

Rising Burden of Neurological Disorders Due to Modern Lifestyle: Role of Stress, Digital Exposure, and Sedentary Habits - A Homoeopathic Perspective.

Abstract: -

The prevalence of neurological disorders is increasing globally, driven largely by lifestyle factors inherent to modern society. Chronic stress, excessive digital exposure, and sedentary habits contribute significantly to the onset and progression of conditions such as migraine, tension headaches, anxiety, depression, and neurodegenerative disorders ⁻⁽¹⁾ ⁽²⁾. These factors not only impact neurological function directly but also influence psychosomatic pathways, exacerbating symptom severity ⁻⁽³⁾. Homoeopathy, with its individualized, holistic approach, offers potential benefits in managing these disorders by addressing both mental and physical symptoms. This article explores the relationship between contemporary lifestyle practices and neurological health, highlighting the mechanistic impact of stress, digital overstimulation, and inactivity. It further examines homoeopathic therapeutic strategies, including remedy selection based on symptom totality and constitutional type, supporting integrative management.

Keywords-

Neurological disorders, modern lifestyle, stress, digital exposure, sedentary habits, homoeopathy, psychosomatic, integrative medicine.

Introduction.

The rapid evolution of technology, urbanization, and modern work culture has brought significant conveniences but has simultaneously altered human lifestyle patterns. Extended screen time reduced physical activity, chronic stress, and disrupted sleep are now commonplace ⁻⁽¹⁾⁻⁽⁴⁾. These factors contribute not only to metabolic and cardiovascular issues but also play a critical role in neurological health ⁻⁽²⁾⁻⁽³⁾. The World Health Organization (WHO) recognizes neurological disorders as a major cause of disability and mortality, with their incidence rising steadily over the last few decades ⁻⁽¹⁾.

Neurological disorders encompass a wide spectrum, including migraine, tension-type headaches, stroke, epilepsy, neurodegenerative disorders (like Parkinson's and Alzheimer's), and psychiatric conditions with neurobiological correlates, such as anxiety and depression^{-(2),(4)}. Modern lifestyle factors are often underappreciated as contributing agents, yet they influence neuronal function, synaptic plasticity, oxidative stress, and neuro-inflammatory pathways ⁻⁽³⁾.

Homoeopathy, based on the principles outlined by Samuel Hahnemann, offers individualized treatment focusing on the totality of symptoms, including mental and emotional states⁻⁽⁵⁾. This holistic approach is particularly relevant in conditions where lifestyle factors play a central role, allowing management not just of physical manifestations but also of underlying psychosomatic triggers.

1. Impact of Stress on Neurological Health.^{-(2),(3),(6),(7)}

Physiological Mechanisms-Chronic stress activates the hypothalamic-pituitary-adrenal (HPA) axis, resulting in persistent elevation of cortisol and catecholamines. These hormonal changes impact neurotransmitter balance, reduce neurogenesis, and promote neuroinflammation. Over time, stress

contributes to cognitive decline, mood disorders, and increased susceptibility to neurodegenerative diseases.

Clinical Correlations- Stress is a well-documented trigger for migraine attacks, tension headaches, and anxiety disorders. Patients with chronic stress often report sleep disturbances, irritability, and fatigue, further aggravating neurological symptoms.

Homoeopathic Perspective- Homeopathy emphasizes treating stress-related neurological manifestations by addressing the mental-emotional state along with physical symptoms. Remedies such as *Ignatia amara*, *Nux vomica*, and *Kali phosphoricum* etc. Are commonly indicated depending on the patient's constitutional profile and symptom totality.

2. Digital Exposure and Neurological Health^{(4),(6),(7)}

Modern Challenges- Prolonged exposure to digital devices leads to “digital eyestrain,” disrupted circadian rhythms, and reduced attention span. Blue light exposure from screens affects melatonin secretion, contributing to sleep disturbances that compromise neurological recovery and cognitive function.

Neurocognitive Impact- Excessive digital use is associated with increased risk of headaches, visual fatigue, and anxiety. Emerging research also links prolonged screen time with structural and functional changes in the brain, particularly in regions responsible for attention and emotional regulation.

