

NEWSLETTER FOR JANUARY 2023

Respected Reader,

Wishing you a very happy new year 2023! It gives me immense joy to present to you the seventeenth version of the newsletter from Beat-The-Tremor Foundation for the month of Jan'23. I hope it provides useful information adding value to the lives of patients of Parkinson's Disease (PD).

This issue of newsletter captures some interesting articles about discovery of new molecule that blocks dopamine! Several articles related to managing the symptoms is surely worth reading for everyone. The article about risks with chemical exposure is an important read. Finally, it also covers some of the dietary and lifestyle tips for leading a good life in spite of the disease.

Beat-The-Tremor Foundation is a humble attempt to try to bridge this information gap. The intent is to spread awareness by bringing relevant curated information about happenings, diet, exercise, devices, key hospitals, doctors and above all tips from others about leading a happy life. For now, the newsletter will be published in 2 Indian languages and in English. It will be made available through WhatsApp and email.

I would request you all to subscribe to the newsletter by going to www.beatthetremor.org. Once on the website, please do also provide me your feedback about what information would be most useful to you.

Jui Kesar
Pune, India



Vital Information



Note: This is not a commercial venture. I am a high school student and the intent here is to spread awareness and thereby help the patients of Parkinson's Disease. All information is owned by respective websites (I would like to thank all the sources). My family suffered a lot due to lack of awareness about this disease. Hence trying to help other patients. Beat-the-tremor is strictly information website and newsletter about the Parkinson's Disease. It does not provide any medical advice, diagnosis, or treatment. This content is not intended to be a substitute for any professional medical advice, diagnosis, or treatment. You should always seek the advice of your physician or another qualified health provider with any questions you may have regarding a medical condition. You should never disregard professional medical advice or delay in seeking it because of something you have read on this website. Any opinion expressed or suggestions given on this website or newsletter are not those of Beat-the-tremor or me. The intent is only to help patients without any commercial remuneration.

Some latest news

Advancements in research

Several new advancements in research are worth highlighting for the month of December. Globally there have been several researches in the US that are potentially very important.

Some of the researchers were involved in correlating treatment for cough with easing up of Parkinson's Disease. This may surely lead to some more research which may turn out to be beneficial in managing the symptoms.

Some researches focused on identifying a molecule that opposes secretion of dopamine. This discovery could lead to development of medications that can help manage the symptoms better by targeting such a molecule.

Another research focused on development of "smart" glove that can help manage some of the symptoms of Parkinson's Disease. The device can potentially help in reducing tremors, stiffness and slowness. Another promising study involved using lab-grown stem cells to generate nerve cells that may help in managing the symptoms of Parkinson's Disease.

Finally, researchers studying the prevalence of Parkinson's Disease in the US have concluded that the prevalence of disease is rising (50% more than expected).

Following are details about these researches:

Treatment to strengthen cough shows promise for Parkinson's patients

Parkinson's disease can weaken cough, which is instrumental in clearing aspirated materials from the airpipe. Sensorimotor training for airway protection (smTAP) improved cough-related outcomes more than expiratory muscle strength training (EMST) did. SmTAP uses a specific low-dose, inhaled cough stimulus to cause and improve reflex cough.

Following is the link to the original source:

<https://mbi.ufl.edu/2022/11/28/treatment-to-strengthen-cough-shows-promise-for-parkinsons-patients/>

Scientists' have identified a key molecule in PD research

Parkinson's disease is a movement disorder that is thought to be brought on by the loss of brain cells that produce dopamine. The striatum, a crucial area of the brain that regulates movement along with reward, motivation, and learning, has long been the subject of scientific conjecture that dopamine is affected by a conflicting dynamic of neuronal signalling. The loss of dopamine-producing cells in Parkinson's disease also primarily affects the striatum. In a recent study, scientists identified adenosine as the neurotransmitter that opposes dopamine for the first time in a clear and conclusive manner. The discovery might quickly reveal fresh possibilities for creating Parkinson's disease-related symptom-treating medications.

