolize these factors or synthesize these factors as well as precursors to these factors, Water, Phosphatidyl-Monomethylethanolamine (Phosphatidylmonomethylethanolamine or PMME), Human Rubisco, Recombinant Rubisco, Rubisco Agonists or Rubisco Modulators, Polyacetylates, Phosphatidylethanolamine, Phosphatidylethanolamine Methyltransferase, Methyltetrahydrofolate Reductase, Betaine Homocysteine Methyltransferase, Ancient Pink Himalayan Sea Salt instead of Table salt.

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Telomerase Biopsy. Copy Number, availability, molarity. Telomerase in Serum. www.ncbi.nlm.nih.gov/pubmed/15867214 Telomere Length full Panel CPT Code 88184, 88185	Telomerase as a diagnostic. www.cambia.org/daisy/Telomerase/2389/g3/2930.html www.emdmillipore.com/US/en/product/TRAPeze-XLTelomeraseDetection-Kit,MM_NF-S7707	When inhibiting AP-1 using TAM67, WNT1and ErbB2 enabled Neoplasms of the Breast both were inhibited and prevented, although C-Myc enabled Neoplasms were not. It may be necessary to inhibit Telomerase or enable Telomerase separately from AP-1 Inhibition, since inhibiting AP-1, in a study, did not prevent C-Myc induced Neoplasm and CMyc stimulates Telomerase. ISSN 1055-9965, Volume 16, Issue 12, Supplement, Pages A145/ Telomere Length is considered to be participative or indicative of particular health conditions, including detrimental aspects of Aging. www.ncbi.nlm.nih.gov/pmc/articles/PMC3318193/ Folate is associated with Telomere Length in Males. Propolis is suggested to inhibit Telomerase Activity. www.livestrong.com/article/506649-foodsthat-boost-telomeres-telomerase	Telomerase is inhibited by AP-1 and upregulated by SP-1. Telomerase are indicative of pathology. DOI 10.1007/s10147011-0230-6 Other data suggests that %338 increase in potential demise that is reduced %154 and %140 when removing outliers and introducing cohorts among demographic characteristics	Choline, Trimethylglycine, Folate/Methylfolate, Glutathione, Probiotic/Prebiotic, Complete-B Vitamins, Omega-3 Fatty Acids, Whole Food Organic Vitamins, Complete Minerals, Flavonoid/Carotenoid/Phytochemical Supplement, Glandular Mix, KAL SOD3 or other Antioxidant Mix with Catalase and Superoxide Dismutase, Choline Kinase Inhibitors, Tyrosine Kinase Inhibitors, Inhibitors of AP-1(x), including Citrus Fruit with Peelings/Rinds, Inhibitors of SP-1(X), Management of Homocysteine, Management of S-Adenosyl Homocysteine or S-Adenosyl Homocysteine inhibitors, inhibitors of Inducible Nitric Oxide Synthase, Inhibitors of Uncouple Nitric Oxide Synthase and its Reactive Molecular Species (L-Arginine, Tetrahydrobiopterin, NADPH, Superoxide Dismutase, Catalase, Glutathione, Citrulline/Arginine/Ornithine), NAD+, Hyaluronic Acid, Complete B-Vitamins with B-12 Methylcobalamin, Uridine, Prebiotic/Probiotic to Manage Inflammation Factors Produced during Ingestion of some Choline Dense Foods, Enzymes which metabolize these factors or synthesize these factors as well as precursors to these factors, Water, Phosphatidyl-Monomethylethanolamine (Phosphatidylmonomethylethanolamine or PMME), Human Rubisco, Recombinant Rubisco, Rubisco Agonists or Rubisco Modulators, Polyacetylates, Phosphatidylethanolamine, Phosphatidylethanolamine Methyltransferase, Methyltetrahydrofolate Reductase, Betaine Homocysteine Methyltransferase, Ancient Pink Himalayan Sea Salt instead of Table salt.

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Tyrosine Kinase Inhibitors Tyrosine. Non Receptor Tyrosine Kinase Diagnostic Assay. www.blue.regence.com/trgmedpol/geneticTesting/gt20.pdf	Tyrosine Kinase Inhibitor Therapy, particularly Imatinib Therapy , has been shown to achieve a 2% 10 Yr/annum level of demise from all causalities among CML patients which is an improvement from a Five YR/ annum population depletion rate. The improvement is not calculable, and would be about % 99,000 percent or more of calculated. DOI 10.1002/cncr.26679 Tyrosine Kinase 18.10 was threshold for CML with median of 801.93 Micromoles Per Liter while lower levels for Healthy Patients was a low as 0.063. PMID 21694468	Tyrosine Kinase Inhibitor Patients are correlated to increased Potential for Cardiac Impairment and other disease in study, although the study could not indicate if the risk was associated with health status before therapy, if therapy reduced Kinase levels or if the cause of conditions requiring Tyrosine Kinase Inhibitors were remediate or if the factors which Tyrosine Kinase Inhibitors activated were not activated by other factors. DOI 10.1038/bjc.2017.88 Tyrosine Kinase can act upon Choline Kinases. Tyrosine Kinases, thus, have potential benefit in pervasive pathology.	Choline, Trimethylglycine, Folate/Methylfolate, Glutathione, Probiotic/Prebiotic, Complete-B Vitamins, Omega-3 Fatty Acids, Whole Food Organic Vitamins, Complete Minerals, Flavonoid/Carotenoid/Phytochemical Supplement, Glandular Mix, KAL SOD3 or other Antioxidant Mix with Catalase and Superoxide Dismutase, Choline Kinase Inhibitors, Tyrosine Kinase Inhibitors, Inhibitors of AP-1(x), including Citrus Fruit with Peelings/Rinds, Inhibitors of SP-1(X), Management of Homocysteine, Management of S-Adenosyl Homocysteine or SAdenosyl Homocysteine inhibitors, inhibitors of Inducible Nitric Oxide Synthase, Inhibitors of Uncouple Nitric Oxide Synthase and its Reactive Molecular Species (L-Arginine, Tetrahydrobiopterin, NADPH, Superoxide Dismutase, Catalase, Glutathione, Citrulline/Arginine/Ornithine), NAD+, Hyaluronic Acid, Complete B-Vitamins with B-12 Methylcobalamin, Uridine, Prebiotic/Probiotic to Manage Inflammation Factors Produced during Ingestion of some Choline Dense Foods, Enzymes which metabolize these factors or synthesize these factors as well as precursors to these factors, Water, Phosphatidyl-Monomethylethanolamine (Phosphatidylmonomethylethanolamine or PMME), Human Rubisco, Recombinant Rubisco, Rubisco Agonists or Rubisco Modulators, Polyacetylates, Phosphatidylethanolamine, Phosphatidylethanolamine Methyltransferase, Methyltetrahydrofolate Reductase, Betaine Homocysteine Methyltransferase, Ancient Pink Himalayan Sea Salt instead of Table salt.

Factor	Indicative Information	Information	Wholistic Factors to Accompany Therapeutics
Tyrosine Kinase Inhibitors Tyrosine. Non Receptor Tyrosine Kinase Diagnostic Assay. www.blue.reg ence.com/trg medpol/geneti cTesting/gt20. pdf	Tyrosine Kinase Inhibitor Therapy, particularly Imatinib Therapy , has been shown to achieve a 2% 10 Yr/annum level of demise from all causalities among CML patients which is an improvement from a Five YR/ annum population depletion rate. The improvement is not calculable, and would be about % 99,000 percent or more of calculated. DOI 10.1002/cncr.26679 Tyrosine Kinase 18.10 was threshold for CML with median of 801.93 Micromoles Per Liter while lower levels for Healthy Patients was a low as 0.063. PMID 21694468	Herbimycin-A, genistein, and erbstatin each inhibit choline kinase. J Immunol, Volume 150, Number 2, Pages 605 to 616, January,15, 1993. ST1571, SU5416, P22408, and PD 0165557 are inhibitors of Tyrosine Kinase. Flavones and Isoflavones including Quercetin and Genistein. Indolecarbazone, Staurosporine and Lavendustin. Clavilactones CA, CB and CD. K252a from Nocardiopsis. CEP-701, CEP-751, UCN -01. Quercetin inhibits tyrosine kinases, protein kinase C, and phosphatidyl inositol-3 kinase. Quinazolines, pyridopyrimidines and other heterocyles. Phenylamino-pyrimidines. Benzylidene malononitrile, tyrphostins and its analogues. Oncogene Vo,ume 19. Pages 5690 to 5701. Circumin. Trypterygium Wiilfordi. Green Tea Catechins. PMID 12677178 . Brevilin A from Litsea Glutinosa. Catechins from green tea leafs, Genestin, Apeginin in Chamomile. Curcumin from in turmeric, Diadzein, Epigallocatechin galate from Green Tea, Hypericin which is St Johns Wort, Artemisia annua (Chinese wormwood), Viscum album (European mistletoe), Scutellaria baicalensis (Chinese skullcap), resveratrol, proanthocyanidin (grape seed extract, red wine), Magnolia officinalis (Chinese magnolia tree), Camellia sinensis (green tea), Ginkgo biloba, Poria cocos (Fu Ling), Zingiber officinalis Ginger, Panax ginseng, Rabdosia rubescens hora (Rabdosia). The Carahealth.com website. Imatanib. Dasatanib. Lapatanib. Vandetanib is a RET-Tyrosine Kinase Inhibitor. Pazopanib.	Choline, Trimethylglycine, Folate/Methylfolate, Glutathione, Probiotic/Prebiotic, Complete-B Vitamins, Omega-3 Fatty Acids, Whole Food Organic Vitamins, Complete Minerals, Flavonoid/Carotenoid/Phytochemical Supplement, Glandular Mix, KAL SOD3 or other Antioxidant Mix with Catalase and Superoxide Dismutase, Choline Kinase Inhibitors, Tyrosine Kinase Inhibitors, Inhibitors of AP-1(x), including Citrus Fruit with Peelings/Rinds, Inhibitors of SP-1(X), Management of Homocysteine, Management of S-Adenosyl Homocysteine or S-Adenosyl Homocysteine inhibitors, inhibitors of Inducible Nitric Oxide Synthase, Inhibitors of Uncouple Nitric Oxide Synthase and its Reactive Molecular Species (L-Arginine, Tetrahydrobiopterin, NADPH, Superoxide Dismutase, Catalase, Glutathione, Citrulline/Arginine/Ornithine), NAD+, Hyaluronic Acid, Complete B-Vitamins with B-12 Methylcobalamin, Uridine, Prebiotic/Probiotic to Manage Inflammation Factors Produced during Ingestion of some Choline Dense Foods, Enzymes which metabolize these factors or synthesize these factors as well as precursors to these factors, Water, Phosphatidyl-Monomethylethanolamine (Phosphatidylmonomethylethanolamine or PMME), Human Rubisco, Recombinant Rubisco, Rubisco Agonists or Rubisco Modulators, Polyacetylates, Phosphatidylethanolamine, Phosphatidylethanolamine Methyltransferase, Methyltetrahydrofolate Reductase, Betaine Homocysteine Methyltransferase, Ancient Pink Himalayan Sea Salt instead of Table salt.

