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Case Review

The 'Knee-jerk' or 'Blood-jerk Reaction' - A Rise in the Alkaline Ph of the Blood!

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What does it really mean?

Figure 1: A Micrograph of Live Blood Showing a Symplast of Yeast and Bacteria in the blood plasma – A Symptom of Systemic Acidosis of the Interstitial Fluids which can lead to Decompensated Acidosis of the blood plasma causing sickness and disease.

Introduction

I am certain that you have heard and even experienced a 'knee-jerk reaction'. I am also certain that you have never heard of a 'blood-jerk reaction' but you have experienced a 'blood-jerk reaction' without understanding the physiology. I believe it is not only important to understand the 'blood-jerk reaction' but critical in avoiding ALL sickness and disease, especially All cancerous conditions!

The blood-jerk reaction

Any rise in the alkalinity of the blood above pH 7.365 (alkaline phosphate)—any rise—is a result or a compensatory reaction due to over-acidity in body tissues as the blood attempts to maintain pH balance. There is no exception for the rule of alkalinity. The body will ALWAYS overcompensates for the excess dietary and/or metabolic acidity in the tissues by over-alkalizing the blood with alkalizing salts such as sodium, potassium, magnesium or calcium to maintain homeostasis. I call this the "knee-jerk reaction" effect.

Current conventional medical thought

Along comes the conventional medical attendant and perceives that there is too much alkalinity or bicarbonate in the blood, when really there is not! There is too much hydrogen or acidity in the interstitial fluids of the Interstium organ! [1-3].

Figure 2

This is an important concept to grasp

Let's over-simplify a bit. The interstitial fluids of the Interstitium organ have become acidic. The blood "knows" that. So, it pours out

extra alkalinity or alkaline phosphate, calcium, potassium and/or bicarbonate into the blood and the blood pH spikes up to a higher than normal pH.

Why?

To stop the acidic poisons pouring into the vascular fluids from the Interstitial fluids. The body does this to protect the blood from utter destruction! In other words, the body is trying to save the red blood cells which are the foundation of life from being poisoned with acids coming into the vascular fluids and to save the life of the body. This is why the pH of the blood goes into alkalosis. It's like when you get the bejeebers scared out of you by something innocent, you over-react.

When suddenly alarmed, a person might scream, holler, faint, get mad, strike out, drop the vase, kick the dog, or even have a heart attack. The blood does the same thing.

A 'knee-jerk reaction'…well, actually, a 'blood-jerk reaction'.

Alternatively, how many times have you heard of a car going off the shoulder of the road and the driver over-reacts, jerks the wheel back, and flies into the other lane of oncoming traffic. It happens all the time. Incidentally, if that does happen to you, you're better off not to interfere. Stay on the shoulder. Let the wheel stay there for a moment. Slow the car down. But don't overreact!

Conventional medicine, does NOT teach nor understand the cause of the excessive alkalinity pouring into the blood, therefore they try and stop the rushing over-alkalization with drugs that are highly acidic setting the stage for a serious health challenge! [1].

But that's the wrong move

We're better off not to interfere or increase the alkalinity with alkaline salts of sodium and potassium bicarbonate to respond to the increase of interstitial fluid and tissue acidity.

Once more. When your little boy falls down, sees mama going out the door, or is scared of the boogey man, what happens? He not only cries, but how often do we see a child go into a big, fat over-reaction? Sometimes, the child really gets worked up. It's a natural over-reaction to a typical situation.

Now it's Dad's turn to over-react. Along comes Dad and says to keep quiet, shut-up, don't be such a little sissy, put a lid on it, grow up, stop that crying, OR ELSE…

Since I have digressed to make a point, I may as well digress all the way. Wrong move, Dad. If you do that often enough, the message you send to your child is don't have feelings, don't express your feelings, you are not acceptable, don't act like a child even though you are a child, and don't be who you are. So don't over-react Dad. Better to let the child get it out, stay in the room, validate their feelings, and use a little active listening (www.gordontraining.com). Strong feelings can come and go…or come and stay. If you're really klutzy, you could be orchestrating chronic emotional issues for a lifetime. Gee, thanks Dad.