Following is the link to the original source

<https://scitechdaily.com/parkinsons-breakthrough-scientists-have-identified-a-key-molecule/>

Glove shows potential to ease PD symptoms

Researchers from an esteemed university are developing a glove aimed at alleviating motor symptoms caused by Parkinson's disease. Although the gadget is still undergoing clinical trial testing, preliminary pilot study findings in about six subjects indicate that it may reduce tremors, slowness, and stiffness.

Following is the link to the original source:

<https://www.michaeljfox.org/news/glove-shows-potential-ease-parkinsons-motor-symptoms>

PD prevalence rising

Researchers recently assessed the prevalence of Parkinson's disease by looking at health information from North America. They discovered that the prevalence of Parkinson's disease is 50% higher than expected. The findings may have effects on how PD is diagnosed and treated by healthcare professionals.

Following is the link to the original source:

<https://www.medicalnewstoday.com/articles/parkinsons-disease-50-percent-higher-than-previous-estimates>

Radical new therapy for PD will involve stem cell transplants

Stem cells (can transform into different cells) grown in the laboratory and transformed into nerve cells may be potentially used to replace those destroyed by Parkinson's disease. It is hoped that these may possibly stop the spread of debilitating symptoms. Experts say that it is "certainly a promising approach". Scientists expect that their trials will take at least two years to complete.

Following is the link to the original source:

<https://www.theguardian.com/society/2022/dec/04/radical-new-therapy-for-parkinsons-will-use-stem-cell-transplants>

Lifestyle Tips

Findings of some of the researches may also provide us with life-style tips to manage the disease symptoms better.

As for diet is concerned, one interesting find is that elevated levels of Vitamin D may lead to fewer cognitive problems. Another research revealed the importance of cranberry juice in protecting the brain cells. Yet another research found good effects of Mediterranean diet in managing the symptoms.

Another study revealed the importance of exercise in managing the symptoms.

As for the environmental factors, one study hinted at exposure to chemicals as an important risk factor for the disease.

Following are the details about these studies along with the findings:

Higher vitamin D levels associate to fewer cognitive problems

Vitamin D is crucial for controlling the activity of the neurological system in addition to maintaining the body's calcium levels. The findings of a study revealed that patients with higher levels of vitamin D were less likely to experience cognitive impairment or dementia and that those with Parkinson's often had lower vitamin D levels than healthy individuals. The results suggest further investigation on whether vitamin D supplements may be helpful for these patients, the researchers said, even if they do not provide conclusive answers about a cause-and-effect relationship between vitamin D and cognitive performance in Parkinson's.

Following is the link to the original source:

<https://parkinsonsnewstoday.com/news/high-vitamin-d-levels-linked-fewer-cognitive-problems-study/>

Cranberry juice provides potential to protect brain cells

Cranberries have high amounts of antioxidant chemicals called polyphenols. Antioxidants can combat oxidative stress, a type of cell damage implicated in Parkinson's. Research suggests that cranberry may offer a good supplement to Parkinson's treatment regimens. But more research is needed to optimize the appropriate dose for each individual patient.

Following is the link to the original source:

<https://parkinsonsnewstoday.com/news/cranberry-juice-concentrate-shows-potential-protect-brain-cells-rat-study/>

Mediterranean diets linked to reduced symptom burden

Mediterranean diets encourage a higher consumption rate of olive oil, fresh fruits and vegetables, fish, poultry, beans, nuts, and wine, while discouraging the consumption of foods such as red meat, butter or margarine, and pastries or sweets. These diets have gained popularity because of the supposed advantages they offer for neurological and general health. Particularly, it is believed that the anti-inflammatory and antioxidant qualities of such

diets reduce the incidence of neurodegenerative illnesses like Parkinson's or postpone the start of these conditions.

