

Design Your Own Nutrient Dense Diet



What is a nutrient dense diet?

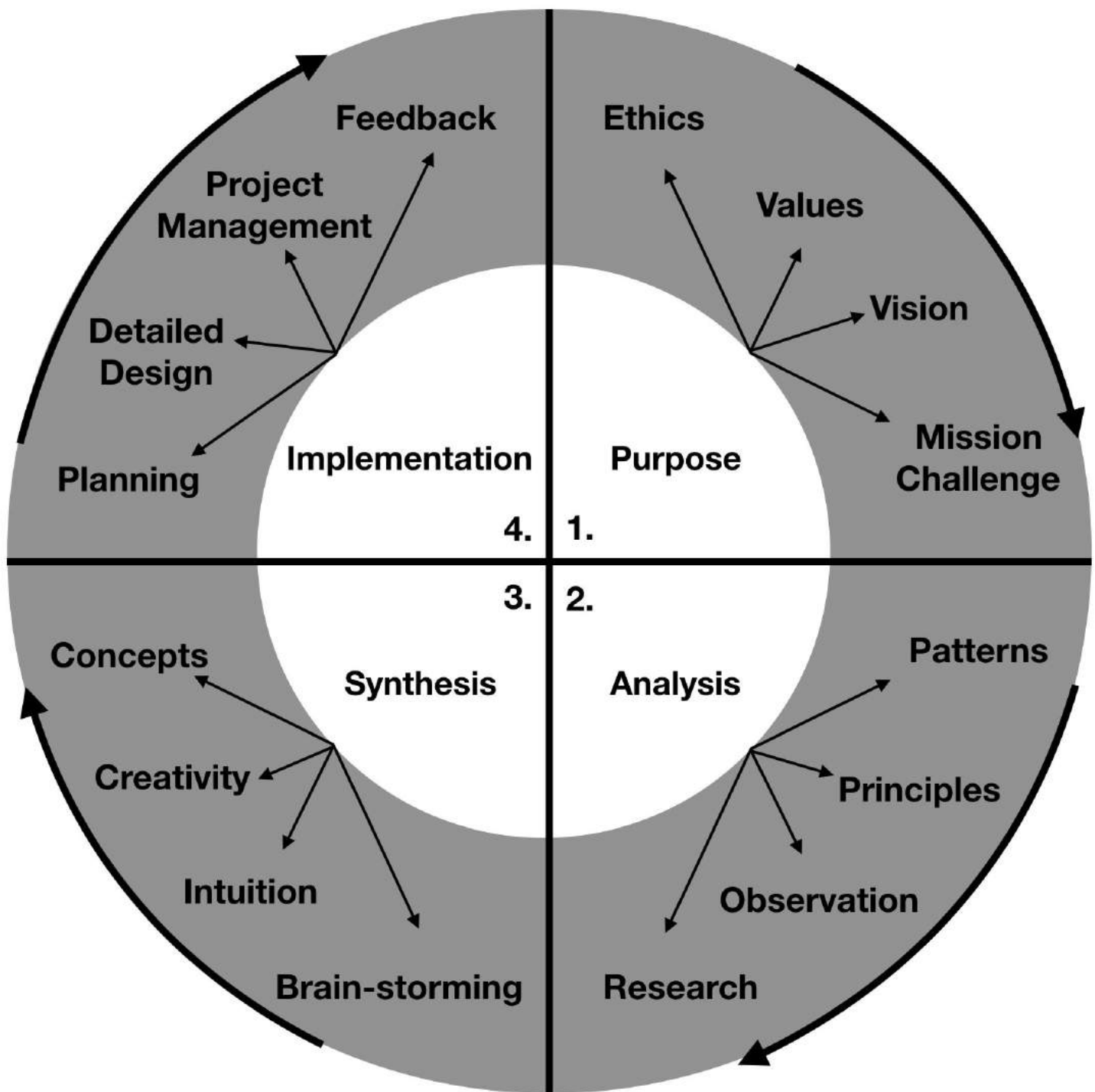


Why do we need a nutrient dense diet?



How do we design a nutrient dense diet?



