

Slide 1



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Slide 2

Mentor goals:

- ☞ To declare what is possible and establish a commitment to that possibility
- ☞ Address personal and professional barriers limiting the ability to serve
- ☞ Evolution of vision/mission/ethics that drive success
- ☞ Create immediate action steps to apply learning and growth
- ☞ Construct the round table of applied trophologists

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Slide 3

Mentoring the mentor:

- ☞ Who are the mentors? - Practitioners
- ☞ Who are we mentoring? - Patients and GAP
- ☞ What's the purpose? - Optimized life
- ☞ How does it work? - Whatever you learn you teach someone else (anyone else)
- ☞ Who's is included? - Self selection, you pick yourself

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Slide 4

**Mentoring the mentor:**

- Each participant attends monthly teleconferences (1 hour in duration, 4<sup>th</sup> Thursday of month) creating a round table discussion/exploration of the dynamics and details of a nutrition-based wholistic practice
- Each participant chooses a colleague in his/her world to convey the notes and information- no information squandering
- Issues/problems/questions are considered a learning process for everyone, although individual's remain anonymous
- All questions, comments, case studies to be directed through email to SF rep who will compile and include in next teleconference (must be submitted 10 days prior)

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Slide 5

**The Story -**

In the absence of the patient's story ~ you're practicing veterinary medicine!

Dr. Arthur Kleinman, Harvard Medical School

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Slide 6

**What matters -**

More important than knowing what kind of disease the patient has, is knowing what kind of patient has the disease.

Dr. William Osler

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Slide 7



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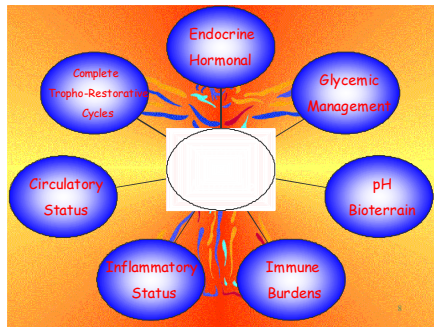
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Slide 8



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Slide 9



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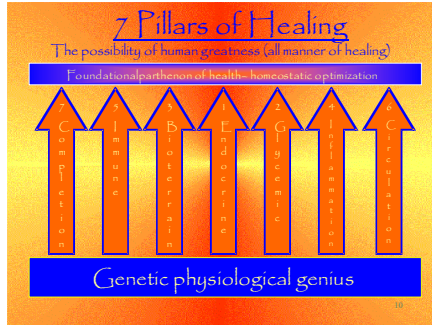
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Slide 10



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Slide 11

The slide titled "3 - pH Bioterrain" features a tree icon on the left. To the right, it lists four key points:

- Net Acid Excess (NAE)
- Controlling H<sup>+</sup> ions is complex and expensive to the body when constantly overwhelmed with metabolic and environmental acidosis
- Salivary and urinary pH quickly tells the story
- Acidosis increases intensity, inflammation, anxiety

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Slide 12

## H<sub>2</sub>O is mainly what we are!

- H<sub>2</sub>O makes up 73% of lean mass in adult - ranges from 75% of neonate to 50% in elderly - intracellular water is 65% in men & 60% in women
- H<sub>2</sub>O serves as primary medium for transport of nutrients and oxygen to the cells and removal of wastes - also plays a role in creating organ form and temperature regulation
- Dehydration occurs because there is insufficient electrolytes to hold the water in osmotic balance - thus hydration when dehydrated further dilutes and leeches the minerals
- Minerals concentrate water
- Recommendation is for 64 oz H<sub>2</sub>O per day

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## Slide 13

### Minerals are diverse

- Minerals serve a diverse range of function
  - Bone formation through hydroxyapatite from calcium and phosphate
  - Messenger molecule from calcium binding to various proteins acts as signal
  - Ionic, osmotic balance creating electrical gradients maintained by all macronutrients
  - Trace elements associate with enzymes or proteins serving structural, catalytic, or binding roles
  - Ultratrace minerals are required solely for the synthesis of specialized organic compounds unique to mammalian life (Thyroxin, seleno-proteins, etc)

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## Slide 14

### Minerals and their deficiency

- From the 90 elements occurring naturally in environment, 22 are essential to life, constitute 4% total body weight
- The organic nutrients (proteins, carbohydrates, lipids, vitamins) are made up of 6 elements – hydrogen, carbon, nitrogen, oxygen, phosphorus, sulfur
- Minerals or inorganic nutrients are grouped by the amount of each element required by the body
- Macroelements require greater than 100 mg/day – calcium, phosphorus, magnesium, sodium, potassium, chloride, and sulfur (supplied by amino acids)
- Microelements are 2 groups:
  - Trace elements 1-100 mg/day – iron, zinc, manganese, copper, fluorine
  - Ultratrace elements less than 1 mg/day – selenium, molybdenum, iodine, chromium, boron, cobalt
- To understand minerals is to understand the crossover from inorganic to organic – this is where the world becomes alive
- Mineral deficiency leads to a lack of life