Now, back to your blood and interstitial fluids

Figure 3

When the interstitial fluids are acidic a flood of alkalinity comes into the blood from the stomach —even so much that the pH rises and concerns the western medical establishment. But whatever it was that caused the pH to over-react must be understood!

Acidic interstitial fluids of the Interstitium means problems ahead, correct?

Not only do we need alkalinity but lots of it. The acidic interstitial fluids will soon even out the rise in blood pH, and we will need additional alkalinity to wipe out the acidic interstitial fluid that is causing the symptoms of irritation, pain and potential degenerative tissue problems.

For example, breast, prostate, brain, pancreas, bowel, liver or lung cancers are not a disease of alkalinity but a disease of acidity. The body uses the calcium from the bones as well as other alkalizing buffers (bicarbonate, hemoglobin, sodium, magnesium and potassium) to chelate or buffer acidity! That is why there are always micro-calcifications in the breast, prostate, pancreas, brain, bowel, liver or lung before a cancerous tumor shows up.

Why prior to the tumor?

Because the body will always try and protect and preserve itself from dietary, respiratory, environmental and/or metabolic acids by buffering these acids with the alkalinity of calcium. The bones are always affected in any cancerous condition because the bones are an excellent source for calcium. This is what causes the degeneration of the bones or bone cancer.

So is cancer the disease? No!

Then is the loss of bone mass the disease or the calcium deposits in the glands, organs or tissues the disease. NO?

Is the increase in the alkaline phosphates or potassium the disease? NO! NO!

These are all symptoms, not diseases!

Then the disease must be the over-acidity? Well yes, and well no.

Then what is the disease?

The "yes" part I call acidosis or hyper-acidity. That is an acceptable term for the condition. But it is really much more.

The "no" part is that it's more than acidity. It's a psychological disorder. It's a sociological malaise. It's a cultural-anthropological phenomenon. And once people understand the truth and the scientific foundation of my New Biology, and once people understand the science of what I have been writing about for the better part of four decades, it may then become to be understood as a "moral disease" as well.

And why is that, you ask?

Is committing suicide a moral issue? Well, yes. Is drinking yourself to death a moral issue? Well, yes. Is allowing your children to become obese flying in the face of natural law? Well, yes, assuming you are aware of what's happening and have other options.

If you say "yes" to these last few questions, then we are looking at a very, complex psychological, sociological, cultural, biological and moral phenomenon.

Once you know and believe that over-acidity causes every disease and most dis-ease, then to ignore that fact is a form of suicide. When you eat poorly, you pull the acid trigger every day of your life, and eventually, the gun fires. The bullet of acid might hit you square in the head like a massive heart attack, or it may kill you more slowly like a cancer, or it may simply put you in a fog for the next 15 years like Alzheimer's or dementia.

This "dis-ease-phenomenon" is a perverted way of living, eating and thinking!!!

Yes, this is the cause of ALL disease.

ALL that disturbs the central balance of organized matter that leads to excess acidity. It is ALL that leads to increases in alkaline phosphates. It is ALL micro-calcifications in the liver, ALL liver tumors, ALL liver, lung, brain, thyroid, breast, pancreas, gallbladder, stomach, intestinal, bladder, kidney, ovarian, uterus, prostate and skin cancers and ALL potential bone cancer!!!!

First, YOU must understand that ALL of the above sick-nesses and dis-eases are NOT sick-nesses or dis-eases but are symptoms of acidosis and catarrh that has built up in the blood, interstitial fluids and tissues that has significantly effected the white blood cells' ability (the janitorial and garbage collectors for the blood and tissues) to remove dietary, respiratory, environmental and metabolic acids and morbid matter. When we are dealing with any symptom or any effect, we need to look to the cause.

To understand the cause is not difficult nor is the understanding of the treatment

The "New Biology" explains the cause and effect of all sick-ness and dis-ease in addition to explaining how to improve the quality and quantity of life.

For example, enervation (the deprivation of force or strength) and muscle weakness per se is not a dis-ease. Weakness, or lost power, is not a dis-ease; but, by causing a flagging of the elimination of acidic tissue-waste which is toxic, the interstitial fluids and then the blood becomes charged with acids.

I call this acidosis—the poisoning of the blood, interstitial fluids and tissues

This is dis-ease and when the toxin accumulates beyond the toleration point, a crisis takes place. This means that the poison or acid is being eliminated—often through the skin, the third kidney.

