



SPINAL IMPLANTS FOR CHRONIC PAIN

Dr Manohar Sharma, Trustee of Pain Relief Foundation, and Pain Consultant at the Walton Centre Pain Clinic in Liverpool, explains more about Spinal Cord Implants for Chronic Pain:

The purpose behind this article is to raise the awareness regarding spinal cord stimulation for chronic intractable nerve pain which otherwise may be poorly controlled, or which is managed with usual medical treatments including medications.

There have been many advances to manage chronic pain. When this treatment is applied in conjunction with other supportive treatment including education and rehabilitation based approaches to support self-management, many patients can expect improvement in quality of life. This treatment is considered cost effective and is available on NHS and supported by NICE (National Institute for Health and Care Excellence, London).

Introduction to chronic pain

Chronic pain is highly prevalent. It is estimated that 14 million people live with chronic pain in England alone. In 2011, 31% of men and 37% of women reported persistent pain. Of these, one in four (3.5 million) said that their pain had kept them from usual activities (including work) on at least 14 days in the previous three months. A person living with pain will have a very poor quality of life - much worse than other conditions, and as bad as significant neurological diseases such as Parkinson's and multiple sclerosis.

Chronic pain is a complex long-term medical condition. Chronic pain has huge impact on daily activities as it disrupts family life and impacts on ability to work.

Chronic pain is not only a physical condition but also a disease in itself. The pain can be localised in a small part of body or diffuse. The severe unremitting chronic pain affects social functioning, workplace roles and drains mental performance to an extent that patients can feel depressed and isolated. Patients can become suicidal with the burden of their symptoms. Severe chronic pain has negative impact on life expectancy. The 2008 Chief Medical Officer report states that 25% of pain sufferers lose their jobs; 16% of sufferers feel their chronic pain is so bad that they sometimes want to die.



Dr Manohar Sharma

Treatment of chronic pain

There are teams of trained Pain Specialists present in primary, secondary, and tertiary care pain centres for helping people with chronic pain to support managing their pain and offer pain relief. There is immense

background knowledge about chronic pain and impact of pain relief technology available that could reduce burden and suffering from chronic pain. In particular, pain related to nerve dysfunction or damage to nerves (neuropathic pain) can be successfully controlled with spinal implant especially when patients do not derive benefit from existing usual medical treatments. Various examples of neuropathic pain include persistent pain control following surgery for sciatica or disc related pain, complex regional pain syndrome, trauma or surgery leading to nerve damage, post amputation stump pain, pain following spinal cord injury, post herpetic neuralgia and peripheral neuropathy. These types of pain are typically poorly responsive to usual painkillers including nerve pain killing medications (antiepileptic, antidepressants and morphine based pain killers) and some of the patients while having some pain relief get significant side effects. This means there is unmet need to help patients with chronic pain especially the pain predominantly sustained by nerve dysfunction.

Spinal Cord stimulation (SCS)

Spinal cord stimulation (spinal implant to control neuropathic pain) is a way to control nerve injury related pain (neuropathic pain). Norman Sheily attempted this first in 1967. He placed a wire (lead) with electrical contact (with ability to pass electrical pulses via the spinal cord) in spinal cord in a patient suffering from cancer related pain. The patient had pain relief lasting a couple of days. This technique has since been significantly refined and

improved. There is now a better understanding as to how this treatment works in patients with nerve injury related pain (neuropathic pain). Typically spinal cord stimulation entails implantation in the body of a lead and a battery to power the electrical pulses through the lead to modulate pain sensation. There have been advances in the variety of leads and batteries available on the market for control of neuropathic pain. It essentially means implantation of fine wires with ability to pass electrical pulses into the spinal cord to interfere with pain signals from painful areas passing to the brain.

This interference means that the patient is not able to feel the pain at all or not as much as before. These wires are connected to a battery, which powers the SCS (Spinal Cord Stimulation). This is controlled with hand held remote device from outside the body. None of the components are visible from the outside apart from the remote control to communicate with the device. Over the last ten years there has been significant advance in understanding of mechanisms as how SCS helps and also with improved hardware and software i.e. type of electrical pulses, many more patients are now in a position to receive good pain relief.

Advances have been made not only with spinal cord stimulation leads but also with the batteries. In the past SCS was powered using radio frequency coupling mechanism and now with the improvement of batteries it means a battery carrying a charge can be implanted without need for charging from outside. These may need replacing after 5-7 years depending on use. Batteries now have been further improved and these can be charged from outside meaning that these can now last more than 10 years and hence avoiding need of an operation to replace a flat (depleted) battery.