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## Slide 15

### Bone formation and management

- 99% of body calcium found in bones and teeth
- 60-66% of bone weight is due to minerals, remaining 34% from water, ground substance and protein (80-85% collagen produced by osteoblasts which come from stem cells in bone marrow that become embedded in bone matrix and hence become osteocytes)
- Hydroxyapatite is crystal lattice like substance found in bones and teeth
- Substances enhancing calcium absorption are vitamin D, sugar, sugar alcohols, protein
- Substances inhibiting calcium absorption are fiberphytate, oxalate, excessive cations (Mg, Zn), unabsorbed fatty acids
- Nutrients enhancing urinary calcium excretion are sodium, protein, caffeine
- Nutrients whose absorption is inhibited by calcium are iron and fatty acids
- 1% of body calcium not associated with bone is intracellular in organelles and extracellular in blood and lymph
- Of the calcium in plasma 50% is ionized ( $Ca^{+2}$ ) it is this ionized calcium that is active (<0.5% of total body calcium controlling blood clotting, nerve conduction, muscle contraction, membrane permeability, acid/base buffering)
- Primary sign of calcium deficiency is tetany

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Slide 16

### Calcium Cuff Test -



- Use BP cuff around the calf muscle to determine at what pressure cramping onsets
- Less than 160 indicates ionic calcium deficiency or hormonal inability to mobilize calcium
- Chewing supplement can help select what support is needed by an immediate greater than 10% increase in pressure

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Slide 17

### Bio-terrain pH balance

- Many experts agree that pH should be kept to 6.8-7.2, but in acidic world even 7.5 is not too high
- Emergency alkalosis appears alkaline when it is only body stores straining to offset the acidity
- The urine represents the effects of your food, the saliva conveys the blood
- To reduce acidity reduce meat, soft drinks, coffee, alcohol, sugar, fast foods, avoid interrupted sleep, avoid pesticide exposure, decrease mental/emotional stress
- Increasing pH - ionic calcium use Calcium Lactate (6) or powder (1 tsp), Organic Minerals (6), Glutamine (1K mg), Chlorophyll (2), SP Greenfood (2)

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Slide 18

### Buffering pH

- Buffering pH is accomplished by three mechanisms:
  - Bicarbonate Buffer System - weakest intra & extracellular buffering, but because the CO<sub>2</sub> can be regulated by the lungs and HCO<sub>3</sub> by the kidneys the blood pH can be shifted up and down
  - Phosphate Buffer System - stronger buffering system essentially but only 1/12<sup>th</sup> as concentrated in extracellular fluids therefore less potent
  - Protein Buffer System - same mechanism of binding H<sup>+</sup> as Bicarbonate buffering, however is intracellular only (studies suggest that 75% of all chemical buffering is intracellular.)

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Slide 19

Research – Link between Osteoporosis and Acidosis

- ↳ Bone growth halts at puberty – adults osteoclastic and osteoblastic actions
- ↳ Normal remodeling half-life of bone is 5 years
- ↳ 500-900% increase in osteoclastic rat bone resorption with just 0.2 pH decrease
- ↳ Human study showed venous pH decrease from 7.37 to 7.33 causing significant calcium release from bone independent of osteoclastic or parathormone activities

Grinspoon SK, et al: Decreased Bone Formation. J Clin Endocrinol Metab 80: 3628-3633, 1997

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Slide 20

Calcium to Phosphorus ratio

- ↳ 2.5 is healthy ratio Ca/P
- ↳ When ratio is high too much calcium compared to phosphorus skewing physiology toward plaquing and circulatory issues
- ↳ Ratio too low means not enough calcium skewing towards immune incompetence and vulnerability to tolerance of dangerous cellular activity
- ↳ Calcifood (1 Tbsn), Calcium Lactate (3-6), Calsol (3-6), Calamo (4-10 for rapid up-regulation of calcium) are easy ways to increase ionic calcium
- ↳ Circuplex (3-6) is best way to increase phosphorus

