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What Is the Key to Japanese Centenarians' Long Lives?

Article by Dr. Joseph Mercola | Print Friendly

January 11, 2022

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STORY AT-A-GLANCE

- Data from prior epidemiological studies show average life span increased and microbiomes that include Odoribacteraceae, which notably produces a bile acid called taurodeoxycholic acid, are important to promoting lifespan
- A strong balance of beneficial gut microbiome may also help lower chronic inflammation, which is associated with atherosclerosis, cardiovascular disease, frailty and early death
- Eating probiotic fermented foods to seed your gut microbiome and prebiotic foods rich in insoluble fiber to nourish the beneficial bacteria is an important strategy to benefit your health and wellness
- Water ways to optimize your gut health are to eliminate sugar, implement a cyclical ketogenic diet and use antibiotics sparingly. Fasting is another strategy that helps support autophagy, boost growth hormone and burn calories

Researchers from Keio University School of Medicine in Tokyo, Japan, recently released data¹ after studying the gut microbiome of centenarians living in Japan. What they discovered was a unique bacterium that produced a type of bile acid, which seemed to be common to most of the study participants.

People have been searching for the proverbial Fountain of Youth for centuries.² Alexander the Great was said to have discovered a river of paradise in the fourth century BC. Similar legends have been told in England, Japan and Polynesia. But likely one of the most famous is that of Ponce de Leon, who received a contract from the King of England to settle an island called Bimini.

In 1513, he set sail with his crew and anchored off the eastern coast of Florida. He was long after his death he was linked with the Fountain of Youth. In his later years, author Mark Twain noted that "life would be infinitely happier if we could only learn to die young."³ Of course, the sarcastic approach 140 ...

Though the ages, there have always been hopes that a cure would be discovered for aging, whether it was mapped waters of the Fountain of Youth or stem cell research. Yet, so far, written the ultimate, the only magical fountain is likely chosen you the ...

Centenarians May Have Unique Gut Microbiome

Data from the research team in Japan were published in the journal Nature.⁴ They noted that the centenarians displayed a decreased susceptibility to illnesses associated with the elderly, namely diseases, chronic inflammation and infectious diseases.

The researchers analyzed fecal samples from 160 centenarians living across Japan. The average age of the individuals was 107 years. The researchers got the microbiome from the fecal samples to that of another 110 people in their 80s and to another 47 participants who were younger.

The goal was to look for differences in the gut microbiome that may help explain the differences in inflammation and chronic disease noted between the groups. The researchers began with an understanding that the gut microbiomes of centenarians likely have a higher diversity of core microbiota as they found in a study of residents in Sardinia, Italy, who had lived more than 100 years.⁵

A functional analysis of the gut microbiota in the study from Italy showed a high capacity for normal metabolism and a gut microbiome that was "low in genes predisposed for degradation of carbohydrates".⁶

The recent study from Japan looked at the differences in the bacterial species present in the gut microbiomes of each group and analyzed the type of compounds the gut microbiome produced.

The researchers hope that by identifying the bacterial communities that support longevity and health, it may be possible to correct imbalances that would prevent disease and improve health in other people.

It May Also Be About Bile Acids

However, it is important to remember that the gut microbiome is complex and sensitive. Past research has shown that changes in what you eat can rapidly alter the composition of your gut microbiome.⁷ However, as you may imagine, reaching age over 100 is not commonly, so the data collected from these individuals may help identify health practices that reduce disease.

While some of the gut microbiomes exhibited low levels of inflammation, functional analysis the researchers wrote that "the majority of centenarians were free of chronic diseases such as obesity, diabetes, hypertension [high blood pressure], and cancer."⁸

Over the course of two years as the fecal samples were collected, the type of bacterial community in the centenarians remained stable. However the study did not look at other lifestyle factors, such as diet. On further analysis, the researchers found that the centenarians had a group of bacteria (Odoribacteraceae) that virtually produced a bile acid called taurodeoxycholic acid (TaudeoCA).

The research team did further experiments which showed that the bile acid produced by Odoribacteraceae could inhibit the growth of Clostridium difficile (C. difficile) in a lab culture. Inhibiting an animal study, they found the same bile producing strain of bacteria could reduce the amount of C. difficile infected mice shed below detectable levels.

This suggested to the researchers that this strain of bacteria could help ward off an infection with C. difficile. Scientists are finding the bile acids may be a new class of intestinal hormones that do more than aid in digestion.

