



**PATIENT INFORMATION  
BOOKLET**

**FOR**

**INTRAVENOUS OZONE, HIGH  
DOSE VITAMIN C**

## **IV OZONE, HIGH DOSE VITAMIN C**

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***Please note:  
treatment programmes may vary depending on the individual patient***

## **OZONE, VITAMIN C**

### **Treatment Process**

After consultation with the doctor, an individual treatment programme will be prescribed.

### **Intravenous Therapies**

- This therapy is usually over a 3 week period (15 treatments in total).
- Patients are required to attend the Dove Clinic for between 2.5 and 3 hours each day of their treatment therapy.
- On the patient's first appointment for intravenous therapy, following consultation a nurse will give guidance in completing the Consent Form and answer any questions or concerns. It is important for the patient to understand the procedure before signing the Consent Form.
- The nurse will complete an admission assessment form and will take blood pressure and other observations.
- A small cannula (needle) will be inserted into an appropriate vein (usually in the elbow), using an aseptic technique, for your infusion.

### **During Therapy Care**

- Patients sit in a comfortable reclining chair for therapy
- The patient will be encouraged to drink about 2 litres of fluids during the therapy as this will help flush out toxins, and Vitamin C can make you very thirsty.
- Heat pads are offered to ease muscle cramping.
- If the patient's treatment slot is near the lunchtime period, it is advisable to bring a snack or packed lunch.
- We advise patients not to drive following treatment due to the therapy causing tiredness.

### **After Therapy Care**

- Leave dental roll and tape on for 2 hours - dental roll is a

- pressure dressing to prevent bruising.
- Leave plaster on for 4 hours.
- **DO NOT** lift heavy objects with arm used for infusion, for 5 hours.
- Continue to drink water for the rest of the day.

### **YOUR QUESTIONS ANSWERED**

1. Can I have other treatments i.e. Chemotherapy etc. with High Dose Vitamin C?

Yes, but not at the same time. Vitamin C therapy is a course for 3 weeks and chemotherapy should be scheduled either before or after this.

2. What additional side effects may I experience?

You may feel tired during therapy. It is important to drink lots of water after therapy to help the body detox and aid liver function. (Vitamin C in high doses can cause dehydration and severe headaches if you do not drink enough).

3. How will I be monitored during and after therapy?

Blood tests to check levels of red cells, white cells, platelets, urea and electrolytes (albumin, sodium, potassium etc.), plus a liver function test. Tumour markers will also be measured at appropriate times, plus other specific tests on an individual basis.

4. In what circumstances might my therapy be cancelled prior to my booked appointment or during the 3 week course?

Occasionally, during pre treatment nursing assessment, patients are considered to be too unwell to benefit from the treatment and occasionally if they become unwell during the treatment, then the rest of the therapy will be cancelled.

5. The nursing team will remain in contact with you by telephone or email for one month following your treatment, to offer advice and support.

## **CONTACTS AND EMERGENCIES**

- The medical and nursing team can be contacted from 8.30 a.m. – 5.30 p.m. Monday – Friday on telephone 01962 718000.
- For out of hours medical and nursing advice please telephone 01962 718000 and listen to the messages for further instructions and contact numbers.
- In the even of an acute, out of hours medical emergency or collapse it may be necessary to call an ambulance, by dialling 999 (within the UK) and notify the clinic as soon as possible.

***Please do not hesitate to contact the medical or nursing team if you have any worries or concerns.***

## **RESEARCH REFERENCES:**

1. Information for the use of Ozone Therapy.
2. Information for use of high dose Vitamin C for cancer patients.

## **INFORMATION FOR THE USE OF OZONE THERAPY**

### **WHAT IS OZONE THERAPY?**

#### ***OZONE AS A THERAPY***

Medical Ozone is always a mixture of purest oxygen and purest Ozone.

According to its application, the Ozone concentration can vary between 1 and 100mcg/ml (0.05 – 5% O<sub>3</sub>). The Ozone therapist, a trained physician, determines the correct dosage according to the medical indication and the patient's condition.

