



Dr. Frank Shallenberger's **SECOND OPINION**[®]

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HEALTH NOTES

Poor Brain Health Might Make You Feel Older

How old do you feel? Are you surprised when you look in the mirror to realize that you are that old? Or do you feel just as old as you look? How old we feel is called our subjective age. And subjective age varies between people. Some feel “like an old person,” and some people even in their 80s and above still feel younger than their actual age. Why is that? And is it important?

A new study looked at just that question. The results suggest that people who feel older than their age should consider focusing on their brain health.

Dr. Jeanyung Chey of Seoul National University in Korea wanted to know, “Why do some people feel younger or older than their real age?” She further noted, “Some possibilities include depressive states, personality differences, or physical health. However, no-one had investigated brain aging processes as a possible reason for differences in subjective age.”

So what Dr. Chey and her colleagues did was look at the link between subjective age and brain aging. They performed MRI brain scans in 68 healthy men and women whose ages ranged from 59-84 years and measured the gray matter volumes in various brain regions. Shrinking grey matter in the brain is a sign of brain aging. The men and women also completed a survey, which included questions on whether they felt older or younger than their age, their perceptions of their overall health, and questions assessing their cognitive abilities. Here's what they discovered.

(Continued on page 2)

Restoring Injured Brains to Normal Function Is Now Possible

Football season is here and you're going to be hearing a lot about concussions. It happens every season. While you may not play football, head injuries are a reality for many people. Whether it's a fall, a car wreck, or a sports injury, these types of injuries are very common.

And they dramatically affect the lives of those who suffer the injuries. That's because post-concussion symptoms can include fatigue, headaches, visual disturbances, memory loss, poor attention/concentration, sleep disturbances, dizziness/loss of balance, irritability/emotional disturbances, depression, seizures, nausea, loss of smell, sensitivity to light and sounds, mood changes, getting lost or confused, and slowness in thinking. Some people never function normally again.

Wouldn't it be great if there was a way to heal the damage of a concussion and restore the brain to normal? If there was such a treatment, we could use it to treat any kind of damage to neurological tissue (brain and nerve cells).

This type of treatment would be a miracle, as these brain cells do not replicate themselves. That's why it is so hard for patients to recover after a stroke or brain injury.

One example of this is a condition I have reported on before called Mild Traumatic Brain Injury or mTBI. Despite the name, mTBIs are often anything but “mild.” In addition to football players, they are a fairly common occurrence in our soldiers. These injuries usually happen during an explosion in which there is either a direct and/or a concussive injury to the brain.

The treatment so far is to give drugs and psychological counseling. But this approach is usually only minimally helpful because it focuses only on symptoms and

HEALTH NOTES ... continued

The men and women who felt younger than their age were more likely to score higher on the memory test. They, also considered their health to be better than average, and were less likely to report depressive symptoms. More importantly, those who felt younger than their age showed more gray matter volume in key brain regions.

The researchers further used the MRI data to calculate estimated brain ages for the participants. According to Dr. Chey, "We found that people who feel younger have the structural characteristics of a younger brain." And this was true independent of other factors, such as personality, subjective health, depressive symptoms, or cognitive function.

The researchers concluded that those who feel older may feel that way because they sense the aging process in their brains as their loss of gray matter may make their lives more challenging. But that's not all.

Another possibility is that those who feel younger are more likely to lead a more physically and mentally active life, which could cause improvements in brain health. However, for those who feel older, the opposite could be true. "If somebody feels older than their age, it could be sign for them to evaluate their lifestyle, habits and

(Continued on page 3)

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does not correct the damage. However, there is reason for hope.

Recently, I learned about a study that used low impulse transcranial electrical stimulation to turn around several serious cases of mTBI. Let me introduce you to Dr. Mingxiong Huang.

Dr. Huang recently presented a newly published paper to our American Academy of Ozonotherapy. He is currently a Professor in the University of California, San Diego's Department of Radiology. He is also a career research health scientist and physicist at VA's San Diego Healthcare System, and is the Co-Director of the UCSD magnetoencephalography (MEG) Center. Dr. Huang is also one of the leaders in the development of MEG imaging techniques.

MEG imaging is unique in that unlike other brain imaging, such as CT, SPECT scanning, and MRI, it is able to directly measure brain functional activity. And it can do this extremely accurately. So instead of just getting a picture of the brain tissue, MEG imaging can tell you just how well different areas of the brain are functioning.