Factor	Indicative Information	Information	Wholistic Factors to Accompany Therapeutics
General Protein Kinase Activity.	Protein Kinase Panel www.carnabio.com /images/news040911.pdf	Afatinib is indicated for ErbB Group. flibercept is indicated for VEGF. Axitinib is indicated for VEGFR, PDGFR, c-KIT. Bevacizumab is indicated for VEGF. Bosutinib is indicated for Bcr-Abl. Cabozantinib is indicated for c-Met, VEGFR2. Crizotinib is indicated for ALK, HGFR, c-MET. Dasatinib is indicated for Bcr-Abl, Src, c-KIT. Erlotinib is indicated for EGFR. Gefitinib is indicated for EGFR. Imatinib is indicte for Bcr-Abl. Lapatinib is indicated for HER2. Nilotinib is indicted for Bcr-Abl. Panitumumab is indicated for EGFR. Pazopanib is indicated for VEGFR, PDGFR, and c-KIT. Pegaptanib is indicated for VEGF. Ponatinib is indicated for Bcr-Abl, BEGFR, PDGFR, FGFR, EPH, SRC, c-KIT, RET, TIE2, FLT3, T315I. Ranibizumab is indicated for VEGF-A. Regorafenib is indicated for RET, VEGFR, and PDGFR. Ruxolitinib is indicated for JAK. Sorafenib is indicted form VEGFR, PDGFR, BRAF, c-KIT, others. Sunitinib is indicated for VEGFR, PDGFR. Tofacitinib is indicated for Pfizer JAK. Trastuzumab is indicated for HER2. Vandetanib is indicated for VEGFR, EGFR, RET, and BRK. Vemurafenib is indicated for BRAF. WIKIPEDIA, Protein Kinases. Vasular Endothelial Growth Factor A or VEFG-A is inhibited by Bevacizumab or Avastin. EGFR is inhibited by Cetuximab. HER2/Neu Receptor is inhibited by the Trastuzumab Herceptin. EGFR is inhibited by Gefitinib. Lapatanib inhibits EFGR and HER2/Neu. Panitumumab inhibits EGFR and is also known as Vectibix. Vandetenib inhibits VEGFR, EGFR, and RET-Tyrosine Kinase.	Choline, Trimethylglycine, Folate/Methylfolate, Glutathione, Probiotic/Prebiotic, Complete-B Vitamins, Omega-3 Fatty Acids, Whole Food Organic Vitamins, Complete Minerals, Flavonoid/Carotenoid/Phytochemical Supplement, Glandular Mix, KAL SOD3 or other Antioxidant Mix with Catalase and Superoxide Dismutase, Choline Kinase Inhibitors, Tyrosine Kinase Inhibitors, Inhibitors of AP-1(x), including Citrus Fruit with Peelings/Rinds, Inhibitors of SP-1(X), Management of Homocysteine, Management of S-Adenosyl Homocysteine or S-Adenosyl Homocysteine inhibitors, inhibitors of Inducible Nitric Oxide Synthase, Inhibitors of Uncouple Nitric Oxide Synthase and its Reactive Molecular Species (L-Arginine, Tetrahydrobiopterin, NADPH, Superoxide Dismutase, Catalase, Glutathione, Citrulline/Arginine/Ornithine), NAD+, Hyaluronic Acid, Complete B-Vitamins with B-12 Methylcobalamin, Uridine, Prebiotic/Probiotic to Manage Inflammation Factors Produced during Ingestion of some Choline Dense Foods, Enzymes which metabolize these factors or synthesize these factors as well as precursors to these factors, Water, Phosphatidyl-Monomethylethanolamine (Phosphatidylmonomethylethanolamine or PMME), Human Rubisco, Recombinant Rubisco, Rubisco Agonists or Rubisco Modulators, Polyacetylates, Phosphatidylethanolamine, Phosphatidylethanolamine Methyltransferase, Methyltetrahydrofolate Reductase, Betaine Homocysteine Methyltransferase, Ancient Pink Himalayan Sea Salt instead of Table salt.

Factor	Indicative Information	Information	Wholistic Factors to Accompany Therapeutics
General Protein Kinase Activity .	Protein Kinase Panel www.carnabio.com/images /news040911.pdf	Erlotinib treats Pancreatic, Non-Small Cellular Pulmonary, and other Oncology. Nilotinib treats Chronic Myelogenous Leukemia. Pazopanib treats Renal Cellular Carcinoma and Soft Tissue Carcinoma. Sorafenib treat Advanced Renal Cellular Carcinoma and Hepatocellular Carcinoma. Pegaptinib and Ranibizumab treat Web Age Associated Macular Degeneration of Neovascular type. www.news-medical.net/lifesciences/Drugs-Targeting-Kinase-Inhibitors.aspx. Honokiol inhibits a diverse array of inflammatory pathways and differentiation factors. doi: 1 0 .1 1 11 /j.1 7 45 -7 2 5 4 .20 0 8 .0 0 72 5 .x Cyclin Dependent Kinase are Kinases which Competitively Phosphorylate Cyclins, compared to Dephosphorylation by Phosphatases. Cyclins typically stimulate the progression of the Cellular Cycle into a subsequent phase, correlative to the Phase associated with the Cyclin, when Cyclins are more prevalently phosphorylated than dephosphorylated or when a threshold of phosphorylation occurs along with changes in the environment. Inhibition of Cyclins can be useful and effective in Oncology. Palbociclib inhibits CDK4 and CDK 6 with IC50 of 11 nM/16 nM. Dinaciclib inhibits CDk2, CDK5, CKD2, and CKD9 1 nM IC50 to 4 nM IC50 or molar level required to exhibit 50% Response in culture tissue. Flavopiridol inhibits CDK1, CKD2, CDK4, CDK6 with an IC50 about 40 nM. Senexin A inhibits CDK8 and CDK19. Wogonin inhibits N-Acetyltransferase, and CDK9. Lists of CDK Inhibitors can be found on the internet.	Choline, Trimethylglycine, Folate/Methylfolate, Glutathione, Probiotic/Prebiotic, Complete-B Vitamins, Omega-3 Fatty Acids, Whole Food Organic Vitamins, Complete Minerals, Flavonoid/Carotenoid/Phytochemical Supplement, Glandular Mix, KAL SOD3 or other Antioxidant Mix with Catalase and Superoxide Dismutase, Choline Kinase Inhibitors, Tyrosine Kinase Inhibitors, Inhibitors of AP-1(x), including Citrus Fruit with Peelings/Rinds, Inhibitors of SP-1(X), Management of Homocysteine, Management of S-Adenosyl Homocysteine or S-Adenosyl Homocysteine inhibitors, inhibitors of Inducible Nitric Oxide Synthase, Inhibitors of Uncouple Nitric Oxide Synthase and its Reactive Molecular Species (L-Arginine, Tetrahydrobiopterin, NADPH, Superoxide Dismutase, Catalase, Glutathione, Citrulline/Arginine/Ornithine), NAD+, Hyaluronic Acid, Complete B-Vitamins with B-12 Methylcobalamin, Uridine, Prebiotic/Probiotic to Manage Inflammation Factors Produced during Ingestion of some Choline Dense Foods, Enzymes which metabolize these factors or synthesize these factors as well as precursors to these factors, Water, Phosphatidyl-Monomethylethanolamine (Phosphatidylmonomethylethanolamine or PMME), Human Rubisco, Recombinant Rubisco, Rubisco Agonists or Rubisco Modulators, Polyacetylates, Phosphatidylethanolamine, Phosphatidylethanolamine Methyltransferase, Methyltetrahydrofolate Reductase, Betaine Homocysteine Methyltransferase, Ancient Pink Himalayan Sea Salt instead of Table salt.

