Prescription Drugs: The road to even more suffering?

An account of one chronic pain sufferer's battle with the adverse effects of various prescription medications

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To my dear friends

Colin Jenner

and

Bernd Linke

Introduction

This is an account of my personal journey within the UK's National Health Service, during the past 30 years, during which I have suffered the debilitating lifestyle effects of Crohn's Disease[1] and other medication-related problems, which I have discovered much more about during that journey.

It is not intended to be a clinical or scientific tome at any level but is simply an illustration from my own personal perspective.

My comments are not intended to constitute advice of any kind.

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[1] Crohn's Disease is a chronic autoimmune condition where your body's own immune system attacks healthy cells, that in turn causes inflammation of the digestive and musculoskeletal systems. Crohn's can affect any part of the gut, although the most common area affected is where the terminal ileum (the last part of the small intestine) joins the colon. It can also cause intense pain in the small and large joints. Crohn's Disease is a chronic condition with no known cure.

Neither do I seek to influence sufferers of any condition or disease to persuade them to eschew the treatments or medications they have been offered or prescribed.

What I do want to do is make people think before they blindly accept what is suggested for their wellbeing, because it might not always be the best solution for them. It is everyone's right to challenge any decision that could have an adverse effect on their life.

I only wish I had followed my own advice earlier in life, but the sad reality is that it was not fashionable to challenge anything that doctors or clinicians in general decreed in those days.

Indeed, I recall my parents being in complete awe of doctors and even doctors' receptionists in general and would probably be shocked and even embarrassed that I would have the temerity to challenge commonly held perceptions. But that was then, this is now.

The internet has been vilified for years by medical professionals, due to patients '*looking things up and*

drawing the wrong conclusions'. But that is protectionism in my view.

It is everyone's right to be fully informed about any treatment they may have planned on their behalf. I would say a sensible alternative to what I believe to be the biased views of the medical profession should be to *'educate before medicate!'*

I believe it is also reasonable that clinicians should tell someone about the particular problems they could experience from taking prescription medication, given the knowledge they hold about each of us.

It is not acceptable in my view for a doctor to say something like '*read the information leaflet to learn more about the medication*' because that means that effectively, they are putting the onus on someone who has no clinical background; subsequently, if something does go wrong, they have more or less absolved themselves of any responsibility. Of course, it is precisely

because of the myriad side effects and contraindications[2] that they adopt this approach. The horrors that can befall anyone taking prescription medication are in many cases, too awful to contemplate.

I for one have paid the price of misinformation, or more precisely, no information!

Pain is something that every single one of us has endured in our lives. Very few of us are lucky enough to have gone through life pain free!

When you include problems such as colic and ear infections in infants, dental problems, injuries caused by work, play and accidents, you soon begin to realise that pain is an inevitable part of life from the very earliest stages. But as you will read later in this book, suffering is optional.

I will refer many times during this book to Crohn's Disease but that's only because as a long-term sufferer, I

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[2] In medicine, a contraindication is a condition or factor that serves as a reason to withhold a certain medical treatment due to the harm that it would cause the patient. Contraindication is the opposite of indication, which is a reason to use a certain treatment.

have an intimate knowledge of it. But the same principles apply whether you are a fellow Crohn's sufferer or alternatively have to deal with the pain caused by Irritable Bowel Syndrome, Ulcerative Colitis, Arthritis in all its forms, Fibromyalgia, Polymyalgia, Sciatica, Polymyalgic Rheumatica, Bursitis, and many, many more conditions and diseases.

I apologise in advance if I overlook any condition or disease in this book, but rest assured that I empathise with your plight at all levels.

I have personally spent almost 30 years battling against the effects of Crohn's Disease. The pain is sometimes quite debilitating. It can and will rule your life if you let it. I choose not to.

Having said all that, I must confess that I didn't know for many years the debilitating effect that prescription medications could and would have on my life, because of the serious health conditions that developed as a direct result of taking them. I will talk more about this subject later in the book too.

I remember asking the consultant who initially diagnosed me, who was rather fortuitously a personal friend, if Crohn's would kill me. He said tongue-in-cheek it wouldn't - but there might be times when I wished it had.

At the time, that sounded like a light-hearted comment which I took in the spirit intended - in other words, '*don't worry because it really won't kill you*'.

But the suffering I've endured since really has at times made me think twice!

