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Olive Oil and Inositol in a Dog Diet: Cause and Effect Chain of Events Welcome to Earth Third Rock from the Sun

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I. INTRODUCTION

A previous recent report detailed the overall safety and possible benefits of copper supplemetation in a group of dogs with heart benefits thought to be the most relevant [20]. However, results were not entirely successful particularly in the case of Happy who never achieved "cough free" status as she had briefly in 2019. Further lack of progress motivated a more detailed examination of the last known working diet which revealed likely contributors to overall health.

Extra virgin olive oil had been greatly reduced and also "other" components of the GNC-100 vitamin used earlier were considered as lost contributors as this multi-vitamin was replaced by components. Several suspects were uncovered with inositol considered quite probably important.

Subsequently, 2 of the dogs, Annie and Trixie, have died. Generally all of them appeared a little duller over the past year after moving to a new location.

II. DISCOVERY AND CONSIDERATION OF SUSPECTS

An inability to entirely return Happy to here high-energy cough-free state motivated a more careful examination of the last known working diet from early 2019. The two most obvious suspects were extra virgin olive oil (EVOO) and ignored components of the GNC B-100 supplement. The latter containing all of those consider below except the EVOO, see the picture.

Olive oil is a complex natural product and a perenial suspect with many questions and paradoxes [6]ZZ. Currently most health benefits are thought to relate to the monounsaturated oleic acid which is the majority of extra virgin olive oil although many other components are potentially active such as polyphenols and hydroxytyrosol [18] [21]. In addition to these well considered functions, it could also act as a simple yet unique solvet or fuel.

Inositol literature was also highly suggestive of a wide range of benefits but no compelling evidence exists or specific efficacy and endogenous production is often consider sufficient.. Inositol and derivatives may relate to various stresses in a range of organisms such as salt stress in the plant Tamarix ramosissima [16] and acute ammonia toxicity in fish [34]. It is important to note that high inositol has been associated with both heart and kidney pathology suggesting it has a pathological role [24] and " stimulates the transcription of genes underlying hypertrophic growth." [7].

But many results show beneficial effects of exogenous inositol or phosphate derivatives. One recent review considers heart and brain disease, diabetes, cancer and reproductive health [5]. Some reports of heart benefits include moderation of pathological effects of high fat diet on heart including improved rhythm and reduced remodeling [14]

or indirectly by improved oxygen delivery from hemoglobin [3]. It also reduced effects of toxic lithium dosing in several measures of heart quatl. [13].

Other benefits exist for conditions such as diabetic nephropathy [28] cisplatin exposure [36] [25]

A 2016 report found that inositol was likely safe for dogs and cat but lacking any benefit [1].

Inositol phosphates form a family of signalling molecules which seem to be common in eukaryotic cells [15]. Carefully regulated inositol seems to be needed for proper development of Drosophila melanogaster [26] and an inositol hexaphosphate kinase may have an effect on lifespan in mice [22]. ZZ It may also have a role to play in thyroid health especially in cases of boarderline low hormone output [2] as has been suspected previously to be a common problem in dogs.

While inositol is synthesized the overall regulation of synthesis, uptake, and elimination is not well uderstood [29].

Thinking outloud

Its also interesting to note that there is a known variant of an inositol related receptor of significance (ITPR1 GOF variant W1457G) [30] involving the loss of tryptophan which could also occur to some extent due to high infidelity translation in the presence of tryptophan deficiency although "mutation" to other amino acids may be more likey than G. As this is a GoF it may be quite sensitive to the new acid.

PABA was also added but a concern due to possible thyroid issues which have been a problem as descrirbed before. It is a verstile intermediate in synthetic and biological processes with recently described anti-cholinesterase activity [10] among many other properties. Modulation of neurotransmitters may be more general however as it can enhance tryptophan hydroxylase activity among other functions [4]. It is used controversially in Peyronie's disease where it is thought to improve oxygenation and decrease fibrosis although side effects such as hepatitis are a concern [27].

Thinking outloud

remember Sildenafil and heart? lol

It has been described as "vitamin like" in a report suggesting imrpovement in tumor radiosensitivity related to phenotype changes including reduced melanogeneesis [35].

