

# Strength & Vitality Bulletin

Volume 14 Issue 2

15th May 2017

Welcome to our latest newsletter, which as you will see from below is undergoing a change. And with this edition we are also introducing a new component which is found on page 7 and will make up a regular part of our letter in the future. Why are we changing the frequency of our publication? For 2 very good reasons: [1] We are struggling to keep up with writing these informative articles, and the research although invaluable to us all, takes time to process. The amount of information flowing forth through many channels is at times like a flood, and despite our best efforts, we have to be very diligent to write correctly on the various topics that have appeared in our letters. And the second reason? [2] You as the client/customer of this business also have difficulties in absorbing what has been written. In fact some comment that they haven't even read the last one when the new one arrives in the post. Keeping these points in mind, and with an eye on wanting you all to be up to date on important health matters, we are going to shortly introduce an electronic newsletter to compliment the one you are reading at the moment. We will call you to confirm your current email, and ask if you would like to receive it. We envisage that it will take you less than 3 minutes to read it, thereby suiting us both. We look forward to your comments.

Kind regards Gordonna

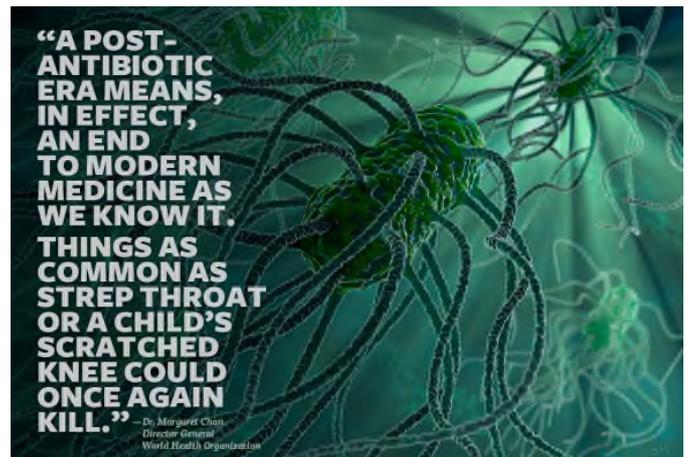
## GET READY FOR OUR NEW ERA!

### Pandemics & Plagues now frequently possible

You might have been persuaded to believe that this alarming piece of news - about a world unable to fight against disease without antibiotics was recognised only in the last few months. How wrong can you be! An article appeared in the newspaper *The Guardian* on August 12th, 2010 "The era of antibiotics is coming to a

It can now be stated with certainty that the immune systems of many within our community have been severely weakened by overuse of antibiotics.

close. In just a couple of generations, what once appeared to be miracle medicines have been beaten into ineffectiveness by the bacteria they were designed to knock out. Once, scientists hailed the end of



The looming threat of a post-antibiotic era is garnering attention here in New Zealand. A world without penicillin may sound apocalyptic, but Dr Siouxsie Wiles believes this could happen within a decade unless the world acts swiftly. "The prediction is that, without urgent action, by 2025 we could see a pre-antibiotic era when a simple stubbed toe could mean amputation or death," Wiles said. In May 2015, the World Health Organisation released a global action plan to tackle antibiotic resistance, and New Zealand promised to have a national action plan in place by May 2017.

infectious diseases. Now, the post-antibiotic apocalypse is within sight." This type of reporting has increasingly become louder with each statement since then, with the latest being the most disquieting of all when the World Health Organisation on the 27th FEBRUARY 2017 published the following "The WHO list is divided into three categories according to the urgency of need for new antibiotics:

critical, high and medium priority. The most critical group of all includes multidrug resistant bacteria that pose a particular threat in hospitals, nursing homes, and among patients whose care requires devices such as ventilators and blood catheters. They include Acinetobacter, Pseudomonas & various Enterobacteria (including *Klebsiella*, *E. coli*, *Serratia*, and *Proteus*). They can cause severe and often deadly infections such