There is also improvement with the software, such that with change in posture the device will automatically adjust electrical

pulses and the strength of stimulation. Hence there is minimal postural variation in electrical pulses or surges felt by patients (sharp pain or loss of treatment effect) and hence improving patient's experience.

New advances in technology

Another advance in the field of SCS has been the ability to target stimulation (tingling sensation) in areas otherwise difficult to target with conventional SCS. It has been realised that with conventional spinal cord stimulation it is difficult to pass pleasant electrical pulses to control pain in the foot, groin, or in very localised area of chest or abdomen. The new technology includes dorsal root ganglion stimulation i.e. spinal cord stimulation of the dorsal root ganglion and is now established and successful. This means patients, who could not be offered this treatment 4-5 years ago, now are able to access treatment with possibility of pain relief and improved quality of life. This has now been further supported by a well conducted randomised trial.

Further advance in this field has been i.e. High Frequency spinal cord stimulation which passes electrical pulses at 10 kHz frequency and patients typically do not feel any paraesthesia or tingling sensation, but only very significant pain relief. This treatment modality has also been studied in a rigorous scientific and controlled manner in USA monitored by FDA (Food and Drug Administration) and pain relief is not only comparable but seems superior to existing SCS technology. This was shown in randomised controlled trial in nearly 200 patients, and study data is now available lasting over 24 months, showing good pain relief as well as safety of the device. Many device manufactureRs are introducing further improved electrical waveforms with potential for improved quality of pain relief.

Another advance has been testing of another spinal cord stimulation device which adjusts its electrical pulse's output on the basis of

information received back from the spinal cord; called closed loop spinal cord stimulation. Initial studies look promising and this device hopes to receive CE mark for safety in due course and may be further tested in UK including at The Walton Centre, Liverpool.

Another advance in this field is to use wireless technology to minimise the amount of SCS hardware being implanted (SCS device without a battery) and hence minimising the extent of surgery and surgery related side effects. This study is due to start soon to see if this holds promise for future.

There is significant potential to be involved with this research and we shall ensure that it is led by the Scientists based in our Research Institute. Ably supported by the Walton Centre researchers.

Summary

There have been significant improvements and understanding of spinal cord stimulation and impact of this treatment on neuropathic pain. There have also been significant improvement and refinement to hardware as well as stimulation paradigms (software) i.e. the characteristics of electrical pulses used to treat chronic nerve pain. This essentially means that patients can now be offered better pain relief compared to recent past. This field is likely to expand and improve further because of significant interest and research in this field and this is an exciting time to support research in this field.



A typical spinal cord implant

RECENT CHANGES TO OUR TEAM

In the last few months, some major changes have taken place within the Pain Relief Foundation. First, we are pleased to announce that Professor



John Miles has been appointed as the Foundation 1st PRESIDENT.

Many of you will know from the many articles that have appeared in past issues of the BULLETIN that John was one of the three Founder Members of the Foundation in 1979 and he now remains the last of the Founders.

Over these long years since the launch in 1979, John has been a guiding hand in taking the Foundation and its Research Institute worldwide and has brought an acknowledgement for the many successes that have occurred across the world of pain having led from the front bringing the scientific world of pain medicine to Liverpool.

He has retired to his new home in Llangynidr where he has a good fishing spot on the local river and membership of his new local golf course.

In our second announcement, we are sad to say that through retirement, we have lost one of the most dedicated and hardworking of our Trustees.



Bill Lawton was the Chairman of the Foundation for some 20 of the 30 plus years

that he served as a Trustee, only standing aside a few years ago so that we could bring a new Chairman on board.

He used his veritable and well learned skills as a member of the judiciary, to

develop the Foundation's wellbeing and standing in the realms of medicine and world of research for which we are so acknowledged and well respected worldwide.

Another person on the retirement list is our Administrator, David Emsley who after 25 years of service has made way for a new person to take up the many challenges that can befall the less wary.



In many ways it has been a challenging time with so many changes in charity law coming into being all of the time. Now it seems as though it will become even more hectic within the coming months.

However, we are not losing David because we have asked that he stay with us for several months and work on the ongoing task of developing fundraising income, to enable us to further develop the level of research which is so necessary.

It is with great sadness that we announce the death of Dr John (Jack) Morley.