When combined with a tumor inducer, PABA at .5 percent of diet increase incidence of thyroid tumors and increased TSH and proliferation alone [11]. Its not clear however if these changes are pathological although suggestive of a route to cancer or other diseases. In 1945 this response was observed to improve resistance to decreased barometric pressure [8]. A few years later, in 1948, hypothyroid conditions induced by PABA or other means showed interactions between choline deficiency and liver pathology [9]. That work is somewhat similar to the present work except that more pathways have been ceteched out and, "we've got computers" allowing for many possible deficiencies to be remediated in a tractable way.

Previously, the dogs have been given sodium benzoate due to a variety of speculative considerations from thyroid to dental to microbial health.

Choline bitartate has recently been associated with stones in dogs [19] and so an althernative, CDP choline was used. This has been used in various experiments with dogs [37] [12] with at least no obvious acute issues. Choline is not considered a likely suspect due to the egg and lecithin content of the background diet but could not be ruled out. However, some experiments have suggested a non-monotonic relationship to heart failure with both high and low intake being deleterious but mediated by a metabolite, TMAO, in the high side [23]. Similar results were shown for ASCVD [17] but association studies of this type can easily be misleading as colinearility with other food molecules could modulate apparent response to "choline" intake. Another work showed an L shaped association between choline intake and stroke risk saturating around 276mg/day [33].

Additional suspects included silicon dioxide. The biology of silicon is not well known and generally "sand" is considered inert at some point sodium metasilicate may be worth testing if it can be done safely (pH control and avoid side reactions). I obained some food grade silica but never came up with a strategy for feeding to the dogs. Silica appears in the Carlson copper supplement and possibly others.

Consumption of soluble silicon may improve age related conditions such as atherosclerosis [32] although evidence is inconclusive. Very recently a siliate based therapy for dilated cardiomyopathy was investigated [31].



FIG. 1. Label from a recent version of the product similar to original. The mcg units on inositol is thought to be a mistake although no attempt was made to investigate.

III. RESULTS

Adding inositol, olive oil (EVOO), and incidental CDP choline and PABA appeared to restore energy in everyone and remove minor feeding indifference in Rocky. After a couple weeks, it was noted that Happy would be quiet at time she used to cough.

The final diet is described in the appendix Appendix C but most notably inositol and olive oil were added to the already comprehensive list of additives including copper.

Happy went through a period of reduced coughing early on the arrival of Daisy. Neither the EVOO nor inositol were considered at that time although incidental consumption could occur through foods or vitamin D which was usually mixed with EVOO.

Its unfortunate that Annie and Trixie died before this diet could be introduced to them.
Its also worth noting marrow was discontinued soon after Annie died.

Thinking outloud

IV. DISCUSSION

The initial motivation was to get Happy back to a cough free high energy state similar to 2019. It became evident however small benefits appeared in the other dogs such as more consistent enthusiasm about eating.

Annie's feeding hesitancy partially resolved with zinc earlier but it's likely she had declining kidney function for sometime. Dexter had been eating mostly consistently but is now completely consistent and more animated. Rocky too eliminated any indifference.

Confusing results with inositol, a precursor or skeleton for several signalling molecules, are probably due to adaptive responses under a variety of other limitations or states. That is, the heart is supposed to grow to accommodate additional load as occurs with exercise. Growth may occur due to cell growth, proliferation, or deposition of various matrix proteins. Each of these may be limited by different resources and have different outcomes on heart function. Inositol status may not be able to achieve a more beneficial result in all cases just reduce one which appears to be pathological. Signalling may be a best guess over evolutionary time scales for reproductive age individuals but may have some flaws.

V. ITS THE GREATEST DERIVATIVE CHARLIE BROWN

The literature on nutrition and perhaps medicine in general is filled with confusing or disappointing results. Its possible that a lot of anecdotes about folk remedies have some basis but the critical components are not always identified leading to tests of single nutrients that may not even be given to a population in the right state.

Dose-response curves for entities of interest are going to be have a maximal benefit at some doses while becoming perhaps toxic at high doses. It is often pointed out but not fully appreciated that this "typical" curve applies to specific current states and is just a section of a larger surface. In the right state, the curve could "flat line" or even invert. The result of a randomized trial would depend on the population being explored. For any given state, there is probably only a small number of entities with easily measured positive slopes. In this case, a prior success was identified and the suspects were easy to test.

Consider the case of inositol and thyroid hormone. While inositol may have a signalling role, it can't replace say iodine or amino acids required to respond to TSH. Tested on a general population of hypothyroid patients in isolation it may have no effect yet the underlying cause of low inositol may be a combination of other nutritional issues.