We can call this disease, but it is not. The only dis-ease is systemic acidosis which localizes in the compartments of the Intersititum and effects the weakest parts of the body.

Figure 4

And what we call disease are symptoms produced by the forced vicarious elimination of acids through the mucous membrane.

When the elimination takes place through the mucous membrane of the nose, it is called a cold—catarrh of the nose. And where these crises are repeated for years, the mucous membrane thickens and ulcerates, and the bones enlarge, closing the passages. At this stage, hay fever or asthma develops. When the throat and tonsils, or any of the respiratory passages, become the seat of the crises of acidity, we have croup, tonsillitis, pharyngitis, laryngitis, bronchitis, asthma, pneumonia, etc.

Figure 5

Figure 6

When the acids locate in the cranial cavity we have dementia, Parkinson's, Alzheimer's, muddle thinking, forgetfulness, and even depression.

When the acids locate in the gastrointestinal tract we have IBS, gastrointestinal dysmotility, autonomic dysfunction, carotid stenosis and ischemic colitis.

When the acids are expressed through the skin we have psoriasis, measles, smallpox or monkeypox. When the acids locate in the liver tissue we have micro-calcifications of these acids that lead to tumors and liver cancer.

What's in the name?

All are symptoms of the expulsion of acids from the blood and tissues into the interstitial fluids at the different points named. They are of the same character essentially and evolve from the one cause, namely, systemic acidosis, a crisis of toxemia.

The description can be extended to every organ of the body, including the largest organ, the skin. For any organ that is enervated below the average standard from stress of habit, from work, or worry, from injury, or any other cause, that organ may become the location of the crises of systemic acidosis. The symptoms

presented differ with each organ affected. That fact gives color to the erroneous belief that every symptom-complex is a separate and distinct disease.

But, thanks to the new light being shed by my "New Biology" upon nomenclature involved in the naming of a disease, every symptom-complex goes back to the one and only cause of all diseases, namely, systemic acidosis of the Interstitial fluids of the Intersitium organ - the largest organ of the human body.

To find the cause of all symptomologies including liver, lung, pancreas, breast, brain, prostate, blood, and bone cancer, start with colds and catarrh, and watch the pathology as it travels through the seven stages of acidity, from sensitivity, irritation (IBS), catarrh, inflammation, induration (lupus), ulceration and then to degeneration—cancer.

How well could you try to find the cause of man by ignoring his conception, embryonic life, childhood, manhood, etc.?

Nature's order is interfered with by enervation habits until acidosis is established. Then a vaxxination (seen in Gulf War Syndrome and Spanish Flu Epidemic) or an outfection from any source will act as a firebrand.

Sooner or later cause the most vulnerable organ (the bowels) will undergo organic change. The organ, however, has nothing to do with cause, and directing treatment toward the organ compounds the problem and is nonsense.

Examples of this wrong thinking yield blood transfusions for pernicious anemia, gland treatment for gland impotency, the cutting out of stones, ulcers and tumors! This is medical perversion.

There is no question that one of the most pernicious practices in vogue today is treating so-called dis-ease with disease and immunizing with the products of disease. Current medical science calls this form of pathological thinking a "vaxxination".

When the cause is not known, how is prevention or cure possible except by luck?

Producing a mild form of smallpox or monkeypox using vaxxine is the same as introducing a poison into a healthy person. It makes

Figure 7

no sense. Certainly only pathological thinking can arrive at such conclusions. Vaxxine or autogenous remedies (metabolic acids) are made from the products of disease and therefore are a contrubuting factor to acidic buildup in the interstitial fluids causing tissue, organ and gland dis-ease!

The idea that disease can be made to cure itself is an end-product of pathological thinking!

If prevention and cure mean producing disease, surely prevention and cure are not desirable. If prevention can be accomplished, then cures will not be needed!

It is not disease, it is cause "in all its aspects" that we need to know before we can take steps to prevent or cure "disease".

Cause of sickness and disease is constant, ever present, and always the same. Only effects or symptoms, and the object on which a cause acts, change. And the change is most inconstant.

To illustrate: a catarrh of the stomach presents first irritation, then inflammation, then ulceration, and finally induration and cancer.