A Neuroscientist, Jack joined the team in the Pain Research Institute in the early '1980s' following his retirement from full time employment. He began working in our laboratories with Dr Dick Venn and worked for a number of years on studies of endorphins in the body and he also spent time working on morphine and the development of methadone in the treatment of pain.

We are pleased to welcome a new team member, Lorraine Roberts, who will support our Administration staff.



If you have any need to contact our office, Lorraine will be delighted to help you with your enquiry.

We are also pleased to introduce you to Julie Williams, appointed recently to take on the role of Administrator, to replace David Emsley.



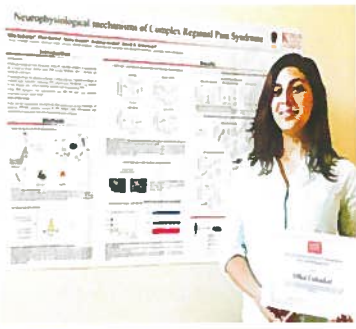
Julie comes to the post with a lot of experience having worked as David's deputy for a number of years. She has been able to understudy much of the job and help will be on hand as necessary.

During the year we have installed two PhD students into the research programme each busy working on approved topics in chronic pain.

The first student is working with Dr Sarah Flatters on Causal Mechanisms Of Chemotherapy induced painful neuropathy. This project will last for three years and will be subject to an in depth annual review.

The next student is Abigail Jones and she is working with her namesake Dr Abbie Jordan. The project in this case is Exploring Socio Developmental Challenges faced by young people and their families, with ongoing pain.

We often forget that it isn't just the older people who suffer chronic pain although I am sure from some of the reports we put in our BULLETIN, give a more than satisfactory coverage of how the young suffer too!!



ULKU CUHADAR PHD STUDENT SUPPORTED BY THE PAIN RELIEF FOUNDATION WINS TOP MEMORIAL PRIZE!

Many congratulations to Ulku Cuhadar, another top class PhD student supported by the Pain Relief Foundation, for winning the Fiona Howell Memorial Prize - it is very well deserved. Ulku is currently studying at Kings College London working alongside

Dr David Anderson and Dr Andreas Goebel.

Ulku is studying the Neurophysiological mechanisms of Chronic Pain Syndrome. The background of her study is Complex Regional Pain Syndrome (CRPS) a painful condition characterized by a limb-confined chronic pain that usually develops after a trauma, an injury or a fracture.

The removal of IgG by plasma exchange in these patients regularly produces a marked pain reduction indicating that autoimmune mechanisms are central to the chronic pain experienced by patients with longstanding CRPS. Unfortunately the link between the autoimmune IgG and the pain that patients experience is not understood.

The aim of Ulku's study is to characterize the effect of CRPS patient IgG on the properties of primary afferent sensory neurons using behavioural and electrophysiological in *vitro* Skin-nerve preparation method.

PhD Student Emma Price Supported by the PRF Wins Top Prize

Emma Price is a scientific star in the making; we all expect big things from her. Here she is at the House of Commons to receive 'Top Graduate Award'. Emma is in her 1st year in the group as a PhD student addressing 'Pain associated with ageing' funded by the Pain Relief Foundation, Liverpool.

In Emma's own words 'It was an honour to receive the Top Graduate Award from The Royal Society of Biology at the Houses of Parliament! This experience has introduced me to a large network of scientists and organisations within the bioscience industry, given me the opportunity to gain recognition for my skills and experience as an Associate Member of the society and a platform to continue to share my passion for science in the future! Thank you to all who have supported me so far and enabled me to achieve this award!'

Emma is currently in her first year of her PhD working with Professor John Quinn, Dr Vivien Bubb and Dr Bernhard Frank - investigating chronic pain associated with ageing. To advance her understanding of how to conduct pain research she recently spent two weeks working with the Department of Pharmacology at Pécs University Medical School in Hungary with the group of Dr Helyes. The purpose of her visit was to learn how to culture and study neuronal cells that are key to processing pain signals.

Once she had learned the basic techniques in how to set up and maintain cultures, they treated neurones with compounds known to stimulate pain responses (e.g. the active ingredient in hot chilli peppers, Capsaicin, which produces a burning sensation) as we hypothesised this would affect the activity of certain genes that we know are also involved in the response to painful stimuli. With the kind supervision of many researchers within the department, she was able to generate DNA and protein samples from the neurone cultures to enable the analysis of pain genes using molecular biology techniques back here in Liverpool.