According to one of the other authors of the study, Roland Lee, MD, "Our previous publications have shown that MEG detection of abnormal brain slow-waves is one of the most sensitive biomarkers for mild traumatic brain injury (concussions), with about 85% sensitivity in detecting concussions and, essentially, no false-positives in normal patients. This makes it an ideal technique to monitor the effects of concussion treatments, such as transcranial electrical stimulation." And so, that is exactly what these researchers did.

They used a form of low-impulse transcranial electrical stimulation to the brain called IASIS microcurrent neurofeedback. I have reported on IASIS before. It's an incredible treatment that we've been successfully using in the clinic for the past four years to treat a wide body of problems, including mTBIs and concussions, attention deficit disorders, chronic Lyme syndrome, insomnia, PTSD, headaches, anxiety, and mood disorders.

The treatment is completely safe, and involves applying very low current frequencies directly to the brain with electrodes placed on the head. Here's what Dr. Huang and his colleagues did.

They gave the IASIS treatments to six marines who had suffered an mTBI and were still experiencing post-concussion symptoms. The IASIS treatments took about an hour, and they gave the treatments twice a week for

six weeks. Before and after the treatment period, the effects of the treatment were monitored with MEG imaging. I think you will find the results amazing.

Before the treatment began, the MEG scans of the brains of all six marines, as expected, were abnormal. Previous studies have shown that the greater the amount of symptoms a patient has from mTBI, the greater the amount of damage that shows up on the MEG scan.

Following the treatment, the MEG scans showed considerable improvement in the abnormal brain function in five of the six soldiers. Basically, in these five marines, instead of just covering or learning to live with the symptoms with drugs and counseling, the IASIS treatments were able to actually repair the damaged areas of the brain.

This is a game changer for anyone suffering from an mTBI or post-concussion syndrome!

Not only did the damage decrease, the five marines also reported a 50% reduction in their symptoms! The sixth marine did not show any improvement on either the MEG or in his symptoms. Apparently, he needed a much more intensive time of therapy.

According to Dr. Huang, “For the first time, we’ve been able to document with neuroimaging the effects of transcutaneous microcurrent stimulation (IASIS) treatment on brain functioning in mTBI. It’s a small study, which certainly must be expanded, but it suggests new potential for effectively speeding the healing process in mild traumatic brain injuries.”

After his presentation at the AAO meeting, I had the opportunity to talk with Dr. Huang about the unresponsive sixth patient and combining IASIS treatments with ozone therapy. I suggested this because at the clinic we have even better results using that combination because damaged brain tissue also responds to ozone therapy. Also, we have found that some cases need the treatments more than twice a week.

Here’s why this is so important: mTBIs are a leading cause of sustained physical, cognitive, emotional and behavioral problems in both the civilian population (primarily due to motor vehicle accidents, sports, falls, and assaults) and among military personnel (blast injuries). In most cases, the injury resolves in days. But in a significant percentage of cases, mTBIs and related post-concussive symptoms persist for months, even years, resulting in chronic, long-term cognitive and/or behavioral impairment.

HEALTH NOTES ... *continued*

activities that could contribute to brain aging and take measures to better care for their brain health,” said Chey.

So, if you find yourself feeling older than your age, it might be because your brain is starting to deteriorate. If so, then do what it takes to make things better. There is an awful lot of information in my archives online on how to maintain good brain health including healthy sleep habits, hormone replacement, exercise, and supplements like Super Immune QuickStart and Advanced Memory Formula (800-791-3395).

REFS:

Feeling young could mean your brain is aging more slowly July 3, 2018, *Frontiers*. <https://medicalxpress.com/news/2018-07-young-brain-aging-slowly.html>

Kwak S, Kim H, Chey J, et al. Feeling How Old I Am: Subjective Age Is Associated With Estimated Brain Age. *Front Aging Neurosci*. 2018 Jun 7;10:168.

The One Supplement to Take Throughout Your Life

Here’s one vitamin that is especially critical for the mental development of your child. It’s the B-vitamin folic acid. For decades now, we have known how important taking folic acid during and before a pregnancy is for the prevention of a birth defect called neural tube defect. Now, new research is showing that it also plays a role in the future mental health of the kids.

The researchers looked at 292 boys and girls aged 8 to 18 years of age using MRI scanning of their brains. They found that those who had the highest intake of folic acid had significantly less thinning of the cortex of their brains.