Factor	Indicative Information	Information		Wholistic Factors to Accompany Therapeutics
12-OTetradecanoylphorbol13-acetate known as TPA or known as PMA. Oncology Gene Expression.	AP-1 and Protein Kinase C can occur in a cycle with PMA/TPA and seems to be participative in numerous Microbial, Oncology and other Pathology, although its role seems to be as a transcription factor or enhancer of other transcription factors. TPA/PMA Diagnostic assay www.abcam.com/phorbol-12-myristate-13acetate-pmaab120297.html	Inhibitors of TPA/PMA include alpha-difluoromethyl ornithine (DFMO), 1,25(OH)2D3 or its analogues, and retinoic acid. PMID 3011686. Tumeric and Passion flower are among the numerous factors known to inhibit TPA/PMA. DOI 10.1006/phrs.2001.0936. Auraptene and Umbelliferone from Grapefruit and Citrus Fruits DOI: 10.1111/j.13497006.1997.tb00402.x. Inhibitors or AP-1 may be effective in inhibiting TPA/PMA. DHA and EPA from Omega 3, but not Arachidonic Acid inhibit Epidermal Growth Factor, AP-1, and TPA/PMA, although Arachidonic Acid abrogates DHA/EPA inhibition of these factors. PMCID PMC34699. Hops or Humulus Lupulus, Capsaicin and Catechins.	Relevant Therapeutics TPA/PMA is considered to be an Oncology Inhibitor in Hepatic Oncology, although this inhibition requires YAP Protein and AMOT Protein. DOI 10.1038/srep44940 Peucedanum japonicum Thunb. (PJT) inhibits TPA/PMA enabled Metastatic and Pathogenic Oncology. DOI 10.3892/ijmm.2015.2417 GF 109203X inhibits TPA/PMA PMID 8280132. Resevertrol inhibits TPA/PMA DOI 10.1074/jbc.273.34.21875 Flavopiridol disrupts TPA/PMA enabled differentiation and its CDKI activity in CML cellular entities while resulting in Apoptosis Outcomes. www.cancerres.aacrjournals.org/content/61/6/2583	Choline, Trimethylglycine, Folate/Methylfolate, Glutathione, Probiotic/Prebiotic, Complete-B Vitamins, Omega-3 Fatty Acids, Whole Food Organic Vitamins, Complete Minerals, Flavonoid/Carotenoid/Phytochemical Supplement, Glandular Mix, KAL SOD3 or other Antioxidant Mix with Catalase and Superoxide Dismutase, Choline Kinase Inhibitors, Tyrosine Kinase Inhibitors, Inhibitors of AP-1(x), including Citrus Fruit with Peelings/Rinds, Inhibitors of SP-1(X), Management of Homocysteine, Management of S-Adenosyl Homocysteine or S-Adenosyl Homocysteine inhibitors, inhibitors of Inducible Nitric Oxide Synthase, Inhibitors of Uncouple Nitric Oxide Synthase and its Reactive Molecular Species (L-Arginine, Tetrahydrobiopterin, NADPH, Superoxide Dismutase, Catalase, Glutathione, Citrulline/Arginine/Ornithine), NAD+, Hyaluronic Acid, Complete B-Vitamins with B-12 Methylcobalamin, Uridine, Prebiotic/Probiotic to Manage Inflammation Factors Produced during Ingestion of some Choline Dense Foods, Enzymes which metabolize these factors or synthesize these factors as well as precursors to these factors, Water, Phosphatidyl-Monomethylethanolamine (Phosphatidylmonomethylethanolamine or PMME), Human Rubisco, Recombinant Rubisco, Rubisco Agonists or Rubisco Modulators, Polyacetylates, Phosphatidylethanolamine, Phosphatidylethanolamine Methyltransferase, Methyltetrahydrofolate Reductase, Betaine Homocysteine Methyltransferase, Ancient Pink Himalayan Sea Salt instead of Table salt.

Factor	Indicative Information	Information		Wholistic Factors to Accompany Therapeutics
Protein Kinase A or cAMP-Dependent Kinase Oncology Gene Expression.	Protein Kinase A participates in Choline Kinase Beta and Catalysis exhibited by 12-OTetradecanoylphorbol-13acetate known as TPA or known as PMA. Protein Kinase A is inhibited by Okadaic Acid although Okadaic Acid upregulates CREB, Elk1 and cFos, potentiating upregulation of AP1. AP1 increases correlate to Pathology when PEMT is decreased and choline Kinase is upregulated. DOI 10.1111/j.14714159.2003.02334.x. Inflammation is generally associated with a %50 increase in potential for demise.	Inhibitors of Protein Kinase A include 1-(5-isoquinolinylsulfonyl)-2-methylpiperazine (H-7), N-[2-(methylamino)ethyl]-5isoquinoline-sulfonamide (H-8) and 1,(5isoquinolynylsulfonyl)-2,3dimethylpiperazine (H-5) . PMID 3011686. Protein Kinase C Diagnostic Assay www.cellbiolabs.com/sites/default/files/STA-414-96-wellcheckpoint-kinase-activityassay-kit.pdf www.cellbiolabs.com/sites/default/files/STA-414-96-wellcheckpoint-kinase-activityassay-kit.pdf. Apigenin and Resveratrol inhibit Protein Kinase A. DOI: 10.1039/C4FO00626G. Ellagitannins inhibit AMPK. DHA and EPA seem to have no deleterious effects. PMID 11152679.	Extended Protein Kinase A signaling has been suggested to be a substantial causal factor in Cardiac Impairment and Sudden Adverse Health events. DOI 10.1161/hh2301.100003. Scutelleria Baicalensis inhibits Protein Kinase although it inhibits P-Glycoprotein Also. Kaempferol inhibits Choline Kinase. DOI 10.1021/acs.jafc.5b05456. The Protein Kinase De website exhibits numerous Protein Kinase A Inhibitors www.proteinkinase.biz/75pka-inhibitors.	Choline, Trimethylglycine, Folate/Methylfolate, Glutathione, Probiotic/Prebiotic, Complete-B Vitamins, Omega-3 Fatty Acids, Whole Food Organic Vitamins, Complete Minerals, Flavonoid/Carotenoid/Phytochemical Supplement, Glandular Mix, KAL SOD3 or other Antioxidant Mix with Catalase and Superoxide Dismutase, Choline Kinase Inhibitors, Tyrosine Kinase Inhibitors, Inhibitors of AP-1(x), including Citrus Fruit with Peelings/Rinds, Inhibitors of SP1(X), Management of Homocysteine, Management of SAdenosyl Homocysteine or S-Adenosyl Homocysteine inhibitors, inhibitors of Inducible Nitric Oxide Synthase, Inhibitors of Uncouple Nitric Oxide Synthase and its Reactive Molecular Species (L-Arginine, Tetrahydrobiopterin, NADPH, Superoxide Dismutase, Catalase, Glutathione, Citrulline/Arginine/Ornithine), NAD+, Hyaluronic Acid, Complete B-Vitamins with B-12 Methylcobalamin, Uridine, Prebiotic/Probiotic to Manage Inflammation Factors Produced during Ingestion of some Choline Dense Foods, Enzymes which metabolize these factors or synthesize these factors as well as precursors to these factors, Water, Phosphatidyl-Monomethylethanolamine (Phosphatidylmonomethylethanolamine or PMME), Human Rubisco, Recombinant Rubisco, Rubisco Agonists or Rubisco Modulators, Polyacetylates, Phosphatidylethanolamine, Phosphatidylethanolamine Methyltransferase, Methyltetrahydrofolate Reductase, Betaine Homocysteine Methyltransferase, Ancient Pink Himalayan Sea Salt instead of Table salt.