This part of the study is currently underway and will hopefully give us insight into the genetic component underlying pain. Using the knowledge and skills she has gained during her visit to Pécs, it is now our aim to set up a system of neurone culture here at the University of Liverpool to enable further research in this field.



PHANTOM LIMB PAIN

WHAT IS PHANTOM LIMB PAIN?

Phantom limb pain refers to pain felt in an absent limb. The limb may have been lost because of an accident, or deliberately removed in an operation because of disease. Phantom limb sensations, which are not painful, may also be felt in the absent limb. **Stump pain** is pain felt only in the stump of the amputated limb.

Amputees often experience all of these at the same time.

Virtually all amputees have phantom sensations. Three quarters of amputees develop phantom pain. Most of these develop pain in the first few days after amputation. However, phantom pain may start after months or even years. Pain can last for many years, but sometimes it gets better as time passes. Phantom pain usually comes in bursts. Only a few people have constant pain. Some have several attacks each day, others less than one a week. Phantom pain is often described as shooting, stabbing or burning. The pain is often felt at the end of the limb, in phantom fingers or toes. The missing limb often feels shorter (telescoping). The phantom limb may feel as if it is in a distorted and painful position. The pain can be made worse by stress, anxiety and weather changes.

AMPUTATIONS

Amputation of the arm is common after motorcycle accident injuries where the impact damages the nerves passing from the arm to the neck. This may leave the arm paralyzed and useless so that amputation is necessary. Amputation of the leg is commonly done to relieve the pain caused by loss of the blood supply to the leg. The blood supply is lost because of hardening of the arteries (called peripheral vascular disease, PVD). This condition is more common in smokers. Gangrene may develop in the leg and then the leg may have to be amputated. Traumatic amputations due to war injuries, such as land mine explosions, are common in the armed forces and in war torn countries.

WHAT CAUSES PHANTOM LIMB PAIN?

The precise cause is unknown. Injury to the nerves during amputation causes changes in the central nervous system. It is likely that there is a very important change in the way the brain reads messages coming from the body. Parts of the brain, which controlled the missing limb, stay active. This causes the very real illusion of the phantom limb even though the amputee knows it is not real!

IS THERE ANY TREATMENT AVAILABLE?

Treatment of phantom limb pain is difficult. Ask your doctor to refer you to a pain clinic if your pain is not improving.

DRUGS

The usual painkillers, such as ibuprofen and paracetamol, which can be bought at the chemist, have little or no effect on phantom limb pain. Antidepressants such as amitriptyline can sometimes partly help phantom limb pain. These drugs can cause side effects such as dry mouth, drowsiness, constipation or nausea. Therefore they cannot be given to all patients. It may be possible to get the right balance between side effects and benefit so that they are of some help.

Carbamazepine (Tegretol®) is an *anticonvulsant drug used for epilepsy treatment but it can also relieve nerve pain. Other anticonvulsant drugs, lamotrigine (Lamictal®) and gabapentin or pregabalin (Lyrica®) may also help. It is worth trying them either alone or in combination with other drugs. These drugs can also cause side effects. You may feel unwell, or drowsy or develop a rash.

These drugs must be taken regularly, for them to work, and not just when the pain is bad. Sometimes more than one drug is needed. Some patients may benefit from treatment with strong pain killers such as morphine.

Tramadol (Zydol®, Zamadol®) is a milder drug, similar to morphine, which may also help. **Since this pain is due to specific damage to the nervous system, drugs designed to treat other nervous system disorders, such as depression and epilepsy, can sometimes be very effective for nerve pain.*

STIMULATION THERAPY

Transcutaneous Electrical Nerve Stimulation (TENS) may help some patients. This treatment, using electrodes placed on the stump, causes a tingling sensation, which may reduce the pain. Spinal cord stimulation (SCS) can be a very effective treatment for phantom pain. An electrical stimulator is implanted under the skin and an electrode is placed next to the spinal cord. The nerve pathways in the spinal cord are stimulated by an electric current. This interferes with the impulses traveling towards the brain and lessens the pain felt in the phantom limb. You will feel a tingling sensation in the phantom limb. This treatment is not suitable for everyone and patients must be carefully assessed.

PROSTHESIS USE AND REHABILITATION

Phantom pain may be helped by the active use of an artificial limb (prosthesis). Using the limb as much as possible helps lessen the pain.

Successful rehabilitation can reduce the amount of pain you experience.