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as bloodstream infections and pneumonia. These bacteria have become resistant to a large number of antibiotics, including carbapenems and third generation cephalosporins – the best available antibiotics for treating multi-drug resistant bacteria.” Now you would think that with all of this happening, little ole New Zealand having intelligent people populating the country has by now taken appropriate action to prepare for the foreseeable future. Perhaps not so when we read in the health section of the *New Zealand Herald* dated Wednesday 4th January 2017 and written by Martin Johnston with the headline: **Drug nation: Kiwis' antibiotic use soars** and containing the following: Kiwis' use of antibiotics has soared, indicating widespread inappropriate use for viral coughs and colds, experts

say. Antibiotic use increases by 43 per cent in wintertime and this, plus a 49 per cent increase in consumption of antibiotics prescribed in the community over nine years, is fuelling fears about the increasing resistance of dangerous bacteria to the life-saving drugs. Experts say doctors are prescribing inappropriately, partly driven by patient demand.

"It is extremely likely that most of these prescriptions were unnecessary because antibiotics provide no benefit to the overwhelming majority of patients with these conditions," Auckland University infectious diseases specialist Associate Professor Mark Thomas says.

The wintertime increase in usage is an accepted measure of the appropriateness of community antibiotic prescribing, he says. "Using

this measure, during 2014, the quality of community antibiotic prescribing was markedly better in some DHBs [district health boards], such as the West Coast DHB, than it was in others, such as the Counties Manukau DHB." "Most of the increased number of winter prescriptions would have been dispensed to patients with minor self-limiting infections such as colds, bronchitis and influenza." The Ministries of Health and Primary Industries are writing a national action plan to help tackle the growing global threat of antibiotic resistance.

"New Zealand's antimicrobial dispensing has increased dramatically ...," says Dr Stewart Jessamine, the director of protection and regulation at the Ministry of Health.

The increase in New

Zealand's use of the drugs is revealed in the first annual report on consumption of antibiotics prescribed in the community, commissioned to underpin the action plan.

The report, produced by the Institute of Environmental Science and Research (ESR), found our usage increases greatly in the wintertime, indicating high levels of inappropriate prescribing by GPs.

Across all health districts, the median increase in winter use was 41 per cent compared with summertime and was greatest, at 53 per cent, in Counties Manukau. The wintertime rise indicates use of antibiotics to treat coughs and colds that are caused by viruses and not susceptible to antibiotics. (end of quote) Question: Where you aware of the magnitude of this?

Taken from Various Sources  
Including Natural News



## ACTIVE HEALTH SERVICES PRESENTS

### Health News in brief from around the Globe

*Time* magazine featured on the cover of its May 15th 2017 issue **"Warning: We are not ready for the next Pandemic."** In this article on page 26 it makes this comment: The U.S. Centres for Disease Control & Prevention (CDC) ranks H7N9 (Chinese Bird Flu) as the flu strain with the greatest potential to cause a pandemic. If a more contagious H7N9 were to be anywhere near as deadly as it is now, the death toll could be in the tens of millions.

In the same article mentioned above it went on to state: There are troubling economic implications as well. The 2003 SARS epidemic, which killed fewer than 800 people, cost the global economy \$54 billion, much of it in lost

trade, transportation disruption & health care costs. The World Bank estimates that the toll from a severe flu pandemic could hit \$4 trillion.

In a study in the *European Heart Journal - Cardiovascular Pharmacotherapy* of nearly 30,000 people who had experienced cardiac arrest found that those who had used nonsteroidal anti-inflammatory drugs such as ibuprofen & diclofenac in the 30 days before the cardiac arrest raised the risk of heart attack by 31%.

Strawberries topped the Environmental Working Group's annual "Dirty Dozen" which ranks the produce with the most pesticide residue. (Spinach placed 2nd) On the opposite end of the

spectrum: sweet corn & avocados, which were dubbed the least pesticide contaminated.

A *Brain* study of 80 people with carpal tunnel syndrome found that those who received acupuncture on the affected arm over 8 weeks had less pain, improved wrist nerve conduction & partly repaired brain mapping in the short term, as well as better functionality.

A study in *The American Journal of Clinical Nutrition* analysed the health records of nearly 3,000 people and found that plant based protein benefits musculoskeletal health as equally as animal protein.