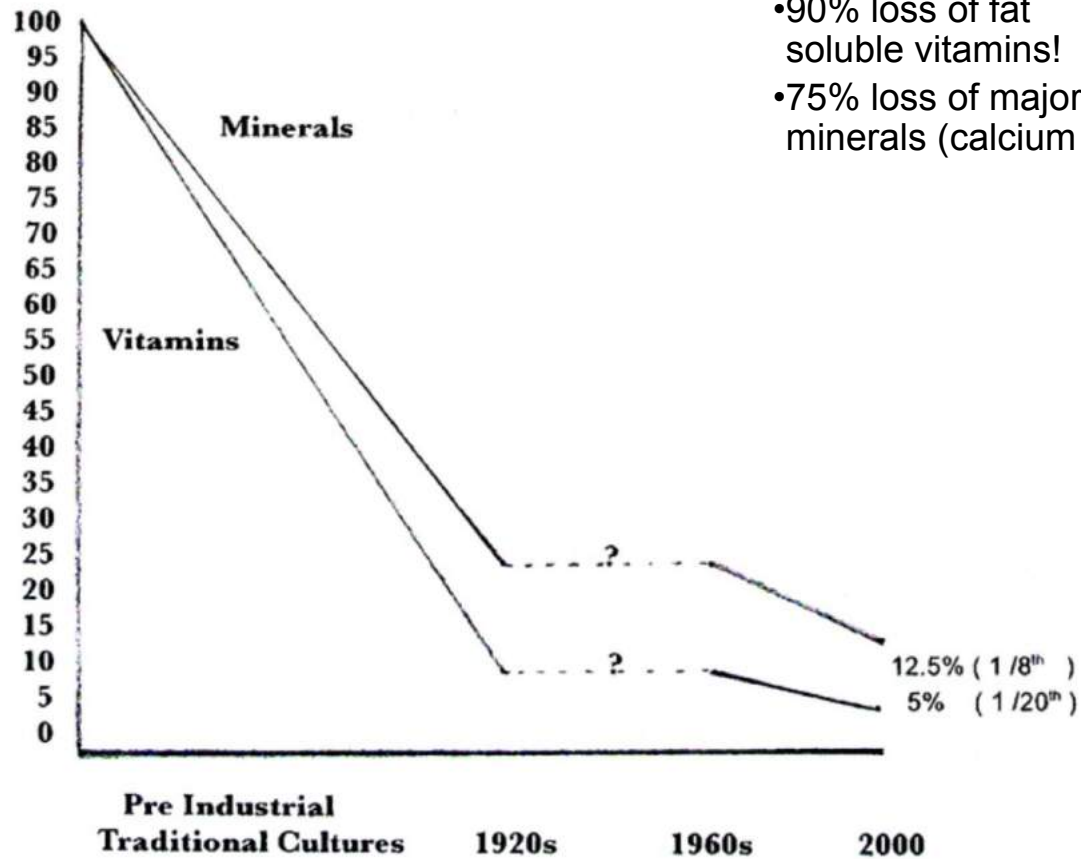


Firstly we begin with understanding the principles and patterns involved.

Then with an understanding of how the principles work and some of the human and environmental patterns involved, we can begin to look at appropriate strategies and techniques available, and begin to build our design.

Lets make a start!

A pattern discovered by Weston Price in the 1930s



- 90% loss of fat soluble vitamins!
- 75% loss of major minerals (calcium etc)

Weston A. Price



Indigenous peoples he visited all had:

- ❖ Excellent health
- ❖ 4 times the calcium and other minerals
- ❖ 10 times the fat soluble vitamins A, D, K, & E

The diets of all healthy traditional peoples he studied included:

- ❖ No refined or denatured foods

- ❖ Some sort of animal protein and fat

- ❖ Total fat content varied from 30-80% of calories eaten, only 4% of that from polyunsaturated sources

- ❖ Some animal products eaten raw daily.
Different for every culture – dairy, meat, eggs.

- ❖ High food enzyme content

- ❖ Seeds, grains, nuts were soaked, sprouted, fermented or naturally leavened

- ❖ Equal amounts of Omega 3 and 6

- ❖ Provision for the health of future generations by providing special nutrient rich food for parents-to-be
- ❖ Sacred food (Vitamin A targeted food) for these people

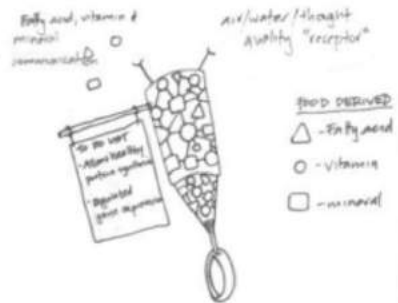
Some more principles of science/
laws of nature