COMPLEMENTARY TREATMENTS

Vibration therapy, acupuncture, hypnosis and biofeedback may all be used to treat phantom pain, but are often of little help. The pain can sometimes be helped by keeping busy and occupying your mind. Massaging the stump can sometimes help.

MIRROR VISUAL FEEDBACK

This treatment is still experimental, but has helped in some cases. A mirror is placed so that it reflects the opposite limb so that it looks as if the phantom limb has returned. When the opposite limb is moved the amputee sees the phantom limb move in the mirror. The phantom limb can then also be felt to move. (This is called kinaesthetic sensations). If this is repeated many times it may lead to the disappearance of the phantom and the pain.

PSYCHOLOGICAL ISSUES.

Phantom pain patients may suffer from some depression. General support, counselling and pain management programmes may be of value.

Ben Braves the Shave to Raise Funds for Complex Regional Pain Syndrome 'CRPS'

CRPS sufferer Ben Beacham of Bridgewater is only 12 years old but he has become one of our regular fundraisers. Ben has already single handed raised £651.00 by doing a 30 mile cycle ride. He has also organised a school disco and has been selling CRPS wristbands in school, raising a further £19

BEFORE THE 'BIG' CHOP



AFTER THE CHOP



Now that Ben has completed the challenge to shave his head, in his own words he is still really keen to fundraise further for 'CRPS'. He is planning a number of fundraisers for next year, including a sponsored 'swimathon' and a sponsored silence. Does this young man know no bounds?

Ben has also designed a T-shirt for the charity and has become a local celebrity in the town of Bridgewater making his local newspaper, The Bridgewater Mercury, so proud to support and feature him.



"I hope they eventually find a cure for 'CRPS' said Ben, as it's a very painful condition and incredibly hard to beat!

Artist PIK VINCENT Auctions Painting to Raise Funds for CRPS

I have been painting, daubing since I was a nipper, then I started seriously painting in my teens, landscapes in watercolour, mainly. Unfortunately there came a time that I lost the use of my writing hand, my left, through CRPS (complex regional pain syndrome). I suddenly found I could not paint and it took me nearly a decade to find the confidence, with the help and enthusiasm of friends and family, to try and use my right hand. It was a 'trial and error' experience but then I found canvas boards and acrylic paint and we were very much compatible.

However, through using my right hand suddenly I found I had such a different style, it wasn't delicate but it had an intensity that seemed to acknowledge my daily pain and stress that I suffer with and I found I could put that into my brush somehow. Thus 'Hidden Women' began.



Disability is not always seen and shouldn't have to be described to people to get it to be acknowledged

My 'Hidden Women' are there to show just what people are said PIK, they are not there to be judged and their lives shouldn't have to be explained.

If you have an interest in any of Pik's paintings. Let us know and we can arrange for contact with the Artist.

HOW YOU CAN HELP

MAKE YOUR FUTURE CONTINUE THE FIGHT AGAINST PAIN. A WILL IS THE ONLY WAY OF MAKING SURE THAT YOUR WISHES WILL BE CARRIED OUT AND THAT PARTICULAR RELATIVES AND FRIENDS BENEFIT FROM YOUR ESTATE EXACTLY THE WAY YOU INTENDED A WILL ALSO MAKES IT MORE SIMPLE, LESS STRESSFUL AND QUICKER FOR THOSE LEFT BEHIND TO SORT OUT YOUR AFFAIRS.

Please get in touch and find out more about getting leaving a legacy! Speak to our friendly team!

ESSAY COMPETITION WINNER 2016



2016 was another great year for our Medical Student essay Competition. We had 25 entries this year which were all of a very good standard and competition was fierce, 6 entries were short listed and after considerable deliberation by the judges the winner was announced as Alastair Macfarlane from Kings College London.

Alastair was presented with the winning prize and certificate by Dr John Wiles a Consultant in pain at the Walton Centre, Liverpool and

Chairman of the Pain Relief Foundation Education Committee.

Danielle pots black with a Touch of Class

Danielle Cronin a sufferer of Chronic Regional Pain Syndrome (CRPS) has been fundraising for us since 2013. During this time her CRPS has had its ups and downs but Danielle has remained strong and not let her condition stop her from achieving her goals. Danielle kept up her studies and graduated from in Law. Her commitment to fundraising remains as support the work of the Pain Research Institute, has



South Wales University with a degree strong as ever and her attempts to gone from strength to strength.