Not all cases run true to form. Only a small percentage evolve to ulcer and fewer reach the cancer stage. More toxins exit via acute food poisoning or acute indigestion then by chronic diseases. Most Americans are challenged with the symptomology of indigestion, which can include acid reflux, diarrhea and/or constipation - all symptoms of acidosis and the lack of alkalinity or sodium and potassium bicarbonate.

Figure 8

Figure 9

The proper way to study disease is to study health and every influence favorable or not favorable to its continuance. Our western system of medicine has been preoccupied with the study of disease, not health.

Disease is perverted health. Any influence that lowers energy becomes disease producing.

Disease cannot be its own cause, neither can it be its own cure and certainly not is own prevention!

My personal discovery of the truth of ALL sick-ness and dis-ease—that acidosis is the cause of all so-called dis-eases—came about slowly, step by step, line upon line, precept upon precept, here a little and there a little.

At first, I postulated that bacteria, yeast and molds must be the general cause of disease. Then I decided that it was not bacteria, yeast and molds but that the body becoming enervated. But wait a minute, enervation is not a disease; disease must be due to metabolic acids. I reasoned that localized or systemic acidosis is the true general cause of all disease and must be autogenerated. And, if disease is due to autogenerated acids, what is the cause of that autogeneration?

The answer is found in understanding the nature of matter and how it organizes and disorganizes.

I realized that there must be a physical or emotional disturbance to organized matter before it can begin its disorganization. And when matter begins to disorganize, it gives rise to autogenerated acids. This is true for all matter!

To illustrate, take a physical injury to a joint which is often complicated with the prior symptom of rheumatism. The rheumatism previous to the injury was potentially in the interstitial fluids and then the blood. Just what change had taken place in the matter which, under stress of injury or shock of any kind, would cause a reaction with fever?

I could not and did not understand until the "Autogenerated Acid Theory" suggested itself to my mind.

After that, the cause of disease unfolded before me in an easy and natural manner.

I call this new paradigm for ALL sickness and disease, "The Cycle of Imbalance".

You can read about "The Cycle of Imbalance" in my book, "Sick and Tired, Reclaim You Inner Terrain". You can order this book at:

https://phmiracleproducts.com/collections/books-audio-video

In a few words, without acidosis, there can be no sickness or disease and there can be NO CANCER!

Figure 10

https://phmiracleproducts.com/collections/books-audio-video

Figure 11

https://phmiracleproducts.com/collections/books-audio-video

It is also true that without autogenerated acidosis there can be NO PAIN!

Therefore, pain equals acid and acid equals pain!

I knew that the acidic waste products of cellular disorganization and metabolism were toxic and that the only reason why we were not poisoned by it was because it was removed from the organism as fast as it was produced.

Then I discovered that the acid was retained in the interstitial fluids of the Interstitium organ and connective tissues when there was a checking of elimination.

Figure 12

Then, the cause of the checking had to be determined. In time, I thought out the cause of all sick-ness and dis-ease.

I knew that when we had normal energy, organic functioning and the elimination of acidic dietary, respiratory, environmental and metabolic waste was normal.

Then came the discovery that enervation caused a checking of elimination!

Eureka!

The cause of ALL sick-ness and dis-ease is NOW found!

Enervation checks elimination of acidic waste-products — ACIDS — of cellular disorganization and metabolism.

Retention of metabolic ACIDS in the Interstitial fluids of the Interstitium organ and then the blood is the first and the only cause of sickness and disease!

One of the first things to do to get rid of any so-called dis-ease is to get rid of all the retained acids, for it is this state of the blood, interstitial fluids and the connective tissues that makes dis-ease possible.

Figure 13: The Green Crystal is Lactic Acid and the White Crystal is Citric Acid Seen Under pHase Contract Microscopy - Hikari Omni Publishing - Copyright Dr. Robert O. Young, 2022**.**

Outfection, drugs and food poisoning may kill, but if they do not, they will be short-lived in a subject that is free from the enervation and acidic dietary, metabolic, respiratory and environmental waste. Conversely, the poisoning will linger in the system until the acidic waste is overcome. Then and only then will elimination remove all traces of the outfection and the sickness or dis-ease.

Syphilitic outfection is pronouncedly an acidic subject thrown into great virulency by poor nutrition, lifestyle and conventional treatment.