#### **PROPERTIES AND EFFECT**

Medical Ozone has bactericidal, fungicidal and virocidal properties and is widely used as a disinfectant.

Its ability to stimulate the circulation is used in the treatment of circulatory disorders.

When administrated at low concentrations, the body's resistance is mobilised, i.e., Ozone (re)activates the immune system.

As a response to this activation through Ozone, the body's white cells produce protein messengers called cytokines (including important mediators such as interferons or interleukins). These inform other white cells, setting off a cascade of positive changes throughout the immune system, which is stimulated to resist diseases. This means that the application of medical Ozone is useful for immune activation in patients with low immune system activity.

Small quantities of Ozone applied in what is called "major autohaemotherapy" (external treatment of the patients blood before reinfusion) consequently activate the body's own antioxidants and radical scavengers. It is thus possible to understand why Ozone is used in diseases that involve inflammation.

### **INDICATIONS**

Thanks to its selective properties, medical Ozone is used in several diseases.

1. The treatment of circulatory disorders, also in the field of age related diseases.
2. The treatment of diseases produced by viruses such as liver disease (hepatitis) and herpes.
3. The treatment of infected, badly healing wounds and inflammatory processes, such as:
  - open ulcers on the legs (ulcus cruris)
  - inflammatory intestinal conditions (colitis and proctitis),
  - burns, scalds and infected wounds, fungal infections and others,
4. Chronic Fatigue Syndrome or Cancer, as an adjunct to other treatment modalities which stimulate immune function.
5. As an additive or complementary therapy in various types of cancer, Ozone is applied for general immune-activation at low dosages in the form of "major auto-haemotherapy" (reinfusion).

## FORMS OF APPLICATION

### **NOTE:**

**In any form of Ozone therapy, the breathing in of Ozone is forbidden.**

1. Many decades of experience and a number of recent clinical studies have shown that the following three application methods are valid for Ozone:

Major autohaemotherapy (treatment of the patients blood outside the body before reinfusion) in age related conditions, for revitalisation, in the treatment of circulatory disorders and virus-caused diseases and for general immunoactivation.

By this method, 50 to 100ml of the patients own blood is withdrawn in the normal manner, enriched externally with a defined quantity of Ozone (with disposable sterile material and bottles). The Ozone reacts completely – i.e., at a rate of 100% - with specific substances making up the red and white blood cells and thereby activates their metabolism.

It is this activated blood (not Ozone or oxygen) that is reintroduced into the patients bloodstream by intravenous drip.

2. External treatment is primarily achieved through a closed system using O<sub>3</sub> gas fed into plastic “boots” for the legs and feet, or bags, foils etc. fitting various parts of the body. These are made of Ozone resistant materials. The parts of the body to be treated have previously been moistened with water as Ozone cannot act on dry areas. Other forms are ozonized pure water (e.g., in dental treatments) and ozonated olive oil (for skin eruptions such as eczemas, psoriasis and conditions involving moulds, fungi).

3. O<sub>3</sub> gas application via the rectal/vaginal route is not as inconvenient as it sounds (medically, this is called insufflation). In fact, the patient feels nothing, as the O<sub>3</sub> gas

is absorbed by mucous membranes. In addition, the disposable tube is lubricated, which makes the method hygienic – and practical as patients can apply it themselves. This method is indicated for inflammatory conditions of the intestinal tract, but is finding increasing use for general revitalization processes.

### **IN WHAT DISEASES IS OZONE THERAPY USEFULLY APPLIED?**

A whole number of pathological conditions exist which can be helped by Ozone. This has been confirmed by many scientific clinical studies. As a rule, medical Ozone is applied in addition to other therapeutic methods, i.e., it belongs to the field of complementary medicine.

#### **CIRCULATORY DISORDERS**

In this therapeutic category, Ozone shows its greatest effect in circulatory disorders. This form of treatment has avoided amputations in a number of clinically recorded cases.