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Slide 21

Degeneration/Regeneration

- ↳ Clinical term is re-modeling – can refer to heart patterns or bone structure
- ↳ If tissue can pattern itself after deficiency and imbalance, then it follows it will remodel based on repletion and balance
- ↳ Degeneration is a snapshot of a remodeling process – if we can demonstrate change in structure or function we can prove remodeling in a positive way – the one sure engagement for the client
- ↳ This is the one thing that nutritional therapy can accomplish that pharmaceuticals cannot

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Slide 22

## Dust to dust

- ⌘ Why do some people activate and others cannot be turned on?
- ⌘ Mineral competence
- ⌘ Trace minerals, Organically Bound Minerals, Califood, Calcium Lactate, Magnesium, Iodomere, prolamine iodine, Cataplex GTF
- ⌘ The genius of Catalyn is that it is a mineral based supplement
- ⌘ Colloidal Minerals - Crops grown on organic soils create colloidal minerals
- ⌘ Due to soil depletion and food processing and lifestyle (coffee) we are not getting the mineral substrate required for healthy life that we were receiving 50 - 100 years ago

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Slide 23

## Breath of life

- ⌘ Electrical potency, body of light- all organic products are by definition more electrical than synthetics because of this
- ⌘ Can you enliven the mineral world - breathe the breath of life into the dust
- ⌘ Hormonal competence controls the mineral kingdom
  - ⌘ Pituitary - Directs mineral controls through kidneys & adrenals
  - ⌘ Thyroid - Controls mineral balance and especially calcium
  - ⌘ Thymus - Calcium is dominant 2ndary messenger for immune targeting
  - ⌘ Adrenals - Controls sodium & potassium
  - ⌘ Pancreas - Controls chromium & zinc
  - ⌘ Gonads - Affected by phosphorus