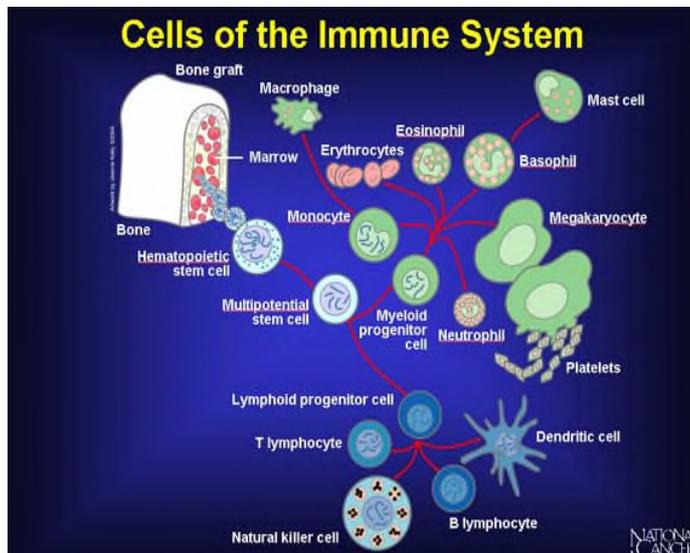
In an article written by Mike Adams who is the *Natural News* editor, on

7/8/12 that it turns out that chemotherapy damages healthy cells, causing them to secrete a protein that accelerates the growth of cancer tumours. (<http://ca.news.yahoo.com/chemotherapy-backfire-boost-cancer-growth-st...>) He goes on to make the emphatic statement: The number 1 side effect of chemotherapy, is by the way, **cancer**.

*Natural News* reports by means of Willow Tohi on 10/8/12: In fact, more than 2000 genes are regulated by Vitamin D, affecting the proliferation & death of cells. The vitamin D we get from food & supplements is not fully active until it goes through the liver & kidneys, where it is converted, then circulates through the blood like a hormone.

## So what conclusion can we reach about this unhelpful scenario developing?

Well to keep everything within perspective, antibiotics have only existed since the mid 1930's and even as they come to their useful end, that merely makes it less than a century that they have been available for mankind's use. Our existence on this planet stretches back millenniums and despite various plagues and pestilences, we have managed to survive without them for a long time. However in today's modern society things are vastly different. Several generations have been exposed to this method of treating sickness and ill health. A weakened immune system is now operating to attempt warding off the increasing danger posed by stronger bugs and viruses. (in some cases these superbugs that have arisen in our lifetime are capable of killing an individual within hours of contracting them) It can now be stated with certainty that the immune systems of many within our community have been severely weakened by overuse of antibiotics. This therefore means that we as individuals face a gathering storm that is immediately due to burst upon us, and events similar to the past will once again be enacted. You may be thinking of the plagues in the time period known as the middle ages, and to be sure they certainly were extremely devastating and widespread. The Great Plague of London occurred in 1665 – 6 and killed some 70,000 to 100,000 which amounted to almost 1/4 of that metropolitan city. An eyewitness of that event, one Thomas Vincent had this to say "Now, there is a dismal solitude... shops are shut...people rare, very few walk about... and there is deep silence in almost every place. If any voice can be heard, it is the groans of the dying, and the funeral knell of them that are ready to be carried to their graves." Very sobering indeed. Could



**Our immune system comprises much and is an amazingly complex system, which starts with our skin and ends up utilising the small cells as illustrated above. Even now new insights are being gleaned by scientists as to how it works, as evidenced by the following: Singapore Scientists Provide New Insights on how Cancers Evade the Immune System from [www.duke-nus.edu.sg](http://www.duke-nus.edu.sg) 19/4/17**

we see this sort of thing again? It is not considered impossible, for let us move up into our time period and for a moment reflect on what it was like to live as the terrible Great war of 1914 - 18 was reaching it's conclusion. In an amazing short period of time from May 1918 to December 1918 the Spanish Flu inflicted a huge toll upon the human race. It is believed that 720,000,000 contacted this virus and that amounts to an incredible 48% of the earth's population at the time. However the huge number that died is mind boggling; it is estimated that between 20,000,000 to 50,000,000 succumbed to this outbreak, and the thing that is hard to comprehend is that it struck the strong and healthy along with mainly young people who were more affected than other types. (this number has recently been revised to between 50 million to 100 million, and that is more than the deaths from that war of four years duration) In New Zealand it arrived in October 1918 and in 10 short weeks 6,680 died which is three times the number of those who were casualties at Gallipoli. A Royal Commission conducted into this matter in 1919 was told by a doctor "I have never in my life seen anything so virulent ... men were crying