She recently organised a pool tournament were the and Danielle managed to raise the sum of £90. The pool charity ball themed 'A Touch of Class'. Danielle

winner took away a fantastic trophy tournament was quickly followed by a managed to secure some wonderful

donations from local and National businesses including overnight stays for 2 in in the Future Inn, Cardiff. Slater's gave a £100 menswear voucher, Scarlet's Rugby game a 4 person ticket, and a signed Ricky Hatton photo and a programme, to name but a few of an endless list of prizes. Danielle was able to raffle and auction all her prizes and in doing so raised a magnificent total of £942

A big thank you is owed to Danielle and all her family and friends for making this possible.

MAKE A DONATION



HOLD A SPONSORED EVENT



VOLUNTEER



LEAVE US A GIFT IN YOUR WILL



BECOME A FRIEND OF THE FOUNDATION



HOLD A SPORTING EVENT



HOLD A 'SUPER HERO' PARTY



Hattie continues to raise funds for CRPS by completing the 25K Thames Path Challenge

Hattie Gillingham is determined to continue to raise funds for the Pain Relief Foundation so that we may continue our work on Complex Region Pain Syndrome (CRPS) in our pain research institute. Hattie had already raised awareness of CRPS in school by arranging a bake sale, she has also had fantastic support from her Mum and friends who have in the past completed the 100K Thames Path Challenge and a Tough Mudder.



This time round it was Hattie herself who took up the task of completing the 25k Thames Path Challenge, a stunning challenge which follows the much loved National Trail along England's greatest river, the Thames. The river meanders all the way from its source in the Cotswolds and into London, along villages, river cottages, locks, house boats. 70% of the route is off road, following footpaths and bridleways which for Hattie would be a challenge in its self. Hattie's fundraising to date is a huge £3887, and she deserves our very sincere thanks.

Hattie describes in her own words why she wants to tell the world about CRPS and help find a cure.

My name is Hattie and I have Complex Regional Pain Syndrome (CRPS), a chronic pain condition. Some of the symptoms of CRPS include pain, stiffness, skin sensitivity and altered sensation, sudden changes in colour and temperature, swelling and tremors. The cause of this condition is not known and there currently is no cure.

In 2013 I knocked my ankle against a dishwasher door. From that night on I had incredible pain completely out of proportion to the injury that had occurred. After lots of hospital visits, a doctor told me I had a rare pain condition called CRPS. He also told me "pain is your new best friend, so you will have to get to know it." I thought he was joking, but I was wrong! Since then the CRPS has spread to both arms and hands.

This painful condition has changed my life in so many ways and there are lots of things I miss doing. BUT MOST OF ALL I MISS LIVING WITHOUT PAIN.

I DID THE TOUGH MUDDER – SAYS REBECCA!!

Rebecca (BECA's) own story. I have subjected myself to high levels of pain including a gruelling 12 mile run complete with various challenging and, quite simply, horrendous obstacles, to raise money for research at The Pain Relief Foundation, Liverpool, because so many suffer from crippling pain every day.



needed treatment!

The Pain Relief Foundation is a small charity which supports research into the treatment and prevention of chronic pain conditions. I am supporting this charity because I have seen at first-hand the work that it does and the patients which it helps.

1 in 5 people suffer from chronic pain which severely impacts their quality of life and is often debilitating. At present, there is no medication specific to the treatment of chronic pain. For this reason, I am raising money to support research into finding much



Rebecca Bresnahan

And now, here is the challenge for all of you PERSONALLY to raise funds for

PAIN RELIEF FOUNDATION!!

THE 2017 SANTA DASH IN YOUR TOWN CENTRE

Christmas is just round the corner. Your local Superstore will already have plans to stock its shelves full of Christmas goods very soon, and if the shops can get in with early planning for Christmas, then all of us can do the same!!

If you want to raise funds for PAIN RELIEF FOUNDATION, Christmas is the perfect opportunity for you to sign up to and run in your local **SANTA DASH**. It's not a long distance to run, just five (5) kilometres, and hundreds of your friends will be signing up to take part. It is the perfect opportunity to raise sponsorship from friends, family and workmates. Pictured here is one of our own 'Research Fellows' Sophie at the start of last year's Liverpool **SANTA DASH** in which she raised the fantastic amount of £400.

All you need to do is go on your computer and look up 'Santa Dash .. plus the name of your Town' and the information about day, date and time will come up. You simply need to book in to make sure you get your Santa Suit and for the Local Council to prepare YOUR SPECIAL PERSONAL MEDAL. You can take part in most Towns using your wheelchair if your mobility depends on the use of one!