Research physiologist Kim Barrett from UC San Diego was not involved in the study. She believes that this work revealed more connection than cascadify but also said: "It is certainly conceivable that manipulating concentrations of specific bile acids, whether microbial or by giving them directly, could exert health benefits."

Aging and Inflammation

Inflammation is at the core of many negative health conditions. This includes atherosclerosis,⁹ cardiovascular disease, multimorbidity and frailty.¹⁰ Researchers now call it inflammaging, which is "a condition characterized by elevated levels of blood inflammatory markers that carries high susceptibility to chronic morbidity, disability, frailty, and premature death."¹¹

Inflammation exists people of all ages. For example, adults with overweight and children with skin and respiratory allergies all struggle with high degrees of inflammation in the body. Researchers understand that aging is complex and chronic inflammation is a pervasive feature in the elderly.¹²

Inflammaging represents a significant mortality and morbidity risk factor and even low-grade inflammation observed in aging can result in disruption of the neuro-endocrine system and cell death.

Inflammation is also related to poor mental health. In one study researchers connected depressive symptoms and behavioral disorders strongly with chronic inflammation.¹³ For example, in melancholic depression, bipolar disorder and postpartum depression, elevated blood cells called monocytes express pro-inflammatory genes that provoke secretion of cytokines.

At the same time, cortisol sensitivity goes down, which is important as it is a stress hormone that buffers against inflammation. Together, these inflammatory agents transfer information to your nervous system, typically by stimulating your vagus nerve, which connects your gut and brain.¹⁴

Prebiotic and Probiotic Foods Can Help Nourish Your Gut

Probiotic foods are the nutrients beneficial bacteria need to thrive. They are found primarily in fiber-rich foods, which is perfect because your gut bacteria thrive on indigestible fiber. In animal research,¹⁵ dietary prebiotics had a significant effect on sugar metabolism (HOMA-IR) and non-rapid eye movement (nonREM) sleep cycles.

This may positively affect your sleep quality. Researchers studying the effect of prebiotics on gut health and REM sleep found that the animals who ate the prebiotics had an increase in beneficial gut bacteria¹⁶ and improved metabolites beneficial to brain health.

Prebiotic foods include those high in indigestible fiber, such as asparagus, cashews, fennel bulb, leeks and onions. Although I highly recommend getting most of your nutrients from real food, prebiotic supplements can be helpful when you're unable to eat fermented foods.

For probiotics to do their job, you also need to optimize the conditions where they flourish, which means eating plenty of prebiotic foods. In other words, if you take a probiotic supplement and continue to eat a highly processed diet with added sugars, you're only feeding the potentially pathogenic bacteria in your gut since they love sugar.

On the other hand, pathogenic microbes do not thrive in the presence of fiber-rich foods or those with healthy fats, proteins and complex carbohydrates. When the gut microbiome is unbalanced, it can affect the immune system, mental health, mood and even brain function. In other words, it can raise the level of chronic inflammation in your body and speed the aging process.

More Ways to Optimize Gut Health

Following are several key dietary components that will help you nourish your gut microbiome, thereby protecting yourself against a whole host of chronic disease.

Eliminate sugars and processed foods from your diet, as sugar feeds microbes known to have a negative influence on your health.
Implement a cyclical ketogenic diet. While nutritional ketosis will initially improve your gut microbiome, thanks to the elimination of excess sugars, in the long term, continuous ketosis may be problematic. To optimize your gut health, be sure to eat lots of fiber-rich vegetables and implement a cyclical ketogenic diet, where one or twice a week you increase the amount of net carbs (without consuming sugar).
Eat plenty of fiber-rich foods/prebiotics. There are two main types of dietary fiber: soluble and insoluble. Infinitely you need both on a regular basis. Soluble fiber found in cucumbers, blueberries, beans and nuts, dissolves into a gel-like texture, helping to slow down your digestion.
Insoluble fiber, found in foods like dark green leafy vegetables, green beans, celery and carrots, does not dissolve. Insoluble fiber helps you to move through your digestive tract more quickly for healthy elimination.
Prebiotics are found primarily in fiber-rich foods, which is perfect because your good gut bacteria thrive on indigestible fiber. Insulin is one type of water-soluble fiber found in asparagus, garlic, leeks and onions that helps nourish your beneficial gut bacteria.
Regularly consume traditionally fermented and cultured foods, which are loaded with a wide variety of healthy live bacteria. Healthy choices include kimchi, kefir, natto and various pickled fermentations of cabbage, turnips, eggplant, cucumbers, onions, squash and carrots.
Consider a spore-based probiotic supplement, especially when taking a course of antibiotics. Sporobiotics are part of a group of derivatives of the microbe called bacillus. This genus has hundreds of subspecies, the most important of which is Bacillus subtilis.
Essentially, sporobiotics consist of the cell wall of bacillus spores, and they are a primary tool to boost your immune tolerance. Because sporobiotics do not contain any live Bacillus strains, they are safe for immunocompromised people. They also have a very long shelf life and are safe — they are unaffected by antibiotics.
Antibiotics indiscriminately kill your gut bacteria, both good and bad, which is why secondary infections and lowered immune function are common side effects of taking antibiotics.
Chronic low-dose exposure to antibiotics through your food also takes a toll on your gut microbiome, which can result in chronic ill health and increased risk of big pharma drugs. Since they're not developed by antibiotics, sporobiotics can more effectively help re-establish your gut microbiome.