The researchers point out that this indicates a reduced risk for severe mental illness in their later years including psychosis. So, if you are considering getting pregnant, do a few things before you start the process.

First, eat extra healthy, and avoid drugs and other toxins as much as possible. Start doing this even before you become

(Continued on page 4)

HEALTH NOTES ... continued

pregnant. And in addition, make sure you are taking your prenatal vitamins. These will include a healthy dose of folic acid. It's a good way to get your child off to a life free of mental disorders. And it reminds me of one more thing.

Patients ask me all the time about whether or not it is important for children to take a vitamin supplement. Perhaps in a perfect world, where there were no toxins and all the children were fed whole, natural, unprocessed, organic foods, supplements would not be called for. But that is not the case.

So, it makes all the sense in the world to feed our children the best we can and to protect them from drugs and other toxins. And part of that plan is giving them a good, healthy, natural supplement like my Super Immune QuickStart. Every morning give them a smoothie with some strawberries, flax oil, and yoghurt and 1 teaspoon of QuickStart for every 35 pounds of body weight.

REF: Eryilmaz H, Dowling KF, et al. Association of Prenatal Exposure to Population-Wide Folic Acid Fortification With Altered Cerebral Cortex Maturation in Youths. *JAMA Psychiatry*. Published online July 3, 2018.

Fasting the Wrong Way Increases Diabetes Risk

I have told you in the past how important fasting is to living a long healthy life. But did you know you can do it the wrong way? And doing so, could lead to diabetes.

That might surprise you. If you're concerned about developing diabetes, need to

(Continued on page 5)

For a complete listing of Dr. Shallenberger's recommended dietary supplements and nutraceuticals, please go to:

www.AdvancedBionutritionals.com

Or call toll free 800-791-3395
24 hours a day, 7 days a week.

If you are plagued with any of the symptoms of mTBI or post-concussion syndrome, please find the closest IASIS practitioner and start on the road to repair. You can find that person at: www.microcurrentneurofeedback.com. You can find doctors trained in ozone therapy at the academy website, aaot.us. And if you can find a practitioner who does both, you are really in good shape.

REFS:

Huang MX, Swan AR, et al. *Brain Inj.* 2017;31(13-14):1951-1963. A pilot treatment study for mild traumatic brain injury: Neuroimaging changes detected by MEG after low-intensity pulse-based transcranial electrical stimulation.

Transcranial Electrical Stimulation Shows Promise for Treating Mild Traumatic Brain Injury, September 28, 2017 | Scott LaFee, <https://health.ucsd.edu/news/>

Do Root Canals Cause Disease? Here's What You Need to Know....

Dentists have used root canals for years to treat inflamed and dead teeth. To most dentists and doctors, the worst thing that can happen with a failed root canal is that it will have to be repaired or replaced.

In fact, those in support of root canal therapy hold the view that they are entirely safe. With modern treatment methods, they insist, any systemic immunological effects of root-canaled teeth can be avoided. And as long as the patient has no complaints about pain or problems with their bite after the root canal, they believe that the procedure is a complete success.

This conclusion that root canals are safe is further based upon the fact that standard dental x-rays usually don't show any signs of an infection or even of an inflammatory reaction.

However, there are some problems with these assumptions.

First of all, inflammation only becomes apparent on x-rays to the degree that there is bone or tissue damage. So, x-rays can easily miss areas of chronic inflammation when there is minimal bone or tissue damage.

Second, root canals do cause disease. Any open-minded clinician who has treated auto-immune diseases and witnessed them going away after a root canal is removed

can tell you that root canals do indeed cause disease.

The reason isn't just inflammation. It's infections. Because of the impossibility of completely sterilizing the oral cavity when doing a root canal, 100% of them are infected. The question is not whether or not a root canal is infected. It is whether or not the infection will cause a disease.

Fortunately, most of the time, the infection is properly contained, and the root canal does not cause a disease. But, that is not always true. Sometimes they do. Studies have already shown a strong connection between documented inflammation in a root canaled tooth and the development of diabetes. But diabetes is not the only disease of concern.

Critics of root canals hold the view that they may contribute to immunologically based diseases such as cancer and auto-immune disease. They contend that the bacteria that inevitably reside in root canaled teeth produce metabolic toxins like mercaptan and thioethers, which can poison the immune system. Furthermore, they point out that standard x-rays are not accurate enough to determine whether or not a root canal is having a toxic effect on the body. They point to the research on apical periodontitis to make their claims.