The same is true with HIV/AIDS and now VAIDS or vaxxine acquired immune dis-ease symptomologies. The so-called infection is in reality an outfection and is the least offender of the trio. Add fear (false evidence appearing real) and wrong eating and we have a formidable symptom complex that serves to justify all that professional syphilomaniacs say and write about the disease.

Remove acidosis, drugging, fear, and vile eating, and there is little left. What is left can be easily thrown out of the body by Nature!

Scientific research is being carried on vigorously in an attempt to find the cause of disease. The conception of disease is that the cause is individual. Here is where investigators meet their Waterloo.

All of the so-called diseases are increasing symptom complexes due to repeated crises of acidosis.

Figure 14

Sickness or disease has no independent existence! As soon as acidity is controlled, the symptoms disappear unless an organ has been forced by innumerable crises to degenerate.

Even organic change, when the organ is not destroyed, will come back by correcting the life and getting rid of the true cause—the crisis of acidosis! [1-62].

All symptoms of all so-called dis-ease have one origin!

All diseases are ONE! Unity in all things is Nature's plan!

Polytheism is gone, and everything pertaining to it and coming out of it must go!

There is only one life, one health, one sickness, one disease, and NOW only one treatment

The one sickness and one disease is the over-acidification of the interstitial fluids and then the tissues and then the blood due to an inverted way of living, eating, and thinking. The one health is to maintain the alkaline design of the blood at 7.365 and the interstitial fluids at 8.400.

The one treatment for any sickness or dis-ease is to alkalize and energize the body with the pH Miracle alkalarian lifestyle and diet and restore the alkaline design of the body fluids!

You will learn more about this life-changing and life-saving program as you read and ponder chapters 4, 5 and 11 of The pH Miracle revised and updated book.

https://phmiracleproducts.com/collections/books-audio-video/products/the-ph-miracle-revised-2010

The complete program is a 12 week program that includes the alkaline recipes in the back of the book.

Figure 15

Figure 16

You start off the pH Miracle protocol with a 14 to 28 day liquid feast. You can eat as much and as often as you like as long as the food is green and pureed. The soup recipes such as the Broccoli Soup, Asparagus/Zinc Soup, The Healing Soup and the Popeye Soup with lots of avocados are excellent to eat during the liquid feast.

You also need to begin taking the pH Miracle and Innerlight nutritional supplements while drinking at least 6 liters of pH Miracle or Innerlight SuperGreens a day. Start out gradually drinking 1 liter of pH Miracle or Innerlight SuperGreens per day and then work up to 2, then 3, then 4, until you are drinking at least 6 liters a day.

When you take the pH Miracle nutritional supplements, take 5 drops 6 times a day of the liquid colloids under the tongue, (except the pH drops which are taken in purified water and NEVER taken under the tongue) away from meals, or taking 1 capsule 6 times a day of the capsule products with meals. I would suggest taking

Figure 17

4 capsules every 4 waking hours of the bowel cleansing formula called pH Miracle pHlush. The bowel cleansing product helps to keep things moving through normal elimination channels - urination, defecation, perspiration and respiration - and for women menstruation.

After you complete the 14 to 28 day liquid feast, you can then begin introducing some solid alkaline food but it still needs to be as green as possible. I would suggest not only the vegetable soups, but steam fry vegetables and lots of salads. Make sure you use only lemon or lime and good oils on your salads for the dressing. Another tip is to include liberal amounts of flax and olive oil in or with your soups and salads. I suggest a minimum of 5 to 6 tablespoons of good oils each day.

In Conclusion

The medical world has been looking for a remedy to cure disease, notwithstanding the obvious fact that nature needs no remedy! She needs only an opportunity to exercise her own prerogative of self-healing cures!

There are NO cures with conventional medicine!

The subconscious builds health or dis-ease according to OUR ORDER. If we send impulses of irritation, discontent, unhappiness, complaining, hate, envy, selfishness, greed, lust, and the biggest one of all pride, the subconscious builds us in the image of OUR ORDER.

The truth is that we need no doctor!

We need to empower ourselves to effect a reconciliation between our subconscious creator and ourselves.

What we need is to learn self-control, respect, poise, and relaxation!