#### **INFECTED WOUNDS**

Open leg ulcers (ulcus cruris, bed sores) and burns can be treated by Ozone. Clinical studies have shown that gangrene can be helped.

#### **AGE RELATED CONDITIONS**

Thanks to its general revitalising capacity, including nerve and brain functions, Ozone can be used successfully for poor concentration, forgetfulness, general reductions in mental and physical performance, insecurity in walking (balancing problems) and dizziness or vertigo. Elderly persons in particular experience an improvement in well-being.

#### **MACULAR DEGENERATION**

O<sub>3</sub> can be used to help this condition.

#### **INTESTINAL CONDITIONS**

Inflammatory conditions of the large intestine such as colitis, fistulas and proctitis (inflammation of the rectum) can be



helped. A local application of Ozone gas introduced via insufflation, can give relief

### **VIRUS-PRODUCED DISEASES**

A series of clinical trials have demonstrated success in painful, virus-produced conditions such as hepatitis and herpes.

### **RHEUMATISM/ARTHRITIS**

In the whole complex of "rheumatic/arthritis" conditions, all of which attack the skeletal and locomotory systems to a varying degree, Ozone can treat pain and inflammation. Repeated treatments can produce long-term relief.

### **CANCER**

In this context, it must be emphasized that Ozone is not a cure, it is only a complementary measure applied in addition to standard methods. Having said this, case histories have shown that Ozone can produce impressive results due to its function as an immunostimulatory agent.

### **WHAT SHOULD THE PATIENT KNOW?**

Ozone therapy is low risk and usually applied as a complementary, additive, or restorative method, i.e. as an accompaniment to standard medical treatments.

## **OZONE - A BRIEF SURVEY OXIDATIVE THERAPY**

### **WHAT IS OXIDATION?**

Most biochemical reactions in the body are balanced through redox mechanisms. Redox means (reduction (ox)idation. Any time a substance is reduced (chemically changed) something else must be oxidised (chemically changed the other way) for the reactions to stay in balance. Oxidation, for example, is the process which causes rust (slow oxidation) and fire (rapid oxidation). In the body, some types of oxidation are thought to be harmful as they produce Free Radicals (patients can take Vitamins C and E to help reduce Free Radical formation). We

know there can be no life if oxidation does not occur. Oxidation

EFFECT	MEDICAL USES
Activation of red blood cell metabolism = improved oxygen supply	Arterial circulatory disorders (peripheral and cerebral in particular) Revitalization
Activation of immune cells = the body releases its own vital cytokines, such as interferons and interleukins	Additional/complementary therapy in various kinds of cancer. Revitalization and general immune weakness
Increase and activation of the body's own antioxidants and radical scavengers	Inflammatory processes, e.g., Arthritis, reactivated arthrosis, vascular conditions; Age-related processes

is the process through which the body converts sugar into energy. The body also uses oxidation as its first line of defence against bacteria, viruses, yeasts and parasites. Even breathing *Oxygen* is an oxidative process. Without *Oxygen* for more than a few seconds, serious consequences result. Without oxidation we die very quickly. When we use the principles of oxidation to bring about improvements in the body it is called a therapy, referred to as Oxidative Therapy.

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## **2. INFORMATION ON HIGH DOSE VITAMIN C FOR CANCER PATIENTS**

Vitamin C (“ascorbic acid” or “ascorbate”) is a major water soluble antioxidant with a variety of biological functions. It plays essential roles in collagen and carnitine synthesis and is important in maintaining proper immune function.

Albert Szent-Gyorgi was awarded a Nobel Prize in 1937 for the discovery of Vitamin C in connection with biological function. Many published studies have since proven the highly significant role of Vitamin C in maintaining health, yet human beings unlike most other mammals are unable to generate their own Vitamin C. Consequently, we frequently have significantly lower Vitamin C levels than other mammals and are dependent on regular dietary sources and supplementation to maintain adequate concentrations.

The use of high-dose Vitamin C represents a further development in the clinical use of Vitamin C. This has marked anti-viral and anti-bacterial effects and is able to detoxify and chelate heavy metals and toxins from the tissues.