Environment determines genetic expression

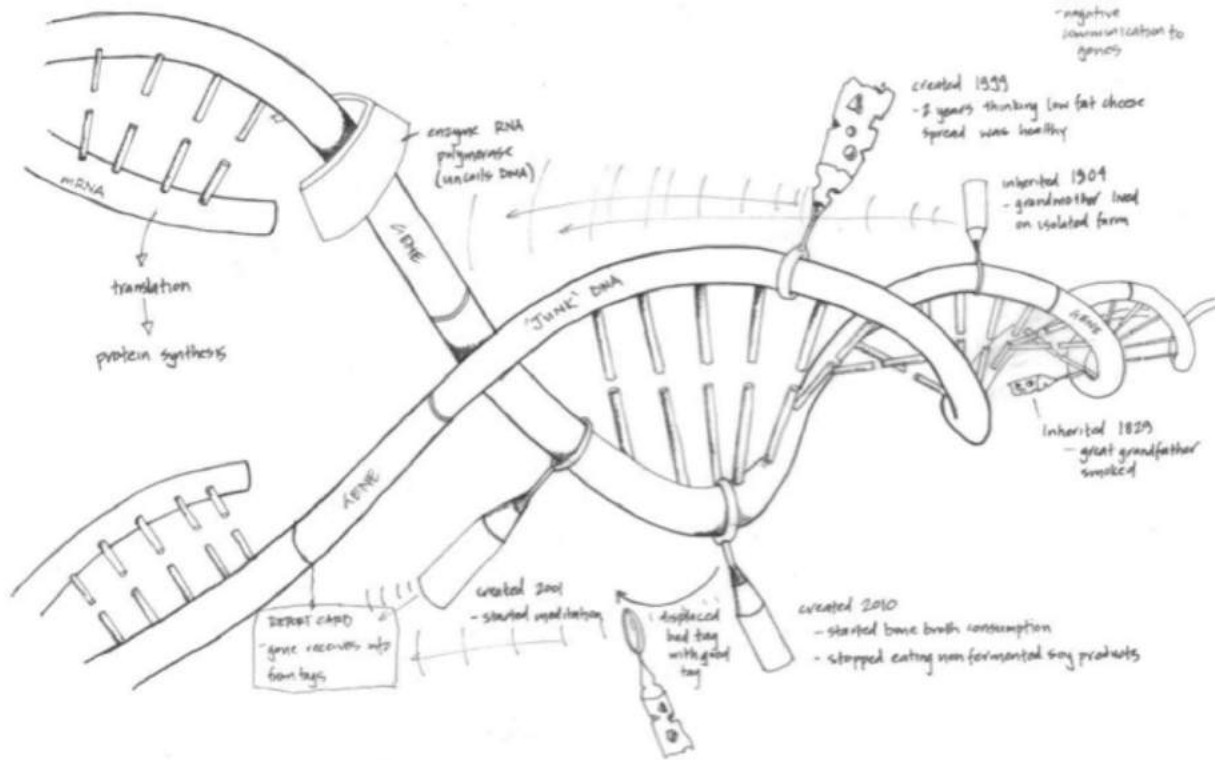




BAD TAG
- negative communication to genes



GOOD TAG
- positive communication to genes



created 1939
- 8 years thinking low fat cheese spread was healthy

inherited 1904
- grandmother lived on isolated farm

inherited 1829
- great grandfather smoked

created 2010
- started bone broth consumption
- stopped eating non fermental soy products

displaced bad tag with good tag

created 2001
- started meditation

BEST CAP
- gene receives info from tags

mRNA
translation
protein synthesis

enzyme RNA polymerase (uncle's DNA)