And of course, as with any 'invisible' disease, sufferers have to endure snide remarks from so-called friends who opine that '*so and so is ill yet again. Are they hypochondriacs or what?*' If only they knew...

Crohn's is one of many 'silent' diseases, where sufferers don't display external characteristics that make them look ill all the time; admittedly, there are times when I look pale or very tired, but then again if you work twelve hours a day or more, then you're going to look pale or tired!

I’m one of the lucky ones, because many sufferers of silent diseases cannot work for weeks on end!

Crohn's disease can cause major problems in two main areas: gastrointestinal (where the problem can occur anywhere in the alimentary canal - in other words, anywhere from the mouth to the anus). It can also affect the musculoskeletal system generally which presents itself as Reactive Arthritis.

One of the significant problems of gastrointestinal issues is a mix of stomach and intestinal pain which can be absolutely crippling, due in part to the ulceration and swelling of internal systems, cramping, thickening of stomach, duodenal and intestinal walls, intestinal fistulas[3] and additional effects the disease can cause in the gall bladder and pancreas.

This of course is not helped by the body's own immune system attacking itself, a major indicator of Crohn’s, which also renders you more susceptible to infection.

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3 A fistula is an abnormal connection between two hollow spaces, such as blood vessels, intestines, or other hollow organs.

With all the information now being promulgated by the NHS on Sepsis, you will quickly realise how lethal this is!

One of the more vexatious aspects of Crohn's on this front are rigors[4], where the body shakes uncontrollably due to pain and inflammation - I was told for many years that it was the body's way of regulating high temperatures. Poppycock!

What it means is that there is an infection in the body somewhere that needs to be dealt with urgently. If not treated, these infections turn quickly to sepsis[5] which in many cases is fatal - in fact, sepsis is one of the largest killers in the UK today.

Anyone who has seen the 2016 British film, *Starfish*, (written and directed by my close friend Bill Clark), about a Rutland couple whose lives were devastated by sepsis, will understand how lucky people are not to experience the horrors endured by Tom and Nicola Ray,

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4 A sudden feeling of cold with shivering accompanied by a sharp rise in temperature

5 Also referred to as blood poisoning or septicaemia, sepsis is a life-threatening condition triggered by an infection or injury. In sepsis, the body's immune system goes into overdrive as it tries to fight an infection. This can reduce the blood supply to vital organs such as the brain, heart and kidneys.

when his sepsis was not caught quickly enough, which resulted in his arms, legs and part of his face having to be amputated and debrided[6] respectively.

I would urge anyone who suddenly develops a very high temperature, accompanied by acute abdominal pain to call 999 without delay!

Crohn's disease also causes a problem called Reactive Arthritis, which can render the sufferer immobile due to the excruciating pain it can cause in the musculoskeletal system. The level of inflammation is intense and painkillers of *any* description do not touch it.

The only medication that does work is a high, but reducing dose of corticosteroids, (Prednisolone is one example of an oral corticosteroid) which themselves have certainly caused me long term problems that I have only found out about recently, due to lack of information from the medical profession, other than them saying that 'you shouldn't really be on steroids long-term'.

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6 Debridement is the medical removal of dead, damaged, or infected tissue to improve the healing potential of the remaining healthy tissue.

But in all honesty, without the relief they have given, I would probably have aged beyond recognition due to the mental stress and anguish the pain has caused over the years.

Many times, I have wondered how much of my own experience with chronic pain might have been down to the adverse effects of prescription medication?

As it turns out, quite an enormous amount!

I'll give you some insight into my theory, based on the physical ramifications I have suffered, a little later on.

My objective in writing this book is to try and help people in a similar situation to me. I want to share with you how I believe you can manage your chronic pain and many other conditions such as eczema, psoriasis, asthma, COPD and so on, without suffering the serious adverse effects caused by prescription drugs.

I will also tell you about some of the natural products I have developed with the collaboration of specialist scientists, amongst other relevant individuals.

I consider it apposite to give some background on areas I have researched with the help of friends who are researchers, clinicians - and fellow chronic pain sufferers over the years, which I have included later on in this book.

Some of these notes have even been published in trade magazines, including *The Pharmacist*, for which I was extremely grateful. The more people know the facts, the more they can look after their own health, perhaps even managing to reduce their reliance on the scourge of prescription medications, their adverse effects and contraindications. I sincerely hope so!