We will send you as many sponsor forms as you need. Just contact Brenda on 0151 529 5822

Our self-help audio tapes, CD's and the special Pain Handbook have been an outstanding success over many years. In the light of patient experiences, they have been updated several times and they still continue to be in great demand.

If you want to order any of the self-help audio tapes, they are currently on special offer at £2.25 off any tape.

The CD's and the Members Pain Handbook, remain at full price. Please use the enclosed order form for any purchase and send it, together with your cheque to PAIN RELIEF FOUNDATION, CLINICAL SCIENCES CENTRE, UNIVERSITY HOSPITAL AINTREE, LIVERPOOL L9 7AL.

If you want to pay by credit card and avoid putting your card details in the post, you can order by telephone by contacting Brenda on 0151 529 5822.

WE ARE SEEKING YOUR SUPPORT WITH OUR 2017 APPEAL. THE LAST TWO YEARS HAVE BEEN A DIFFICULT AND CHALLENGING TIME AND WE HAVE SEEN A GENERAL REDUCTION IN DONATIONS. THEREFORE WE NEED YOUR HELP DURING 2017. PLEASE SEE OUR SPECIAL APPEAL FORM INSIDE.

HAVING MANAGED TO CONTINUE WITH OUR RESEARCH TARGETS TO DATE, WE NEED YOUR SUPPORT AND HELP NOW MORE THAN EVER. SO PLEASE REACH FOR THE APPEAL FORM AND YOUR CHEQUE BOOK AND SEND US WHATEVER YOU CAN AFFORD.

You may be surprised to learn that we **DO NOT** receive **GOVERNMENT** funding for our work and that every single advance in the treatment of chronic pain has come about due to the dedication and generosity of those people who support us either through their donations or through taking part in one or more of our fundraising events.

This is why we very much hope that you will make a donation today, to help us to continue with our vital work to end the misery and suffering of those who have chronic pain. Your support can make a very real difference *so please help us to help those who are suffering a life-sentence of pain.*

Here at the Pain Relief Foundation, we are constantly searching to find useful ways of helping chronic pain patients to improve their quality of life by managing their pain. One very successful method has been through the introduction of our range of audio tapes and compact discs containing relaxation programmes and techniques that help to ease the burden of pain, not only for the sufferer, but also for those supporting and caring for pain patients:

COPING WITH PAIN: (40 min) Explains how pain travels through the body. It recommends strategies for coping with pain. Three out of every four people who have used the CD say they have benefited. It includes a helpful relaxation programme. Presented by Magnus Magnusson and Simon Weston, thousands are in use and it is suitable for all chronic pain.

COPING WITH ANXIETY: (40 min) Chronic pain also causes anxiety for the patient's loved ones and this new CD describes very simple, effective techniques which have helped thousands of anxiety sufferers to regain control and lead calmer, less anxious lives and thus being better able to care for the pain sufferer.

COPING WITH BACK PAIN: (A 2 tape pack lasting 70 min) Successful techniques for the relief of back pain. Specialists explain how to cope & become more active. Exercise programme featured in the pack. Relaxation programme featured in this version.

COPING WITH HEADACHES & MIGRAINE: (40 min) Explains the different type and causes of headaches and migraine. It explains how to treat them and what DIY techniques can be used to avoid headaches & migraine and how to cope with them on a daily basis. It includes a relaxation programme specially designed for headaches.

FEELING GOOD: (120 min double tape) Describes proven techniques for improving your self-esteem and assertiveness. Helps you to feel better about yourself and to plan your life more successfully and happily.

RELAXATION KIT: (80 min) A collection of 4 different relaxation programmes. The kit is an additional tool for those who have mastered the pain tapes and wish to embrace a healthier lifestyle. It is also very valuable in helping anyone to relax, whether suffering pain or not. Also makes a useful gift.

MANAGE YOUR PAIN – THE HANDBOOK by Dr Michael Nicholas, Dr Allan Molloy, Lois Tonkin and Lee Beeston. This book explains the positive and practical ways in which you can adapt to chronic pain and minimise the impact it has on your life. The way forward is to understand that there is a pattern to the pain you suffer and practical steps can be taken to return to a normal life. If you order the book through this order form, the price will be reduced from £14.99 to £12.99.