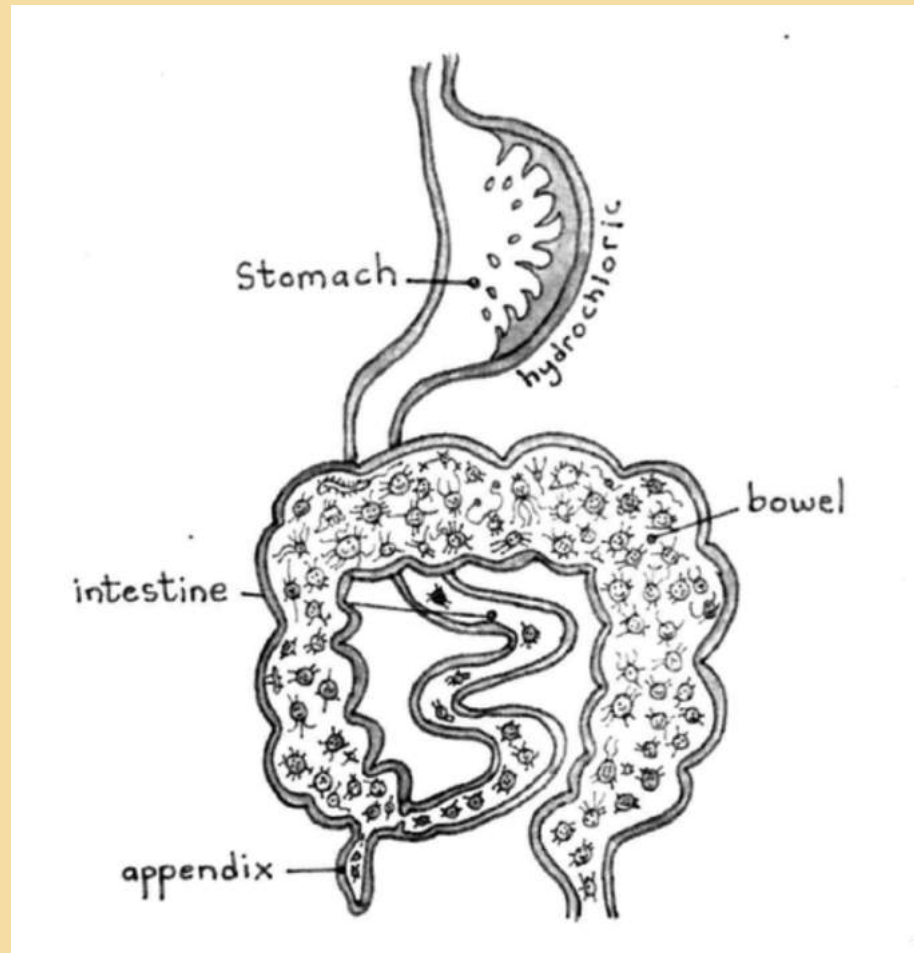
GENE

'JUNK' DNA

GENE

Dr Natasha Campbell McBride

Vegetarianism Explained



- ❖ Even there they do not digest well or easily, the bulk of the plant material is indigestible by human gut.
- ❖ Then the intestines which is the equivalent of the rumen in the human body.
- ❖ Is where majority of of gut flora reside.. bacteria fungi protozoa, viruses, worms, and other creatures work on plant matter extracting what they can.
- ❖ The difference between herbivorous animals and us, is that their rumen is at the beginning of their gut, while our rumen, our bowel, is at the end.

- ❖ In herbivores the plant matter is digested well before it moves on down into the intestines for the nutrients to be absorbed.
- ❖ In humans the bulk of the food absorption happens higher up in the intestines where plant material cannot be digested.
- ❖ Nutrients we absorb in the intestine come largely from animal foods.
- ❖ People knew this for millenia, this matches Weston Price's findings.
- ❖ Most nourishing foods come from animals and plants come as a supplement and when meat in short supply.

- ❖ We have until now been talking about natural foods - fresh vege, fruit, unprocessed grains, seeds, nuts etc.
- ❖ Processed plant material has a very different digestion pattern.
- ❖ Predigested by the food industry!
- ❖ Our gut has very little work to do to digest them so they absorb very well and very quickly.
- ❖ These goods are a major cause of all degenerative diseases in the civilised world.

- ❖ What about all the research in popular health journals today showing all the amazing nutrition in a wide range of plant foods?
- ❖ When we analyse different plant foods in a laboratory, they show good amounts of vitamins, proteins, fats and minerals.
- ❖ This can cause confusion because in a laboratory all kinds of methods are used to extract nutrients that our human digestive system does not possess.
- ❖ Human gut has very limited ability to digest plants and to extract useful nutrients from them.

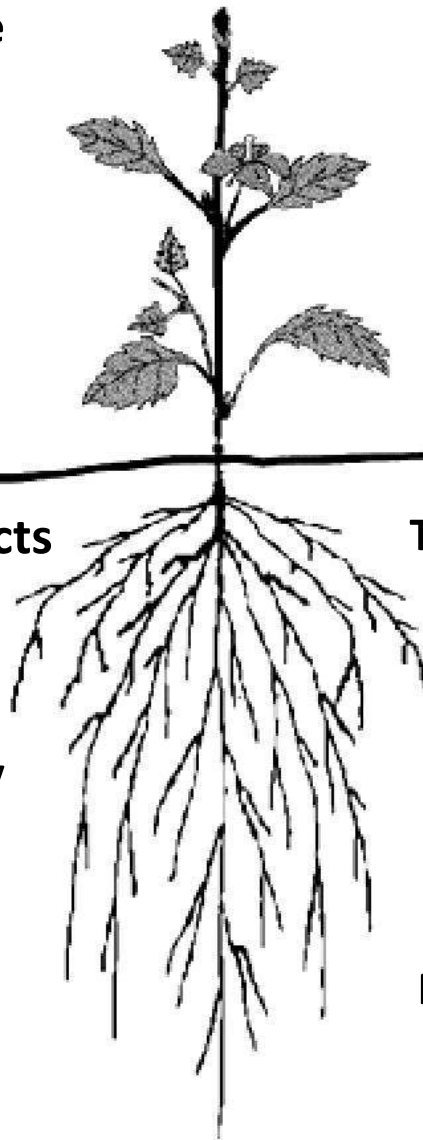
- ❖ In the past humans knew that plant foods are hard to digest.
- ❖ All traditional cultures developed methods of food preparation to extract more nutrition from plants and to make them more digestible, such as fermentation, cooking, malting, sprouting etc.
- ❖ Unfortunately these methods have been replaced with methods that suit the industrial food industry.

Foliar application of glyphosate

Systemic movement
throughout the plant

Chelation of micronutrients

Intensifies stress



**Accumulation of glyphosate in
meristematic tissues**
(shoot, reproductive, and roots)

Translocation of glyphosate
from shoot to root and release
into the rhizosphere

Residual soil and residue effects

Glyphosate toxicity to:

N-fixing microbes

Bacterial shikimate pathway

Mycorrhizae

Biological control organisms

Earthworms

PGPR organisms

Toxicity to root tips by glyphosate
or its toxic metabolites
(e.g. AMPA)

**Compromise of plant defense
mechanisms**

**Promotion of soil-borne
organisms:**

Reduced availability or uptake of
essential nutrients
(Cu, Fe, K, Mg, Mn, N, Zn)

From the work of Dr Zach Bush's laboratory we now know that there is a direct relationship between roundup in our food and our gut health. There is a linear increase in gut health issues that align with roundup intake.