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Slide 24

## Acid/Alkaline Foods

| Food & Chemical Effects on Acid / Alkaline Body Chemical Balance |               |                          |                          |               |                          |                          |               |                          |                          |
|--|---------------|--------------------------|--------------------------|---------------|--------------------------|--------------------------|---------------|--------------------------|--------------------------|
| Food   | Acid/Alkaline | Chemical                 | Effects                  | Acid/Alkaline | Chemical                 | Effects                  | Acid/Alkaline | Chemical                 | Effects                  |
| Apple  | Alkaline      | Malic Acid               | Malic Acid               | Alkaline      | Malic Acid               | Malic Acid               | Alkaline      | Malic Acid               | Malic Acid               |
| Banana   | Alkaline      | Potassium                | Potassium                | Alkaline      | Potassium                | Potassium                | Alkaline      | Potassium                | Potassium                |
| Broccoli   | Alkaline      | Sulfur                   | Sulfur                   | Alkaline      | Sulfur                   | Sulfur                   | Alkaline      | Sulfur                   | Sulfur                   |
| Carrot   | Alkaline      | Carotene                 | Carotene                 | Alkaline      | Carotene                 | Carotene                 | Alkaline      | Carotene                 | Carotene                 |
| Cauliflower  | Alkaline      | Sulfur                   | Sulfur                   | Alkaline      | Sulfur                   | Sulfur                   | Alkaline      | Sulfur                   | Sulfur                   |
| Cheese   | Acid          | Casein                   | Casein                   | Acid          | Casein                   | Casein                   | Acid          | Casein                   | Casein                   |
| Citrus   | Acid          | Ascorbic Acid            | Ascorbic Acid            | Acid          | Ascorbic Acid            | Ascorbic Acid            | Acid          | Ascorbic Acid            | Ascorbic Acid            |
| Coffee   | Acid          | Chlorogenic Acid         | Chlorogenic Acid         | Acid          | Chlorogenic Acid         | Chlorogenic Acid         | Acid          | Chlorogenic Acid         | Chlorogenic Acid         |
| Corn   | Alkaline      | Phosphorus               | Phosphorus               | Alkaline      | Phosphorus               | Phosphorus               | Alkaline      | Phosphorus               | Phosphorus               |
| Cucumber   | Alkaline      | Quercetin                | Quercetin                | Alkaline      | Quercetin                | Quercetin                | Alkaline      | Quercetin                | Quercetin                |
| Egg  | Acid          | Sulfur                   | Sulfur                   | Acid          | Sulfur                   | Sulfur                   | Acid          | Sulfur                   | Sulfur                   |
| Garlic   | Alkaline      | Sulfur                   | Sulfur                   | Alkaline      | Sulfur                   | Sulfur                   | Alkaline      | Sulfur                   | Sulfur                   |
| Grapefruit   | Acid          | Ascorbic Acid            | Ascorbic Acid            | Acid          | Ascorbic Acid            | Ascorbic Acid            | Acid          | Ascorbic Acid            | Ascorbic Acid            |
| Green Tea  | Alkaline      | Epigallocatechin Gallate | Epigallocatechin Gallate | Alkaline      | Epigallocatechin Gallate | Epigallocatechin Gallate | Alkaline      | Epigallocatechin Gallate | Epigallocatechin Gallate |
| Ham  | Acid          | Sulfur                   | Sulfur                   | Acid          | Sulfur                   | Sulfur                   | Acid          | Sulfur                   | Sulfur                   |
| Herbs  | Alkaline      | Various                  | Various                  | Alkaline      | Various                  | Various                  | Alkaline      | Various                  | Various                  |
| Isolated Soy Protein   | Acid          | Sulfur                   | Sulfur                   | Acid          | Sulfur                   | Sulfur                   | Acid          | Sulfur                   | Sulfur                   |
| Leafy Greens   | Alkaline      | Various                  | Various                  | Alkaline      | Various                  | Various                  | Alkaline      | Various                  | Various                  |
| Lentils  | Alkaline      | Various                  | Various                  | Alkaline      | Various                  | Various                  | Alkaline      | Various                  | Various                  |
| Lemon  | Acid          | Ascorbic Acid            | Ascorbic Acid            | Acid          | Ascorbic Acid            | Ascorbic Acid            | Acid          | Ascorbic Acid            | Ascorbic Acid            |
| Meat   | Acid          | Sulfur                   | Sulfur                   | Acid          | Sulfur                   | Sulfur                   | Acid          | Sulfur                   | Sulfur                   |
| Milk   | Acid          | Casein                   | Casein                   | Acid          | Casein                   | Casein                   | Acid          | Casein                   | Casein                   |
| Mint   | Alkaline      | Menthol                  | Menthol                  | Alkaline      | Menthol                  | Menthol                  | Alkaline      | Menthol                  | Menthol                  |
| Mushrooms  | Alkaline      | Various                  | Various                  | Alkaline      | Various                  | Various                  | Alkaline      | Various                  | Various                  |
| Nuts   | Alkaline      | Various                  | Various                  | Alkaline      | Various                  | Various                  | Alkaline      | Various                  | Various                  |
| Onion  | Alkaline      | Sulfur                   | Sulfur                   | Alkaline      | Sulfur                   | Sulfur                   | Alkaline      | Sulfur                   | Sulfur                   |
| Peanut Butter  | Alkaline      | Various                  | Various                  | Alkaline      | Various                  | Various                  | Alkaline      | Various                  | Various                  |
| Pineapple  | Alkaline      | Bromelain                | Bromelain                | Alkaline      | Bromelain                | Bromelain                | Alkaline      | Bromelain                | Bromelain                |
| Potatoes   | Alkaline      | Potassium                | Potassium                | Alkaline      | Potassium                | Potassium                | Alkaline      | Potassium                | Potassium                |
| Raspberries  | Alkaline      | Anthocyanins             | Anthocyanins             | Alkaline      | Anthocyanins             | Anthocyanins             | Alkaline      | Anthocyanins             | Anthocyanins             |
| Rice   | Alkaline      | Various                  | Various                  | Alkaline      | Various                  | Various                  | Alkaline      | Various                  | Various                  |
| Spinach  | Alkaline      | Various                  | Various                  | Alkaline      | Various                  | Various                  | Alkaline      | Various                  | Various                  |
| Soybeans   | Alkaline      | Various                  | Various                  | Alkaline      | Various                  | Various                  | Alkaline      | Various                  | Various                  |
| Sweet Potatoes   | Alkaline      | Various                  | Various                  | Alkaline      | Various                  | Various                  | Alkaline      | Various                  | Various                  |
| Tomatoes   | Alkaline      | Lycopene                 | Lycopene                 | Alkaline      | Lycopene                 | Lycopene                 | Alkaline      | Lycopene                 | Lycopene                 |
| Wheat  | Alkaline      | Various                  | Various                  | Alkaline      | Various                  | Various                  | Alkaline      | Various                  | Various                  |
| Yogurt   | Acid          | Lactic Acid              | Lactic Acid              | Acid          | Lactic Acid              | Lactic Acid              | Acid          | Lactic Acid              | Lactic Acid              |

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Slide 25

## The Experiment

- « Many people are profoundly enhanced in their lifestyle by using mineral supplementation – some get no results
- « Some people are profoundly enhanced by using glandular supplementation – some get no results
- « To marry these two mechanisms can increase clinical outcomes simply by promoting the partnership in the body to use and direct the mineral actions
- « Pillar # 1 + Pillar #3 = balanced physiology