Apical periodontitis is a chronic inflammatory disorder caused by bacterial infections at the apex of the root of a tooth. Root canals are a common cause of apical periodontitis. And the problem with apical periodontitis is that it not only causes local inflammatory tissue destruction around the tooth, it also causes systemic inflammatory responses which could ultimately result in systemic disease.

One well-documented systemic disease caused by apical periodontitis is heart disease. Patients with apical periodontitis are a whopping 2.7 times more likely to have a heart attack than those without the infection. Studies have also shown a clear connection of apical periodontitis with clinical depression, increased severity of depression, and with an overall reduced quality of life.

Now, a new study provides more proof of the root canal/disease connection.

Researchers in this study wanted to determine the extent to which x-rays were able to identify apical periodontitis in a group of 98 patients with root canals and chronic systemic immunological disorders. The researchers then compared the results with a second group that also had root canals, but showed no evidence

HEALTH NOTES ... continued

lose weight, or just want to lead a healthy lifestyle, you've probably considered fasting. Fasting has become quite popular as a tool in all of these areas. And it's true that fasting can be beneficial. But there's a right way and a wrong way to do it. Recent research has shed new light on why doing it the wrong way can be so dangerous.

One popular method of fasting encourages people to fast every other day. This certainly can help you lose weight. And weight loss is generally encouraged for people at risk of developing type-2 diabetes. But is this strategy wise? Researchers at the University of Sao Paulo in Brazil wanted to find out.

The researchers put normal adult rats on the every other day fasting pattern for three months. They measured their weight, free radical levels, and insulin function over the course of the study.

The rats did lose weight. But they actually gained abdominal fat. They also had higher levels of free radicals and markers of insulin resistance by the end of the study. And the diet damaged the pancreas cells responsible for releasing insulin.

All of these results suggest that this dietary pattern could actually increase diabetes risk. The weight loss isn't enough to offset the other factors. In fact, fasting this way could put people who were initially healthy at much greater risk of diabetes. And it could be even more dangerous for people who already have insulin resistance.

I do think intermittent fasting can be beneficial. But more than two days a week might be too much. Instead, there are two ways to make fasting work for you that are very safe. I recently posted an article to my website that details both of these strategies. They're not hard, but they do require some discipline. You can read about them at www.secondopinionnewsletter.com.

<https://www.sciencedaily.com/releases/2018/05/180520090903.htm>.

(Continued on page 6)

HEALTH NOTES ... continued

What to Take With Your Water to Avoid Heat Stroke

More than 155 people died in the Phoenix area last year from one cause. It's a new record in a place where the number of deaths from this one cause has been steadily rising. Former Phoenix Mayor Greg Stanton deemed it a public health crisis, and the city has launched an overhaul of how it prepares for and deals with the problem. But, it's not just a problem for Phoenix. And here's the thing. The problem is 100% preventable.

What is it? If you guessed heat stroke, you're more than just hot – you're right. And heat stroke is not just limited to Phoenix. Already, more people die from heat-related causes in the U.S. than from all other weather disasters. And, as with other disasters, the most vulnerable are infants, the elderly, and the sick. So, it's one more reason for us all to stay strong and healthy as we pile more and more candles on our birthday cakes.

Heat stroke results from prolonged exposure to temperatures over 100 degrees

(Continued on page 7)

In between our monthly visits, be sure to check in online!

- Access your own account using your email address
- Simple, clear search function puts every issue of the newsletter and Health Alert at your fingertips
- Send your questions to Dr. Shallenbeger directly from the website

Login using your customer number (above your name on the mailing label). Be sure to add your email address and password to make it simple to login every time.

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of any systemic disease. The patient group with the systemic diseases included prostate, breast, and colon cancer, chronic fatigue syndrome, rheumatoid arthritis, multiple sclerosis, amyotrophic lateral sclerosis (ALS), Parkinson's disease, trigeminal neuralgia, and 12 patients with various intestinal disorders.

The x-ray imaging that the researchers used to check for apical periodontitis was a special form of x-ray called 3D-CBCT. They specifically avoided the standard form of x-rays dentists use (called two-dimensional orthopantomography) because a large number of scientific publications have already shown that these standard x-rays miss up to 34% of apical periodontitis cases. So, what did they find with these examinations?