When roundup hits the gut wall it creates a hypoxic reaction, creating a lack of oxygen, and the gut lining expresses a bunch of receptors that bind with gluten. The Gluten then creates a further synergy with the round up creating leaky gut.

Zac Bush is also clear he has the evidence from his laboratory that there is a direct link between roundup ingestion and cancer, diabetes and 1 dead zones, in the Mexican Gulf.



Let's review some of the principles and patterns we just learnt:

- ❖ Pattern language of all indigenous people eating traditional diets
- ❖ Relationship between soil, health, food health
- ❖ Epigenetics
- ❖ Glyphosate damages human gut
- ❖ in biological systems everything is connected

Out of an understanding of some of these principles and patterns we gain an understanding of the range of potential strategies and techniques that could be used.

Based on above learnings we will aim for

- ❖ **No industrial refined foods** (pasteurized milk, low fat, white denatured flour, no emulsifiers, extenders, GE ingredients, etc etc etc, no trans fats or commercial vegetable oil)
- ❖ **No glyphosate** certified organic or better high BRIX nutrient dense grown biologically and regeneratively
- ❖ **Every mouthful nutrient dense** (genetics/what and how/environment)
- ❖ **High Vitamin A and D**
- ❖ **High calcium and magnesium**
- ❖ **High saturated traditional fats and oils**
- ❖ **High food enzyme content**

Sources of Vitamin A (retinoids)

Recommended WAPF Daily intake 12,000-25,000 IU (natural source only), Weston Price found up to 50,000IU daily in some diets.	Vit A IU
Butter, organic pasture fed on high brix grass 100g (3Tbsp) ghee	15,000
Beef liver 100g	50,000
Trout 100 gms	280
Most matured cheeses 100 gms	500
broth (1cup/300g)	2,100
duck eggs (2 egg yolks) 100 gms	500
chicken eggs x 2	250
Cream 100 g	1,800
fish heads 100 g	500
mullet/trout 100g	200
Fish liver (Pike) 100g	860
Fish Roe 100g	303
Salmon with skin 100g	6,000
Chicken liver 100g	18,000
Deer liver 100g	20,000
Sheep liver 100 gms	7,800
Cod liver oil 1 teaspoon	10,000

Recommended WAPF Daily intake 12,000- IU, Weston Price found up to 50,000 IU daily	Daily Vit A	Tbspns sat fat
Butter, organic pasture fed on high brix grass 50gms (3 Tbspns)	15,000	3
cheese 100 gms	500	3
beef liver 30 gms once a week 17,000 (2,500 daily, because vit A is stored)	2,500	1
chicken liver 50gms weekly x1/7th (pate)	1000	
Broth (1cup/300g) x 2	1,200	2
Eggs (2 egg yolks) 50gms x 10	500	1
My daily total	19,500	10 Tbspns

Our Daily Vitamin A - All figures are USDA, or other internet figures... to be used to as guides only, levels vary with quality of animal feed, source of information etc.

Ten Top Beta Carotene Sources

	IU beta carotene	50% of people are unable to convert. When able to it converts at a ratio of 1/8
Kumara	11,509	550
Kale	10,000	1250
Carrots	8,333	1041
Collards	8,000	1000
Dark green leafy	6,000	700
Cos lettuce	5,000	600
Parsley	5,000	600
Dried herbs	5000	600
Broccoli leaves	4,400	550
Butternut	4570	560

Vitamin D WAP daily recommended allowance 3000-4000 IU from natural sources only

	IU's	Kay weekly	Kay totals
Sunlight	???	????	
Salmon/trout/eel/kahawai/mullet 100 gms	635	x.5	317
Pork 100 gms	4000	x3	16,000
Butter 1 Tbsp	7	x 3.5	147
Organic, free range chicken egg x1	155	x14	2170
Duck egg x1	720		
Pork lard x 1Tbsp	1000	X 5	5000
Fresh herrings x 100 gms	216		
Sardines 100 gms	270		
Mushrooms per serving ½ cup	366	x1	366
Organ meats	50	x1	100
Dairy	40	X10	1400
Weekly recommended	24,500		49,840

Calcium

Calcium source	mgs	Our choice daily	mgs
1 cup of raw milk	160 mg		
1 cup kefir/yoghurt	160mg	2 cups kefir	320
45gms cheese	450	45gms	450
2 Tbsp butter	100	2 Tbspns	200
Well made broth 1 cup	600	1 cups	600
Casseroles, stews, soups made with broth, 1 cup	300 mg	½ cup	150
200gms green vege	100mg	2 servings	200
1/4 cup nuts if soaked	100mg		
Nettle/raspberry leaf tea	100	3 cups	300
Daily requirement	1500mg	Total daily	2170

