What’s the Message?

FOR YOUR MICROBIOME AWARENESS:
The delicate balance of inflammation-causing microbes and anti-inflammatory microbes inhabiting the ecosystem of the gut affects the immune system and overall health.

Fecal transplants may prove to be useful in treating many G.I. disorders and infections.

FOR YOUR SLEEP AWARENESS:
Avoiding caffeine, alcohol and nicotine are essential to getting a good night’s sleep.

If after following the suggested sleep tips you’re still having difficulty sleeping, check with your primary care physician.

FOR YOUR TYRAMINE AWARENESS:
Follow a low tyramine diet to minimize headaches.

Pay attention to leftover (aging) food in your refrigerator. Avoid eating leftovers that are older than 2-3 days old.

FOR YOUR LOW BACK PAIN SYMPTOMS:
Take care with your low back when lifting, twisting or bending your spine.

Any severe low back pain accompanied by loss of feeling, and/or the ability to move and/or loss of bowel or bladder control, see your doctor ASAP or go to the emergency room.

FOR YOUR LOW LIBIDO AWARENESS:
If low libido is a concern, consult your primary care physician about the recently approved Addyi.

Even when taken exactly as prescribed, Addyi can cause extremely low blood pressure and loss of consciousness. These risks are even more severe if women drink alcohol while taking Addyi.

What is the Midbrain?

The midbrain is the ecosystem that inhabits the human body. For every one cell in the human body, there are ten microbes. The majority of these microbes (generally, bacteria) live in the intestinal tract with most inhabiting the large intestine. Therefore, it’s commonly referred to as the GUT microbiome.

The gut microbiome differs from one person to another. The reason the microbiome is so important is because this ecosystem is closely related to immune function. The immune system protects against infection, and now scientists believe that this is only part of its function. The other function is to cultivate the friendly, or beneficial, bacteria while keeping the harmful, or pathogenic, bacteria at bay. The beneficial bacteria keep us healthy, and when the ratio of beneficial to pathogenic bacteria is out of balance, we experience illness, disease, and sometimes death.

Dear Dr. Liker... Does marijuana use cause paranoia?

Although many people actually do have some degree of paranoia (unfounded fears that someone wants to harm them), certain qualities or situations can intensify those fears. This includes one or more of the following: being young, being poor, having poor health, having suicidal thoughts, or using marijuana. An in-depth study published in the Schizophrenia Bulletin found that marijuana smokers are much more likely to have paranoia than people who do not smoke marijuana.

The participants, ages 21 to 50, all had used marijuana (cannabis) at least once prior to the study and all reported at least one paranoid episode in the previous month, yet none had a history of mental illness. Researchers injected them with THC, the active ingredient in cannabis, in a dose similar to a strong marijuana joint. Paranoid thoughts occurred in fifty percent of the participants who received THC compared to only thirty percent for those who received a placebo. The THC caused other psychological effects including anxiety, worry, low mood, negative thinking about oneself, changes in sound and color perception, and altered time perception. Because THC increases negative feelings and alters one’s perception, paranoia creeps into the consciousness. The researchers also believe that heavily smoking marijuana as a young person increases the risk of problems later in life.

Keeping People Focused on Staying Fit & Healthy

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The Heart of the Matter: GUT MICROBIOME -- GUT HEALTH & INFLAMMATORY DISORDERS

In recent years, there has been tremendous growth in the collective knowledge about the human microbiome. Not only have researchers identified various strains of bacteria in the gut, but they have also described what a “healthy” microbiome looks like and how it functions as well as an “unhealthy” microbiome in various disease conditions. This will be especially important in the diagnosis, prognosis, and treatment of diseases linked to gut health and inflammation.

Inflammation, which results from an over-active, or hyperactive, immune system is believed to be a factor in many autoimmune diseases. Researchers believe that there is delicate balance between inflammation-causing microbes and anti-inflammatory microbes inhabiting the ecosystem of the gut. These anti-inflammatory microbes can be thought of as having a “peacekeeping” function within the body. So the hypothesis is that the peacekeeping microbes decline in number or their anti-inflammatory ability is decreased, there is an opening for the harmful microbes to replicate extensively.