out in pain. Strong men were reduced to physical wrecks in a few days, as though the whole system had been poisoned and the nerves shattered. Patients became delirious..." Medical journals described the patients as "suffering violent delirium and intense inflammatory engorgement of the lungs." According to Vivian Edwards, who recalled the epidemic in an *Auckland Star* article, most of the victims suffered lung complications. Their saliva and mucus were often blood stained, and in some cases the mucus was so sticky it was impossible to cough up, with the result to the victims is that they drowned in a fluid they couldn't expel. Some literally dropped dead in the street, whilst others slumped forwards even as they were driving trams and expired on the spot. Fortunately as previously mentioned the carnage only lasted 6 months or so, however the shock of having such an event would resonate for some time to come. And so we ask, how does this relate to our day and age? Well have you noticed that this major pestilence occurred before the antibiotic era began? So would it be fair to say that their immune systems were working at full efficiency, as well as having a body attuned to hard

manual work consuming unadulterated and fresh food off the land? In other words they were fitter and had a hardier constitution than we do today. The point that we are making is this: our generation is worse off as regards being able to cope with something similar to the Spanish Flu, and it is arguable that perhaps the bugs and viruses are even stronger than what our predecessors faced. For that reason it becomes clear as to why the medical authorities would like to get a better understanding as to what and why things happened as they did at the end of World War 1. We located a newspaper cutting that we took from the *NZ Herald* on Monday August 24th 1998, when we were tidying up our collection of information held at our office at the beginning of this year. The headline reads: **Scientists' mission to exhume killer virus.** The article goes on with the following: Work began on exhuming 6 Norwegian miners from an Antarctic cemetery at the weekend in the hope of recovering the flu virus that caused this century's worst pandemic. A team of Canadian, American, British and Norwegian scientists believe the men are buried in permafrost about 2m to 2.5m deep in a pit probably blown out by dynamite on the hillside above the town, about 1300km from the North Pole. The team aims to take samples from the lungs and other organs of the corpses in hopes of finding fragments of the "Spanish flu" and developing vaccines to prevent any future flu pandemics. (end of quote) It is of considerable interest that in that same cutting immediately above is another that has a headline: **Ward bugs 'killing hundreds each year'** it then goes on to report: Hospital bugs could be directly killing up to 200 people a year in this country (NZ) and contributing to the deaths of another 800. The figures have been compiled by the Institute of Environmental Science and Research, using comparable figures from overseas to back

its push for a national surveillance programme. Dr Mark Jones who is Capital Coast Health's clinical microbiologist said that at least 1 in 10 patients admitted to hospital was hit by an infection picked up after arriving, and sometimes the infection was fatal. The emergence of antibiotic resistant strains of bacteria is causing concern around the world. (Please note: this cutting was taken from the paper dated 24/8/1998!) In this country,

Communicable Disease Centre figures show the number of such infections rose 8% from 1988 to 1994. Institute figures show that 402 patients in the country's hospitals had the superbug MRSA in the 6 months to May 1998. However that did not mean they were infected with it in hospital. Figures published in the *New Zealand Medical Journal* show that during 27 months of research ended in December 1996, 3049 bloodstream infections were recorded at the country's 23 hospitals. (end of quote)

Question: How do you think we have done since then? This business is of the opinion that things are even worse than these events mentioned 20 years ago! Each person can draw their own conclusion, however the tone of this article is to warn what is going on right now, and to prepare for what appears to be a dismal future in a world where antibiotics no longer work. And to show you that we are not being unnecessarily pessimistic consider the following letter that was written by Leif Elinder and appeared in our local newspaper *The Beacon* on March 15th 2017. He writes: I am a Swedish paediatrician who formerly worked in Waikato and Whakatane hospitals. I have a home in Whakatane. I am not an employee of a hospital board or a corporate family doctor group, so I can speak freely. It is regrettable that hospital and family doctors are banned from speaking freely and publicly in New Zealand nowadays. Last week, Dame Sally Davies, the principal health advisor to the United Kingdom Government, gave a talk to a gathering of experts entitled: **Antimicrobial Resistance - the end of modern medicine.** This is