VI. CONCLUSIONS

Certainly in retrospect both inositol and EVOO should have been considered for potential relevance. Prior work showing inconsistent results often tried to test "one thing" against a random background state consisting of genetics and metabolics. Except for the case where the sample is drawn from a population already replete with a variety of other nutrients neither of these may show much effect. That is, the differential response is not significant in any sense. The present work again illustrates that randomization is not substitute for understanding cause and effect or at least a better defined present state. While great advances have been made with empirical natural products, better solutions may derive from using more of what is known and remembering "we have computers" to sort out difficult data. Certainly again luck provided the opportunity but it still needed to be recognized. Launching into a well controlled trial of a single entity may not have produced even a useful error signal. An incremental approach, staying locked to an error signal, building line upon line and precept upon precept, may make more sense if it can be reduced to a cookbook formula.

VII. SUPPLEMENTAL INFORMATION

VII.1. Computer Code

```

2036 ./run_linc_graph -dt-mo txt/happy3.txt
2037 texfrag -include xxxtable
2038 cp xxxtable /home/documents/latex/proj/inooil/keep/oldtable.tex
2039 ./run_linc_graph -dt-mo txt/happy4.txt
2040 cp xxxtable /home/documents/latex/proj/inooil/keep/newtable.tex
2041 history

```

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Appendix A: Statement of Conflicts

No specific funding was used in this effort and there are no relationships with others that could create a conflict of interest. I would like to develop these ideas further and have obvious bias towards making them appear successful. Barbara Cade, the dog owner, has worked in the pet food industry but this does not likely create a conflict. We have no interest in the makers of any of the products named in this work.

Appendix B: About the Authors and Facility

This work was performed at a dog rescue run by Barbara Cade and housed in rural Georgia. The author of this report ,Mike Marchywka, has a background in electrical engineering and has done extensive research using free online literature sources. I hope to find additional people interested in critically examining the results and verify that they can be reproduced effectively to treat other dogs.

Appendix C: Happy Monthly Diet Tables

The earlier months are during periods of little coughing. The Control month was bad coughing recently and the current data is regarding October 2025.