It is not just pain drugs that can cause multifarious problems for people who are prescribed them. One sufferer of eczema was unsuccessfully treated at various times using prescription-only solutions including Aqueous Cream BP (which a recent study showed actually led to the sufferers' skin becoming thinner, drier and more irritated!), E45, which contains highly dangerous ingredients including sodium lauryl sulphate (used to de-grease car engines!), lanolin and soft white

paraffin - all known allergens that can trigger flare-ups of atopic eczema. In short, nothing worked!

The sufferer finally drew the line when his doctor suggested considering a choice of either oral corticosteroids (prednisolone), or immunosuppressant drugs, such as cyclosporine or methotrexate. The doctor even suggested trying one of the newer drugs available: immune-suppressant drugs called calcineurin inhibitors.

All these drugs come with a huge - and potentially serious - list of side effects. Take for example, someone suffering from a dry skin condition. People suffering these type long-term dry skin conditions (described by doctors at various times as eczema, psoriasis, fungal infections), end up so depressed about it that they avoid wearing short-sleeved shirts even on the hottest and muggiest days!

Long term usage of prednisolone (a corticosteroid) can cause weight gain, diabetes, glaucoma, cataracts and osteoporosis..... whilst methotrexate can cause abnormal liver function, nausea and vomiting - classified

as 'dose-dependant' side-effects, mouth sores, diarrhoea, gradual hair loss, and - irony of ironies - skin rashes!

The very thing it's supposed to cure!... and in the USA, calcineurin inhibitors come with an FDA 'black box' safety-warning if used over prolonged periods.But that's not all! In the UK alone, over 22,000 patients die each year from prescription drugs, through error involving dispensing or prescribing procedures. That is over 60 people each and every day who lose their lives due to being given prescription medications!

It is quite amazing that not more people die, because in the NHS alone, staff make over 237,000,000 errors with prescription medications every year, which is a mind-boggling figure to be sure, but what is more worrying is that over 25% of these errors injure patients and have an adverse effect on their wellbeing, apart from the appalling waste of money (approaching £2bn per year) that could be better spent in the front line of the NHS.

According to a group of 36 studies done by researchers at the Universities of York, Sheffield and Manchester, errors definitely play a direct role in 1,700 deaths per year and play a significant role in another 22,300 deaths.

These appalling statistics are made up from a mix of doctors prescribing incorrect doses, pharmacists handing out the wrong medicine, or giving patients someone else's prescription and nurses mixing up patients altogether. In fact, over 1-in-12 prescriptions contains at least one error!

My 30-year personal battle with the adverse effects of prescription drugs

Why is it that many doctors believe they occupy a space in our universe which sets them apart from the rest of us? The sad reality is that they don't. Whilst they are to be greatly admired for having worked hard academically to study for their qualifications over a long period of time before being allowed to practice, a great deal of professional self-absorption then comes into play in many cases, when they invariably consider themselves and their families as superior to the rest of us.

They specialise in health. This does not qualify them to look down upon their patients in any shape or form. It does not give them the right to determine that they don't have to waste their time by giving full disclosure to patients about their conditions as it would probably be a

waste of their time, due to the lesser academic and cerebral skills of the very people they are supposed to support and treat.

I do in fact have many friends and colleagues who are clinicians, consultants and surgeons, whom I admire greatly, but I have only ever met one (a former General Practitioner - and someone I trust as a *person*), who was actually comfortable enough in his own skin to tell me three significant things about clinicians:

- *They cannot bring themselves to admit that they may have got something wrong*

- *They find it impossible to admit that they don't know something*

- *They invariably find it a waste of time trying to explain the complexities of various conditions to people who will have forgotten what they've been told before they have left the surgery/hospital car park*

Hearing this from a practising GP was a watershed moment for me as it gave clinicians a more human face from those which blandly denigrate all alternative or

natural solutions for health, yet mindlessly pump us full of prescription drugs, almost it seems, regardless of the multitude of adverse effects and contraindications they can cause.

I also happen to believe that they know exactly what devastating adverse effects and contraindications these prescription medications can cause.

Why do I say this? Because I share the view of many people that there is more than a scintilla of truth in the assumption that pharmaceutical companies encourage or reward GPs or GP practices when they prescribe their drugs. A common practice over the years has been for pharmaceutical company reps to arrange trips abroad to 'Seminars' where all expenses are paid. I know for a fact that this practice was rife for many years and probably still continues to this day in some form or other.