**A cartoon from 1918 depicts a monster representing influenza hitting a man over the head accompanied by the caption, 'A - TICH - OO!! Good evening. I'm the new influenza!!'**

one of the most important and serious issues facing us all, and I have never seen a better presentation. The quality is brilliant. Dr Davies gave graphic accounts of what is in store for us as we run out of effective antibiotics, particularly if we continue to use them excessively and unwisely. She gave many examples of infections that will be difficult, or impossible, to treat, including tuberculosis, gonorrhoea and gut organisms. She also reminded us that in a relatively short time some surgical operations will be too dangerous to perform; that included joint surgery and caesarean sections.... Dame Sally Davies speaks the words Sandy (Sandy Milne local doctor) has been using for 6 years, which is that we must think more about our children and grandchildren, and treat potentially killer bugs with more respect, as I, a childcare doctor have always done. (end of letter) At this point it is now advisable to move the discussion onto a positive note.

## What should we do to prevent tragedy occurring in our lives in the near future?

Captain Francis Hooke said in 1685 "A word to the wise is enough. The old proverb is, forewarned, forearmed." And with the abundance of evidence accumulating that our medical system is shortly to be overrun with seriously sick people seeking a solution to their problems, reminds us as to how we ought to proceed whenever anything occurs that puts us on our own. **Take advance measures by preparing carefully ahead of time.** An associate of ours here in Kawerau reminds us to always keep the car tanked up with petrol, for as she says with her having passed through a tsunami "everybody has to flee, and you can't go far on an empty tank." And of course whenever an emergency arises, one of the first thing that happens with people having to flee their homes, is petrol stations end up having long queues. Surely we can take advance action now to prepare for a world unable to

treat plagues and pandemics with traditional methods. And to assist you in this way, Active Health Services releases for your scrutiny our 12 page Winter 17 catalogue, in which we feature 10 products that help build our immune system, and 2 of the best sellers in our inventory. We include this with our current newsletter (If you are reading this and it is not available to you - it can be found at our website [www.ahsnz.com](http://www.ahsnz.com) under the heading: *(What we offer)* and we seriously ask you to consider building up your immune system by using some of these products regularly. This catalogue goes a long way to achieving the overall aim of our article which is stated on page 1 in the heading: Get Ready for our New Era! We would like however to draw to your attention the need to use some products as they are designed to do so. What we mean by that, is some products are best used only for short term use (like over the winter season) or some of them are able to go to very high dosage as a crisis arrives for us in the form of sickness, and then to resume a normal dosage as we improve by getting over the inconvenience of being disabled for a while. Either way we all must pay attention to ourselves, and to approach the matter in a positive manner. Yes it is very true that whatever will be, will be. As respects being able to change the dangerous weather patterns, well there isn't much we can do other than be prepared for the possibility that our lives could be tipped upside down in a very short time. However the discussion we've had today about future health developments is much more nebulous than the weather, for there are many more parameters involved, and the state of our personal fitness is probably the critical component in all of this. We believe that it is vitally important we pay attention to our hard working immune system, not only for our own sakes, but for the community as a whole. Our immune system is only as strong as the weakest link in it's chain of command.

### **A single dose of antibiotics can cause long term gut damage**

Antibiotics has been in common usage since being discovered in the mid 1930's. New information is emerging regarding this practice, changing our thinking about how to enjoy better health.



**by Jonathan Landsman**

**Originally published January 14th 2016  
in Natural News**

The statistics are sobering: in the United States alone, antibiotic resistant bacteria cause 23,000 fatalities and at least 2 million new cases of disease annually. But if you think antibiotic resistance only comes about with massive and repeated rounds of antibiotics, think again.

Science shows that just one dose of antibiotic 'therapy' not only contributes to antibiotic resistance, but also brings about long term damage to the microbes living in the gut. Many of the intestinal bacteria destroyed by antibiotics play a significant role in the body's natural defence system against cancer and other disease conditions.