Magnesium

- ❖ Human bodies need 2:1 available calcium/magnesium
- ❖ Magnesium is most missing nutrient in soil and food crops. Ratios often 15:1 these days
- ❖ Lost with storage, handling, food processing, cooking
- ❖ Processed food sugar in all forms drive magnesium out, fluoride binds with it
- ❖ Food containing Mg commonly also contain antinutrients, phytates bind with it
- ❖ Essential to have a healthy gut for assimilation

Magnesium

<https://www.westonaprice.org/health-topics/abcs-of-nutrition/magnificent-magnesium/>

			Our choices	Aiming for 3000
Kelp	100gms	760	100	
Nettle		860	250	
Seasalt	100gms	450	200	
Chickweed		529	250	
Bone broth		500	1000	
Pumpkin seeds	100gms	530		
Kefir yoghurt	100gms		600	
Nuts	100gms	250	100	
Silverbeet *	100gms	25		
		total	2400	3000
Grains whole *				

Fats

- ❖ 12 Tablespoons a day for adult, 2400 calories
- ❖ Critical to build slowly ensuring you can digest
- ❖ May need Betaine tablets, to prompt body to begin building hydrochloric acid levels in the stomach
- ❖ Eating a low fat diet, we lose our ability to produce concentrated HCl

Where to Find 12 Tbspns Daily of Saturated Fat

Pork Lard			
Butter			
Beef Mutton Tallow			
Chicken & Duck Skin and Fat			
Cheese 100 gms	2.5 Tbsp		
Marrow Bone Broth 1 cup	2 Tbsp	Normal bone broth 1 cup	1 Tbsp
1 Sausage	1.5 Tbsp	Salami x 100 gms	2 Tbsp
Black pudding 100 gms	1Tbsp		
Eggs x 2 chicken	5 Tbsp	Eggs x 2 duck	1 Tbsp

Ferments

Favourites seem to be drinks, kefir sodas, kombucha, sauerkraut, beet kvass, kim chi



- link to chart giving nutritional content of foods to use when making your choices through the next process

100gms	Saturated fat	Vit A natural source only	Vit D natural source only	Calcium mg available source	Magnesium mg
Butter	Y	6,000	40	100	
Beef liver	Y	50,000	50		
Lard	Y	2,000	300		
Broth (1 cup)	Y	2,100		600	
Chicken Eggs x 2	Y	1,000	120		12
Cream	Y	1,800	40		
Fish liver	Y	860	50		
Nuts				250	100
Fish roe	Y	303			
Chicken liver	Y	31,000	50		
Cod liver oil (1 tsp)	Y	10,000			
Summer pork	Y		4000		
Bovine blood			4000		
Duck egg	Y		720		10
Raw milk/kefir	Y			160	30
Cheese	Y			450	
Green vege steamed or raw 200 gms				100	100
Nettle, raspberry leaf, chickweed tea (3 cups)				300	529
Kelp					760
Seasalt					450
Pumpkin seeds					100
Recommended daily		10,000	3,000	1,500 mg	300

	Food	Fat 1 Tbspn	Ferment	Vitamin A	Vitamin D	Calcium	Magnesium
Day 1 breakfast							
Day 1 Lunch							
Day 1 Dinner							
Day 2 breakfast							
Day 2 Lunch							
Day 2 Dinner							
	Subtotal A						
Day 3 breakfast	Subtotal B=A*3						
Day 3 Lunch							
Day 3 Dinner							
	Subtotal C						
	Total = B+C						
	Recommended weekly minimums	21	21	84,000	21,000	10,500	2,100







First Step



Second Step

Where does your vitamin A come from?



Third Step

Where does your vitamin D come from?



Vitamin D WAP daily recommended allowance 3-4,000
IU from natural sources only

	IU's	Kay weekly	Kay totals
sunlight	???	?????	
salmon/trout/eel/kahawai/mullet 100 gms	635	x.5	317
pork 100 gms	4000	x3	16,000
butter 1 Tbspn	7	x 3.5	147
organic free range chicken egg x1	155	x14	2170
duck egg x1	720		
pork lard x 1Tbsp	1000	X 5	5000
fresh herringsx 100 gms	216		
sardines 100 gms	270		
mushrooms per serving ½ cup	366	x1	366
organ meats	50	x1	100
Dairy	40	X10	1400
weekly recommended	24,500		49,840

Fourth Step

Where does your Calcium come from?