### **Why Intravenous?**

Absorption of Vitamin C from food and supplements occurs via the gut. This limits the amount of Vitamin C that reaches circulation in blood and extra-cellular fluid.

Recent evidence shows that oral administration of the maximum tolerated dose of Vitamin C (18 g per day) produces peak plasma concentrations of only 220  $\mu\text{mol/L}$ , whereas intravenous administration of the same dose produces plasma concentrations about 25-fold higher. Larger doses (50–100 g) given intravenously can result in plasma concentrations of approximately 14 000  $\mu\text{mol/L}$ .

This finding is extremely important as many beneficial actions of Vitamin C occur only at higher concentrations. At these levels Vitamin C has been shown to act as a pro-oxidant rather than an anti-oxidant and can produce Hydrogen Peroxide (H<sub>2</sub>O<sub>2</sub>) which is a potent anti-microbial defence mechanism, produced by our own immune system to fight infection and immune challenges.

The use of high dose IV Vitamin C for viral and bacterial infection was investigated in the late 1940's by Dr Frederick Klenner who reported numerous successful outcomes to treat polio amongst a variety of other infectious diseases. Many studies of IV Vitamin C are detailed in a highly referenced book *with 1,200 scientific citations, entitled "Vitamin C, Infectious Diseases, and Toxins: Curing the Incurable"* by Dr Thomas E. Levy.

Significantly, it has been demonstrated in laboratory research funded by the National Institute of Health that cancer cells are selectively killed by higher concentrations of Vitamin C within the blood and extra-cellular fluid. This occurred at levels that are achievable in people using IV treatment and that are safe and non-toxic to normal healthy cells. This has been directly related to Hydrogen Peroxide production. Within healthy cells there is an abundance of the important enzyme, catalase, which breaks down hydrogen peroxide (H<sub>2</sub>O<sub>2</sub>) into harmless water and oxygen (H<sub>2</sub>O + O<sub>2</sub>). However, cancer cells however low levels of catalase and are therefore sensitive to accumulation and breakdown via the pro-oxidant effect of Hydrogen Peroxide.

In 1976 Linus Pauling published a trial of 100 cancer patients treated with intravenous vitamin C showing significantly increased survival times (Cameron E, Pauling L (1976) Supplemental Ascorbate in the Supportive Treatment of Cancer: Prolongation of Survival Times in Terminal Human Cancer). Further studies at the Mayo Clinic failed to show benefit yet related to oral Vitamin C (and consequently lower plasma concentrations) taken by mouth only. More recently in 2006 the Canadian Medical Association Journal published

pathology verified case reports of individuals that demonstrated significant clinical improvement in advanced-stage cancer following IV administration. This effect is dependent on the intravenous administration at the right dosage.

Therefore, IV Vitamin C has biological plausibility as a well tolerated Hydrogen Peroxide delivery-system for cancer cell breakdown and potential treatment for a wide variety of pathogenic organisms.

### **Safety**

IV Vitamin C is very safe. Many people worldwide have received multiple high doses without adverse reaction and Phase I studies have been published showing IV Vitamin C is very well tolerated.

Vitamin C may increase oxalate levels and therefore a history of kidney stones must be reviewed. A further screening blood test may be required to look for the presence of G6PD deficiency which predisposes people to blood cell breakdown.

### **Procedure**

Generally speaking chronic infection and fatigue protocols are given in sets of 8 infusions. Sometimes these may be repeated, depending on clinical need. In cases of life threatening illness 5 infusions per week for three weeks may be suggested as part of a supportive treatment protocol. Dosage may be adjusted specific to the patient.

You may feel tired during the infusions and that tiredness may persist for 3-4 weeks following the infusions due to the fact you will be excreting large volumes of toxins. Drinking plenty of water helps this process. Audit and review within the clinic of patients with chronic fatigue symptoms shows approximately 70% of patients are significantly improved with this approach, 30% notice no benefit, there are no harmful side effects from this approach.

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