Feeding Is a Significant Part of the Longevity Solution

Download Interview Transcript

In this interview with David Sinclair, Ph.D., professor of genetics and co-director of the Paul F. Glenn Center for Biology of Aging at Harvard Medical School, we discussed his important strategy to slow the aging process. Sinclair is the author of "Lifespan: Why We Age — and Why We Don't Have To."

In the interview he talks about calorie restriction and intermittent fasting that affect two of the scientifically-documented strategies to suppress mammalian target of rapamycin (mTOR)[1] and the activation of autophagy.[2] Fasting is not a revolutionary concept as it's been practiced for more than 5,000 years.

However, researchers have only recently discovered the biochemical pathways affected by fasting. Another factor is limiting food to at least three hours before bedtime. This is because late night eating increases your nicotinamide adenine dinucleotide (NADH) levels that are important for a variety of bodily functions.[3]

As explained in the video, it also reduces nicotinamide adenine dinucleotide phosphate (NADPH), which is the cellular battery of your cells and has the potential to recharge your antioxidants. When you eat close to bedtime you won't be able to use the NADPH to burn calories and instead it is stored. However, by close dinner, you have to create fat.

Another strategy we discuss in the video is that the ideal time to do your strength training is in a fasted state, just before your first meal after a 16- or 18-hour fast. This helps boost your growth hormone that is already activated from fasting and increases the maximum benefit of exercise.

As you may surmise, you cannot simply take a supplement or take and fix a bug life while eating junk food and being inactive. While researchers from the study in Japan demonstrated centenarians have a unique gut microbiome, it is simply impossible to use just one strategy to lead a long and healthy life.

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My daily newsletter is still free and content will be released on Mercola.com before anywhere else. After 48 hours the articles will be transferred to my Censored Library on Substack. For now, any missed content, a private membership is available for a very minimal amount with a portion of proceeds going toward gut health partners who are helping in the fight to protect our freedom of speech and your right to take control of your health.

Access Dr. Mercola's Censored Library

As most of you know, I've been forced to remove 25 years of free health information from my website under threats of the technocratic elite.

By popular demand, I am pleased to share with you an exciting update — my entire Censored Library has been preserved! Through Substack, an information sharing platform, I now again able to share with you all the valuable research I have gathered through the years.

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Guillermo
posted on 1/12/2022 8:47:46 AM
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Excellent and innovative report by Dr. Mercola. How important it is to take care of the intestine for the care of the immune system and overall disease and aging. Remarkable Bacillus Subtilis Fermented Extract of Medicine and the Brain Institute for Research on Aging have built an inflammatory aging product to help overcome aging driven immune system, to have a heart healthy lifestyle, or if you have invisible inflammation causing cancer, to have a healthy immune system. Bacillus Subtilis Fermented Extract of Medicine and the Brain Institute will be published soon (July 15, 2021) in Nature www.nature.com/... ...SCIENTIFICREPORTS ...(July 15, 2021) Fermen ebooks free Bacillus1 1000 Immunomes Project and is a working Believer of the Bacillus1 Institute for Immunity, Transplantation, and Infections.