ORDER FORM FOR CD's, TAPES, and/or LEAFLETS

SPECIAL OFFER - DEDUCT £2.25 OFF THE NORMAL PRICE OF AUDIO TAPES ONLY

Please send me the following:

		Audio Tape	Compact Disc
.....copies 'Coping with Pain'	@ £ 8.50		<input type="checkbox"/>
.....copies 'Coping with Anxiety'	@ £ 8.50	<input type="checkbox"/>	or <input type="checkbox"/>
..... copies 'Coping with Back Pain'	@ £13.99	<input type="checkbox"/>	or <input type="checkbox"/>
.....copies 'The Relaxation Programme'	@ £13.99	<input type="checkbox"/>	or <input type="checkbox"/>
.....copies 'Feeling Good'	@ £13.99	<input type="checkbox"/>	or <input type="checkbox"/>
..... copies 'Headaches & Migraine'	@ £ 8.50	<input type="checkbox"/>	or <input type="checkbox"/>
(Audio tape only)			
..... copies 'Pain Handbook'.....	@ £12.99		<input type="checkbox"/>

ORDER TOTAL £

AVAILABLE LEAFLETS (Please Tick and send SAE plus donation to cover costs)

- Cancer Pain Sciatica Central Post-Stroke Pain Headache Back Pain
 Diabetic Neuropathy Phantom Limb Pain Fibromyalgia Nerve Pain
 Shingles/PHN Arthritis Complex Regional Pain Trigeminal Neuralgia
 Strong Opioids for Chronic Pain 'Over-the-Counter' Medicines for Pain Relief

PAIN RELIEF FOUNDATION

Registered Charity Number 1156227

A recent survey of the smaller charities has found that they are spending a lot more money on their work than they are receiving in donations. The **Pain Relief Foundation** is in exactly this same situation. **In fact, during the past two years we have spent more on research than we have received in donations. This cannot go on indefinitely and therefore, we need your support NOW.** The survey goes on to say that the larger charities have huge reserves and can 'weather the storm' for a considerable time.

It is vital that we continue our much needed research work on **Neuralgias, Phantom Limb Pain, Diabetes Pain, Post Stroke Pain, Shingles, Diabetic Neuropathy, Headaches, Back Pain, Arthritis, Complex Regional Pain Syndrome** and many other conditions. This further research work is needed **now** if we are to offer hope to the many thousands of pain sufferers.

The **Pain Relief Foundation** is small and we are digging into the limited amount of money that we have set aside to cover times of funding shortages, and so we need to replenish our funds urgently. Because **incoming donations have reduced day by day**, we need to overcome this situation as soon as possible. We cannot allow this to continue and, so this is where you can help us.

To achieve our aims, we need your **HELP & SUPPORT NOW.** Please send a donation!!

And did you know that if you pay tax, on your income, pension, interest on savings etc., we can increase the value of your donation by 25% with a gift from the Inland Revenue. You don't have to do anything, except sign the declaration below. We do not need any personal information from you all we ask for is your name, address, postcode and signature.

So reach for your cheque book and pen and write out a cheque for your donation to Pain Relief Foundation and put it in the post as soon as possible. If you want to send a donation using your credit card, go to our website and use the on-line donation form there. **Please accept our sincere thanks. Thank You.**



YES !! I will help in the fight against chronic pain

Enclosed is my cheque for my gift

Please tick

Amount of gift

£

(Please make your cheque payable to the Pain Relief Foundation)

Or if you wish to make a donation by credit card, CAF Card or debit card, please go to our website and use the donation page there. Or contact us on 0151 529 5822 and we shall help.

Using this facility means that you are able to use your credit card to make your donation without revealing your details on paper and sending them through the post where they can become lost or stolen. Your security is of paramount importance to us. So ring us and we will deal with it safely on-line.

From:	
Name	
Address	
.....	
..... Postcode	
If a receipt is required please tick this box	<input type="checkbox"/>

I confirm that all donations that I have made to the Pain Relief Foundation since 6 th April 2010 and all donations that I make after that date, should be treated as Gift Aid Donations and I authorise Pain Relief Foundation to reclaim tax on my donations.	
Signed	Date
Tax will be reclaimed at the standard rate for each £1 donated and you should, therefore, have paid income tax or capital gains tax to the amount we shall reclaim or you will be required to repay any excess to HMRC.	

Please send your completed form & cheque or donation voucher to
PAIN RELIEF FOUNDATION, CLINICAL SCIENCES CENTRE, UNIVERSITY HOSPITAL AINTREE, LOWER LANE, LIVERPOOL L9 7AL