### **Just one dose: Science reveals the true danger of antibiotics inside the gut**

European researchers recently reported study results showing even a single course of antibiotics is capable of disrupting the healthy population of microorganisms in the gut. Just as disturbing, the results can last up to a year and contribute to antibiotic resistance.

In their study, 66 healthy adults from the United Kingdom and Sweden were randomly assigned to receive a full course of one of four antibiotics - ciprofloxacin, clindamycin, amoxicillin or minocycline - or a placebo. The researchers did not know which antibiotic any given participant took throughout the course of the study.

Faecal and saliva samples were collected from the subjects at the start of the study, then again immediately after beginning the study drugs. Additional samples were taken at one, two, four and 12-month intervals after finishing a single course of antibiotics.

Results showed the drugs caused a notable increase in genes associated with antibiotic resistance, while seriously impacting the diversity of microbes in the gut and causing changes still evident months after initial exposure.

### **All antibiotics are NOT created equal and the results can be devastating**

Researchers have reported differences among the various antibiotics utilised in the study. Specifically, the health related bacteria in the gut were significantly reduced for up to four months in participants taking clindamycin and up to 12 months in those taking ciprofloxacin. Amoxicillin showed a less dramatic shift in microbial populations, but was the largest contributor to increased antibiotic resistance.

Researchers noted that participants from the UK came into the study with more antibiotic resistance than did the subjects from Sweden. This could be due to cultural differences and the significant decline in antibiotic use in Sweden over the past 15 or 20 years.

Lead author Egija Zaura, PhD, an associate professor in oral microbial ecology at the Academic Centre for Dentistry in Amsterdam, the Netherlands, wrote that microorganisms in study participants' feces were severely affected by most of the antibiotics, with changes lasting for months. More specifically, researchers reported a decrease in the number of desirable microbes that produce butyrate, which inhibits inflammation, combats cancer and reduces stress in the gut.

### **Lifesaving question: How do antibiotics increase the risk of disease?**

While antibiotic resistance may be at the centre of the research results, the affects on microbial populations in the gut have other far reaching impacts. Earlier research has shown that antibiotics can alter critical gut microbiota that affect the body's vulnerability to contracting a number of infectious diseases.

These differences in intestinal flora may have a far reaching impact on overall health and wellbeing. For example, did you know that changes in the gut's microbe population can leave the body vulnerable to infection, vitamin and mineral deficiencies, obesity, inflammation of the gut, malabsorption and food allergies?

### **Doctors' woeful lack of training about nutrition dooms millions to early graves**

Doctors are usually sincere, hardworking and dedicated. Therefore some will be astounded to read of this type of discussion about their lack of knowledge. One can only hope change will occur.



**By Tony Isaacs**

**Originally published August 6th 2012 in Natural News**

Proper nutrition is vital for maintaining good health and warding off illness. Nutrition can also play a pivotal role in healing illness of all kinds, including heart disease, diabetes and cancer - the three leading illnesses which cause deaths. It is thus shocking that our doctors - whom most people turn to for advice on diet and nutrition - receive little to no training on the subjects in medical schools.

#### **Doctors' woeful lack of training about nutrition**

If you 'just asked your doctor' how many hours of training they received in medical school on diet and nutrition and they replied honestly, many of them would tell you 'none at all.' Most of the rest would say they received no more than a couple of hours training.

In the mid 1980s, a landmark report by the National Academy of Sciences highlighted the lack of adequate nutrition education in medical schools and the writers recommended a minimum of 25 hours of nutrition instruction. Two and a half decades later, a 2010 study by researchers at the University of North Carolina at Chapel Hill found that the vast majority of medical schools still fail to meet the minimum recommended 25 hours of instruction.

The North Carolina researchers found only about a quarter of 100 schools surveyed offered the recommended 25 hours of instruction. In addition, four schools offered nutrition optionally, and one school offered nothing at all. Only a quarter of the schools had even a single course dedicated to nutrition.

'Nutrition is really a core component of modern medical practice,' said Kelly M. Adams, the lead author and a registered dietitian who is a research associate in the department of nutrition at the university.