There is no justification whatsoever for these jollies, or the lunches that have been so common over the years, because if a GP wanted to find anything out about new drugs, he could simply refer to *The British National*

Formulary[7] - but of course, that wouldn't be as much fun would it?

But how can I say something so outrageous, because who in their right mind would prescribe something that could threaten the lives of the very people they are trying to help?

The reality is that every single medication carries its own risks and everyone prescribed them should take responsibility to find out as much as they can about them before blandly agreeing to take them in the first place.

We've all read articles about the sad demise of celebrities who have died suddenly due to the effects of prescription drugs: Glenn Frey (co-founder of The Eagles), Michael Jackson and Prince to name but three.

Probably like me, you initially assumed that they'd abused the drugs they've been prescribed as they've presumably used them for recreational purposes.

But the truth is they have not.

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7 The authoritative and practical information bible on the selection and clinical use of medicines.

They have more likely died because of a build-up of toxins that eventually their bodies have been unable to deal with, leading to their untimely deaths. And make no mistake. The drugs that killed them were prescribed for them!

In many cases, the drugs that have caused the damage have been painkillers, amongst them opioids which are very addictive. It is so easy when one is in such crippling pain to take 'just an extra dose to get me through' - but that extra does could always potentially be your last!

In the case of Glenn Frey, he didn't overdose on anything - he suffered from an autoimmune disease - variously described as Crohn's Disease and Ulcerative Colitis. Both these immune system disorders cause over-activity of the immune system, where the body attacks and damages its own tissues. Immune deficiency diseases also decrease the body's ability to fight invaders, causing major vulnerability to infections, which is what happened to Glenn as the drug regime he was prescribed included DMARDs and TNF drugs, which are known to have devastating adverse-effects for many patients.

Another fact that is regularly suppressed is that the painkillers prescribed for you may well end up making the pain even worse than before you first took them. This is a chemical fact!

Some sufferers who are habitual users of painkillers even develop a condition known as hyperalgesia, which means an increased sensitivity to pain.

These two phenomena lead to sufferers taking more pills than they've been prescribed to get the same relief they initially got. This practice will not provide the pain relief sufferers are craving, but can have other adverse effects, like affecting breathing for instance. This is a common side effect of overdosing painkillers.

Even more worrying is that although you notice this type of problem when fully awake so that although you may panic, you can do something about it; but when asleep, you could literally stop breathing and die.

Another common practice amongst pain sufferers is to mix medication with alcohol as the latter initially enhances the painkilling effect, but of course, doing this

can multiply the negative effects of the drugs many times over.

This observation by Dr Gordon Atherley goes a long way to explain why these tragedies can happen:

"Medications used to combat pain, called analgesics, have side effects. These can also occur with over-the-counter medications, including aspirin, paracetamol, non-steroidal anti-Inflammatory drugs (NSAIDs), and with prescription medications, such as opioids (drugs derived from opium), and with some herbals.

These side effects, which are especially problematic when medications are combined, intentionally or otherwise, include nausea and vomiting, allergies, bleeding, heart attack, stroke and addiction, with the risk of drug abuse and fatality".

One of the more ludicrous statements regarding prescription drugs that I have read comes from an EU directive (2010/84/EU) that came into force in July 2012, which illustrates how mindless bureaucracy can confuse commissioners and prescribers alike - usually at the expense of the patient.

This ridiculous directive states that:

"the term 'adverse drug reaction' (ADR) is defined as, 'a response to a medicinal product that is noxious and unintended effects resulting not only from the authorised use of a medicinal product at normal doses, but also from medication errors and uses outside the terms of the marketing authorisation, including the misuse, off-label use and abuse of the medicinal product."

When I saw this, it reminded me of having laughed at the impenetrable language used by Sir Humphrey in the fictional but brilliant parody of Government in 'Yes Prime Minister'. But, this isn't fictional comedy. It is an example of clueless legal bureaucrats preparing edicts that cover the backsides of inefficient jobsworths in the NHS procurement division.