Amazingly, the patients with the systemic diseases were almost twice as likely to have apical periodontitis as the healthy men and women. This fact establishes a significant connection between apical periodontitis and systemic diseases. But, that's not all they discovered.

They also wanted to know if the toxins that are known to come from root canaled teeth – mercaptan, thioether, and hydrogen sulfide – cause systemic toxicity and immune system impairment. To do that, they measured how much hydrogen sulfide the root canaled teeth were giving off, and combined that data with blood testing to look at the relationship of the toxins with type IV immune reactions. Type IV reactions are the kind of delayed immune reactions that can result in autoimmune diseases.

The researchers found that 42.5% of the group with the systemic diseases had "immunological disturbances" involving type IV reactions as a direct result of their root canals. Furthermore, the presence of apical periodontitis was almost three times higher in the disease group than in the healthy group (17.2% versus 5.9%, respectively). Here's what the authors of the study had to say about their results.

"In summary, the data demonstrates that local pathologies [apical periodontitis] caused by endodontically treated teeth [root canaled teeth] may increase immunological and systemic dysfunction. The study presented herein is one of the first to statistically link a patient group with multiple systemic and immunological diseases with endotoxin levels originating from apical periodontitis.

"This study showed that there were significantly increased root canal endotoxin levels in patients with apical periodontitis in comparison with healthy people

without periodontitis.” The authors then go on to explain how root canals can cause auto-immune diseases.

“The link between apical periodontitis and increased root canal endotoxin levels may explain previous findings that inflammation in periodontal disease is mediated by macrophage proinflammatory cytokines. Increased endotoxin levels activate the toll-like receptor TLR 2/4, thereby increasing inflammatory responses leading to macrophage activation.” It’s macrophage activation that starts the whole process of immune system dysregulation and auto-immune disease.

So, what should you do if you have an immune-related disease and have a root canal? The first thing is to have an evaluation by a biological dentist who uses 3D-CBCT technology and who is also familiar with all of the dental applications of ozone therapy. If he/she thinks the tooth is a problem, then it’s best to have it removed and replaced with either a bridge, prosthesis, or implant.

Also, if you have been told that you need a root canal, please work only with a biological dentist familiar with ozone therapy. They know of all kinds of healthy options that are not taught in dental school. The closest biological dentist to me is three hours away. And although it’s a hassle to travel that far, I would never have any dental procedure by a dentist who is not biologically trained and set up to use ozone therapy. It is simply an unnecessary risk.

Here are four good referral sites to find that special dentist: www.iabdm.org, www.iaomt.org, www.holistic-dental.org, aaot.us.

REF: Lechner J, Von Baehr V. Impact of Endodontically Treated Teeth on Systemic Diseases. *Dentistry* 2018, Vol 8(3): 476.

Looking for an integrative physician near you? These organizations can help:

- American Academy of Ozonotherapy — aaot.site-ym.com
- American Board of Clinical Metal Toxicology — For a free list, www.abcmnt.org.
- International College of Integrative Medicine — www.icimed.com
- American College for Advancement in Medicine — 800-532-3688 or www.acam.org

HEALTH NOTES ... continued

combined with exertion and dehydration. These conditions basically lead to body temperatures that overwhelm our temperature control systems. The early signs of impending heat stroke are lightheadedness, dizziness, lack of sweating despite the heat, dark urine, weakness, muscle cramps, nausea, and rapid heartbeat. And, it can sneak up on you. So be careful. Besides dehydration and heavy exercise, here are other factors that make you more vulnerable to the heat.

People with heart, lung, or kidney disease, people who are overweight or underweight, and those with high blood pressure, diabetes, sickle cell trait, alcoholism, and sunburn are more vulnerable. Alcohol, antihistamines, diet pills, diuretics, sedatives, tranquilizers, stimulants, seizure medications, heart and blood pressure medications (especially beta-blockers and vasoconstrictors), and antidepressants and antipsychotics can also make you particularly susceptible to the heat.

So, if you have any of these conditions and/or are taking any of these drugs, be extra careful. That’s the bad news. But, here’s the good news. As I said above, it is 100% preventable.

Just don’t let yourself become dehydrated. Make sure that on a regular basis you drink at least two liters of water every day whether you feel thirsty or not.