And when these impulses are sent over the sympathetic nerves to our subconscious creator, we will begin to receive images of a more ideal man or woman, until an approach to perfection is attained.

Sickness and disease, including the symptoms of cancer, tumors, AIDS, diabetes, MS, lupus, HIV/AIDS, depression, hyperthyroidism, Wilson's Syndrome, fybromyalgia, pain in every joint and muscle, chronic fatigue syndrome, muscle cramps, allergies (food), asthma, bronchitis, frequent colds, candida, hypoglycemia, allergic reaction to any chemical, chronic fatiguing, food cravings, indigestion, inflamed joints, insomnia, mood swings, gas, bloating, diverticulitis, irritable bowel, pneumonia, ulcers, stomach and bowel cramps and even memory loss is the culmination of years of abuse of nutrition and years of acids from faulty elimination by forcing the bowels to move.

The most powerful way to eliminate acids in the blood, interstitial fluids and connective tissues is to prevent the 'blood-jerk reaction' by following the pH Miracle alkalarian lifestyle and diet.

Figure 18

You are the builder of tomorrow, and you need not pay a fortuneteller, doctor, lawyer, preacher, or banker to tell you what will happen to you tomorrow.

Nothing will happen.

The inevitable will come.

You will inherit the fruits of today's sowing.

Bibliography

1. G Nitin and J Calvert. "Understanding blood gases/acid-base balance". *Paediatrics and Child Health* 22.4 (2012): 142-148.

2. J C Atherton. "Acid-base balance: maintenance of plasma pH". *Anaesthesia and Intensive Care Medicine* 10.11 (2009): 557-561.

3. A Durward and I Murdoch. "Understanding acid-base balance". *Current Paediatrics* 13.7 (2003): 513-519.

4. Young RO and Young SR. "The pH Miracle for Weight Loss". Hachett Publishing Group, (2005).

5. Young RO and Young SR. "The pH Miracle revised and updated". Hachette Publishing Group, (2010).

6. Passey C. "Reducing the Dietary Acid Load: How a More Alkaline Diet Benefits Patients With Chronic Kidney Disease". Dietetic Department, Wessex Kidney Centre, Portsmouth Hospitals NHS Trust, Portsmouth, Hampshire, United Kingdom. *Journal of Renal Nutrition* 27.3 (2017): 151-160.

7. Gonzaleza C A and Riboli L. "Diet and cancer prevention: Contributions from the European Prospective Investigation into Cancer and Nutrition (EPIC) study". *European Journal of Cancer* 46.14 (2010): 2555-2562.

8. American Cancer Society, ACS Guidelines for Nutrition and Physical Activity.

9. Centers for Disease Control and Prevention, Heart Disease Facts.

10. Nordqvist C. "Nutrition: What is it and why is it important?" Medical News Today, September 1, (2017).

11. Schwalfenberg G K. "The Alkaline Diet: Is There Evidence That an Alkaline pH Diet Benefits Health?" *Journal of Environmental Public Health* 2012 (2012): 727630.

12. Silvina L and V S Lagari. "The Role of Diet in Osteoporosis Prevention and Management". *Current Osteoporosis Reports* 10.4 (2012): 296-302.

13. AA Welch., *et al*. "A higher alkaline dietary load is associated with greater indexes of skeletal muscle mass in women". *Osteoporosis International* 24.6 (2013): 1899-1908.

14. Ströhle A., *et al*. "Estimation of the diet-dependent net acid load in 229 worldwide historically studied hunter-gatherer societies". *American Journal of Clinical Nutrition* 91.2 (2010): 406-412.

15. Sebastian A., *et al*. "Estimation of the net acid load of the diet of ancestral preagricultural Homo sapiens and their hominid ancestors". *American Journal of Clinical Nutrition* 76.6 (2002): 1308-1316.

16. Frassetto L., *et al*. "Diet, evolution and aging—the pathophysiologic effects of the post-agricultural inversion of the potassium-to-sodium and base-to-chloride ratios in the human diet". *European Journal of Nutrition* 40.5 (2001): 200-213.

17. Konner M., *et al*. "Paleolithic nutrition: twenty-five years later". *Nutrition in Clinical Practice* 25.6 (2010): 594-602.

18. Lindeman RD and Goldman R. "Anatomic and physiologic age changes in the kidney". *Experimental Gerontology* 21.4-5 (1986): 379-406.