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Cyclooxygenase and Lipoxygenase. www.neogenom ics.com/portals/ 0/PDF/NeoGeno micsTestCatalog .pdf www.genedx.co m/testcatalog/disorder s/ichthyosiscongenitalrecessive/31957/	Cyclooxygenase and Lipoxygenase required to produce Arachidonic Acid, most Inflammation, Leukotrienes, Thromboxanes, Prostaglandins and some Reactive Oxygen Species. Arachidonic Acid is inhibited by Aucubin from Chaste Tree Berry, Oestrogen, as well as Neutralized by Eicosapentaenoic Acid, Docosahexaenoic acid and the Omega-6 DGLA but the DGLA also potentiates Arachidonic Acid. Inflammation is generally associated with a %50 increase in potential demise.	Cyclooxygenase is inhibited by Apigenin tea, Baicalein from Scute, Berberine from philodendron, Curcumin from Turmeric, Oleanolic acid from rosemary, Eicosapentaenoic Acid from Garlic, Evodiamine or Evodol Evodia, Quercetin, Resveratrol, Rutaec arpine from Evodia, Ursolic Acid from Ligustrum and Rosemary. Lipoxygenase Elisa Kits. www.biocompare.com/pfu/ 110627/soids/2-4894/ELISA_Kit/ELISA_LOX	Lipoxygenase is inhibited by Allicin garlic, Berbamine huChang, Berberine Coptis from Phellodendron, Boswellic Acid from frankincense, Caffeic acid from Taraxacum, dandelion Epicatechin tea, Epicatechingallate tea, Epigallocatechin tea, Fisetin Chih-shih, Flavones, Galangin Galanga, Morin Morus, Quercetin, Theaflavin from Digallate tea, Ursolic acid from Ligustrum. Aucubin from Chaste Tree Berry. Cyclooxygenase 2 Elisa Kit www.mybiosource.com/prods/ELI SA-Kit/Human/cyclooxygenase-2-COX-2/COX-2/datasheet.php?products_id=2643 04. Cyclooxgenase 2 Elisa Kit. www.lsbio.com/products/elisakits?q=COX-1&adid=7601&gclid=CIunwK7b59UCFQJsfgodEokPxA	Choline, Trimethylglycine, Folate/Methylfolate, Glutathione, Probiotic/Prebiotic, Complete-B Vitamins, Omega-3 Fatty Acids, Whole Food Organic Vitamins, Complete Minerals, Flavonoid/Carotenoid/Phytochemical Supplement, Glandular Mix, KAL SOD3 or other Antioxidant Mix with Catalase and Superoxide Dismutase, Choline Kinase Inhibitors, Tyrosine Kinase Inhibitors, Inhibitors of AP-1(x), including Citrus Fruit with Peelings/Rinds, Inhibitors of SP-1(X), Management of Homocysteine, Management of S-Adenosyl Homocysteine or S-Adenosyl Homocysteine inhibitors, inhibitors of Inducible Nitric Oxide Synthase, Inhibitors of Uncouple Nitric Oxide Synthase and its Reactive Molecular Species (L-Arginine, Tetrahydrobiopterin, NADPH, Superoxide Dismutase, Catalase, Glutathione, Citrulline/Arginine/Ornithine), NAD+, Hyaluronic Acid, Complete B-Vitamins with B-12 Methylcobalamin, Uridine, Prebiotic/Probiotic to Manage Inflammation Factors Produced during Ingestion of some Choline Dense Foods, Enzymes which metabolize these factors or synthesize these factors as well as precursors to these factors, Water, Phosphatidyl-Monomethylethanolamine (Phosphatidylmonomethylethanolamine or PMME), Human Rubisco, Recombinant Rubisco, Rubisco Agonists or Rubisco Modulators, Polyacetylates, Phosphatidylethanolamine, Phosphatidylethanolamine Methyltransferase, Methyltetrahydrofolate Reductase, Betaine Homocysteine Methyltransferase, Ancient Pink Himalayan Sea Salt instead of Table salt.

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Genetic Test for P53, PTEN, MDM2, PUMA, CMyc, PEMT1, PEMT2, BRCA1, BRCA2 and whole Genome Screening CPT Codes Whole Genome Sequencing	Screen for Genetic Anomaly generally and from biopsy after the other indicators have been remediate because atypical phenotype is typically from epigenetic factors including Amehsi Indicators and less typically resultant of Bona Fide Genetic Structural Anomaly. DNA and RNA supplementation can assist in alleviating Genetic Conditions including Oncology or other conditions. RNA can be provided which is translated into Proteins which are required for biophysiological function. Similarly, proteins which are functional and optimal, designer proteins, can be utilized to enable optimal biophysiological faction, including enzymes.	CRISPR Gene Editing and Genetic Repair. Mitochondrial DNA Gene Editing. www.hindawi.com/journals/bmri/2015/305716/ There is the potential to use Primers which obscure aspects of impaired DNA, including whole regions of Chromosomes to prevent Okazaki Fragments from being synthesized, resulting in different modalities of DNA repair, as well as inhibiting DNA repair such that following repair mechanisms consider omitted synthesized extents of DNA repair as Double or Single Strand Segmentation. Homologies from other Strands of DNA can then be copied into the impaired aspects of DNA, Chromatin or Chromosomes.	Whole Genome Assay. www.support.illumina.com/array/array_kits/whole-genome_dasl_ht_assay_kit.html Crispr Genome Editing and Repair. www.horizondiscovery.com/geneediting/crispr www.fas.org/sgp/crs/misc/R44824.pdf	Choline, Trimethylglycine, Folate/Methylfolate, Glutathione, Probiotic/Prebiotic, Complete-B Vitamins, Omega-3 Fatty Acids, Whole Food Organic Vitamins, Complete Minerals, Flavonoid/Carotenoid/Phytochemical Supplement, Glandular Mix, KAL SOD3 or other Antioxidant Mix with Catalase and Superoxide Dismutase, Choline Kinase Inhibitors, Tyrosine Kinase Inhibitors, Inhibitors of AP-1(x), including Citrus Fruit with Peelings/Rinds, Inhibitors of SP-1(X), Management of Homocysteine, Management of S-Adenosyl Homocysteine or S-Adenosyl Homocysteine inhibitors, inhibitors of Inducible Nitric Oxide Synthase, Inhibitors of Uncouple Nitric Oxide Synthase and its Reactive Molecular Species (L-Arginine, Tetrahydrobiopterin, NADPH, Superoxide Dismutase, Catalase, Glutathione, Citrulline/Arginine/Ornithine), NAD+, Hyaluronic Acid, Complete B-Vitamins with B-12 Methylcobalamin, Uridine, Prebiotic/Probiotic to Manage Inflammation Factors Produced during Ingestion of some Choline Dense Foods, Enzymes which metabolize these factors or synthesize these factors as well as precursors to these factors, Water, Phosphatidyl-Monomethylethanolamine (Phosphatidylmonomethylethanolamine or PMME), Human Rubisco, Recombinant Rubisco, Rubisco Agonists or Rubisco Modulators, Polyacetylates, Phosphatidylethanolamine, Phosphatidylethanolamine Methyltransferase, Methyltetrahydrofolate Reductase, Betaine Homocysteine Methyltransferase, Ancient Pink Himalayan Sea Salt instead of Table salt.

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Free Phosphorylated Choline or Phosphocholine. Oncology Gene Expression. A study exhibited Phosphocholine 1.28 and Glycerophosphocholine at 3.64 Micromoles per liter in healthy Patients while Phosphocholine was 52 percent higher and Glycerophosphocholine was 76 percent higher in Alzheimer's. Oncology and other pathologies exhibit similar differences.	Free Phosphocholine aggregates upon Necrotic and Apoptotic Cellular Entities and causes the Innate Immune System to become activated suggest that impaired Necrosis or Apoptosis produces a persistent systemic inflammation through the Complements Innate Immunological System Pathway.' C-Reactive Protein Diagnostic using www.researchgate.net/publication/26835322_A_new_high-Sensitive_nephelometric_method_for_assayin g_serum_C-Reactive_protein_based_on_phosphocholine_ interaction DOI 10.1515/CCLM.2009.312 www.mybiosource.com/prods/ELISAKit/Human/Phosphoethanolaminephosphocholinephosphatase/PHOSPHO1/datasheet.php?products_id=280274.	Acetyl-CoA should alleviate a required circumstance for Oncology and a require Acetylation with N-Acetyl L-Cysteine already utilized provides Acetyl groups and Cysteine which both benefit Acetyl-CoA levels Choline upregulation of PEMT relieves P53 inhibition of Acetyl-CoA synthesis. Already Utilized. AP-1 Inhibition by numerous factors enables Acetyl-CoA Synthesis. Pantothenic Acid is an early factor in Acetyl-CoA Synthesis. Choline Kinase Inhibitors inhibit accumulation of Phosphocholine.	Choline, Trimethylglycine, Folate/Methylfolate, Glutathione, Probiotic/Prebiotic, Complete-B Vitamins, Omega-3 Fatty Acids, Whole Food Organic Vitamins, Complete Minerals, Flavonoid/Carotenoid/Phytochemical Supplement, Glandular Mix, KAL SOD3 or other Antioxidant Mix with Catalase and Superoxide Dismutase, Choline Kinase Inhibitors, Tyrosine Kinase Inhibitors, Inhibitors of AP-1(x), including Citrus Fruit with Peelings/Rinds, Inhibitors of SP-1(X), Management of Homocysteine, Management of S-Adenosyl Homocysteine or S-Adenosyl Homocysteine inhibitors, inhibitors of Inducible Nitric Oxide Synthase, Inhibitors of Uncouple Nitric Oxide Synthase and its Reactive Molecular Species (L-Arginine, Tetrahydrobiopterin, NADPH, Superoxide Dismutase, Catalase, Glutathione, Citrulline/Arginine/Ornithine), NAD+, Hyaluronic Acid, Complete B-Vitamins with B-12 Methylcobalamin, Uridine, Prebiotic/Probiotic to Manage Inflammation Factors Produced during Ingestion of some Choline Dense Foods, Enzymes which metabolize these factors or synthesize these factors as well as precursors to these factors, Water, Phosphatidyl-Monomethylethanolamine (Phosphatidylmonomethylethanolamine or PMME), Human Rubisco, Recombinant Rubisco, Rubisco Agonists or Rubisco Modulators, Polyacetylates, Phosphatidylethanolamine, Phosphatidylethanolamine Methyltransferase, Methyltetrahydrofolate Reductase, Betaine Homocysteine Methyltransferase, Ancient Pink Himalayan Sea Salt instead of Table salt.