Following is the link to the original source:

<https://parkinsonsnewstoday.com/news/mediterranean-diet-for-parkinsons-eases-symptom-severity-study/>

Exercise can help reduce symptoms of PD

Exercise, such as boxing, increases neurotrophic factors, small molecules that promote brain growth. High-intensity exercise among Parkinson's patients improves information-processing ability. Exercise may also help tamp down chronic inflammation, often a hallmark of neurologic disorders. Experts say patients should not wait for research-based specifics to start exercising.

Following is the link to the original source:

<https://www.washingtonpost.com/wellness/2022/11/26/parkinsons-exercise-prescription/>

Chemical exposure can be a risk factor for neurodegenerative illnesses

For neurodegenerative illnesses like Parkinson's, exposure to harmful environmental elements, such as pesticides and air pollution, is a major risk factor. The researchers stressed the need for additional measures to prevent such exposures when presenting the findings of their study, and they urged regulatory bodies to take environmental contaminants' effects on neurodegenerative illness into account. The researchers also called for increased funding for preventive measures and advocacy.

Following is the link to the original source:

<https://parkinsonsnewstoday.com/news/chemical-exposure-key-risk-factor-parkinsons-scientists/>

Understanding the disease

While patients can feel the symptoms, there are some nuances of the disease that may be important for the patients to know. One such concept is the "On/off phenomenon. Another one is the importance of gut bacteria.

The newsletter also covers some details about how the disease impacts the body.

Following are the details:

What is the "Off" phenomenon

Off phenomenon happens in PD patients when the disease progresses and the main medicine becomes less effective. Off time or motor fluctuations may be different for different patients. In case some of the earlier symptoms reoccur in patients in spite of the medication, it is likely to be because the body needs a different dosage as medication is less effective.

Following is the link to the original source:

<https://www.antidote.me/blog/on/off-phenomenon-in-parkinsons-what-can-help>

Importance of gut bacteria

In the pathogenesis of Parkinson's Disease, gut bacteria is involved in multiple ways. Finding of the latest research shows that there exists a wider imbalance in the composition of microbiome of Parkinson's Disease patients. Study suggests possibilities of infection and inflammation, extra production of toxic molecules, and bacterial product curli leading to dysregulation of neurotransmitters.

Following is the link to the original source:

<https://www.uab.edu/news/research/item/13280-new-study-puts-gut-microbiome-at-the-center-of-parkinson-s-disease-pathogenesis>

How does Parkinson's Disease impact the body

Parkinson's Disease is a neuro-degenerative disorder that impacts dopamine-producing neurons. This leads to emotional and physical changes. Patients may face one or more of symptoms of disease include:

- Tremors
- Stiffness / slowness
- Posture and balance changes
- Dementia
- Speech problems
- Trouble sleeping
- Loss of smell or taste

Medicines are given to manage the symptoms. There are certain non-medical therapies, specific exercise and diets that can help in living with the disease better.

Following is the link to the original source:

<https://www.henryford.com/blog/2022/12/understanding-how-parkinsons-disease-impacts-the-body>

Vital Information

Treatment Options

Doctors decide the right treatment for the patients of PD based on various factors like age, overall health and medical history, level of degeneration, type of disorder and tolerance to therapies, etc.

Please do check out the information at:

<https://www.beatthetremor.org/treatment-options>

Diet Suggestions

Doctors decide the right food and nutrition requirements. Please consult the doctor for diet suggestions.

Please check out the following for more information:

<https://www.beatthetremor.org/diet-suggestions>

Physical Therapy

Exercises are beneficial for patients with Parkinson's disease. But physical therapy, in particular, is the key. It can increase mobility, strength and balance, and help the patient remain independent, says an expert, who works with patients with Parkinson's.

Note: Please discuss any exercise program with your physician/neurologist and get a referral to a physical therapist or trainer with expertise in Parkinson's disease before starting any specific program.

Please check out the following for more information:

<https://www.beatthetremor.org/physical-therapy>

Great Hospitals / Doctors around you

<https://www.beatthetremor.org/post/recycling-best-practices>

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ANNIVERSARY

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services to humanity**

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