Name	2019-04 Apr	2019-05 May	2019-06 Jun	2023-05 May	2025-03 Mar
FOOD					
KCl(tsp kcl)	0.12 ;0.25;30/30	0.22 ;0.25;31/31	0.2 ;0.25;18/18	0.077 ;0.062;25/25	0.092 ;0.062;18/18
KibbleAmJrLaPo	0.15 ;0.15;30/30	0.15 ;0.3;31/31	0.15 ;0.15;18/18	0.037 ;0.037;25/25	0.037 ;0.037;18/18
KibbleLogic	0.099 ;0.1;30/30	0.1 ;0.2;31/31	0.1 ;0.1;18/18	0.025 ;0.025;25/25	0.025 ;0.025;18/18
b10ngnc ^(c)	0.34 ;1;10/30	0.11 ;1;4/31			
b15ngnc ^(c)	0.078 ;1;2/30	0.39 ;1;12/31		0.043 ;0.25;4/25	
b20ngnc ^(c)	0.53 ;1;11/30	0.26 ;1;10/31	0.25 ;1;5/18 0.056 ;1;1/18	0.25 ;0.25;17/25	
b20ng					
b7ngnc ^(c)	0.33 ;1;9/30	0.27 ;1;9/31	0.74 ;1;13/18	0.14 ;0.25;10/25 2.1 ;3;14/25	
blueberry					
canned		0.097 ;1;3/31			
carrot	0.6 ;1;30/30	0.56 ;1;31/31	0.53 ;1;18/18	0.37 ;0.25;25/25	0.37 ;0.25;18/18
cb20ngnc					0.43 ;0.25;18/18
cbbrothbs				1.00e-02 ;0.25;1/25	
cbbroth				0.25 ;0.25;16/25	0.21 ;0.12;18/18
citrate(tsp citrate)	0.12 ;0.25;30/30	0.22 ;0.25;31/31	0.2 ;0.25;18/18	0.05 ;0.062;25/25	0.092 ;0.062;18/18
clbrothbs					0.22 ;0.12;18/18
ctbrothbs	0.72 ;1;29/30	0.79 ;1;31/31	0.6 ;0.25;17/18	0.12 ;0.25;8/25 0.052 ;0.25;3/25	6.94e-03 ;0.12;1/18
ctbroth					
egg03	0.23 ;0.25;30/30	0.24 ;0.25;31/31	0.2 ;0.12;17/18	0.065 ;0.12;25/25	0.035 ;0.062;10/18
egg0					0.028 ;0.12;7/18
egg					3.47e-03 ;0.062;1/18
garlic	0.25 ;0.25;30/30	0.25 ;0.25;31/31	0.25 ;0.25;18/18	0.2 ;0.25;20/25	1.6 ;1;18/18
marrow					0.28 ;0.25;14/18
oliveoil(tsp)				0.03 ;0.12;9/25	
oliveoil	0.12 ;0.25;15/30	0.1 ;0.33;16/31	0.2 ;0.25;12/18	0.085 ;0.25;6/25	
pepper					
salmon	0.28 ;1;9/30		0.19 ;0.25;6/18	0.03 ;0.25;2/25	
shrimp(grams)	3 ;20;12/30	6 ;20;28/31	3 ;10;10/18	7.3 ;16;14/25	7.6 ;8.1;17/18
sorbitol(tsp)				5.94e-03 ;0.016;7/25	
spinach	0.43 ;0.25;30/30	0.46 ;0.33;31/31	0.081 ;0.25;3/18	0.28 ;0.25;20/25 0.35 ;0.25;24/25	0.37 ;0.25;18/18
turkey					
vinegar(tsp)				0.067 ;0.062;23/25	
VITAMIN					
B-1(mg)					
B-100(count)	0.063 ;0.25;9/30	0.075 ;0.25;10/31	0.12 ;0.25;9/18	5.64e-03 ;0.012;18/25	3.26e-03 ;0.012;9/18
B-12(mg)					
B-2(mg)				0.05 ;0.25;7/25 16 ;25;17/25	0.042 ;0.25;5/18 8.6 ;16;18/18
B-3(mg)	8.2 ;25;10/30	4.8 ;25;7/31	6.9 ;25;5/18	7.9 ;12;22/25	13 ;24;18/18
B-6(mg)	6.5 ;25;9/30	6.3 ;25;9/31	6.9 ;25;5/18	5 ;12;12/25	1.7 ;6.2;9/18
B-multi(count)				5.00e-03 ;0.12;1/25	
Cu(mg)	2.2 ;5;29/30	1.8 ;5;31/31	0.7 ;5;17/18	0.38 ;2;17/25 58 ;300;5/25	8 ;6.3;18/18 28 ;125;4/18
D-3(iu)					
Iodine(mg) ^(a)	0.022 ;0.25;3/30	0.012 ;0.25;2/31	0.041 ;0.25;3/18	0.12 ;0.25;21/25	0.13 ;0.78;4/18
K1(mg)					
K2(mg)	1 ;3.8;9/30	0.82 ;4.9;7/31	1 ;3.8;5/18	0.7 ;2.5;13/25 0.4 ;1.2;12/25	1.4 ;2.5;18/18 0.49 ;3.1;5/18
K2MK7(mg)					
MgCitrate(mg)	113 ;202;19/30	76 ;202;13/31	43 ;102;8/18	0.5 ;6.2;15/25 96 ;100;24/25	2.08e-03 ;0.013;4/18 36 ;100;12/18
MgCitrate					
Mn(mg)		0.36 ;2;9/31		1.00e-02 ;0.25;1/25	0.1 ;0.62;3/18

TABLE I. Part 1 of 2. Events Summary for Happy from 2019-04-01 to 2025-03-31A summary of most dietary components and events for selected months between 2019-04-01and 2025-03-31. Format is average daily amount ;maximum; days given/ days in interval . Units are arbitrary except where noted. Any superscripts are defined as follows: **a)** SMVT substrate. Biotin, Pantothenate, Lipoic Acid, and Iodine known to compete..**c)** hamburger with varying fat percentages- 7,10,15,20, etc. ..