Factor	Indicative Information	Information	Wholistic Factors to Accompany Therapeutics
Free Phosphorylated Choline or Phosphocholine. Oncology Gene Expression. A study exhibited Phosphocholine 1.28 and Glycerophosphocho line at 3.64 Micromoles per liter in healthy Patients while Phosphocholine was 52 percent higher and Glycerophosphocho line was 76 percent higher in Alzheimer's. Oncology and other pathologies exhibit similar differences.	Amazingly, the clinical literature observes that Phosphatidylcholine to Glycerophosphocholine Ratio, as Phosphatidylcholine molarity divided by Glycerophosphocholine Molarity, is exhibited in models of highly Pathogenic Glial Neoplasm pervasively, suggesting that how far below 1 this ratio may be can be correlated to level of Pathogenic activity as well as level of progression. Specifically, the study observed that Ki – 67, which is an indicator of Mitotic Activity used in Oncology to indicate level of division exhibited by Neoplasm, is correlated to how far below 1 this Ratio may be. Simply, the level Phosphocholine metabolites is correlated to KI – 67 in models of Oncology, confirming pervasive aspects of this research and analysis. DOI 10.1002/jmri.22517	Hydroxy Citric Acid inhibits Citrate Lyase, potentiates inhibited ATP-citrate lyase which causes which, outside of the Mitochondria, potentates segmentation of Citrate, to Oxaloacetate and Oxaloacetate to Acetyl-CoA. However, when Statins or HMG-CoA Reducatase Inhibitors are being utilized, this cycle can cause impaired muscle tissue to deteriorate rapidly, and should be utilized only when no such impairment is known. Cardiolipin is a good test to determine active muscle tissue impairment.	Choline, Trimethylglycine, Folate/Methylfolate, Glutathione, Probiotic/Prebiotic, Complete-B Vitamins, Omega-3 Fatty Acids, Whole Food Organic Vitamins, Complete Minerals, Flavonoid/Carotenoid/Phytochemical Supplement, Glandular Mix, KAL SOD3 or other Antioxidant Mix with Catalase and Superoxide Dismutase, Choline Kinase Inhibitors, Tyrosine Kinase Inhibitors, Inhibitors of AP-1(x), including Citrus Fruit with Peelings/Rinds, Inhibitors of SP-1(X), Management of Homocysteine, Management of S-Adenosyl Homocysteine or S-Adenosyl Homocysteine inhibitors, inhibitors of Inducible Nitric Oxide Synthase, Inhibitors of Uncouple Nitric Oxide Synthase and its Reactive Molecular Species (L-Arginine, Tetrahydrobiopterin, NADPH, Superoxide Dismutase, Catalase, Glutathione, Citrulline/Arginine/Ornithine), NAD+, Hyaluronic Acid, Complete B-Vitamins with B-12 Methylcobalamin, Uridine, Prebiotic/Probiotic to Manage Inflammation Factors Produced during Ingestion of some Choline Dense Foods, Enzymes which metabolize these factors or synthesize these factors as well as precursors to these factors, Water, Phosphatidyl-Monomethylethanolamine (Phosphatidylmonomethylethanolamine or PMME), Human Rubisco, Recombinant Rubisco, Rubisco Agonists or Rubisco Modulators, Polyacetylates, Phosphatidylethanolamine, Phosphatidylethanolamine Methyltransferase, Methyltetrahydrofolate Reductase, Betaine Homocysteine Methyltransferase, Ancient Pink Himalayan Sea Salt instead of Table salt.

Factor	Indicative Information	Information		Wholistic Factors to Accompany Therapeutics
Calcium. Calcium Aggregate Diagnostic Assay.	Increased, decreased or unstable Calcium levels. Typical levels of Calcium are between 10.4 mg/dL and 8.8 mg/dL. In adults and between 10.7 and 6.7 mg/dL in earlier aspects of Development. www.reference.com/health/ normal-calcium-levelblood-3d0a9be38d486e14 Diagnostic Assay for Calcium. www.labtestsonline.org/understanding/analytes/calcium/tab/test www.pcrm.org/health/healt h-topics/a-naturalapproach-to-menopause	Vitamin D, Vitamin K2, inhibitors of Inducible Nitric Oxide Synthase. Calcium which does not have a base integrated into it or most importantly which does not have Carbonate integrated into or does not have a factor integrated into that is known to participate in Pathology. Vitamin K2 is considered essential to systemic management of Calcium although Vitamin K is pervasively omitted or requested to be admitted in progressed Cardiovascular Conditions. Similarly, iNOS expression produces systems Calcium Gradients between iNOS expression tissues, Bones and Digestive obtainment of Calcium. iNOS depletes store operated Calcium, opens pores in the Endoplasmic Reticulum and Plasma Membranes, inhibits Mitochondrial ATP Synthase, Depletes iNOS and L-arginine from extracellular environment, and Collapses the Sarcolemma.	Increased, decreased or unstable Calcium levels. Typical levels of Calcium are between 10.4 mg/dL and 8.8 mg/dL. In adults and between 10.7 and 6.7 mg/dL in earlier aspects of Development. www.reference.com/health/nor mal-calcium-level-blood-3d0a9be38d486e14 Diagnostic Assay for Calcium. www.labtestsonline.org/understanding/analytes/calcium/tab/test The literature recommends age associated Micrograms per day as 2 MCG until 6 Months, 2.5 until 12 Months, 30 MCG until 3 annum, 55 until 8 annum, 60 MCG until 13, 75 MCG until 18 for Females, 90 MCG for Females 19 and over, 90 MCG for Gestational Carrying Females, 75 MCG for Breast Feeding Females, 75 MG until 18 Annum for Males and 120 MCG for Males 19 and older.	Choline, Trimethylglycine, Folate/Methylfolate, Glutathione, Probiotic/Prebiotic, Complete-B Vitamins, Omega-3 Fatty Acids, Whole Food Organic Vitamins, Complete Minerals, Flavonoid/Carotenoid/Phytochemical Supplement, Glandular Mix, KAL SOD3 or other Antioxidant Mix with Catalase and Superoxide Dismutase, Choline Kinase Inhibitors, Tyrosine Kinase Inhibitors, Inhibitors of AP-1(x), including Citrus Fruit with Peelings/Rinds, Inhibitors of SP-1(X), Management of Homocysteine, Management of S-Adenosyl Homocysteine or S-Adenosyl Homocysteine inhibitors, inhibitors of Inducible Nitric Oxide Synthase, Inhibitors of Uncouple Nitric Oxide Synthase and its Reactive Molecular Species (L-Arginine, Tetrahydrobiopterin, NADPH, Superoxide Dismutase, Catalase, Glutathione, Citrulline/Arginine/Ornithine), NAD+, Hyaluronic Acid, Complete B-Vitamins with B-12 Methylcobalamin, Uridine, Prebiotic/Probiotic to Manage Inflammation Factors Produced during Ingestion of some Choline Dense Foods, Enzymes which metabolize these factors or synthesize these factors as well as precursors to these factors, Water, Phosphatidyl-Monomethylethanolamine (Phosphatidylmonomethylethanolamine or PMME), Human Rubisco, Recombinant Rubisco, Rubisco Agonists or Rubisco Modulators, Polyacetylates, Phosphatidylethanolamine, Phosphatidylethanolamine Methyltransferase, Methyltetrahydrofolate Reductase, Betaine Homocysteine Methyltransferase, Ancient Pink Himalayan Sea Salt instead of Table salt.

Factor	Indicative Information	Information		Wholistic Factors to Accompany Therapeutics
Nitric Oxide availability.	(±)-S-Nitroso-N-acetylpenicillamine (SNAP) and S-Nitrosoglutathione (GSNO) are nitric oxide donors. Inhaled nitric oxide is considered to be therapeutic for viral vectors linked to the epidemic of 2020 and 2021. Inhaling or breathing through the nose generally upregulates nitric oxide availability. This explains why the viral vector linked to the pandemic of 2020 and 2021 has an upper respiratory component than impair nasal breathing and diminish production of nitric oxide that is toxic for microbes. Even inhaling through the nose during anerobic exercise improves vascular function. Information. Int J Exerc Sci. Volume 10. Number 4. Pages 505 to 514. 2017. PMID 28674596.	Ester nitrates and nitrites, S-nitrosothiols, metal complexes, furoxans, oxadiazoles, diazeniumdiolates and NO nanoparticles are all emerging nitric oxide donor capabilities. Information. Mini Rev Med Chem. Volume 18. Number 14. Pages 1175 to 1198. 2018. Organic nitrates can potentiate release reactive molecular species such as peroxynitrite. Organic nitric oxide donors include nitroglycerin, isosorbide dinitrates, and isosorbide mononitrate. Information. Int J Mol Sci. Volume 22. Number 22. November, 2021. PMC8625126.	Inorganic nitric oxide donors are considered to be bereft of much the risk for reactive nitrogen species production. Inorganic nitric oxide donors include nicorandil and molsidomine, as well as N-diazeniumdiolate (NONOate). Nitric oxide gas therapy is therapeutic in newborn pulmonary hypertension as well as in acute respiratory distress syndrome, generally, providing another therapeutic pathway for the viral vector linked to the pandemic of 2020 and 2021. Information. “Nitric Oxide Therapy for ‘pandemic’ Patients with Oxygen Requirement (NICOR).” Clinical Study Identifier NCT04476992. National Library of Medicine. Humming also increase levels of nitric oxide by 15 times or 1,500 percent. AM J Respir Crit Care Med. Volume 166. Number 2. Pages 144 to 145. July 15, 2002. PMID 12119224. Gentle Humming or vibrations produced during nasal breathing are including as practice known as Bhramari and can increase levels of nitric oxide. “Bhramari increases Immunity through Nitric Oxide.” yogabharati.org	Choline, Trimethylglycine, Folate/Methylfolate, Glutathione, Probiotic/Prebiotic, Complete-B Vitamins, Omega-3 Fatty Acids, Whole Food Organic Vitamins, Complete Minerals, Flavonoid/Carotenoid/Phytochemical Supplement, Glandular Mix, KAL SOD3 or other Antioxidant Mix with Catalase and Superoxide Dismutase, Choline Kinase Inhibitors, Tyrosine Kinase Inhibitors, Inhibitors of AP-1(x), including Citrus Fruit with Peelings/Rinds, Inhibitors of SP-1(X), Management of Homocysteine, Management of S-Adenosyl Homocysteine or S-Adenosyl Homocysteine inhibitors, inhibitors of Inducible Nitric Oxide Synthase, Inhibitors of Uncouple Nitric Oxide Synthase and its Reactive Molecular Species (L-Arginine, Tetrahydrobiopterin, NADPH, Superoxide Dismutase, Catalase, Glutathione, Citrulline/Arginine/Ornithine), NAD+, Hyaluronic Acid, Complete B-Vitamins with B-12 Methylcobalamin, Uridine, Prebiotic/Probiotic to Manage Inflammation Factors Produced during Ingestion of some Choline Dense Foods, Enzymes which metabolize these factors or synthesize these factors as well as precursors to these factors, Water, Phosphatidyl-Monomethylethanolamine (Phosphatidylmonomethylethanolamine or PMME), Human Rubisco, Recombinant Rubisco, Rubisco Agonists or Rubisco Modulators, Polyacetylates, Phosphatidylethanolamine, Phosphatidylethanolamine Methyltransferase, Methyltetrahydrofolate Reductase, Betaine Homocysteine Methyltransferase, Ancient Pink Himalayan Sea Salt instead of Table salt.