Marcelle Pick, OB/GYN NP, agrees: "Most medical schools fail in nutritional instruction. Doctors tend to underestimate the importance

of nutrition in general. No wonder: most doctors receive a mere few hours nutritional training in med school, and lack adequate time to keep up on the latest research. Their practice is based on disease screening, not prevention, with an emphasis on drug therapies, not nutrition.'

Dr. Pick added that "Such doctors naturally think that nutritional supplements have little therapeutic value.'

Solmaz Amirnazmi, MD, also agrees: "We as physicians do not receive adequate training in nutrition, healthy lifestyle choices, and disease prevention in general while in medical school or in residency.'

Ray D. Strand, MD, author of 'Death By Prescription,' punctuated the lack of education about nutrition when he reported: 'In medical school I had not received any significant instruction on the subject. I was not alone. Only approximately six percent of the graduating physicians in the United States have any training in nutrition.'

Dr. Strand said that doctors are mostly taught only about the power of prescription drugs and surgery as treatment for diseases.

#### **The role of the pharmaceutical industry and the AMA**

The largest source of funding for medical schools comes from drug companies and medical schools curricula are set by the American Medical Association (AMA). Is it any surprise that doctors are taught to treat patients primarily with drugs and surgery?

Given the power of proper nutrition, doctors inability to give informed nutrition advice surely dooms millions to early graves due to illness which might have been prevented or healed. It is a national health tragedy which begs to be corrected.

(In contrast with the above information, naturopaths and those of a similar ilk spend considerable time covering matters to do with diet, detoxification, digestion and elimination as well as how to enhance key body systems) GB Editor

15/5/2017

Volume 1, Issue 1

Regular insert with our main newsletter. Discussing food that can be consumed with confidence



# Confidently Consume

## Eat Prunes And Plums For Healthy Bones

Prunes (dried plums) are most popularly used for their laxative effects, but a growing body of research indicates that prunes offer significant benefits to bone health.

In a 2001 study, prunes were shown to help offset women's significantly increased risk for accelerated bone loss, during the first three to five years after menopause. When 58 postmenopausal women consumed approximately 12 prunes each day for 3 months, they were found to have higher blood levels of enzymes and growth factors that indicate bone formation compared to the women who did not consume prunes.

A new clinical study led by researchers at San Diego State University has provided exciting new evidence on the effect and mechanism of prunes in postmenopausal women with low bone density.

### Background Data:

Bone is a dynamic living tissue. The new frontier in osteoporosis prevention and treatment is looking at ways to influence bone remodelling and the entire bone matrix. First, it is important to point out that bone is much more than minerals like calcium. It is composed of lattice of connective tissue primarily composed of collagen that serves as the structural framework for proper mineralization. The collagen is to bone what 2 x 4s are to the frame of a house. Loss of collagen and other connective tissue structures appears to be more important in the prevention of fractures, than the calcium and other mineral components.

Bone remodelling requires the coordinated activity of three types of cells — osteoclasts (cells that breakdown bone), osteoblasts (bone forming cells), and osteocytes (former osteoblasts that have cells that become embedded in the bone matrix). The osteocytes can detect loads applied to bone — they are the reason that weight-bearing exercises build bone. The osteocytes are able to communicate with one another through a network of cytoplasmic connections, similar to what is seen with nerve cells.

The activity of the osteoclasts and osteoblasts, as well as the entire bone matrix, can be influenced by a number of factors. For example, chronic silent inflammation is one of the major causes of damage to the collagen matrix in bone, as well as activation of the osteoclasts. Inflammation leads to an increase in the formation of a mediator known as NF-kappa B. Receptors on osteoclasts (cells that breakdown bone) recognize the NF-kappa B and are then stimulated to breakdown bone. This effect is buffered by the osteoblasts (cells that build bone) through their secretion of osteoprotegerin (OPG), which blocks the effects on the receptor activator for NF-kappa B known as RANKL. The osteocytes get into the scene by releasing a substance known as sclerostin that blocks the activity of the osteoblasts. So, in summary a

“perfect storm” for bone loss is higher RANKL and sclerostin levels, along with lower levels of OPG.