Name	2019-04 Apr	2019-05 May	2019-06 Jun	2023-05 May	2025-03 Mar
Se(mcg)				1 ;12;3/25	
Zn(mg zn)				1.6 ;5.9;10/25	0.24 ;1.5;3/18
arginine(mg)	110 ;250;15/30	87 ;325;11/31	41 ;250;4/18	98 ;350;11/25	117 ;175;8/18
biotin(mg) ^(a)	1.6 ;2.5;22/30	1.6 ;3.2;22/31	1.5 ;2.5;11/18	4.8 ;5;24/25	0.97 ;2.5;13/18
folate(mg)				0.025 ;0.12;6/25	0.017 ;0.062;5/18
histidine(mg)					1.74e-03 ;0.0078;4/18
histidine(tsp)					
histidinehcl(mg)	46 ;162;10/30	108 ;325;13/31	23 ;260;2/18	8.5 ;85;3/25	
iron(mg)					1.5 ;11;4/18
isoleucine(mg)	57 ;250;10/30	64 ;250;9/31	21 ;250;2/18	72 ;200;9/25	21 ;100;4/18
lecithin(lecu)	518 ;300;30/30	390 ;390;23/31	219 ;300;10/18		
lecithin(mg)				216 ;225;24/25	331 ;225;18/18
lecithin(tsp)				0.05 ;0.19;25/25	
leucine(mg)	174 ;162;30/30	268 ;325;31/31	146 ;162;16/18	84 ;162;25/25	68 ;162;14/18
lipoicacid(mg) ^(a)	5 ;20;10/30	5.5 ;30;9/31	5.3 ;20;5/18	5.5 ;12;11/25	4.2 ;12;6/18
lysinehcl(mg)	295 ;325;29/30	451 ;325;31/31	242 ;325;15/18	231 ;325;25/25	135 ;162;11/18
methionine(mg)	16 ;62;9/30	35 ;125;12/31	20 ;121;3/18	60 ;62;23/25	16 ;62;8/18
pantothenate(mg) ^(a)	32 ;125;10/30	35 ;125;10/31	14 ;125;2/18	14 ;39;9/25	39 ;78;17/18
phenylalanine(mg)	72 ;125;20/30	56 ;150;14/31	27 ;125;4/18	25 ;125;8/25	6.9 ;62;2/18
taurine(mg)	423 ;250;30/30	442 ;500;31/31	458 ;250;17/18	333 ;225;25/25	138 ;225;17/18
threonine(mg)	124 ;162;26/30	92 ;162;17/31	76 ;162;8/18	169 ;325;25/25	235 ;162;18/18
tryptophan(mg)	70 ;100;22/30	93 ;130;23/31	76 ;100;11/18	75 ;150;17/25	3.6 ;38;2/18
tyrosine(mg)	16 ;125;4/30	14 ;125;4/31	6.9 ;125;1/18	52 ;100;13/25	5.6 ;50;2/18
valine(mg)	79 ;206;13/30	92 ;206;16/31	78 ;212;7/18	112 ;200;14/25	189 ;200;17/18
vitamina(iu)				1260 ;4500;9/25	312 ;2250;4/18
vitaminc(mg)				5 ;31;7/25	
vitaminc(tsp)				3.13e-03 ;0.0078;18/25	1.95e-03 ;0.0039;9/18
vitamine(iu)				11 ;50;6/25	3.1 ;19;3/18
MEDICINE					
Ivermectin	0.067 ;1;2/30	0.065 ;1;2/31			
SnAg					0.056 ;1;1/18
doxycycline	0.4 ;1;12/30				
sodiumbenzoate(mg)					16 ;49;9/18

TABLE II. Part 2 of 2. Events Summary for Happy from 2019-04-01 to 2025-03-31A summary of most dietary components and events for selected months between 2019-04-01and 2025-03-31. Format is average daily amount ;maximum; days given/ days in interval . Units are arbitrary except where noted. Any superscripts are defined as follows: **a)** SMVT substrate. Biotin, Pantothenate, Lipoic Acid, and Iodine known to compete..**c)** hamburger with varying fat percentages- 7,10,15,20, etc. ..