Researchers have identified a group of microbes belonging to the clostridial group that appear to influence gut health and encourage a balanced immune system. These microbes are referred to as “clostridial clusters.” Unlike their very distant relative, Clostridium difficile, which is rampant in hospitals and can cause death by diarrhea, clostridial clusters are actually beneficial and have the opposite action. They keep the gut barrier tight and healthy and modulate inflammation by easing the over-activity of the immune system. Because the clostridial clusters appear to be extremely beneficial, researchers are now investigating whether these microbes can be used to treat autoimmune diseases, allergies and inflammatory disorders, whose incidence has skyrocketed in recent decades. The first conditions to be examined with a high degree of optimism include Crohn’s disease and obesity.

The Liker Health Report
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Keeping People Focused on Staying Fit & Healthy
Your Lifestyle: IMPROVING SLEEP

You can improve your chances of getting a good night’s sleep by minimizing the things that interfere with sleep. These range from ingested substances, such as food, caffeine, alcohol, and medications to lifestyle habits, such as nicotine use and exercise. Caffeine, nicotine, and alcohol are three of the biggest threats because they act on the nervous system. Caffeine and nicotine are nervous system stimulants. Once ingested, caffeine remains in your system between eight and fourteen hours. Depending on your sensitivity level, you’ll need to calculate backwards from the time you intend to turn in, so you can stop drinking caffeinated beverages at the appropriate time. The active metabolite of nicotine can remain in the bloodstream for 18-20 hours, although the sleep-disrupting effect usually lasts about 2-4 hours. The best solution is to quit smoking and/or chewing tobacco completely.

Alcohol is a nervous system depressant and having a drink initially helps some people fall asleep (a so-called “nightcap”). This drowsiness effect lasts only a few hours and sleep is usually interrupted by frequent awakenings and/or nightmares. Alcohol consumption suppresses REM (Rapid Eye Movement) sleep, which otherwise stimulates the areas of the brain used in learning. REM sleep is when you do most of your active dreaming. Additionally, alcohol relaxes the throat muscles and interferes with the brain’s ability to control breathing properly. This can worsen snoring and sleep apnea, and may even be dangerous. Avoid alcohol, particularly if you are already sleep-deprived.

TIPS TO GET A GOOD NIGHT’S SLEEP

- Adhere to a regular sleep schedule. Go to bed and wake up at the same time every day, even on weekends.
- Sleep in a dark and quiet room. Use curtains to block light and noise from outside.
- Use the bed only for sleeping or sex.
- Keep the bedroom between 68-72 degrees Fahrenheit. Most people sleep better when the ambient temperature is cool.
- Dim the lights in your home 2 to 3 hours before bedtime.
- Turn off TVs, computers, and other blue-light sources an hour before going to bed. Cover any displays that can’t be shut off.
- Turn your alarm clock away from view to avoid looking at it. Forgo taking naps, especially close to bedtime. If you must take a nap, do it early in the day and limit it to no more than 20 minutes.
- Limit the amount of time actually spent in bed. Go to bed only when you’re sleepy. If you can’t fall asleep within 15 minutes or if you wake up and can’t fall back to sleep within 15 minutes, get up and do something relaxing until you feel sleepy again.
- Avoid caffeine-containing beverages (coffee, some teas, chocolate, and sodas) after 2 p.m. If you are extra sensitive, stop earlier.
- Avoid eating foods that contribute to heartburn.
- Avoid eating big meals too late. If you’re hungry, have a light snack and finish eating 1-2 hours before bedtime.
- Try foods containing tryptophan to help you feel sleepy. These include: dairy products, bananas, turkey, whole-grain crackers, and peanut butter.
- Avoid eating foods that contribute to heartburn.
- Avoid drinking alcohol for at least two hours before bedtime. If you are extra sensitive, stop even earlier.
- Limit fluids before bedtime to minimize getting up to use the bathroom during the night.
- Stop smoking, or avoid smoking/chewing tobacco for 1-2 hours before bedtime.
- Exercise regularly. Avoid strenuous exercise 3-4 hours before bedtime. Yoga, tai chi, or other relaxation techniques are fine closer to bedtime.
- Do not allow pets in the bed with you because their movements can awaken you. Pets can also trigger allergies which disrupt sleep.
- De-stress with a warm bath an hour before bedtime.
- Replace a worn-out or uncomfortable mattress.
- Use pillows to achieve a comfortable posture.