Homoeopathic Management- Homoeopathic remedies can be tailored to alleviate symptoms associated with digital overload. For instance, *Gelsemium-sempervirens* may be considered for headache and mental fatigue, while *Coffea cruda* can

address overexcitement and sleep disruption. Emphasis is also placed on lifestyle modification alongside remedy administration.

3. Sedentary Habits and Neurological Implications-^{(2),(3),(7),(6)}

Mechanistic Insights- Sedentary behavior reduces cerebral blood flow, impairs neurotrophic factor expression, and promotes systemic inflammation. These physiological changes heighten the risk of neurodegenerative disorders, mood disturbances, and cognitive decline.

Clinical Observations- Patients with sedentary lifestyles often report persistent fatigue, tension headaches, and musculoskeletal discomfort, which may exacerbate neurological symptoms.

Homoeopathic Considerations- Homoeopathy addresses the constitutional vulnerabilities that may worsen with inactivity. Remedies like *Calcarea carbonica* and *Lycopodium-clavatum* are chosen based on physical and mental symptom patterns. Encouraging gradual physical activity, posture correction, and stress management enhances therapeutic outcomes.

Pathophysiological Mechanisms of Lifestyle-Induced Neurological Dysfunction.

1. Chronic Stress and HPA Axis Dysregulation^{(8),(9)}

- **Mechanism:** Continuous psychological or emotional stress activates the hypothalamic-pituitary-adrenal (HPA) axis, leading to persistently elevated cortisol and adrenaline levels.

- Effect: These hormones damage neurons, disturb neurotransmitter balance (especially serotonin and dopamine), and increase oxidative stress and inflammation in the brain.
- Result: This can cause or aggravate migraine, tension headaches, depression, anxiety, and even neurodegenerative changes.
- Homoeopathic view: Long-term emotional suppression or mental strain disturbs the vital force, manifesting as both mental and physical dysfunctions a key psychosomatic origin of disease as noted by Hahnemann in Organon aphorisms 210–230.

2. Excessive Digital Exposure and Neural Overstimulation⁽¹⁰⁾

- Mechanism: Continuous screen use causes digital overstimulation, blue light exposure, and disrupted melatonin secretion, leading to sleep deprivation and reduced brain detoxification.
- Effect: Constant sensory input overactivates the brain's reward and stress circuits, causing attention deficits, anxiety, irritability, and even structural changes in regions controlling emotion and focus.
- Result: Over time, this contributes to functional neurological symptoms, headaches, and burnout-type fatigue.

3. Sedentary Lifestyle and Reduced Neurocirculation^{(11),(12)}

- Mechanism: Lack of movement reduces cerebral blood flow and oxygen delivery to neurons, lowering levels of brain-derived neurotrophic factor (BDNF) essential for memory and neuroplasticity.
- Effect: The result is impaired cognitive function, increased inflammation, and higher risk of diseases like Alzheimer's and Parkinson's.

- Homoeopathic view: Physical inactivity stagnates the vital energy flow, weakening the body's defence mechanism and increasing susceptibility to chronic functional ailments.

4. Nutritional Imbalance and Oxidative Stress⁽¹³⁾

- Mechanism: Diets high in processed foods, sugar, and unhealthy fats increase free radical generation, damaging neuronal membranes and mitochondria.
- Effect: This oxidative and inflammatory load promotes neurodegeneration and worsens mental health issues like depression and fatigue.
- Homoeopathic correlation: Disturbed nutrition alters the dynamic equilibrium of the vital force, leading to constitutional imbalance and chronic illness predisposition.

5. Disrupted Sleep-Wake Cycles^{(10),(14)}

- Mechanism: Irregular sleep due to stress or digital exposure reduces glymphatic clearance, the brain's natural detox process that occurs during deep sleep.
- Effect: Accumulation of metabolic waste and amyloid proteins leads to cognitive dullness, poor focus, and in long term, neurodegenerative pathology.
- Homoeopathic approach: Remedies like *Coffea cruda*, *Nux vomica*, and *Passiflora* help restore natural rhythm and calm the overactive nervous system.

6. Psychosomatic & Emotional Suppression⁽⁵⁾

- Emotional suppression (grief, anger, anxiety) manifests as physical neurological symptoms like tremors, paralysis, or chronic headaches, a phenomenon recognized in both psychosomatic medicine and homoeopathy.
- Hahnemann emphasized that mental/emotional causes can derange the vital force more profoundly than physical causes, producing functional disturbances before structural pathology develops.