Name	2025-03 Mar	2025-08 Aug	2025-09 Sep	2025-10 Oct
FOOD				
KCl(tsp kcl)	0.092 ;0.062;18/18	0.085 ;0.062;31/31	0.081 ;0.12;21/21	0.077 ;0.062;24/24
KibbleAmJrLaPo	0.037 ;0.037;18/18	0.036 ;0.037;30/31	0.036 ;0.037;20/21	0.037 ;0.037;24/24
KibbleLogic	0.025 ;0.025;18/18	0.024 ;0.025;30/31	0.024 ;0.025;20/21	0.025 ;0.025;24/24
b10ngnc ^(c)				0.073 ;0.25;6/24
b15ngnc ^(c)				0.19 ;0.25;13/24
b20ngnc ^(c)		0.018 ;0.12;3/31	0.22 ;0.25;20/21	0.057 ;0.062;22/24
b7ngnc ^(c)	0.37 ;0.25;18/18	0.37 ;0.25;31/31	0.38 ;0.5;21/21	0.38 ;0.25;24/24
carrot		0.014 ;0.12;2/31		
cb10ngnc	0.43 ;0.25;18/18	0.4 ;0.25;29/31	0.22 ;0.25;12/21	
cb20ngnc		0.014 ;0.12;2/31		
cb25ngnc				
ccbrothbs			1.49e-03 ;0.031;1/21	
ccbroth	0.21 ;0.12;18/18	0.21 ;0.12;31/31		0.055 ;0.12;6/24
citrate(tsp citrate)	0.092 ;0.062;18/18	0.085 ;0.062;31/31	0.081 ;0.12;21/21	0.077 ;0.062;24/24
clbrothbs	0.22 ;0.12;18/18			
ctbrothbs		0.21 ;0.12;31/31	0.22 ;0.25;21/21	0.22 ;0.12;24/24
ctbroth	6.94e-03 ;0.12;1/18	5.04e-03 ;0.12;1/31	0.22 ;0.25;21/21	0.16 ;0.12;18/24
eggo3	0.035 ;0.062;10/18	0.054 ;0.062;27/31	0.071 ;0.25;21/21	0.062 ;0.062;24/24
eggo	0.028 ;0.12;7/18	8.06e-03 ;0.062;4/31		
eggshell		0.044 ;0.12;11/31	0.024 ;0.12;4/21	0.021 ;0.12;4/24
egg	3.47e-03 ;0.062;1/18			
garlic	1.6 ;1;18/18	0.15 ;0.25;19/31	0.071 ;0.25;6/21	0.094 ;0.25;9/24
marrow	0.28 ;0.25;14/18	0.19 ;0.25;21/31	0.083 ;0.5;11/21	0.089 ;0.25;16/24
oliveoil(tsp)			0.074 ;0.38;8/21	0.18 ;0.12;24/24
oliveoil		8.06e-03 ;0.25;1/31		7.81e-03 ;0.12;2/24
salmon		0.03 ;0.25;3/31		0.051 ;0.25;4/24
salt(tsp)		1.39e-03 ;0.0039;15/31		4.88e-04 ;0.0039;3/24
shrimp(grams)	7.6 ;8.1;17/18	3.1 ;8.1;12/31	7.3 ;8.1;19/21	6.4 ;8.1;19/24
spinach	0.37 ;0.25;18/18	0.37 ;0.25;31/31	0.38 ;0.5;21/21	0.38 ;0.25;24/24
vinegar(tsp)		0.016 ;0.12;6/31	0.024 ;0.12;7/21	0.034 ;0.062;13/24
VITAMIN				
B-1(mg)	3.26e-03 ;0.012;9/18	4.55e-03 ;0.012;23/31	6.71e-03 ;0.024;21/21	5.88e-03 ;0.0059;24/24
B-12(mg)	0.042 ;0.25;5/18	0.024 ;0.12;6/31	0.048 ;0.5;5/21	0.021 ;0.12;4/24
B-2(mg)	8.6 ;16;18/18	8.1 ;8.1;31/31	9.3 ;32;21/21	7.8 ;8.1;23/24
B-3(mg)	13 ;24;18/18	11 ;12;31/31	16 ;48;21/21	12 ;12;24/24
B-6(mg)	1.7 ;6.2;9/18	1.4 ;3.1;14/31	1.9 ;12;10/21	1.7 ;3.1;13/24
Cu(mg)	8 ;6.3;18/18	3.3 ;5;24/31	2.3 ;5;18/21	3.1 ;5;23/24
D-3(iu)	28 ;125;4/18	27 ;150;6/31	21 ;150;3/21	25 ;150;4/24
Iodine(mg) ^(a)	0.13 ;0.78;4/18	0.26 ;3.1;5/31	0.3 ;3.1;4/21	0.065 ;0.39;4/24
K1(mg)	1.4 ;2.5;18/18	1.2 ;1.2;31/31	1.4 ;5;21/21	0.57 ;1.2;11/24
K2(mg)	0.49 ;3.1;5/18	0.06 ;0.62;3/31		0.89 ;1.9;13/24
K2MK7(mg)	2.08e-03 ;0.013;4/18	0.013 ;0.1;7/31	9.52e-03 ;0.05;4/21	6.25e-03 ;0.1;2/24
MgCitrate(mg)	36 ;100;12/18	50 ;50;31/31	57 ;200;21/21	50 ;50;24/24
Mn(mg)	0.1 ;0.62;3/18	0.048 ;0.5;3/31	0.03 ;0.62;1/21	0.052 ;0.5;3/24
PABA(mg)			0.21 ;2;5/21	0.45 ;3.9;6/24
Zn(mg zn)	0.24 ;1.5;3/18	0.24 ;1.5;5/31	0.14 ;1.5;3/21	0.24 ;1.5;4/24
arginine(mg)	117 ;175;8/18	124 ;175;16/31	133 ;175;11/21	117 ;175;12/24
arginine(tsp)		4.03e-03 ;0.062;2/31		1.30e-03 ;0.031;1/24
biotin(mg) ^(a)	0.97 ;2.5;13/18	0.95 ;2.5;20/31	0.54 ;2.5;11/21	0.73 ;1.2;15/24