GUT MICROBIOME

Continued from Page 1.

A primary goal in microbiome research is to understand why people in modern society, who are relatively free of infectious diseases caused by bacteria and viruses (a significant contributor to inflammation in the body) are simultaneously prone to inflammatory, autoimmune and allergic diseases. A change in the microbiome has likely contributed to the creation of a hyperactive immune system. Over time, the gut microbes may have evolved due to modern lifestyle factors, including:
- widespread use of broad-spectrum antibiotics which deplete the beneficial bacteria
- sanitary practices which limit the transfer of infectious disease (i.e., hand sanitizers) but also hinder the transmission of synergistic microbes
- a high-sugar, high-fat diet

Microbiologists believe that antibiotics play a critical role in a dysfunctional immune system. Oral antibiotics kill off both good and bad bacteria in the gut, yet often the most resilient bad bacteria remains. This leads to bacteria that is antibiotic resistant (“superbugs”). Because the good bacteria is also gone, or greatly depleted, the immune system is prone to over-reaction. Studies in mice have shown that when the good bacteria was depleted, the immune system became more susceptible to colitis (G.I. inflammation), but when native clostral strain strains were reintroduced to the G.I. tract, the immune system returned to a balanced state and inflammation was prevented.

Researchers believe that restoring balance to the immune system can help prevent or even reverse inflammatory disease. Hence, the development of the fecal ("poop") transplant. This involves taking stool from a healthy person and transferring it into the colon of a person suffering from a disease caused by insufficient quantities of good bacteria. Currently, fecal transplants are performed as a treatment for Clostridium difficile (or C diff) when standard therapies have failed. The transplant good bacteria begin multiplying and prevent C diff from overgrowing again. Success rates are 90-95%.

Did You Know?

In 2012, the National Institutes of Health completed the first phase of the Human Microbiome Project, a multimillion-dollar effort to catalog and understand the microbes that inhabit human body.
Addyi is not “female Viagra.” Addyi influences female desire, or arousal, not sexual performance. The way Viagra does, Addyi was originally investigated as an antidepressant drug, for which it failed to improve mood. However, researchers noticed that it did increase female libido.

Is Addyi right for you?
Here’s what you should consider before asking your physician to prescribe Addyi:

- If your low sex drive is not causing you distress, you don’t need Addyi.
- Addyi is not very effective. Only about 8% to 13% of women said their desire and/or sexually satisfying events were “much improved.”
- Addyi must be taken every day for months, or years. So, unlike Viagra, Addyi is neither an on-demand medication nor a fast-acting aid for sexual activity.
- When Addyi becomes available to consumers, it’s likely to be expensive. Additionally, it’s unclear whether insurance will cover the cost.
- The risk for low blood pressure, fainting and drowsiness is significant. Clinical trials showed that 28.6% of those taking Addyi experienced adverse events compared to only 9.4% of those taking a placebo.
- Addyi’s manufacturer recommends that it be taken at night so drowsiness is less of an issue, but for shift workers who drive at nighttime, the recommendation is not clear.

TYRAMINE SENSITIVITY & HEADACHES

The U.S. Food and Drug Administration (FDA) recently approved a new drug to treat hypoactive sexual desire disorder (HSDD) in pre-menopausal women. HSDD is commonly referred to as “low sexual desire,” “low sex drive,” or “low libido.” The drug, called flibanserin and marketed under the brand name Addyi (ADD-ee), is not without risks and anyone considering treatment needs to be fully aware. Much of the caution warning has been issued by the FDA itself.

Janet Woodcock, M.D., director of the FDA’s Center for Drug Evaluation and Research has said, “Because of a potentially serious interaction with alcohol, treatment with Addyi will only be available through certified health care professionals and pharmacies. Even when taken exactly as prescribed, Addyi can cause extremely low blood pressure (hypotension) and loss of consciousness (syncope).”

These risks are even more severe if women drink alcohol while taking Addyi. Because Addyi must be taken daily, alcohol abstinence is required. If a physician determines that his/her patient cannot reliably abstain from alcohol, he/she will not prescribe Addyi. Other medications, such as anxiety medications, sleep aids, oral contraceptives, drugs for yeast infections, also interact with flibanserin and can worsen the side effects.