Here are some of the documented dangers of medication in the UK:

- Over 69% of sufferers feel treatment is inadequate
- 155% increase in reported fatal drug reaction
- 214% increase in serious adverse drug reactions

- 7% increase in all reported adverse drug reactions
- 10,000 deaths annually from adverse medication reactions
- 51% increase in prescriptions from 498 million to 752 million
- 5,600 hospital beds at any one time are occupied by patients with adverse drug reactions
- The cost of adverse drug reactions to the NHS each year is £466 million

(Source: MHRA/NHS England)

This last point can be explained further from information contained in the same MHRA/NHS England document, where it states that a study was conducted in two large hospitals in Merseyside to determine the then current burden of adverse drug reactions in the NHS, which found that of 18,820 patients aged over 16 years admitted to hospital over a six-month period, there were

1,225 admissions judged to be related to an adverse drug reaction.

Of these 1,225 cases, the adverse drug reaction was judged to have led directly to hospital admission in 80% of cases. The majority (72%) of adverse drug reaction-related admissions were judged as avoidable, including medication errors. The median bed stay was eight days, accounting for 4% of the hospital bed capacity.

It is sadly true that most admissions and adverse drug reactions are from painkilling medications though and whilst we all roughly understand what the word 'pain' means, we don't always define it properly.

What it is in fact, is a warning mechanism that alerts your brain when some form of damage has been done.

Acute pain for instance, occurs when something happens like being punched on the nose - you know you've been punched on the nose, but the pain related to it indicates how hard you've been punched.

Chronic pain on the other hand serves no real purpose.

During the course of '*my disease*' over the past quarter of a century or so, one constant has been present in my battle. The ubiquitous prescription from GPs and Hospitals to address my chronic pain.

I have been at various times, desperate, ambivalent, aggressive and demanding of my right to prescription medications, because in my ignorance I just wanted relief: relief from pain, anxiety, nausea, exhaustion and several more cerebral[8] and somatic[9] symptoms. It never once occurred to me that every single pill I ingested, every oral suspension I forced down, fighting my natural gag reflex to avoid throwing it back up, every topical application I rubbed into my skin, was having, to a greater or lesser degree, a debilitating and long-term negative effect on my mind, body and wellbeing.

Not to mention my increased sensitivity to pain in general, whether it was due to gastrointestinal or musculoskeletal manifestations of Crohn's Disease attacks.

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[8] Psychological effects

[9] Bodily reactions or symptoms

I recall counting down the days to when I could get my 'supplies' replenished, because in my desperation for pain relief I had taken more than I had been prescribed in an attempt to be able to manage more ably. Don't get me wrong here, I was not drug-dependent because most of the medications I was taking were not of an opioid nature; I was simply trying to manage pain levels that my contacts within the NHS were either failing to understand, or alternatively writing off as the ramblings of a disturbed mind.

Invariably, I lived with constant stomach ache, a burning, nagging sensation that almost never left me. This was augmented with an equally constant feeling of nausea and bloatedness. It not only invaded my psyche, it changed my personality from being a breezy, gregarious (some would say garrulous at times) individual into a withdrawn, cynical being.

My job as a marketing consultant regularly required me to spend long lunches and dinner engagements with clients who wanted to discuss strategy and planning outside the office environment where meetings were

constantly interrupted by phone calls, staff needing immediate answers or more latterly, emails popping into the client's desktop computer.

This was understandable and looking back, even office-based meetings would have been a breeze when compared to attempting meetings these days, where people seem incapable of putting down their smartphone for more than a minute or so!

From my perspective, I always had to ensure that I was near to a bathroom, as the need to 'go' would hit without warning. For several years I lost a lot of blood each time I went to the loo and kept this secret from everyone as the thought of what it might be terrified me. A typical male reaction.

Of course, from the late 1970s to the early 1990s, almost 100% of business deals were done in restaurants, wine bars, pubs or golf courses.

That's just how it was in those days; and if you couldn't stand the pace, you would be discarded in the most gentle way possible.

I wasn't the sort of person to be discarded. I had lots of drive and total commitment, despite my medical problems. I was driven mentally rather than physically and maintained a 'never give up' attitude throughout those turbulent times.

The problem was though, that I had to 'top myself up' at every opportunity. Hangovers didn't really affect me too badly as I guess I must have been topping myself up with alcohol as well as prescription medications over the years.

Let's be honest, to a greater or lesser degree, every 'successful' business person in those days liked a regular tipple. Some were topers[10] and others developed alcohol dependency problems.