TABLE III. Part 1 of 2. Events Summary for Happy from 2025-03-01 to 2025-10-24A summary of most dietary components and events for selected months between 2019-04-01and 2025-03-31. Format is average daily amount ;maximum; days given/ days in interval . Units are arbitrary except where noted. Any superscripts are defined as follows: **a)** SMVT substrate. Biotin, Pantothenate, Lipoic Acid, and Iodine known to compete..**c)** hamburger with varying fat percentages- 7,10,15,20, etc. ..

Name	2025-03 Mar	2025-08 Aug	2025-09 Sep	2025-10 Oct
cdpcholine(mg)			5.3 ;38;4/21	9.4 ;38;11/24
folate(mg)	0.017 ;0.062;5/18	0.016 ;0.062;8/31	8.93e-03 ;0.062;3/21	0.016 ;0.062;6/24
histidine(mg)				
histidine(tsp)	1.74e-03 ;0.0078;4/18	47 ;86;21/31	58 ;183;15/21	21 ;86;11/24
histidinehcl(mg)			1.8 ;7.8;8/21	5.7 ;16;17/24
inositol(mg)				
iron(mg)	1.5 ;11;4/18	0.6 ;1.3;14/31	0.57 ;5.3;6/21	0.33 ;1.3;6/24
isoleucine(mg)	21 ;100;4/18	16 ;100;5/31	14 ;100;3/21	17 ;100;4/24
lecithin(mg)	331 ;225;18/18	330 ;225;31/31	327 ;450;21/21	328 ;225;24/24
leucine(mg)	68 ;162;14/18	73 ;162;26/31	101 ;325;20/21	83 ;162;22/24
lipoicacid(mg) ^(a)	4.2 ;12;6/18	9.7 ;25;20/31	12 ;12;18/21	13 ;25;23/24
lysinehcl(mg)	135 ;162;11/18	110 ;162;15/31	120 ;325;11/21	107 ;162;12/24
methionine(mg)	16 ;62;8/18	14 ;31;14/31	16 ;125;8/21	14 ;31;11/24
pantothenate(mg) ^(a)	39 ;78;17/18	25 ;39;20/31	22 ;39;12/21	21 ;39;13/24
phenylalanine(mg)	6.9 ;62;2/18	14 ;62;7/31	27 ;250;6/21	16 ;62;6/24
taurine(mg)	138 ;225;17/18	112 ;112;31/31	107 ;112;20/21	112 ;112;24/24
threonine(mg)	235 ;162;18/18	239 ;162;31/31	244 ;325;21/21	215 ;162;24/24
tryptophan(mg)	3.6 ;38;2/18	5.8 ;28;13/31	6.5 ;55;7/21	3.4 ;14;9/24
tyrosine(mg)	5.6 ;50;2/18	7.3 ;50;8/31	6 ;25;5/21	5.2 ;25;5/24
valine(mg)	189 ;200;17/18	187 ;200;30/31	167 ;200;19/21	150 ;200;22/24
vitamina(iu)	312 ;2250;4/18	254 ;1125;7/31	161 ;1125;3/21	281 ;1125;6/24
vitaminc(tsp)	1.95e-03 ;0.0039;9/18	3.78e-04 ;0.002;6/31	8.37e-04 ;0.002;9/21	5.70e-04 ;0.002;7/24
vitamine(iu)	3.1 ;19;3/18	4.506e+04 ;1.396e+06;6/31	13 ;133;2/21	28 ;266;3/24
MEDICINE				
Drontal(mg)		1.1 ;34;1/31	1.6 ;34;1/21	
Ivermectin		0.032 ;1;1/31		0.042 ;1;1/24
SnAg				
sodiumbenzoate(mg)	0.056 ;1;1/18			
RESULT				
weight(lbs)	16 ;49;9/18	4 ;25;5/31	5.9 ;25;5/21	9.2 ;25;9/24
advecta		0.032 ;1;1/31		0.73 ;18;1/24

