



Aerotoxic Syndrome and Hyperbaric Oxygen Therapy: A Potential Source of Support.



(Fume Event during a flight.)

For pilots, cabin crew, and frequent flyers, the aircraft cockpit or cabin is often a second home. Yet for a growing number of people, that environment has become associated with a debilitating condition commonly referred to as **Aerotoxic Syndrome**.

Although Aerotoxic Syndrome remains medically unrecognised as a formal diagnosis in many countries, increasing numbers of affected aircrew and passengers continue to report chronic, often life-changing neurological, respiratory, cognitive, and systemic health problems following exposure to contaminated cabin air.

While research continues into the health effects of both acute exposure (fume events) and chronic, repeated low-level exposure, many sufferers are seeking practical support for the harm caused.

Importantly, exposure onboard aircraft involves a **complex mixture of toxic substances** produced from heated engine oils and hydraulic fluids, including pyrolysed compounds, ultrafine particles, volatile organic compounds (VOCs), carbon monoxide, and organophosphates. For some, particularly after repeated exposure, the effects may accumulate over time and become increasingly disabling.

For those living with the aftermath, the injury is often described as “invisible” — but that does not make it any less real. Exposure may occur not only through inhalation, but also through contact with the skin and eyes, all of which may contribute to absorption and injury. Eye irritation, skin reactions, chemical sensitivity, neurological symptoms, fatigue, cognitive dysfunction, breathing difficulties, and wider multisystem health effects are all commonly reported. Because symptoms can vary so widely and often overlap with other conditions, many people struggle for years to find recognition, understanding, and appropriate support.

How the Neuro Therapy Network May Help

For some people affected by Aerotoxic Syndrome, support is being found in an unexpected place: the **Neuro Therapy Network (NTN)**. With **46 centres across the UK, Gibraltar, and Jersey**, the network provides access to **Hyperbaric Oxygen Treatment (HBOT)**, alongside other supportive therapies that may help people living with neurological injury and chronic illness.

Formerly known as the **Multiple Sclerosis National Therapy Centres**, the **Neuro Therapy Network** has evolved to reflect the broader range of neurological and other health conditions for which people now seek support.

Why Hyperbaric Oxygen Treatment (HBOT)?

At the heart of many NTN centres is the **Hyperbaric Oxygen chamber**. HBOT involves breathing oxygen in a pressurised environment—typically at **1.5 to 2.0 time’s normal atmospheric pressure**.

While HBOT is not presented as a cure, some people with toxic injury and neurological symptoms report that it can offer meaningful support in several important areas:

1. Supporting Oxygen Delivery to Injured Tissues

Toxic exposure may contribute to **cellular hypoxia** (reduced oxygen availability) and impaired function in the brain, nervous system, and other tissues. By increasing atmospheric pressure, HBOT allows more oxygen to dissolve directly into the blood plasma and other body fluids, potentially helping oxygen reach areas where normal circulation or tissue function has been compromised.

2. Helping to Reduce Neuroinflammation

A growing body of research suggests that chemical exposure may trigger **persistent inflammation** within the nervous system. HBOT has been studied for its potential **anti-inflammatory effects**, and some patients use it as part of a broader strategy to support recovery from chronic neurological injury.

3. Supporting Mitochondrial and Cellular Energy Function

Many people affected by Aerotoxic Syndrome describe profound **fatigue**, “crashing,” or exercise intolerance. These symptoms may relate in part to **mitochondrial dysfunction**, where the body’s energy-producing systems are no longer functioning efficiently. HBOT may help support cellular metabolism and energy production by improving oxygen availability at tissue level.

The Strength of the 46 Centres

What makes the Neuro Therapy Network especially valuable is that it is not simply a collection of treatment facilities—it is a **community-based support network**. Centres are staffed by trained teams, and many offer a wider range of services designed to support people living with neurological or long-term health conditions.

For those affected by Aerotoxic Syndrome, this can be important not only physically, but emotionally and socially as well.

Why choose an NTN centre for Aerotoxic Syndrome?

Accessibility

With **46 locations**, many people are within reach of a centre. From **Inverness to Jersey**, the network helps make access to supportive oxygen therapy more achievable for those who may otherwise struggle to find options.

Affordability

As individual charities, many NTN centres are able to offer HBOT at a **significantly lower cost than private clinics**, helping make access more realistic. Each centre can provide details of its own pricing and availability.

Holistic Support

Many centres offer more than oxygen therapy alone. Depending on location, support may also include:

- Neurophysiotherapy
- Adapted exercise programmes
- Complementary therapies
- Peer support and community connection

For many people living with chronic neurological injury, being understood can be just as important as treatment itself.

Finding Your Path to Recovery

If you are a member of the global flight crew community, or a passenger suffering after a fume event or repeated contaminated air exposure, you do not have to navigate this alone. Aerotoxic Syndrome involves a complex, multi-system toxic injury, and while recovery can be slow and highly individual, supportive therapies may play an important role in improving quality of life.

For some, improving oxygen delivery and supporting neurological recovery through HBOT may be one useful part of that journey.

Take Action:

To find your nearest centre or learn more about Hyperbaric Oxygen Treatment:

Oxygen Therapy;

<http://www.neurotherapynetwork.org.uk/oxygen-therapy>

Find Your Nearest Centre:

<http://www.neurotherapynetwork.org.uk/centres>

Angel Brain @ [Flightoxic-Aerotoxic Antidotes](#) would like to thank **Caz Blake-Symes**. Trustee at NTN.

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Find your nearest
therapy centre at
neurotherapynetwork.org.uk