In fact, it was quite common for me to do the following when I was due to meet clients for lunch or dinner, when I felt like death warmed up, due to the abdominal pains I suffered almost continually (at the time I thought it was Crohn's and nothing to do with medications): my first

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10 People who drink alcohol to excess on a regular basis without developing a dependency

libation of the meeting would always be a large port and brandy, which I consumed with one quick gulp - within around 20 seconds or so, the pain had subsided and I was able to concentrate and function for the rest of the meeting without further problems.

The pain was anaesthetised sufficiently for me to get through meetings before my next dose of painkilling medication was due.

I had discovered by chance that if I imbibed alcohol with pain medications (even though the label advised otherwise), the resulting relief was far more efficient than with the meds alone.

During those times, I also took my medications as prescribed - even more hazardous without a doubt with all the alcohol involved - but the more 'training' one undertook, the less the adverse effects seemed to be.

On an increasingly regular basis, I took alcohol prior to, or after taking prescription medications as the doses I was given never seemed to deliver the pain relief promised.

Anyone who has ever seen a doctor about a gastrointestinal problem knows that the first two questions asked are: “Do you smoke? Do you drink?” and that is so that they can say with impunity “you need to cut down or stop and that will improve your symptoms.”

But they never mentioned at any time the horrendous adverse effects and contraindications that occurred monotonously whether alcohol was involved or not.

Eventually, for some unknown reason, my predilection for alcohol waned and whilst I didn’t become teetotal, my habits changed dramatically enough for a noticeable change to my condition.

Sadly for me, it was a negative one as the pain experience grew and with it the depression that goes with it increased too. But I still didn’t fancy a drink. I would never agree to taking anti-depressants knowingly, but as I mention later in this chapter, I was prescribed fluoxetine, which I later discovered was Prozac by another name. I was on it for a month before I knew what it was and the effects were both devastating and worrying.

In relative terms, it was not until quite recently (about 12 years ago), that I started to question the wisdom of pumping myself full of these chemical nasties without any thought for the adverse effects and contraindications they may cause.

To be honest, just like everyone else, I had always blindly accepted that they would help me and that everything would be fine if I did what I was told.

Interestingly, I found the following some time ago on the MHRA[11] website, which made me start to question the wisdom of prescription medications being handed out willy-nilly to all and sundry without proper examination and research into individual issues they may have:
"*No effective medicine is entirely free of side effects*".

For instance, when I have sought help for other medical problems that I was baffled to have developed, I had absolutely no idea that they had been caused by the prescription medications I was taking.

[11]Medicines & Healthcare products Regulatory Agency

And worryingly, no one, including my GP, Consultants I was referred to, or anyone else, ever thought to admit that the newer medical problems were caused by these lethal drugs. I was repeatedly told that it was just one of those things, or that it was probably age-related. Absolutely false on all fronts!

One of the more worrying aspects of NHS long-term engagement and care for chronic conditions is that you are placed under the care of a consultant, who you see twice a year usually (once if your appointments have to be cancelled due to the consultant or one of his staff being on holiday). What happens when you do get to see them is extraordinary in a way.

If you are not suffering on that particular day, a cursory chat is endured by the consultant, after which you are despatched without as much as an examination or any meaningful interaction and told that you will be seen 'next time'. To be honest, a waste of two hours that could be spent more profitably and less stressfully.

Apart from the lack of information flowing from hospital consultants that would help one understand what is

happening to one's body, there is never any information forthcoming about additional complications that can occur as a direct result of the disease itself, rather than the medications.

Over the past two and a half years, my Crohn's attacks increased in regularity and severity, to the point where I have been taken into hospital in absolute agony (on the pain scale the NHS employs, I was a 9 or 10 on most occasions). I endured the constant level of pain as long as I could bear it before having to succumb to my wife's insistence on dialling 999.

After spending an average four days in my local General Hospital each episode, I was released to go home and recover for a few more days, when at least the use of morphine or alternatively pethidine (the manufactured synthetic version of morphine) had been employed to help me.

When we asked - and believe me we asked - many, many times what was happening we were told that the Crohn's 'was very active' or was 'probably active in more than one

site, which caused the elevated pain levels'. Clearly, they knew best. Or did they?

I now know that they had totally mis-diagnosed my symptoms for at least 30 months, probably considerably longer, due to something that happened quite by chance.