Magnesium

- Human bodies need 2:1 available calcium/magnesium
- Magnesium is most missing nutrient in soil and food crops.. Ratios often 15:1 these days
- Lost with storage, handling, food processing cooking
- Processed food sugar in all forms drive mag out, flouride binds with it
- Food containing Mg commonly also contain antinutrients phytates bind with it
- Essential to have a healthy gut for assimilation

Sixth Step Ferments



Seventh Step

Dealing with grains



Ninth Step

Saturated fat



Tenth Step



Eleventh Step

Make good choices when we can









Twelfth Step



Do some learning

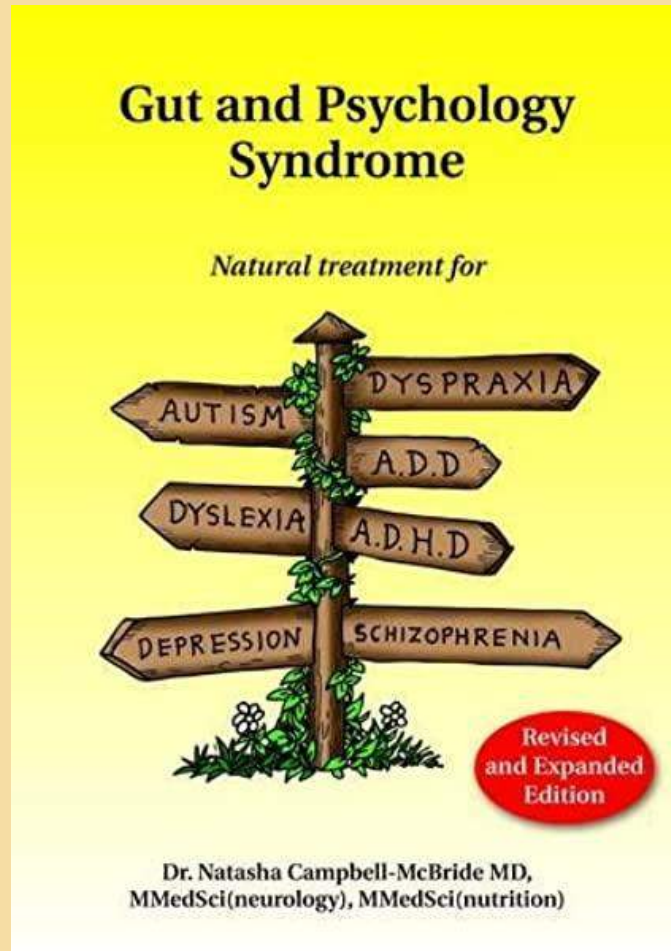
- ❖ Go over the info in this workshop several times
- ❖ ReGeneration productions online workshops
- ❖ Beginner Gardener booklet
- ❖ Learn to test for nutrient density
- ❖ Learn to understand and work with the laws of nature around growing nutrient dense food
- ❖ Urban Garden booklet
- ❖ Koanga workshops
- ❖ Koanga Internship
- ❖ Beddoe's book *Nourishment Home Grown*