Not every physician, pharmacist, or healthcare provider will be allowed to prescribe Addyi. The FDA requires that prescribers be trained and certified. Certified prescribers must counsel patients about the increased risk of severe hypotension and syncope and about the importance of not drinking alcohol while taking Addyi. Additionally, certified pharmacies can only dispense Addyi to women who have a prescription from a certified prescriber, and the pharmacist must first counsel the patient not to drink alcohol. The FDA is also requiring Addyi’s manufacturer to conduct further studies to evaluate the interaction between alcohol and Addyi in women.

**HYPOACTIVE SEXUAL DESIRE DISORDER (HSDD)**

- Not caused by a co-existing medical or psychiatric condition.
- Not a side effect of a medication or other drug.
- Not due to problems within the relationship.
- Develops in an individual who previously had no problems with sexual desire.
- Occurs regardless of the type of sexual activity, the situation, or the sexual partner.

**FOODS TO AVOID**

- Aged, dried, fermented, salted, smoked, or pickled products
- Pepperoni, salami, and liverwurst
- Non-fresh meat or liver, pickled herring
- Aged cheese: blue, brick, brie, cheddar, Swiss, Roquefort, stilton, mozzarella, provolone, emmentaler, etc.
- Snow peas, fava or broad beans, sarraknick, pickles and olives
- Fermented soy products such as miso, soy sauce, and teriyaki sauce
- All nuts: peanuts, peanut butter, pumpkin seeds, sesame seeds, walnuts, pecans
- Alcoholic beverages: Chianti, sherry, burgundy, vermouth, ale, beer, and non-alcoholic fermented beverages
- Minced meat pie
- MSG* in (large amounts), nitrates and nitrates (found mainly in processed meats), yeast, yeast extracts, brewers yeast, hydrolyzed or autohydrolyzed yeast, meat extracts, meat tenderizers (papain, bromelin), seasoned salt (containing MSG), soy sauce, teriyaki sauce
- Bacon*, sausage*, hot dogs*, comned beef*, bologna*, ham*, any luncheon meats with nitrates or nitrates added
- Meats with tenderizer added
- Caviar
- Yogurt, buttermilk, sour cream: limit to ⅛ cup per day
- Parmesan* or Romanoff*: limit to 2 tsp. per day
- Fermented soy products such as miso, soy sauce, and teriyaki sauce
- Homemade yeast leavened breads and coffee cakes
- Sourdough breads
- Raw onion
- Limit intake to ⅛ cup per day from each group: Citrus: orange, grapefruit, tangerine, pineapple, lemon and lime; avocado, banana, figs*, raisins*, dried fruit*, papayas, passion fruit, and red plums
- Canned soups with autolyzed or hydrolyzed yeast*, meat extracts*, or monosodium glutamate*(MSG)
- Caffeinated beverages: limit to no more than 2 servings per day – 1 cup coffee or tea, 12oz carbonated beverage, hot cocoa or chocolate milk
- Alcoholic beverages: limit to one serving per day – 4oz Riesling wine, 1.5oz vodka or scotch per day
- Chocolate based products such as ice cream, pudding, cookies, and chocolate candies
- Wine, apple, or other fermented vinegars*

**FOODS TO USE WITH CAUTION**

- Bacon*, sausage*, hot dogs*, comned beef*, bologna*, ham*, any luncheon meats with nitrates or nitrates added
- Meats with tenderizer added
- Caviar
- Yogurt, buttermilk, sour cream: limit to ½ cup per day
- Parmesan* or Romanoff*: limit to 2 tsp. per day
- Fermented soy products such as miso, soy sauce, and teriyaki sauce
- Homemade yeast leavened breads and coffee cakes
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Charting the Symptoms: LOW BACK PAIN

Many people experience occasional pain in the low back as a result of overuse or misuse of the back muscles. Begin with Question #1 below and follow through to your specific symptom(s).