TABLE IV. Part 2 of 2. Events Summary for Happy from 2025-03-01 to 2025-10-24A summary of most dietary components and events for selected months between 2019-04-01and 2025-03-31. Format is average daily amount ;maximum; days given/ days in interval . Units are arbitrary except where noted. Any superscripts are defined as follows: **a)** SMVT substrate. Biotin, Pantothenate, Lipoic Acid, and Iodine known to compete..**c)** hamburger with varying fat percentages- 7,10,15,20, etc. ..

Appendix D: Symbols, Abbreviations and Colloquialisms

TERM definition and meaning

Appendix E: General caveats and disclaimer

This document was created in the hope it will be interesting to someone including me by providing information about some topic that may include personal experience or a literature review or description of a speculative theory or idea. There is no assurance that the content of this work will be useful for any paricular purpose.

All statements in this document were true to the best of my knowledge at the time they were made and every attempt is made to assure they are not misleading or confusing. However, information provided by others and observations that can be manipulated by unknown causes ("gaslighting") may be misleading. Any use of this information should be preceded by validation including replication where feasible. Errors may enter into the final work at every step from conception and research to final editing.

Documents labelled "NOTES" or "not public" contain substantial informal or speculative content that may be terse

and poorly edited or even sarcastic or profane. Documents labelled as "public" have generally been edited to be more coherent but probably have not been reviewed or proof read.

Generally non-public documents are labelled as such to avoid confusion and embarrassment and should be read with that understanding.

Appendix F: Citing this as a tech report or white paper

Note: This is mostly manually entered and not assured to be error free.
This is tech report MJM-2025-004.

Version	Date	Comments
0.01	2025-10-22	Create from empty.tex template
-	October 31, 2025	version 0.00 MJM-2025-004
1.0	20xx-xx-xx	First revision for distribution

Released versions,
build script needs to include empty releases.tex

Version	Date	URL

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run-date ={October 31, 2025} ,
title ={Olive Oil and Inositol in a Dog Diet: Cause and Effect Chain of Events Welcome to Earth Third Rock from
the Sun } ,
author ={Mike J Marchywka} ,
type ={techreport} ,
name ={marchywka-MJM-2025-004} ,
number ={MJM-2025-004} ,
version ={0.00} ,
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address ={ 157 Zachary Dr Talking Rock GA 30175 USA} ,
date ={October 31, 2025} ,
startdate ={2025-10-22} ,
day ={31} ,
month ={10} ,
year ={2025} ,
author1email ={marchywka@hotmail.com} ,
contact ={marchywka@hotmail.com} ,
author1id ={orcid.org/0000-0001-9237-455X} ,
pages ={ 14}
}
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Supporting files. Note that some dates,sizes, and md5's will change as this is rebuilt.

This really needs to include the data analysis code but right now it is auto generated picking up things from prior build in many cases

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48988 Jul 1 14:18 /home/documents/latex/bib/releases.bib f2fdf87a36fedccbab0918dc2b00129
7331 Jan 24 2019 /home/documents/latex/pkg/fltpage.sty 73b3a2493ca297ef0d59d6c1b921684b
7434 Oct 21 1999 /home/documents/latex/pkg/lgrind.sty ea74beead1aa2b711ec2669ba60562c3
1069 Oct 15 2021 /home/documents/latex/share/includes/disclaimer-gaslight.tex 94142
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425 Oct 11 2020 /home/documents/latex/share/includes/disclaimer-status.tex b276f09e06a3a9114f927e4199f379f7
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