



## The Brightwell100 – Oxygen Generation Our Fundraising priority

The Brightwell is very fortunate to offer Oxygen Therapy as its USP. More than 500 sessions on average, are offered each month to members living with neurological conditions as well as to those battling cancer and other chronic ailments. We have also been able to support professional athletes in speeding up their recovery from injury including well-known local cricket, football and rugby players.

The Oxygen Therapy takes place in a Barochamber; this is an airtight vessel just like a commercial aircraft and like an aircraft the air pressure inside it is controlled. Depending on what you find comfortable you will breathe pure oxygen at between one and a half to two times normal atmospheric pressure. The benefit of breathing oxygen in a pressurised environment is that your body can absorb more oxygen.

Although the damage caused by neurological conditions cannot be prevented or cured by oxygen therapy, many people throughout the world find that it reduces the severity of their symptoms.



Currently, our main priority for all fundraising including donations from our Brightwell 100 corporate supporters, is to fund our ability to generate our own oxygen. The costs will be approximately £70,000. We have already raised £20,000 towards our target but time is of the essence, and ideally, we need to raise the next £50,000 in a short period of time so that we can begin to take full advantage of generating our own oxygen by April 2022.

### **Our current situation and the challenges we face:**

At present the supply of medical oxygen, the leasing of the storage vessels and the associated equipment is limited to a single supplier, they are also the sole supplier of liquid oxygen on the market. This means that the Brightwell is subject to arbitrary changes in price and/or conditions, with no option to change supplier. This became of particular note during the Coronavirus pandemic, as due to a heightened demand for supply, the supplier raised its prices. It also highlighted that as a “non-medical” facility The Brightwell’s oxygen supply was not guaranteed as we were not considered a priority.

The storage of liquid oxygen is inherently wasteful, in other words the Brightwell wastes oxygen that they have already paid for. This is because liquid oxygen is held on site in cryo-tanks, each holding 20 litres of liquid oxygen in a Dewar flask insulated by a vacuum. Inevitably, and especially in the summer, heat penetrates the insulating layer, and this causes gasification within the vessel. To keep the pressure in the system within safe limits, the system vents off oxygen into the surrounding air.

In the longer term, it is likely that the government will introduce regulations, as they are already doing in other parts of the world, whereby the use of medical oxygen as described in the British Pharmacopoeia will require a medic's prescription. As a non-medical organisation, this would cut off our supply.

### **The solution: An Oxygen Generating System**



This equipment would enable the Brightwell to manufacture its own oxygen on site. The benefits of this are:

- A stable, non-fluctuating cost of production, no service or delivery fees, lease or hire of equipment.
- We would be taking a tanker off the road for one delivery every 10 days.
- On-site production permits the use of off-peak energy rates. We have recently had solar panels installed, further reducing our energy costs.
- We would no longer be beholden to one supplier's trading terms.
- Less wastage, The Brightwell can produce the Oxygen required on demand.
- Energy Re-Use. When gasses are compressed the waste product is heat, this heat can be re-used for water and space heating.
- Producing oxygen on site means that The Brightwell can control the concentration. The oxygen produced would be between 94-98% pure, therefore not requiring a medical prescription, whilst the efficacy of the therapy would be unaffected.

If any potential supporters would like to have a greater understanding of the technical aspects of oxygen generation, storage, or any other questions we would be delighted to arrange a visit to the Centre and to talk to one of our oxygen chamber specialists.

### **How can you help?**

If we can raise sufficient funds for the Oxygen Generation project, we will also need financial support or donated labour or services regarding the construction elements of this project.

If you would like to discuss any of these items in more detail or to discuss any other queries regarding The Brightwell 100, please contact Caroline Blake-Symes on 07970 038135 or email [caroline.blake-symes@thebrightwell.org.uk](mailto:caroline.blake-symes@thebrightwell.org.uk)

Thank you for your support.