**QUESTION #1**
Did the pain begin after you fell or injured yourself or while you were lifting an object?  

**QUESTION #2**
Do you have pain or numbness that goes down your leg? 

**QUESTION #3**
Are you over age 60 or do you have arthritis, and is there severe pain with the slightest movement? 

**QUESTION #4**
Do you feel pain when you twist, bend, or sit? 

**QUESTION #5**
Does the pain come and go? Did the pain begin in your teen years? 

**QUESTION #6**
Do you have a fever? 

**QUESTION #7**
Do you have blood in your urine and pain on one side of your back and does it bum when you urinate? 

**QUESTION #8**
Do you have a stiff, painful back in the morning? Are other joints stiff, painful, or swollen? 

**QUESTION #9**
Are you pregnant? 

**QUESTION #10**
Is the pain centered in the lower spine and do you have pain radiating down your leg?
Charting the Symptoms: LOW BACK PAIN

Many people experience occasional pain in the low back as a result of overuse or misuse of the back muscles. Begin with Question #1 below and follow through to your specific symptom(s).

**QUESTION #1**
Did the pain begin after you fell or injured yourself or while you were lifting an object?  
| YES | NO | Go to QUESTION #5.

**QUESTION #2**
Do you have pain or numbness that goes down your leg?  
| YES | See your doctor. Take an over-the-counter anti-inflammatory pain medication and get plenty of rest. If the pain is severe and/or you lose feeling or the ability to move and/or you lose bowel or bladder control, see your doctor ASAP or go to the emergency room.
| NO | Call an ambulance. Do not drive to the emergency room. Move as little as possible.

**QUESTION #3**
Are you over age 60 or do you have arthritis, and is there severe pain with the slightest movement?  
| YES | You may have a fractured spine. Call an ambulance. Do not drive to the emergency room. Move as little as possible.

**QUESTION #4**
Do you feel pain when you twist, bend, or sit?  
| YES | Apply a heating pad. Use an OTC anti-inflammatory pain medication and get plenty of rest. See your doctor if symptoms do not improve or get worse.
| NO  | Go to QUESTION #6.

**QUESTION #5**
Does the pain come and go? Did the pain begin in your teen years?  
| YES | You may have spondylolisthesis (one vertebra slips over another), or spondylosis (a form of arthritis). Use an OTC anti-inflammatory pain medication.
| NO  | Go to QUESTION #6.

**QUESTION #6**
Do you have a fever?  
| YES | Go to QUESTION #8.

**QUESTION #7**
Do you have blood in your urine and pain on one side of your back and does it bum when you urinate?  
| YES | You may have pyelonephritis (a kidney infection) or kidney stones; stones may initiate a kidney infection. Take acetaminophen for fever. Use OTC medications for other symptoms. See your doctor if you do not improve or become worse.
| NO | You may have the flu or another viral infection. Take an OTC anti-inflammatory medication and apply heat. See your doctor if symptoms do not go away or if the pain is severe.

**QUESTION #8**
Do you have a stiff, painful back in the morning? Are other joints stiff, painful, or swollen?  
| YES | You may have ankylosing spondylitis (a form of arthritis in the spine) or arthritis. Take an OTC anti-inflammatory medication and apply heat. See your doctor if symptoms do not go away or if the pain is severe.
| NO | Apply mild heat to the back ONLY. If the pain continues, or if fever and bleeding occur, see your doctor.

**QUESTION #9**
Are you pregnant?  
| YES | Pregnancy causes the ligaments around the uterus to stretch and puts pressure on the lower back. Apply mild heat to the back ONLY. If the pain continues, or if fever and bleeding occur, see your doctor.
| NO | If you think the problem might be serious, call your doctor right away.

**QUESTION #10**
Is the pain centered in the lower spine and do you have pain radiating down your leg?  
| YES | You may have a herniated disk or spinal stenosis (a narrowing of the open spaces within the spine). Use an OTC anti-inflammatory pain medication and get plenty of rest. If the pain is severe and/or you lose feeling and the ability to move and/or you lose bowel or bladder control, see your doctor or go to the emergency room ASAP.
| NO | Go to QUESTION #6.