Factor	Indicative Information	Information		Wholistic Factors to Accompany Therapeutics
Calcium. Calcium Aggregate Diagnostic Assay.	Both Males and Females are known to have about a 100 percent increase in risk for demise when levels of Vitamin D are below 30 ng/mL, suggesting that Vitamin D is essential because it is removed from direct complexity of K1, K2, Cardiovasular disease Management, iNOS and uNOS. DOI 10.2105/AJPH.2014.302 034	Antacids, and numerous foods, or supplements can exhibit calcium. If these do not include Vitamin K1 and Vitamin K2, it is not recommended that these be utilized regularly particularly if there is already Cardiovascular conditions exhibited and particularly if Breast Oncology is exhibited. Organ Meats and the Japanese Food Natto are sources of Vitamin K2. Source, Protecting Bone and Arterial Health with Vitamin K2, Life Extension Magazine, March 2008.	www.webmd.com/vitamins -and supplements/supplementguide-vitamin-k2. High levels of Calcium supplements are not strongly recommended unless there is deficiency and Vitamin K2 and K1 are included.	Choline, Trimethylglycine, Folate/Methylfolate, Glutathione, Probiotic/Prebiotic, Complete-B Vitamins, Omega-3 Fatty Acids, Whole Food Organic Vitamins, Complete Minerals, Flavonoid/Carotenoid/Phytochemical Supplement, Glandular Mix, KAL SOD3 or other Antioxidant Mix with Catalase and Superoxide Dismutase, Choline Kinase Inhibitors, Tyrosine Kinase Inhibitors, Inhibitors of AP-1(x), including Citrus Fruit with Peelings/Rinds, Inhibitors of SP-1(X), Management of Homocysteine, Management of S-Adenosyl Homocysteine or SAdenosyl Homocysteine inhibitors, inhibitors of Inducible Nitric Oxide Synthase, Inhibitors of Uncouple Nitric Oxide Synthase and its Reactive Molecular Species (L-Arginine, Tetrahydrobiopterin, NADPH, Superoxide Dismutase, Catalase, Glutathione, Citrulline/Arginine/Ornithine), NAD+, Hyaluronic Acid, Complete B-Vitamins with B-12 Methylcobalamin, Uridine, Prebiotic/Probiotic to Manage Inflammation Factors Produced during Ingestion of some Choline Dense Foods, Enzymes which metabolize these factors or synthesize these factors as well as precursors to these factors, Water, Phosphatidyl-Monomethylethanolamine (Phosphatidylmonomethylethanolamine or PMME), Human Rubisco, Recombinant Rubisco, Rubisco Agonists or Rubisco Modulators, Polyacetylates, Phosphatidylethanolamine, Phosphatidylethanolamine Methyltransferase, Methyltetrahydrofolate Reductase, Betaine Homocysteine Methyltransferase, Ancient Pink Himalayan Sea Salt instead of Table salt.

Factor	Indicative Information	Information	Wholistic Factors to Accompany Therapeutics
Insulin Like Growth Factor	HER2 and Insulin Like Growth Factor are said to work through Cyclooxygenase and Protein Tyrosine Kinases but the literature clearly shows these are active through AP1/TPA/PMA Fos/Jun pathways also. EGF/HER1, the homologue of HER2, is inhibited by Choline Kinase Inhibitors	Tomatoes soya polyphenols vegan diet (due to its low protein content). Barley is highest in chromium which lowers blood sugar therefore lower both insulin and ILGF. Breast oncology benefits from decreased levels of Milk as it might increases ILGF, if ILGF is not being managed otherwise. Inhibiting AP-1, TPA/PMA, and inhibiting Choline Kinase, should impair HER2. Including inhibition of SP-1 and Protein Kinases should be very effective. IGF-1 and Insulin both can activate IFGR-1 and IGFR-2, although IGF-2 integrates with these but does not activate the Insulin Response Element Genetic Expression Cascade. IGF-1 activates the Protein Tyrosine Kinase Domains of PI3K and AKT, which are on the pathway to AP-1 and TPA/PMA which specifically inhibit PEMT and upregulated Choline Kinase. IGF-1, TNF-Alpha, VEGF and Interluekin-6 each activate VEGF to produce all manner of Oncological activity. Downregulation of PEMT, however, seems to the Plan for Pathogens and Pathogenic Processes Generally. Brigatinib is an inhibitor of Insulin-Like Growth Factor. www.drugs.com/ppa/brigatinib.html Ceritinib is an inhibitor of the IGFR Receptor. www.drugs.com/ppa/ceritinib.html Increlex is a supplemental IGFR to manage IGFR. www.drugs.com/ppa/ceritinib.html	Choline, Trimethylglycine, Folate/Methylfolate, Glutathione, Probiotic/Prebiotic, Complete-B Vitamins, Omega-3 Fatty Acids, Whole Food Organic Vitamins, Complete Minerals, Flavonoid/Carotenoid/Phytochemical Supplement, Glandular Mix, KAL SOD3 or other Antioxidant Mix with Catalase and Superoxide Dismutase, Choline Kinase Inhibitors, Tyrosine Kinase Inhibitors, Inhibitors of AP-1(x), including Citrus Fruit with Peelings/Rinds, Inhibitors of SP-1(X), Management of Homocysteine, Management of S-Adenosyl Homocysteine or S-Adenosyl Homocysteine inhibitors, inhibitors of Inducible Nitric Oxide Synthase, Inhibitors of Uncouple Nitric Oxide Synthase and its Reactive Molecular Species (L-Arginine, Tetrahydrobiopterin, NADPH, Superoxide Dismutase, Catalase, Glutathione, Citrulline/Arginine/Ornithine), NAD+, Hyaluronic Acid, Complete B-Vitamins with B-12 Methylcobalamin, Uridine, Prebiotic/Probiotic to Manage Inflammation Factors Produced during Ingestion of some Choline Dense Foods, Enzymes which metabolize these factors or synthesize these factors as well as precursors to these factors, Water, Phosphatidyl-Monomethylethanolamine (Phosphatidylmonomethylethanolamine or PMME), Human Rubisco, Recombinant Rubisco, Rubisco Agonists or Rubisco Modulators, Polyacetylates, Phosphatidylethanolamine, Phosphatidylethanolamine Methyltransferase, Methyltetrahydrofolate Reductase, Betaine Homocysteine Methyltransferase, Ancient Pink Himalayan Sea Salt instead of Table salt.