www.westonaprice.org



GAPS

Natasha Campbell McBride



Gut and Psychology Syndrome

Put Your Heart In Your Mouth
Vegetarianism Explained

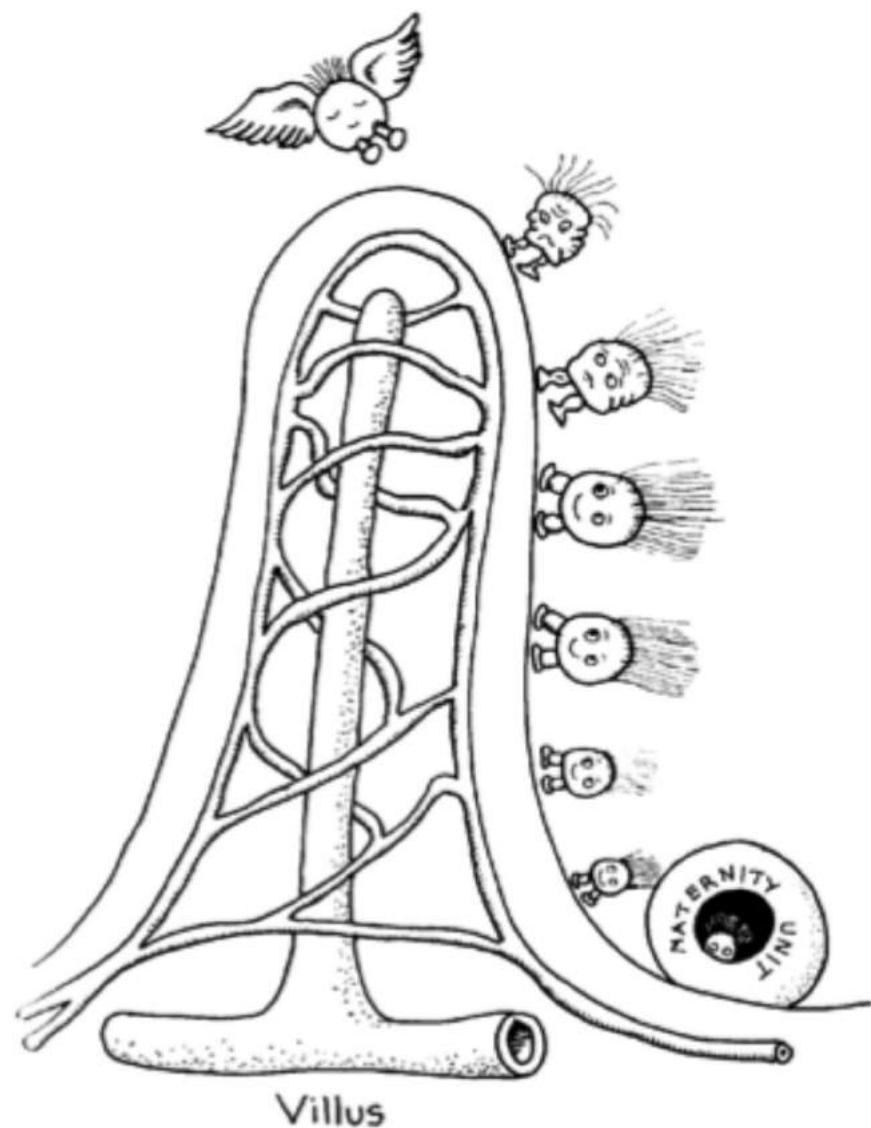


FIG. 1 The life-cycle of an enterocyte.

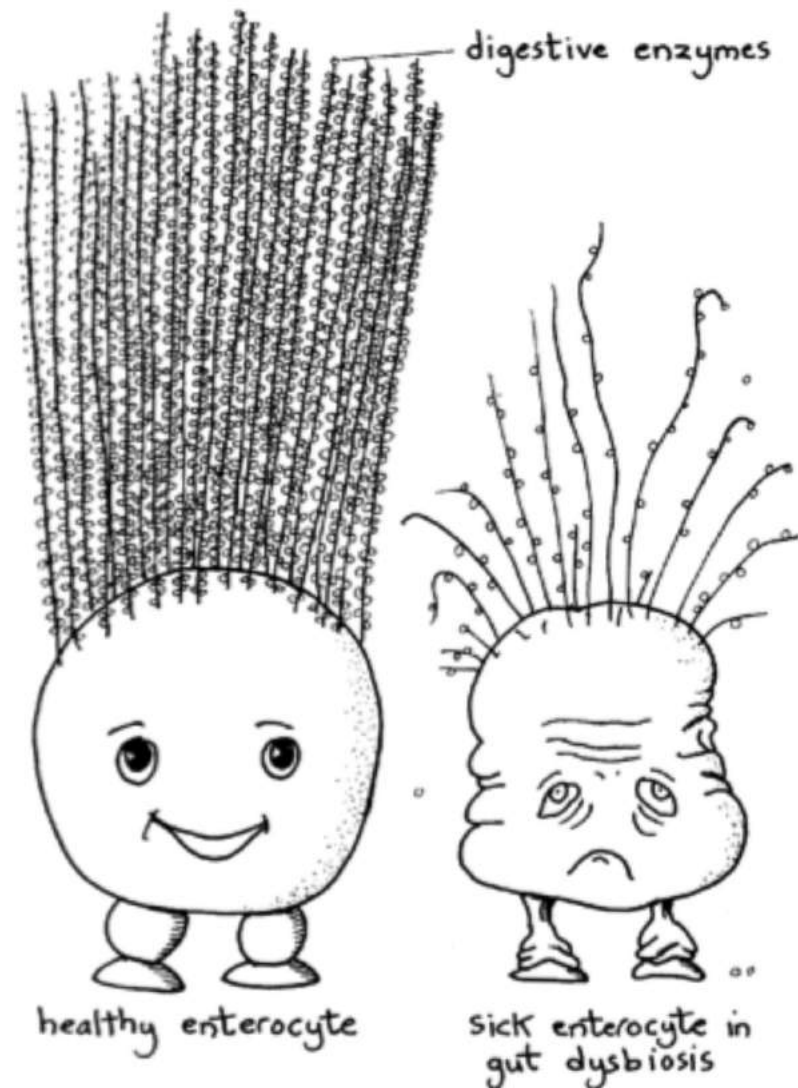


FIG. 2 The hair on the enterocytes represent microvilli. As the enterocytes cover the surface of the villi their hair (microvilli) make a so-called brush-border, where the first steps in digestion of food happen.

Genetic Expression determined by Environment for us and for the seeds...

Trust our feelings... recognising intimate relationships...

we are a manifestation of the earth we stand on in the place we stand...

all comes back to energy... humus, minerals and microbes... The healthier we are... The clearer our minds are... parts of us we didn't know existed before begin to activate... hence our ancestors ability 'know' which are the seeds to save... influence genetic expression of seeds... Hopi singing to corn...



Thank you