**Note:** Charting the Symptoms is an educational tool to help readers understand what certain symptoms might mean, what the diagnosis might be, and when a physician should be consulted. It should not replace medical advice, nor should you rely upon it solely to make health decisions. Charting the Symptoms has been adapted from the American Academy of Family Physician's Family Health & Medical Guide.
Playing It Safe: TYRAMINE SENSITIVITY & HEADACHES

Many people who experience headaches are sensitive to tyramine, by-product of the natural breakdown of the amino acid tyrosine in various foods, particularly high protein foods. The specific quantity of tyramine increases as food age through fermentation, from being stored for long periods of time, or are simply not fresh. Because tyramine is a naturally occurring substance and is not added to foods, there is no requirement to list it on food labels. Following a low tyramine diet is beneficial in reducing the severity or incidence of headaches. People who take monoamine oxidase inhibitors (MAOIs), such as Nardil or Parnate, are also advised to carefully follow a low tyramine diet because such foods can cause a dangerous increase in blood pressure.

High protein foods that have not been refrigerated properly are typically higher in tyramine; as the temperature increases, the faster tyramine will accumulate. To avoid a build-up of tyramine, prepare fresh food and eat it shortly after, especially high protein foods. Leftovers should not be stored for more than two or three days in the refrigerator. If you want to store food longer, freeze leftovers.

Tyramine sensitivity varies from person to person. If you suffer from tyramine-induced headaches or you suspect that this may be the problem, follow these general guidelines in addition to a low tyramine diet:

- Eat 3 meals daily plus a snack at night; or eat 6 small meals throughout the day.
- Avoid high sugar foods.
- Prepare and eat all foods fresh.
- Do not eat leftovers that are older than 2-3 days old.
- Avoid other headache triggers: cigarette and cigar smoke and caffeinated beverages.

FOODS TO AVOID
- Aged, dried, fermented, salted, smoked, or pickled products
- Pepperoni, salami, and liverwurst
- Non-fresh meat or liver, pickled herring
- Aged cheese: blue, brick, brie, cheddar, Swiss, Roquefort, stilton, mozzarella, provolone, emmentaler, etc.
- Snow peas, fava or broad beans, sarrakouss, pickles and olives
- Fermented soy products such as miso, soy sauce, and teriyaki sauce
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TIPS TO GET A GOOD NIGHT’S SLEEP
✓ Adhere to a regular sleep schedule. Go to bed and wake up at the same time every day, even on weekends.
✓ Sleep in a dark and quiet room. Use curtains to block light and noise from outside.
✓ Use the bed only for sleeping or sex.
✓ Keep the bedroom between 68-72 degrees Fahrenheit. Most people sleep better when the ambient temperature is cool.
✓ Dim the lights in your home 2 to 3 hours before bedtime.
✓ Turn off TVs, computers, and other blue-light sources an hour before going to bed. Cover any displays that can’t be shut off.
✓ Turn your alarm clock away from view to avoid looking at it. Forge taking naps, especially close to bedtime. If you must take a nap, do it early in the day and limit it to no more than 20 minutes.
✓ Limit the amount of time actually spent in bed. Go to bed only when you’re sleepy. If you can’t fall asleep within 15 minutes or if you wake up and can’t fall back to sleep within 15 minutes, get up and do something relaxing until you feel sleepy again.
✓ Avoid caffeine-containing beverages (coffee, some teas, chocolate, and sodas) after 2 p.m. If you are extra sensitive, stop at noon. Avoid caffeine-containing pain relievers and weight loss medications.
✓ Avoid eating big meals too late. If you’re hungry, have a light snack and finish eating 1-2 hours before bedtime.
✓ Try foods containing tryptophan to help you feel sleepy. These include: dairy products, bananas, turkey, whole-grain crackers, and peanut butter.
✓ Avoid eating foods that contribute to heartburn.
✓ Avoid drinking alcohol for at least two hours before bedtime. If you are extra sensitive, stop even earlier.
✓ Limit fluids before bedtime to minimize getting up to use the bathroom during the night.
✓ Stop smoking, or avoid smoking/chewing tobacco for 1-2 hours before bedtime.
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✓ Replace a worn-out or uncomfortable mattress.
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GUT MICROBIOME

Continued from Page 1.