19. Reddy ST., *et al*. "Effect of low-carbohydrate high-protein diets on acid-base balance, stone-forming propensity, and calcium metabolism". *American Journal of Kidney Diseases* 40.2 (2002): 265-274.

20. Malov YS and Kulikov AN. "Bicarbonate deficiency and duodenal ulcer". *Terapevticheskii Arkhiv* 70.2 (1998): 28-32.

21. Ohman H and Vahlquist A. "*In vivo* studies concerning a pH gradient in human stratum corneum and upper epidermis". *Acta Dermato-Venereologica* 74.5 (1994): 375-379.

22. Ferris DG., *et al*. "Variability of vaginal pH determination by patients and clinicians". *Journal of the American Board of Family Medicine* 19.4 (2006): 368-373.

23. Remer T and Manz F. "Estimation of the renal net acid excretion by adults consuming diets containing variable amounts of protein". *American Journal of Clinical Nutrition* 59.6 (1994): 1356-1361.

24. Remer T. "Influence of diet on acid-base balance". *Seminars in Dialysis* 13.4 (2000): 221-226.

25. Fenton TR., *et al*. "Low urine pH and acid excretion do not predict bone fractures or the loss of bone mineral density: a prospective cohort study". *BMC Musculoskeletal Disorders* 11 (2010).

26. Boelsma E., *et al*. "Human skin condition and its associations with nutrient concentrations in serum and diet". *American Journal of Clinical Nutrition* 77.2 (2003): 348-355.

27. Ince BA., *et al*. "Lowering dietary protein to U.S. recommended dietary allowance levels reduces urinary calcium excretion and bone resorption in young women". *Journal of Clinical Endocrinology and Metabolism* 89.8 (2004): 3801-3807.

28. Boron WF. "Regulation of intracellular pH". *Advances in Physiology Education* 28 (2004): 160-179.

29. Remer T and Manz F. "Potential renal acid load of foods and its influence on urine pH". *Journal of the American Dietetic Association* 95.7 (1995): 791-797.

30. Fenton TR., *et al*. "Meta-analysis of the quantity of calcium excretion associated with the net acid excretion of the modern diet under the acid-ash diet hypothesis". *American Journal of Clinical Nutrition* 88.4 (2008): 1159-1166.

31. Sebastian A and Morris RC. "Improved mineral balance and skeletal metabolism in postmenopausal women treated with potassium bicarbonate". *New England Journal of Medicine* 331.4 (1994): 279.

32. Dawson-Hughes B., *et al*. "Treatment with potassium bicarbonate lowers calcium excretion and bone resorption in older men and women". *Journal of Clinical Endocrinology and Metabolism* 94.1 (2009): 96-102.

33. Heaney RP., *et al*. "Calcium absorption varies within the reference range for serum 25-hydroxyvitamin D". *Journal of the American College of Nutrition* 22.2 (2003): 142-146.

34. Schwalfenberg GK., *et al*. "Addressing vitamin D deficiency in Canada: a public health innovation whose time has come". *Public Health* 124.6 (2010): 350-359.

35. Lu KC., *et al*. "Influence of metabolic acidosis on serum 1,25 (OH)2D3 levels in chronic renal failure". *Mineral and Electrolyte Metabolism* 21.6 (1995): 398-402.

36. Fenton TR., *et al*. "Phosphate decreases urine calcium and increases calcium balance: a meta-analysis of the osteoporosis acid-ash diet hypothesis". *Nutrition Journal* 8 (2009).

37. Hulley SB., *et al*. "The effect of supplemental oral phosphate on the bone mineral changes during prolonged bed rest". *Journal of Clinical Investigation* 50.12 (1971): 2506-2518.

38. Fenton TR., *et al*. "Meta-analysis of the effect of the acid-ash hypothesis of osteoporosis on calcium balance". *Journal of Bone and Mineral Research* 24.11 (2009): 1835-1840.

39. Supplee JD., *et al*. "Soda intake and osteoporosis risk in postmenopausal American-Indian women". *Public Health Nutrition* (2011): 1-7.

40. Fenton TR., *et al*. "Causal assessment of dietary acid load and bone disease: a systematic review and meta-analysis applying Hill's epidemiologic criteria for causality". *Nutrition Journal* 10 (2011).