### New Data:

To further investigate the benefits and mechanism of action of prunes in reversing bone loss, researchers measured serum levels of RANKL, OPG and sclerostin in 160 postmenopausal women with low bone density. These participants were then randomly assigned to receive either 100 g prunes or 75 g dried apple per day for 12 months. All participants also received 500 mg calcium, plus 400 IU vitamin D3 daily.

To assess the impact on overall bone health, bone mineral density (BMD) of the lumbar spine, forearm, hip and whole body were assessed at baseline and at the end of the study using dual-energy X-ray absorptiometry. Dried plum significantly increased the BMD of the ulna and spine in comparison with the control group. Any improvement in the first year of therapy is generally regarded as a very good sign, as it generally takes 2 years or more to see changes in BMD. In addition, in comparison with corresponding baseline values, RANKL levels by only 2% in the prune group compared to 18% in the control group. The prune group showed a 5% increase in OPG, while the control group showed a 2% decline. Finally, serum sclerostin levels were reduced by 1% in the prune group while the control group showed a near 4% increase.

Although these percentage changes did not reach statistical significance, they do suggest that the positive effects of prunes on bone health may be due to favourable influences on the suppression of RANKL production, the promotion of OPG and the inhibition of sclerostin.

### Commentary:

Giving the timing of this newsletter (Christmas Eve), I wanted a fitting theme. I am not referring to sugar plums in this article, but rather the delectable dried plum or prune as it is commonly known. Whenever I come across research such as the study highlighted here, it makes me wonder just how many other common foods have tremendous healing properties that have not yet been discovered.

The exact compounds responsible for the effects on bone health have not been identified as of yet. Prunes and plums contain a mixture of beneficial polyphenols including neochlorogenic and chlorogenic acid. Two related compounds that have well-documented antioxidant effects. It is interesting that the dried apple, which is also rich in beneficial compounds, apparently did not influence bone health. Previous newsletters have highlighted the potential of apples in preventing Alzheimer's disease. So, different fruit (and other foods) appear to have different specific health benefits. Of course, that has been a resounding theme in my writings that food helps heal us.

**Reference:** Hooshmand S, Brisco JR, Arjmandi BH. The effect of dried plum on serum levels of receptor activator of NF- $\kappa$ B ligand, osteoprotegerin and sclerostin in osteopenic postmenopausal women: a randomised controlled trial. *Br J Nutr.* 2014 Jul 14;112

# Product of the Month

# QNS 0564 Aloe Vera Gel Retail Price: \$40.00

236.5ml

## Skin Moisturiser from Aloe Vera Inner Leaf.

Aloe Vera Gel is for external use and is known for its hydrating and moisturising properties.

The gel is created by adding a gelling agent, Irish moss extract, to the juice.

Aloe vera gel spreads on quickly and moisturises, leaving no sticky residue.



## Robyn Transom 31/3/16 “Aloe vera Gel: Various uses.”

*I have found this product invaluable over the years for some skin and mouth problems that have arisen for myself, family, friends and acquaintances.*

### **Burns:**

*Rub the Aloe on immediately if your hand hits the side of the hot fry pan as I have done quite a few times. Instant relief and no burn resulting, not even a pink patch on two occasions. The times I didn't use the aloe, I was left with a bad burn even though I used cold water and ice to treat the burn.*

### **Sunburn:**

*Very soothing and healing.*

### **Gum ulcers from dentures:**

*Can take the pain away immediately if you put a blob of the gel in the appropriate part of the denture, then put back in mouth. The gel will drip down onto the ulcer.*

### **Spots:**

*The gel can heal certain spots, but some others don't respond.*

### **Hot rashes:**

*Aloe can cool the heat down.*

### **Chafing and rubbing:**

*In folds of skin, under breasts and abdomen. Wash with warm water, pat dry, (never rub). Apply liberal gel and the relief is great after a very short period of time. Usually healed in a day or two by repeating both the wash and gel once or twice each day.*

### **Dry skin:**

*Temporary relief.*

Please Note: 90% of Aloe Vera products in the marketplace have been heat treated. Aloe Vera loses most of it's goodness due to this method of manufacturing. Reliable distributors are those who use the International Aloe Science Council seal of approval, and use the cold process method which retains Aloe Vera's potency.



This product featured above can be purchased from us. Phone 07 - 8080 - 650