If you’re going out in the heat, drink twice that much. Don’t wait until you have symptoms or feel thirsty. And, because heat stroke can result from salt and electrolyte depletion, make sure to add some electrolyte salts to your water.

A really good electrolyte combination is called Lyteshow. You can get it online. If you plan on exercising in the heat, make sure that you drink 24 ounces of water with electrolytes before you start. And drink another 24 ounces every hour.

REF: <https://www.npr.org/2018/07/09/624643780/phoenix-tries-to-reverse-its-silent-storm-of-heat-deaths>

LETTERS

Do You Have a Question for Dr. Shallenberger?

This page is your opportunity. Each month, Dr. Shallenberger tries to answer as many of your questions about health and medicine as he can. It's impossible for him to answer letters personally. And he obviously can't make a diagnosis or prescribe a treatment in these pages – or by mail or email. But if you have a question, please email it to feedback@secondopinionnewsletter.com or mail it to:

Second Opinion Letters
P.O. Box 8051
Norcross, GA 30091-8051

Q. Should I get the flu shot this year? Also, what about the shingles and pneumonia vaccines? – Bill H., via email

Dear Bill,

I'm going to celebrate my 73rd birthday next year. I have never had any of these vaccines. And I don't intend to ever get one. Besides the fact that they don't work very well, here are some other reasons why.

Other than the flu, the other diseases that the vaccines are supposed to be good for go from extremely rare (1 in 4,100 for pneumococcal pneumonia) to fairly rare (1 in 30 for shingles). So statistically these are not problems I have much concern over. And these statistics never take into account overall health and well-being. I doubt very much that the rare person who gets these infections is a person who has a healthy diet, is in excellent cardiovascular fitness, replaces deficient hormones, takes vitamins, practices good hygiene, avoids drugs,

and gets plenty of rest. The fact is that people like that are much less likely to get these infections than the general public. They are also much less likely to get heart disease, cancer, and diabetes. And these problems are way more significant than shingles and pneumococcal pneumonia. So a healthy lifestyle seems to be a much better approach to disease prevention than vaccines.

Secondly, a couple years ago, I told my readers about a brand new concept called "pre-conditioning." Pre-conditioning refers to treating yourself with ozone before anything goes wrong. This is similar in concept and mechanism to vaccines. But instead of a vaccine that's designed to prevent one particular problem, pre-conditioning can be used to prevent anything that might happen to you from heart attacks to cancer to infections.

Lastly, these diseases that seem so problematic for traditional medicine to deal with are just pussy cats for doctors who have ozone therapy available for their patients. I have never seen one viral infection of any kind that does not respond to ozone therapy combined with intravenous vitamin C. And I have never seen any bacterial infection that does not respond to combining antibiotics with ozone and vitamin C. That includes shingles, pneumococcal pneumonia, resistant bone and joint infections, and even MRSA.

With all that said, my advice might surprise you. Go ahead and get the vaccines if you think it's a good idea. They seem safe enough, particularly the shingles and pneumonia vaccines. These don't have nearly the same level of danger that we see with childhood vaccines. But if you do get them, don't rely on them, because they're very overrated. Make sure you

come up with a preventive plan that combines the healthy habits I mentioned earlier and pre-conditioning with ozone. And be sure to have a doctor at hand who can give you ozone therapy if you need it. You can find doctors like that at aaot.us.

Q. In your Advanced Adrenal Factor product, I noticed that you have 1,000 mg of glycyrrhetic acid in the form of licorice root. I have read of the medical complications that can occur at such a high dose. Am I missing some important information that you have and I do not know? – Molly T., via email

Dear Molly,

I have two answers for you: One is that I've been using this formula on literally thousands of people for over 15 years now. I've seen a few cases where the blood pressure went up slightly. But I've never seen a case of low potassium. So, maybe it's the particular combination I have in the formula, but we just never see any problems.

Second, according to the referenced article, the maximum dosage at which any kind of symptom might show up (NOAEL) is 2 mg/kg. So for a normal weight adult at 70 kg, that would come to 140 mg. Since each capsule has about 20 mg of glycyrrhetic acid, it would take seven capsules a day to exceed that dose. The most we give anybody is three to five capsules per day.

Of course, there will always be those people who are very sensitive to certain medications, but I have never seen any problems even in them. Also, I always go easy on patients with already established high blood pressure. But even in them, it doesn't cause problems. I hope this helps.