41. Frassetto LA., *et al*. "Dietary sodium chloride intake independently predicts the degree of hyperchloremic metabolic acidosis in healthy humans consuming a net acid-producing diet". *American Journal of Physiology—Renal Physiology* 293.2 (2007): F521-F525.

42. Frings-Meuthen P., *et al*. "High sodium chloride intake exacerbates immobilization-induced bone resorption and protein losses". *Journal of Applied Physiology* 111.2 (2011): 537-542.

43. Cappuccio FP., *et al*. "High blood pressure and bone-mineral loss in elderly white women: a prospective study". *Lancet* 354.9183 (1999): 971-975.

44. Devine A., *et al*. "A longitudinal study of the effect of sodium and calcium intakes on regional bone density in postmenopausal women". *American Journal of Clinical Nutrition* 62.4 (1995): 740-745.

45. Morris RC., *et al*. "Relationship and interaction between sodium and potassium". *Journal of the American College of Nutrition* 25.3 (2006): 262S-270S.

46. Barzel US and Massey LK. "Excess dietary protein may can adversely affect bone". *Journal of Nutrition* 128.6 (1998): 1051-1053.

47. Heaney RP and Layman DK. "Amount and type of protein influences bone health". *American Journal of Clinical Nutrition* 87.5 (2008): 156S-157S.

48. Dawson-Hughes B., *et al*. "Alkaline diets favor lean tissue mass in older adults". *American Journal of Clinical Nutrition* 87.3 (2008): 662-665.

49. Garibotto G., *et al*. "Muscle protein turnover in chronic renal failure patients with metabolic acidosis or normal acid-base balance". *Mineral and Electrolyte Metabolism* 22.1-3 (1996): 58-61.

50. Caso G and Garlick PJ. "Control of muscle protein kinetics by acid-base balance". *Current Opinion in Clinical Nutrition and Metabolic Care* 8.1 (2005): 73-76.

51. Webster MJ., *et al*. "Effect of sodium bicarbonate ingestion on exhaustive resistance exercise performance". *Medicine and Science in Sports and Exercise* 25.8 (1993): 960-965.

52. McSherry E and Morris RC. "Attainment and maintenance of normal stature with alkali therapy in infants and children with classic renal tubular acidosis". *Journal of Clinical Investigation* 61.2 (1978): 509-527.

53. Frassetto L., *et al*. "Potassium bicarbonate reduces urinary nitrogen excretion in postmenopausal women". *Journal of Clinical Endocrinology and Metabolism* 82.1 (1997): 254-259.

54. Wass JAH and Reddy R. "Growth hormone and memory". *Journal of Endocrinology* 207.2 (2010): 125-126.

55. Frassetto L., *et al*. "Long-term persistence of the urine calcium-lowering effect of potassium bicarbonate in postmenopausal women". *Journal of Clinical Endocrinology and Metabolism* 90.2 (2005): 831-834.

56. Vormann J., *et al*. "Supplementation with alkaline minerals reduces symptoms in patients with chronic low back pain". *Journal of Trace Elements in Medicine and Biology* 15.2-3 (2001): 179-183.

57. Zofková I and Kancheva RL. "The relationship between magnesium and calciotropic hormones". *Magnesium Research* 8.1 (1995): 77-84.

58. Schwalfenberg G. "Improvement of chronic back pain or failed back surgery with vitamin D repletion: a case series". *Journal of the American Board of Family Medicine* 22.1 (2009): 69-74.

59. Groos E., *et al*. "Intravesical chemotherapy. Studies on the relationship between pH and cytotoxicity". *Cancer* 58.6 (1986): 1199-1203.

60. Smith SR., *et al*. "Tumour pH and response to chemotherapy: an in vivo 31P magnetic resonance spectroscopy study in non-Hodgkin's lymphoma". *British Journal of Radiology* 64.766 (1991): 923-928.

61. Raghunand N and Gillies RJ. "pH and chemotherapy". *Novartis Foundation Symposium* 240 (2001): 199-211.

62. Raghunand N., *et al*. "Enhancement of chemotherapy by manipulation of tumour pH". *British Journal of Cancer* 80.7 (1999): 1005-1011.