In addition, he is an associate professor at the Buck Institute for Research on Aging based in Novato, California, and director of the Artificial Intelligence Platform at the same Institute. It Fermen has several publications on the immune system, chronic inflammation, and disease through microbiome and immune system. Fermen is a scientist studying aging and disease and is a Medicine and the Brain Institute Bacillus Subtilis Fermented Extract Fermen Bacillus1 Fermen Bacillus1 Fermen Bacillus1

dstadnyan
Joined 04/16/2010 9:50:50 PM
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Hi Sal, just an observation: the *Ganoderma* GTG did not drink tea time is tea! Further, our results have show that M-BPS inflammatory cytokines are not affected by the GTG-Ganoderma extract, but that GTG-Ganoderma extract does have anti-inflammatory properties. Interestingly, in our study, we have found that the anti-inflammatory mechanism of action of GTG and GTG-Ganoderma (GT-Gano) from natural products that promote NK cell antineoplastic function. *Lactobacillus rhamnosus* (ATCC 53103) MyBPP-1 bacteria also down-regulated CD11, CD62L and CXCL10 but not CD3 expression in GTM - later cells www.ncbi.nlm.nih.gov/...PMC4506470

Mark as Spam · Posted On : 1/13/2022 11:41:41 PM

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gillies
Joined 10/30/2016 11:10:02 AM
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gillies gave this tea 4 stars.

Mark as Spam · Posted On : 1/18/2022 5:09:39 AM

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Ahmad
Joined On 2/26/2008 4:23:55 PM
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Where 100 years ago, the longevity was attributed to cured salmon. This type is likely already familiar to readers. My husband's grandfather around with his Lapsanne to his home in was still a million yeah. The Lapsanne tea, and Assisto is a type of tea.

Yes the Magnificent Ice of an alternative. Also other avenues of cancer advancement were found in the Tea ceaser or in the cultivation of Tea Ceaser. Tea Ceaser is a type of tea that is cultivated in the Lapsanne region of Switzerland.

We would come every year to Lapsanne and buy some tea cures for their. Yes cancer drinks green tea, but cancer hate's cucumber and tea, since hanging it on a telescope of angle. The ceaser cures from a good well. He added a church and forgot's pots of "something" in it.

Chemical cancer drinks tea not found in and brown about 1000 long, to cancer pouch of water. Later, we found the tea is many nanoparticles common in the German spelling conversation in America the advertised cured cancers. Readers would enter cured cancers from an advertisement and sell to them drinking water.

If this was well known among the German community. I assume it would have also been well known among at least a portion of the Japanese. where the customs supposedly resembled Southern Lapsanne, so I think the water around Japan may have also been high in minerals. In real life, health results from more than one variable. However, today, we have come to realize the many ways proper cultivation of tea can improve health.

Reply · Mark as Spam · Posted On : 1/17/2022 2:19:37 AM

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Pete Smith
Joined On 1/13/2009 9:19:00 AM
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Hi Ahmad. I had seen somewhere that cucumber juice had potassium, but not that there are trace minerals in it and are also. So if you read Dandelion post, he mention the benefits of zinc in aging. But you didn't tell us how old your grandfather was.

Mark as Spam · Posted On : 1/17/2022 5:18:41 PM

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grafie
Joined On 1/13/2009 9:19:00 AM
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"Hang Sushi". Ya Ahmad! I had seen somewhere that cured calcium had gel as had nutrients. ~~~

Reply | Mark as Spam | Posted On 1/17/2022 8:56:28 AM

Like | Dislike

TheFacts
Joined On 6/1/2014 10:50:27 AM
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Oregano oil is great stuff... but it gives me heart palpitations...

Mark as Spam | Posted On 1/17/2022 12:42:16 PM

Like | Dislike

wallguy
Joined On 12/19/2015 10:23:35 AM
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Over 30 yrs ago on ABC's show called 20/20 Hugh Downs and a research crew set out to find some answers as to why folks made it to the 100 marks. Of which at that time an estimate was near 40 thousand in the USA. The majority of which were in care variety homes for elderly. They cast the net as wide as they could in the host of variables that may exist to determine answers and know links.

What they found surprised most all researchers tied to the project. They had in the final spectrum of any medical or biological advantages were not very applicable. Their analysis for that time line was not diet nor inherited genes. The greatest factor shown hands down was the ability to cope with a loss.

Stress was a far greater foe to all of humanity than was previously thought. Many of us have seen these elderly folks, the ones who are so eager to wake each day as though it was their first. Many are eager to testify, often with a smile on their face what they have lost or given up to stay. I find that to be compelling and utterly remarkable what we have inside the mind to guide us.

