



## Havana Syndrome

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### Why in News

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Recently, two US officials have shown symptoms of a **mystery illness** that is linked to **Havana Syndrome**.

- In 2020, **a report** by the **National Academies of Sciences (NAS), US** found **directed microwave radiation** to be the **plausible cause** of the **Havana syndrome**.
- **Increasing** number of cases is being considered a **mass psychogenic illness**.

### Mass Psychogenic Illness

Mass psychogenic illness is when people in a group start feeling sick at the same time even though there is no physical or environmental reason for them to be sick. They could think they've been exposed to something dangerous, like a germ or a toxin (poison).

### National Academy of Sciences

- It is a **non-profit, Government Organisation in the United States of America**.
- NAS was founded in 1863 as a result of an Act of Congress, which was approved by Abraham Lincoln.
- The organisation **offers its reports to the Government** with regard to the Science and Technology projects.

### Key Points

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- **About:**

- **In late 2016**, a few diplomats from the **USA and their employees** had reported certain usual symptoms during their stay in **Havana, Cuba**.
- They experienced some **odd physical sensations** and heard **peculiar sounds**, after which they **started feeling sick**.
- The **US** had even **accused Cuba** of carrying out **sonic attacks**. But Cuba denied the accusations of the sonic attacks and refused awareness of any such illness or syndrome.
- Ever since **many bodies and institutions** have been researching the cause of the **Havana syndrome** and many plausible factors have been discovered till date.
- The symptoms of the syndrome include Nausea, Severe headaches, Fatigue, Dizziness, Sleep problems, Hearing loss.
  - A few of those who had been affected more faced **chronic issues like vestibular processing and cognitive problems**.

- **Microwave Weapons:**
  - **Direct Energy Weapon (DEW):**
    - They are a type of **direct energy weapons**, which aim **highly focused energy** in the form of **sonic, laser, or microwaves**, at a target.
    - They release **electromagnetic radiations** which cause sensations in the human body.
      - Electromagnetic radiation heating the water in the human body makes a person feel dizziness and nausea.
  - **Countries with Microwave Weapons:**
    - A number of countries are thought to have developed these weapons to **target both humans and electronic systems**.
    - **China had first** put on display its microwave weapon, **called Poly WB-1**, at an air show in **2014**.
    - The **US** has also developed a **prototype microwave-style weapon**, which it calls the “**Active Denial System**”, which is the first non-lethal, directed-energy, counter-personnel system with an extended range greater than currently fielded non-lethal weapons.
  - **India’s Plans for Directed Energy Weapons:**
    - Recently, the **Defence Research and Development Organisation (DRDO)** has announced its plans to develop (**DEWs**) using **high-energy lasers and microwaves**.
    - **Development of DEWs** is seen as particularly important in the context of India’s worsening security environment, especially its ties with China.
  - **Concerns:**
    - These weapons are a cause of concern as they **can affect both machines and human beings**.
    - They **can cause long-term damages without leaving a single mark on the human body**.

Source: IE