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Orexin and other aspects of Consciousness	Hydrogen enriched water increases Ghrelin, Acetylcholine although it has a less potent inhibitory mechanism, ATP increases, Hyperventilation Bag usage or Breathslim device, Caffeine, Nicotine only briefly or specifically although it has encompassing Hypothalamic Orexin Potentiation, Fructose/Fructans/FOS, Oxytocin, Oxytocin, Vasopressin with fluid monitoring, Neurotensin, Omega-3 Fatty Acids except with Narcolepsy, Glutamate only briefly to prevent cognitive impairment, and cholecystokinin although it induces sleep. The article suggests Berberine although it later suggests that Berberine in inhibits Orexin. "30 Ways To Naturally Increase Orexin/Hypocretin (and Wakefulness) 30 Ways To Naturally Increase Orexin/Hypocretin (and Wakefulness)" The Self 'Infiltrated' Internet Blog. Orexins enhance cognitive function and awareness. PEMT function enhances cognitive function by packing cellular membranes, particular mitochondria and endoplasmic reticulum, with hydride exhibiting PEMT by integrating 3 sequential molecules of CH3 into phosphosphatidylserine enriched with DHA, ether linked, extended length arachidonate, palmitoylate first fatty acid in beta oxidation, oleoylate, omega-3, insulating fatty acids to produce enriched phosphatidylcholine. This sequential CH3 enriching process integrates Hydride, the energy that fuels stars, in ratio of 1 hydride to 2 hydrogens, CH3, such that background pH required for conscious function and foundational biological redox interacts can emerge and persist. The capacitant nuances of the mitochondria, endoplasmic reticulum and cellular entities contrast with the hydric effect that transcends cellular membranes, producing a background ph between 7.2 and 7.6 which is essential to being conscious, while also producing a gradient between circulating H+ and the background pH which enables efficient redox interactions. Redox interactions free 2eV- when hydride is fracked from hydrides or hydride carriers, resulting release of energy, exhibition of a field, and emitting of near blue and blue spectrum fluorescence that is recaptured by redox interactions integrating hydride into hydride carriers such as NADP+ becoming NADPH or NADP+ becoming NADPH, as well as by capture of energy in spin dynamics or depletion of the energetic through particular interactions. These molecular nuances of consciousness are augmented by orexins.	Choline, Trimethylglycine, Folate/Methylfolate, Glutathione, Probiotic/Prebiotic, Complete-B Vitamins, Omega-3 Fatty Acids, Whole Food Organic Vitamins, Complete Minerals, Flavonoid/Carotenoid/Phytochemical Supplement, Glandular Mix, KAL SOD3 or other Antioxidant Mix with Catalase and Superoxide Dismutase, Choline Kinase Inhibitors, Tyrosine Kinase Inhibitors, Inhibitors of AP-1(x), including Citrus Fruit with Peelings/Rinds, Inhibitors of SP-1(X), Management of Homocysteine, Management of S-Adenosyl Homocysteine or S-Adenosyl Homocysteine inhibitors, inhibitors of Inducible Nitric Oxide Synthase, Inhibitors of Uncouple Nitric Oxide Synthase and its Reactive Molecular Species (L-Arginine, Tetrahydrobiopterin, NADPH, Superoxide Dismutase, Catalase, Glutathione, Citrulline/Arginine/Ornithine), NAD+, Hyaluronic Acid, Complete B-Vitamins with B-12 Methylcobalamin, Uridine, Prebiotic/Probiotic to Manage Inflammation Factors Produced during Ingestion of some Choline Dense Foods, Enzymes which metabolize these factors or synthesize these factors as well as precursors to these factors, Water, Phosphatidyl-Monomethylethanolamine (Phosphatidylmonomethylethanolamine or PMME), Human Rubisco, Recombinant Rubisco, Rubisco Agonists or Rubisco Modulators, Polyacetylates, Phosphatidylethanolamine, Phosphatidylethanolamine Methyltransferase, Methyltetrahydrofolate Reductase, Betaine Homocysteine Methyltransferase, Ancient Pink Himalayan Sea Salt instead of Table salt.

Factor	Indicative Information	Information	Wholistic Factors to Accompany Therapeutics
Orexin and other aspects of Consciousness	Paralytic statuses may require management. Potentially helpful considerations include focus on management pH out of paralytic ranges into functional ranges. This can include provide Choline, Folate, Trimethylglycine, Glutathione and L-arginine, along with assuring that Reactive Oxygen Species, iNOS, and Uncoupled Nitric Oxide Synthase is managed by factors such as L-Arginine, Tumeric, Magnesium, Calcium, strong Ion management, Tetrahydrobiopterin, Niacin, Vitamin B-6, Vitamin B-12 Methylcobalamin, NADPH, Choline, complete group of B Vitamins otherwise, FMO or Flavins, FADH and other factors. Similarly, speaking slightly above eye level, tilting the head and eyebrows upward, and tilting bed at an angle to simulate standing positions as a much as possible and providing Orexins which are known to stimulate consciousness. Here, additional information regarding Orexins can be provided because such information was not provided in other areas of the Amehsi Specification. An information article regarding Orexins provides information presented here. Orexins increase oxygen consumption, thus Oxygen supplementation or mechanical assistance could be useful. Stimulators of Orexins include Ghrelin, inhibition of Inflammation, Curcumin, Boswellia, Nicotinamide Riboside NAD+, SIRT1, Tea, Bright Light but not iNOS stimulating versions, CO2/Lactate/lowered-pH but-not to paralytic levels, Exercise, pyruvate/lactate when Glucose is high enough to suppress Orexin response, Micropulse Device, Infrared, Low Level Laser Therapy (LLLT) and Photobiomodulation, utilize fermented nutritional factors, Kombucha, Sauer Kraut, Pickles, Probiotics such as Lactobacilli, Calcium Lactate, Calcium Pyruvate, Magnesium Lactate, manage/decrease Glucose, decrease obesity associated increases in Leptin which inhibits Orexin, Fiber, Agonists of GLP-1 which activates/excite Orexin Neurons, Prebiotics/Resistant-Starches, Hi-Maize as a Resistant Starch, exhibit enjoyable activities, Dopamine Agonists while inhibiting the Dopamine Receptor, L-Dopa, Mucuna, Modafinil, Amphetamines, Tyrosine, S-Adenosyl Methionine with an additional ATP molecule SAM-E, Golden Root/Rose Root/Artic Root, Longvida Curcumin, Forskolin, Cyclic AMP, Pregnenolone, GABA Agonists, Progesterone, DHEA, DHEA-S, Ginkgo/Bilobalide, Ginkgolide, Zinc, Wormwood or Thujone from Sage, Muira Puama, Naltrexone, Theobromine, Theophylline, Antibiotic Beta-Lactams such as Penicillin's/Cephalosporins/Carbapenems, and Thyroid Releasing Hormone/	Choline, Trimethylglycine, Folate/Methylfolate, Glutathione, Probiotic/Prebiotic, Complete-B Vitamins, Omega-3 Fatty Acids, Whole Food Organic Vitamins, Complete Minerals, Flavonoid/Carotenoid/Phytochemical Supplement, Glandular Mix, KAL SOD3 or other Antioxidant Mix with Catalase and Superoxide Dismutase, Choline Kinase Inhibitors, Tyrosine Kinase Inhibitors, Inhibitors of AP-1(x), including Citrus Fruit with Peelings/Rinds, Inhibitors of SP-1(X), Management of Homocysteine, Management of S-Adenosyl Homocysteine or SAdenosyl Homocysteine inhibitors, inhibitors of Inducible Nitric Oxide Synthase, Inhibitors of Uncouple Nitric Oxide Synthase and its Reactive Molecular Species (L-Arginine, Tetrahydrobiopterin, NADPH, Superoxide Dismutase, Catalase, Glutathione, Citrulline/Arginine/Ornithine), NAD+, Hyaluronic Acid, Complete B-Vitamins with B-12 Methylcobalamin, Uridine, Prebiotic/Probiotic to Manage Inflammation Factors Produced during Ingestion of some Choline Dense Foods, Enzymes which metabolize these factors or synthesize these factors as well as precursors to these factors, Water, Phosphatidyl-Monomethylethanolamine (Phosphatidylmonomethylethanolamine or PMME), Human Rubisco, Recombinant Rubisco, Rubisco Agonists or Rubisco Modulators, Polyacetylates, Phosphatidylethanolamine, Phosphatidylethanolamine Methyltransferase, Methyltetrahydrofolate Reductase, Betaine Homocysteine Methyltransferase, Ancient Pink Himalayan Sea Salt instead of Table salt.

Factor	Indicator, Primary	Information	Wholistic Factors to Accompany Therapeutics
Other indicators	Vital Indicators are always necessary including those not exhibited here, and including those presented in the list of indicators presented in the early aspects of this presentation.	a) Others include, Eicosapentaenoic Acid (Neutralization of Arachidonic Acid Metabolites) b) Free Arachidonic Acid (When High Increased Leukotriene, Thromboxane, Prostaglandin Potential) c) Omega-3 to Omega-6 Ratio d) Trimethylamine to Trimethylamine-N-Oxide Ratio e) Circulating Calcium f) Calcium g) Potassium h) Oxygen i) Pulse j) Systolic/Diastolic Pressure k) Strong Ions, Fluids, Electrolytes, Inclusion Choline and Folate in Parenteral Nutrition l) White Blood Cellular Entities or Leukocytes m) Glucose n) HCO315. H2S o) Superoxide O2- p) H202 Hydrogen Peroxide q) CO2 r) Catalase s) PCBs t) Choline-O-Acetyltransferase u) Free Phosphorylated Choline as Phosphocholine v) TNF-alpha w) Thromboxane x) Temperature y) Leukotrienes z) Prostaglandins aa) NF kB bb) Interleukins 1B and other Interleukins or aggregate cc) Interferon individual or aggregate Interferon	Choline, Trimethylglycine, Folate/Methylfolate, Glutathione, Probiotic/Prebiotic, Complete-B Vitamins, Omega-3 Fatty Acids, Whole Food Organic Vitamins, Complete Minerals, Flavonoid/Carotenoid/Phytochemical Supplement, Glandular Mix, KAL SOD3 or other Antioxidant Mix with Catalase and Superoxide Dismutase, Choline Kinase Inhibitors, Tyrosine Kinase Inhibitors, Inhibitors of AP-1(x), including Citrus Fruit with Peelings/Rinds, Inhibitors of SP-1(X), Management of Homocysteine, Management of S-Adenosyl Homocysteine or SAdenosyl Homocysteine inhibitors, inhibitors of Inducible Nitric Oxide Synthase, Inhibitors of Uncouple Nitric Oxide Synthase and its Reactive Molecular Species (L-Arginine, Tetrahydrobiopterin, NADPH, Superoxide Dismutase, Catalase, Glutathione, Citrulline/Arginine/Ornithine), NAD+, Hyaluronic Acid, Complete B-Vitamins with B-12 Methylcobalamin, Uridine, Prebiotic/Probiotic to Manage Inflammation Factors Produced during Ingestion of some Choline Dense Foods, Enzymes which metabolize these factors or synthesize these factors as well as precursors to these factors, Water, Phosphatidyl-Monomethylethanolamine (Phosphatidylmonomethylethanolamine or PMME), Human Rubisco, Recombinant Rubisco, Rubisco Agonists or Rubisco Modulators, Polyacetylates, Phosphatidylethanolamine, Phosphatidylethanolamine Methyltransferase, Methyltetrahydrofolate Reductase, Betaine Homocysteine Methyltransferase, Ancient Pink Himalayan Sea Salt instead of Table salt.