Cause	Physiological Impact	Neurological Consequence	Homoeopathic Understanding
Chronic stress	HPA axis activation, cortisol excess	Headache, depression, cognitive decline	Disturbance of vital force due to mental strain
Digital overload	Neural overstimulation, melatonin disruption	Sleep issues, anxiety, burnout	Overexcitation of mind-nerves system
Sedentary lifestyle	Low BDNF, poor circulation	Fatigue, cognitive dullness	Stagnant vital energy
Poor diet	Oxidative stress, inflammation	Neurodegeneration	Dynamic imbalance
Sleep disturbance	Glymphatic dysfunction	Memory loss, irritability	Nervous system exhaustion

Emotional suppression	Mind-body imbalance	Psychosomatic disorders	Vital force derangement, aphorism-225
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Role of Homeopathy in Lifestyle-Associated Neurological Disorders--⁽⁵⁾

Homeopathy, grounded in Samuel Hahnemann's Organon of Medicine, emphasizes individualized treatment based on the totality of symptoms, addressing both mental-emotional and physical aspects of disease. Aphorism 225 highlights the mind-body connection, noting that mental disturbances often precipitate or worsen physical pathology. This principle is particularly relevant in modern lifestyle-induced neurological disorders, where stress, digital overexposure, and sedentary habits contribute to conditions such as migraine, tension headaches, anxiety, depression, and cognitive fatigue.

Classical Materia Medica guides remedy selection according to symptom patterns and constitutional type. *Ignatia amara* is indicated for stress-related headaches and emotional disturbances, *Nux vomica* for overwork, irritability, and digital strain, while *Kali phosphoricum* addresses mental exhaustion and sleep disturbances. For digital overload, *Gelsemium-sempervirens*, relieves headaches and visual fatigue, and *Coffea cruda* aids in overexcitement and insomnia. Sedentary individuals benefit from *Calcarea carbonica* or *Lycopodium*, supporting both physical stamina and cognitive resilience.

Homeopathy complements lifestyle modifications—regular physical activity, stress management, and reduced screen time—enhancing neurological function and

overall well-being. By stimulating the vital force and addressing underlying psychosomatic triggers, homeopathy offers a safe, holistic, and integrative approach to modern neurological healthcare.

Benefits to the Reader and Significance of the Study-

- **Comprehensive Understanding of Modern Neurological Challenges:**
Readers learn how chronic stress, digital overexposure, sedentary lifestyle, poor diet, and disrupted sleep contribute to neurological disorders.
- **Integration of Modern Science and Homeopathy:** Connects HPA axis dysregulation, oxidative stress, and neuroinflammation with the homeopathic concept of vital force, bridging classical philosophy with contemporary neurobiology.
- **Practical Clinical Insights:**
Discusses remedies such as *Ignatia amara*, *Nux vomica*, *Gelsemium-sempervirens*, and *Coffea cruda*, offering actionable guidance for stress-related neurological complaints.
- **Holistic and Integrative Perspective:**
Encourages readers to apply mind–body–vital force principles alongside lifestyle modifications, enhancing patient-centred care and holistic management.
- **Encourages Preventive and Lifestyle-Oriented Thinking:**
Empowers readers to recognize early lifestyle-related neurological risks and implement preventive strategies alongside homeopathic care.

Conclusion:

Modern lifestyle factors, including chronic stress, excessive digital exposure, and sedentary habits, are major contributors to the rising prevalence of neurological disorders. These influences affect brain structure, function, and psychosomatic balance, exacerbating both acute and chronic neurological conditions. Homeopathy, with its individualized and holistic approach, offers a complementary avenue for managing these disorders, focusing on both mental-emotional and physical symptomatology. Integrating homeopathic remedies with lifestyle modification can significantly enhance patient outcomes, reduce symptom burden, and promote neurological resilience. Recognizing and addressing the lifestyle determinants of neurological health is essential for mitigating the growing societal burden of these disorders.

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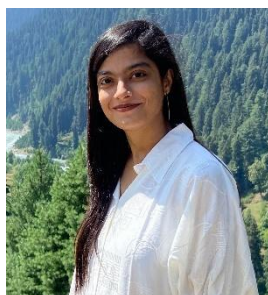
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