A primary goal in microbiome research is to understand why people in modern society, who are relatively free of infectious diseases caused by bacteria and viruses (a significant contributor to inflammation in the body) are simultaneously prone to inflammatory, autoimmune and allergic diseases. A change in the microbiome has likely contributed to the creation of a hyperactive immune system. Over time, the gut microbes may have evolved due to modern lifestyle factors, including:
✓ widespread use of broad-spectrum antibiotics which deplete the beneficial bacteria
✓ sanitary practices which limit the transfer of infectious disease (i.e., hand sanitizers) but also hinder the transmission of synergistic microbes
✓ a high-sugar, high-fat diet

Microbiologists believe that antibiotics play a critical role in a dysfunctional immune system. Oral antibiotics kill off both good and bad bacteria in the gut, yet often the most resilient bad bacteria remains. This leads to bacteria that is antibiotic resistant (“superbugs”). Because the good bacteria is also gone, or greatly depleted, the immune system is prone to over-reaction. Studies in mice have shown that when the good bacteria was depleted, the mice became susceptible to colitis (G.I. inflammation), but when native clostridial strains were reintroduced to the G.I tract, the immune system returned to a balanced state and inflammation was prevented.

Researchers believe that restoring balance to the immune system can help prevent or even reverse inflammatory disease. Hence, the development of the fecal (“poop”) transplant. This involves taking stool from a healthy person and transferring it into the colon of a person suffering from a disease caused by insufficient quantities of good bacteria. Currently, fecal transplants are performed as a treatment for Clostridium difficile (or C diff) when standard therapies have failed. The transplanted good bacteria begin multiplying and prevent C diff from overgrowing again. Success rates are 90-95%.

Did You Know?

In 2012, the National Institutes of Health completed the first phase of the Human Microbiome Project, a multimillion-dollar effort to catalog and understand the microbes that inhabit human body.
Dear Dr. Liker... Does marijuana use cause paranoia?

Although many people actually do have some degree of paranoia (unfounded fears that someone wants to harm them), certain qualities or situations can intensify those fears. This includes one or more of the following: being young, being poor, having poor health, having suicidal thoughts, or using marijuana. An in-depth study published in the Schizophrenia Bulletin found that marijuana smokers are much more likely to have paranoia than people who do not smoke marijuana.

The participants, ages 21 to 50, all had used marijuana (cannabis) at least once prior to the study and all reported at least one paranoid episode in the previous month, yet none had a history of mental illness. Researchers injected them with THC, the active ingredient in cannabis, in a dose similar to a strong marijuana joint. Paranoid thoughts occurred in fifty percent of the participants who received THC compared to only thirty percent for those who received a placebo. The THC caused other psychological effects including anxiety, worry, low mood, negative thinking about oneself, changes in sound and color perception, and altered time perception. Because THC increases negative feelings and alters one’s perception, paranoia creeps into the consciousness. The researchers also believe that heavily smoking marijuana as a young person increases the risk of problems later in life.

The Liker Health Report
Keeping People Focused on Staying Fit & Healthy

The Heart of the Matter: GUT MICROBIOME -- GUT HEALTH & INFLAMMATORY DISORDERS

In recent years, there has been tremendous growth in the collective knowledge about the human microbiome. Not only have researchers identified various strains of bacteria in the gut, but they have also described what a “healthy” microbiome looks like and how it functions as well as an “unhealthy” microbiome in various disease conditions. This will be especially important in the diagnosis, prognosis, and treatment of diseases linked to gut health and inflammation.

Inflammation, which results from an over-active, or hyperactive, immune system is believed to be a factor in many autoimmune diseases. Researchers believe that there is delicate balance of inflammation-causing microbes and anti-inflammatory microbes inhabiting the ecosystem of the gut. These anti-inflammatory microbes can be thought of as having a “peacekeeping” function within the body. So the hypothesis is that the peacekeeping microbes decline in number or their anti-inflammatory ability is decreased, there is an opening for the harmful microbes to replicate extensively.

Researchers have identified a group of microbes belonging to the clostridial group that appear to influence gut health and encourage a balanced immune system. They are referred to as “clostridial clusters.” Unlike their very distant relative, Clostridium difficile, which is rampant in hospitals and can cause death by diarrhea, clostridial clusters are actually beneficial and have the opposite action. They keep the gut barrier tight and healthy and modulate inflammation by easing the over-activity of the immune system. Because the clostridial clusters appear to be extremely beneficial, researchers are now investigating whether these microbes can be used to treat autoimmune diseases, allergies and inflammatory disorders, whose incidence has skyrocketed in recent decades. The first conditions to be examined with a high degree of optimism include Crohn’s disease and obesity.