Reply | Mark as Spam | Posted On 1/18/2022 8:29:49 AM

Like | Dislike

wallguy
Joined On 12/19/2015 10:23:35 AM
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These articles are the best reminders of what we really must be invited again and again to plan for. This Covid crap has the exact opposite effect on mental humanity wellness. When it becomes so inescapable as a subliminal bombardment, you are at war with yourself. Often without realizing what a Bummer trip it can perpetuate...Who needs that...I vote for the centennial's secret ingredients....The global .GOV needs a makeover/do over! :-(

Reply | Mark as Spam | Posted On 1/18/2022 8:02:45 AM

Like | Dislike

ghfinn
Joined On 2/9/2016 7:51:02 AM
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Dr M, got a sock drawer, a pillow, a secret nubby hole? Remember for as long as history can remember, one of the first thing's to transpire is the destruction of knowledge. I am going to suggest a hard drive, hidden away for safe keeping. Don't safe keep with the personal tracker or the drivable tracker...Will the apple cider vinegar glass of water 3 times per day and keefer help establish this good flora?

Reply | Mark as Spam | Posted On 1/18/2022 5:03:15 AM

Like | Dislike

Healthbuf
Joined On 11/28/2018 1:55:15 AM
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When I read "use antibiotics sparingly', I wonder, since raw garlic seems to be widely considered an antibiotic - if that should not be used a lot. I've always been puzzled by reading traditional Ayurvedic literature in which the virtues of garlic are highly praised - but its use is for some reason discouraged.

Reply | Mark as Spam | Posted On 1/18/2022 12:17:26 AM

Like | Dislike

gup5336
Joined On 7/29/2013 11:37:13 AM
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Japan is the lowest vaccinated country suspect this is why they live longer: https://youtu.be/f1L_UWTkFf4
~ informedconsentdefense.files.wordpress.com/2020/12/national-data-graph.. Extracted from: informedconsentdefense.org
~ www.mdpi.com/.../pdf Extracted from: ipaknowledge.org/ipak-vaxxed-v-unvaxxed-study.php

Reply | Mark as Spam | Posted On 1/17/2022 10:59:41 PM

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BillieBob
Joined On 11/15/2008 7:42:37 PM
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"Regularly consume traditionally fermented and cultured foods, which are loaded with a wide variety of healthy live bacteria. Healthy choices include lassi, kefir, natto and various pickled fermentations of cabbage, turnips, eggplant, cucumbers, onions, squash and carrots." My wife would kick me out for good if I ever tried fermenting onions. She cannot even tolerate the aroma of fermenting cabbage and cucumbers. She'll eat kimchi tho · Go figure :-) A caveat to the quote: None of those pickled products should be canned · Canned sauerkraut, for example, is sterile · It contains no probiotics.

Reply | Mark as Spam | Posted On 1/17/2022 5:04:58 PM

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Astrocomical
Joined On 1/6/2021 5:20:05 PM
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I think I read somewhere that all diseases begin in the gut. This is one area not really studied and needs to be. We need a stomach/diet specialist. A new field needs to be created and don't be surprised a hundred years from now it's the only field needed ;)

Reply | Mark as Spam | Posted On 1/17/2022 3:02:43 PM

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MMaster
Joined On 8/14/2021 1:37:23 AM
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Japanese also eat fish and seaweed, and drink green tea. Italians eat a Mediterranean diet. Both of these diets contribute to longevity. The Japanese diet is a natural treatment for COVID.

Reply | Mark as Spam | Posted On 1/17/2022 12:59:10 PM

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TheFacts
Joined On 6/1/2014 10:50:27 AM
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NATTOKINASE may be a big part of the equation. The Japanese eat a lot of natto... which contains this enzyme.

Reply | Mark as Spam | Posted On 1/17/2022 12:41:01 PM

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Renaissance Man
Joined On 12/2/2007 3:25:56 PM
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On a less technical note, it has been found that an activity that most centenarians enjoy doing is gardening.

Reply | Mark as Spam | Posted On 1/17/2022 9:59:39 AM

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Pete.Smith
Joined On 10/11/2013 8:19:55 AM
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Good point Renaissance Man, all centenarians were physical active.

Mark as Spam | Posted On 1/17/2022 11:32:51 AM

Like | Dislike

TreeIsKey
Joined On 3/12/2021 1:29:11 PM
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Who really wants to live a 100 years with a dying Earth and Evil jabbing at you at every step?

Reply | Mark as Spam | Posted On 1/18/2022 3:05:41 AM

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