Factor	Indicative Information	Information	Wholistic Factors to Accompany Therapeutics
Other Indicators	Vital Indicators are always necessary including those not exhibited here, and including those presented in the list of indicators presented in the early aspects of this presentation.	a) Beneficial exhibition of phospholipid integrated extended length Arachidonic Acid in fatty acyl moieties. b) Trimethylamine/Trimethylamine-N-Oxide Ratio (Uncoupled/Inducible NOS, Homocysteine Homologue) c) Phosphatidylethanolamine Methyltransferase (Increased P53, Lower VLDL unless Liver X Receptor Rescues) d) VLDL (When Low, Impaired Phosphatidylethanolamine Methyltransferase, possible Liver X Receptor Impairment) e) Phosphocholine (Feed Forward Energy Accumulates for Oncology and Pathology) 5. Dioxins f) Reactive Carbonyls g) Oxidation of Lipids h) Advanced End Products i) HB1AC Glycosylated Levels j) HB1AC Duration of Glycosylation k) Is the Patient Located in Locality, Region or Area that uses Demise as a Sanction l) Does the Patient Speak English m) Is there an information System that indicates Abated Vital Being, Continued Vital Being or Prognosis n) Is there a Detailed Financial Information System that Includes Clinical Billing Information, Clinical Information, the Patients Identifying Information and is it onsite with the Care Entity? o) Does the Patient have Health Coverage p) Is the Patient socioeconomically Advantaged or Disadvantaged q) Are information systems utilized to distribute Statistical Information about Human Outcomes? r) Are there any objectives, budgets or projections that require or benefit from the exhibition of detrimental Human Outcomes? s) Other factors in the Translationalwellness Health Framework or amehsi specification Care Checklist t) Other Factors in the AMEH Healthnet Framework Super Indicators or Ubermarkers Checklist u) Factors which remediated/Remediate these within the translationalhealth framework or amehsi Specification v) pH, Temperature, Pulse or Heart Pace, Oxidation or levels Oxygen, Levels of CO2.	Choline, Trimethylglycine, Folate/Methylfolate, Glutathione, Probiotic/Prebiotic, Complete-B Vitamins, Omega-3 Fatty Acids, Whole Food Organic Vitamins, Complete Minerals, Flavonoid/Carotenoid/Phytochemical Supplement, Glandular Mix, KAL SOD3 or other Antioxidant Mix with Catalase and Superoxide Dismutase, Choline Kinase Inhibitors, Tyrosine Kinase Inhibitors, Inhibitors of AP-1(x), including Citrus Fruit with Peelings/Rinds, Inhibitors of SP-1(X), Management of Homocysteine, Management of S-Adenosyl Homocysteine or S-Adenosyl Homocysteine inhibitors, inhibitors of Inducible Nitric Oxide Synthase, Inhibitors of Uncouple Nitric Oxide Synthase and its Reactive Molecular Species (L-Arginine, Tetrahydrobiopterin, NADPH, Superoxide Dismutase, Catalase, Glutathione, Citrulline/Arginine/Ornithine), NAD+, Hyaluronic Acid, Complete B-Vitamins with B-12 Methylcobalamin, Uridine, Prebiotic/Probiotic to Manage Inflammation Factors Produced during Ingestion of some Choline Dense Foods, Enzymes which metabolize these factors or synthesize these factors as well as precursors to these factors, Water, Phosphatidyl-Monomethylethanolamine (Phosphatidylmonomethylethanolamine or PMME), Human Rubisco, Recombinant Rubisco, Rubisco Agonists or Rubisco Modulators, Polyacetylates, Phosphatidylethanolamine, Phosphatidylethanolamine Methyltransferase, Methyltetrahydrofolate Reductase, Betaine Homocysteine Methyltransferase, Ancient Pink Himalayan Sea Salt instead of Table salt.

Factor	Indicative Information	Information
Translational wellness and Amehsi specification correlations, associations and capabilities	Assists in translating Translational wellness and Amehsi specification Recommendations , information and other information into improved outcomes.	a) An information technology system and activity process that has patients authenticated using DNA at the care setting, while each diagnostic sample is also authenticated using DNA, such that each phase of a care process is assured to be accurate along with assuring authenticity of Diagnostic Samples and their application to Care. b) Information Technology System which maps each care intervention, patient, diagnosis, disease, diagnostic and possibly procedure to their precise causal factors within the translationawellness and Amehsi Information Framework. The objective is to continue the progression of how ICD improves behavior and biological outcomes without adversely effecting Human physiology and behavior. c) A Care Management Capability which maintains information about each diagnostic test or diagnostic determination, particularly translationalwellness factors or Amehsi Factors, including if they were effective and if they effect these Indicators in an adverse way or beneficial way, such that providers can observe how each therapeutics affect such Indicators. The capability enables iterative progressive improvement of therapeutics and management of such indicators to optimal levels. d) A Care Management Module which enables Health Plans, Research Entities, Care Entities, or any other role in the Health Industry to obtain information about those indicators presented here and other Indicators such that patient status, physician usage of the indicators, effect of indicator management, may be utilized to improve programs, product/plan performance, service quality, and financial performance, and as well as provide information for Pay for Performance initiatives or prospective payment systems which do not rely upon Fee for Service structure. e) An algorithm, Services and Software Modules which enables Pharmaceutical, Therapeutics, Services and Product organizations to determine how their prospective or already implemented capability affect or are affected by translationalwellness or Amehsi specification, as well as other indicators while also providing a map of how to improve the performance of such capabilities using such Indicators. f) An algorithm and technology capability that enables interactions that transcend distance, location, space and time, particularly in effecting care, behavior and physiological outcomes. g) A Capability that uses phase transfer and shaping influences to mitigate concussive influence that might be detrimental to structures and physiology. h) A propulsion system that uses the model of Inducible Nitric Oxide Synthase and its possible substrates, as well as how iNOS produces mechanical force through its consumption of Ca2+ by opening apertures in cellular membranes.

Factor	Indicative Information	Information	Wholistic Factors to Accompany Therapeutics
Translational wellness and Amehsi specification correlations, associations and capabilities	Assists in translating Translational wellness and Amehsi specification Recommendations , information and other information into improved outcomes.	a) A Dynamic information exchange solution that enables associations in different clinical and technology codesets, molecular pathways, metabolic pathways, behavior, disease, and outcomes to be automatically generated from Care and Clinical Systems, followed by automatically offering these capabilities as consumable information in an industry network. Each association can be included in research, development, and care. Each service can immediately benefit a capability being produced and included in the development costs as well as included in the wholesale or retail pricing scheme. Similarly, such associations can be included in cost of care and reimbursed in the care payment scheme. The solution is the first IP assurance capability that enables organizations to benefit from the way in which they enhance progressive improvement in technology and health outcomes. b) Translational wellness and Amehsi Information Systems Architecture, Development, Management and Improvement Modules, Services and c) Guidance including guidance for EMF Protection in communities, dwellings, edifices and care environment d) Custom Supplements for each Health Condition or Patient derived from translational wellness and Amehsi Information, Health and Beauty Therapeutics, as well as Biomedical/Supplement capability schedules for use in care, health and beauty. e) Guidance for improving performance systems of civilization, including assuring prioritization of optimal Human Outcomes. f) Computational Proteomics molecule that includes numerous Biomedical/Supplemental Capabilities interspaced by molecular domains that are segmented only by particular conditions in cellular environments as well as which are segmented by proteomic diagnostics molecular capabilities. Molecular diagnostics can test for a condition or status then produced the segmenting factor when the diagnostic condition or status is found. g) 14.A system of Biomedical and Supplemental capabilities in which the computational molecular domains are progressively improved. Biomedical capabilities and supplements are produced or developed separately without having to resolve how to obtain optimal intracellular molarity or specificity of applicability to the Patient. h) Diagnostic capabilities are produced and progressively improved, which produce catalytically active segmentation factors that segment specific domains in the computation Proteomics molecules. Manufacturing of biomedical or supplemental capabilities then includes Computational Molecular Domains as already produced infrastructure, while different biomedical/supplemental capabilities are produce for inclusion between the segmentable domains, while diagnostic capabilities can be included in the molecule or exhibited separately from the Computational Proteomic Capability such that therapeutics are released when very precise factors, conditions, characteristics, enzymes, molarity, turgor, temperature or other characteristics are exhibited. The system enables precision in therapeutics, increase of entrants into the therapeutic market, assurance of optimal pharmacokinetics, decrease development costs, decrease risks as well as enables Amehsi Indicators to be utilized in development capabilities with near 100 percent effectiveness. i) Use of Phospholipid and Monomethylethanolamine Metabolites to promote enhanced crop production and deteriorate toxins. j) The implementation of Software Defect Management System using translationalwellness and Amehsi specification correlates, associations and recommendations	