

The

Liker Health Report



Keeping People Focused on Staying Fit & Healthy

Spring 2023

Detecting Parkinson's Disease

Yes, There's an App for That

Parkinson's disease (PD) is typically diagnosed by observing and evaluating a patient's symptoms over time. Currently, there are no biomarkers for this neurodegenerative disease, so no blood tests can be utilized to make a definitive or early diagnosis. Brain imaging tests, such as an MRI or ultrasound are sometimes used for the purpose of ruling out other neurological conditions, rather than diagnosing PD. Unfortunately, PD symptoms (muscle tremors, limb rigidity, slow movement, change in voice) develop gradually and can remain unnoticeable until the disease has progressed significantly. However, there is renewed hope for PD patients.

Advances in healthcare are often driven by new technology, and smart technology (smartphones, smartwatches, fitness bands) has a potentially game-changing role in PD according to medical researchers and AI scientists. Several companies have developed apps that work with smartphones and wearable devices to track the cues that when analyzed together can offer the earliest signal of PD development. The PD cues include hand steadiness, voice characteristics, facial expressions in photographs, and emotional content of text messages. In the fall of 2022, the FDA approved **Parky**, an app for the iPhone and Apple Watch which uses motion sensors to identify involuntary movements and tremors. A similar app called **StrivePD** is also available on the App Store. These apps generate graphs of the abnormal movements which can be provided to the patient's healthcare practitioner for symptom management and disease progression tracking, as well as patient compliance with medications. Parkinson's patients should check with their doctor for guidance on the most appropriate smart tech for them.

"Side Effects" of Smartphone Use

- Contamination with surface bacteria or viruses (i.e., *E coli*, norovirus)
- Neck tightness or spasms in the neck muscles
- Poor sleep from nighttime surfing & blue light exposure
- Injuries caused by walking & talking or walking & texting
- Distracted driving
- Trigger thumb caused by texting
- Exacerbated thumb arthritis caused by texting
- Cubital Tunnel Syndrome (ulnar nerve irritation) caused by texting
- Interference with medical devices (i.e., pacemaker)
- Eye discomfort, pain, or damage
- Impaired communication or social skills
- Poor or deteriorating interpersonal relationships

RESEARCH PEARLS:

Sodium and Immunity

German and Belgian researchers reported in *Cell Metabolism* that the harmful effects of consuming too much dietary salt goes beyond just high blood pressure and cardiovascular damage. In fact, their studies show that sodium can adversely affect the human immune system by impairing metabolism and energy balance in some immune cells. Specifically, two types of immune cells – the monocytes and macrophages – can stop functioning properly.

Furthermore, sodium triggers malfunctions in the mitochondria, whose function is to generate energy for the body's cells. Researchers believe that Regulatory T cells (Tregs) lose their normal ability to maintain the balance between a healthy amount of inflammation and an excessive amount of inflammation. Without this normal balance, autoimmunity develops, and patients are likely to develop autoimmune diseases and possibly even cancer.

Cell Metab. 2023 Feb 7;35(2):299-315.e8.

Reducing Toxin Load

Enhance the Body's Innate Detox Capability

In today's world, it's becoming more difficult to avoid man-made chemicals and environmental toxins. And while there's no shortage of "detox diets" promoted by everyone from social media influencers to celebrities, scientific evidence is relatively scant. However, the human body's own detoxification system can certainly benefit from dietary habits which help reduce the overall toxin load. These five daily choices are safe, sensible, science-supported, and simple to implement:

#1 – DRINK MORE WATER. Staying hydrated is critical to detoxification because water flushes out waste byproducts generated by the body's metabolic processes; these are removed through urine, sweat, and respiratory droplets. Drinking liquids also promotes regularity, which rids the G.I. tract of toxins in the feces.

#2 – GET ENOUGH QUALITY SLEEP. Sleep supports detoxification because it's the period of time when the brain does its "cellular housekeeping" Cellular debris and waste byproducts from the prior day's metabolic processes are either disposed of or recycled during sleep; this allows the brain to be refreshed upon waking the next day.

#3 – WORK UP A SWEAT THROUGH EXERCISE. The body rids itself of toxins naturally by sweating, so not only does regular exercise remove harmful toxins, it also increases oxygen and nutrient delivery to the body's cells.

#4 – CUT BACK ON SUGAR & PROCESSED FOODS Sugar, processed foods, and fast foods compromise the health of the liver and kidneys which are key to detoxification. Processed and fast foods are typically a haven for non-organic, poor-quality ingredients.

#5 – EAT MORE ANTIOXIDANT-RICH FOODS. Antioxidant-rich plant-based foods help the body fight oxidative stress and reduce damage caused by free radicals and toxins. This eating style assists the organs responsible for natural detoxification.



GUIDELINES FOR HEALTHY ADULTS

- ✓ 2 liters of filtered water daily
- ✓ 5-10 servings of fruits, vegetables & nuts daily
- ✓ 7-8 hours of uninterrupted sleep nightly
- ✓ 150-300 minutes of moderate intensity exercise or 75-150 minutes of vigorous intensity exercise weekly

Your diet is a bank account. Good food choices are good investments.

Bethenny Frankel

Dear Dr. Liker...

How does norovirus spread and why do outbreaks seem increasingly common?



Norovirus is known for its ability to spread quickly by the fecal-oral route. Contaminated food, water, and surfaces that have been exposed to the feces or vomit of an infected person are the primary ways in which this gastrointestinal infection spreads. Unfortunately, only a few virus particles are necessary to cause infection, and they can easily become airborne, landing on surfaces that another person touches and then later touches their own mouth. Additionally, once the virus is airborne, others can ingest it directly, especially if there is close contact with the infected person.

Children are common spreaders due to their tactile habits and less-than-stellar hygiene habits. Norovirus can linger in a household and often spreads from one family member to the next. An infected person can transmit the virus for two weeks (or more) after feeling better. This is why mitigation is so important.

Recently, there have been outbreaks attributed to food grown or harvested with contaminated water. Any workers who handle food are potential infection sources. In December 2022, there was a Norovirus outbreak due to contaminated oysters. Obviously, eating raw foods increases the risk, and thus, you should be cautious when eating raw fruits and vegetables (and oysters). Cooking food to the appropriate temperature helps prevent several food-borne illnesses.

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