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Slide 26

## Adrenal Function Test - Ragland's



- « Use BP cuff around biceps muscle to determine BP & pulse reclining after 4 minutes, then repeat after standing up within 45 seconds (Reclining 140/90)
- « If numbers do not increase by at least 8 indicates various degrees of hypo-adrenia
- « Systolic inadequacy means adrenal fatigue (6 Drenamin, Licorice 1 tsp for low BP, 6 Rehmannia Complex, Korean (Jinseng 2 tsp)
- « Diastolic inadequacy means kidney fatigue (6 Renaford)
- « Pulse rate inadequacy means heart fatigue (6 Cardioplus)
- « Medical term "Tilt Table Test"

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Slide 27

## pH Bioterrain Pillar



- « Net Acid Excess (NAE)
- « Controlling H+ ions is complex and expensive to the body when constantly overwhelmed with metabolic and environmental acidosis
- « Salivary and urinary pH quickly tells the story
- « Acidosis increases intensity, inflammation, anxiety

**Tests & Analysis**

- « pH testing - Saliva & Urine
- « Hair Analysis
- « Saliva tests - ASI
- « Symptom Survey
- « Kinesiological
- « Calcium Cuff Test (under 120)
- « Bio-Impedance Testing

**Products of Choice:**

- « Calcium Lactate (6), Powder 1 tsp, Calsol (4), Calamo (4), Greenfood (4), Organically Bound Minerals (6), Magnesium Lactate (3), Circuplex (6)
- « Acid/Alkaline chart on food ash effects

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## Slide 28

### A Clinical Study – Auto-Immune

- ↳ Charlie (56 years old) retired police officer presented 10/26/02 with diagnosis of Myasthenia Gravis with chronic severe respiratory infection and reflux both secondary to long term prednisone use, low energy, slow start, loss of taste, hair loss, blepharptosis, cramps and aches in lower extremities
- ↳ Recorded extensive case history, Calcium cuff test 110 mm, Rughland's reclining 156/96 (66) standing 128/75 (62), Muscle testing exam, determined to begin Endocrine Pillar: Supleps M (3-3), B-C<sub>2</sub>O (1-1), Essential Fatty Acid blend, Diateran Pillar – Calcifood (1 Tbsp), L-Glutamine (1.5 g), Circulatory Pillar – Cardiolip (3-3), Immune Pillar – Cataplex AC (6-6), Sesame Oil (3-3), Allerplex (7-7), Bronicafect (2-2)
- ↳ Returned in one month reporting no dry eyes, recovery of taste, loss of eye puffiness, less neck stiffness, eyelids gone (med. stopped), cramps & aches gone, hair loss gone, depression and worry gone, energy level up
- ↳ Full of hope and renewed in his work

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## Slide 29

### Charlie continued

- ↳ Throughout the course of next few years achieved multiple successes including reversal of CAD by 30% in 3 months obviating the need for an angiogram, complete consistent control of respiratory infections with no use of antibiotics since commencement
- ↳ Finally one month ago reported from neurologist complete remission of MG due to chronic repair of autoimmune factors especially cell membrane repair

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## Slide 30

### How do we live?

The value of experience is not seen much, but seen wisely.

The good physician treat the disease, the great physician treats the patient.

My favorite prescription is time in divided doses.

He could achieve his work load by following a tight schedule, and managed this by saying, "Danish the future, live only for the hour and its allotted work"

Dr. William Osler

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Slide 31

Cause -

You can trace every sickness, every disease, and every ailment to a nutritional deficiency.

Dr. Linus Pauling, Winner 2 Nobel Prizes

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Slide 32

Action steps for tomorrow

- ⌘ Consider every patient interaction for possible mineral and endocrine partnership support
- ⌘ Prepare to do Calcium, Cuff, tests and Ragland's to document change in status of mineral/hormonal competence.
- ⌘ Develop your system for functional explanation of mineral needs
- ⌘ Prepare to try even when your mind and learning tell you it is not possible to effect the outcome
- ⌘ Patients need a longterm answer in addition to immediate changes like Charlie- prepare to go the distance.
- ⌘ Admit what you learn and prepare to apply the principles with others - see the patterns in everyone- need less exaggerated problems to help more subtle outcomes- your practice is teaching you and developing you
- ⌘ Prepare to have the validation studies prove the merit of what you do by helping people be more resilient with the intensity of life on earth these days
- ⌘ Use Calcium, Calcium Lactate, Magnesium, Organically Bound Minerals, Trace Minerals, B12, Iodine extensively

think of these things as a salt lick for the whole herd of human

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Slide 33

Eternal Truth

He who does not use his endeavors to heal himself is brother to him who commits suicide.

Proverbs 18:96

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Slide 34



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