I had set off for a meeting with a business associate up in Southport, where I had previous happy memories of playing some of the best golf courses in the world - Royal Lytham St Anne's and Royal Birkdale in years past. However, this particular visit was strictly business and was also an opportunity to finally meet a lovely family who also happened to be very important to our business.

As with all British motorways these days, the journey was fraught with problems and at one stage I thought my GPS satnav system had gone crazy. I was just 75 minutes away from my destination, when suddenly, the ETA changed from 75 minutes to 4hrs 18 minutes. I came off the motorway and pulled in for fuel, thinking that switching off the engine and system would reboot the satnav too. But when I started up again, the situation was now that my ETA was 5hrs 3 minutes - at which

point I called the office to ask if they had heard anything - which they had! There had been a major accident some six junctions up on the main M6 artery - I was on the Toll Road, so was oblivious to any traffic issues at that stage. So, the only choice was to turn back to avoid finally arriving back home around 3 the next morning!

As I had planned this particular trip months before, due to the busy schedule of my friend in Southport, I called whilst on my enforced *volte-face* and asked when it would be possible to visit him again. To my delight, he was free the very next day! Hey presto! I called the office and asked them to change my diary to accommodate the visit.

Next morning, I set off in plenty of time (allowing an extra couple of hours for the journey, just in case) and the weather was set fair too, so I was really excited, even though I had a slight grumbling in the stomach, which I put down to rushing my bowl of porridge oats and cupful of medications, which happened fairly regularly. I always tried to ignore this type of pain, in the hope that it would abate if I ignored it. Today was to be different.

I had travelled just over 110 of the 170 miles when the pain started to increase exponentially - by the time I had passed the 125 mile mark, I was beside myself with pain and also suffered what I thought was the worst case of trapped wind in the chest cavity I had ever experienced, which I put down to being in a seated position for a prolonged period. I stopped again to get some fresh, chilled mineral water and thought that would do the trick, but I was slowly getting worse.

I had been back on the motorway no longer then ten minutes when I was compelled to call the NHS 111 Service - when I was describing the symptoms they told me to leave the motorway again so that I could answer their questions clearly and without the distractions of driving. The resulting telephone consultation and advice was that I needed to get to a hospital right away. It was possible that I was having some form of attack, which could have been Crohn's, Appendicitis or a heart attack!

Armed with this conflicting information, not knowing where I was, not knowing where the nearest hospital was and so on, I determined to drive on and get to my

destination as quickly as possible. The colleague I was meeting had extensive medical knowledge and was also a successful pharmacist in his own right so I hoped he would be able to give me something to sort things temporarily. But I wasn't destined to reach him.

When I was still around 20 miles from my destination, the pain became so bad that I was becoming disorientated and also felt that I could pass out at any time. I got off the motorway yet again and eventually found my way into the middle of Ormskirk, where I spotted a sign for a hospital. The pain had become so bad that I didn't even have the will to look for the oasis I craved and instead spotted a couple of policemen walking towards me from a pedestrian precinct. I just stopped the car in the middle of the street and more or less fell out, imploring them to get me to hospital, as I thought I was having a heart attack, due to not being able to catch my breath at all.

I had never experienced pain like it. They called an ambulance and after a few minutes one of their colleagues in a BMW turned up, got out of his vehicle

and announced that *'this guy looks so grey we need to act quickly. We cannot wait for the ambulance so I'll take him in.'*

It was the first time I had ever been in a Police car that was using the 'blues and twos' and the officer's driving skills were something to behold, even though my pain was so bad I didn't actually see much.

When we got to the hospital (which turned out to be Southport & Ormskirk General), I was whipped through A&E and straight into a treatment room, where morphine was given intravenously. My temperature was up to nearly 41C. I also suffered the ignominy of being catheterised, as at the time they had no idea how mobile I would be, if at all. It was something I would never want to experience ever again!

Within three hours of being there I had been given an X-Ray and a CT Scan. After another two hours I had been given an MRI scan. The next morning, after I had been stabilised, I was taken down for something I had never heard of before - an MRCP scan. Then later that morning, I was paid a third visit from a surgical team,

who told me that the scans had shown evidence of pancreatitis and ascending cholangitis (an infection of the bile ducts), together with suspected cholecystitis (inflammation of the gall bladder).

I tried to gamely explain that I had suffered many previous attacks over the preceding 8 years or so and that it was Crohn's Disease, which of course was what I had always been told by my local hospital. They assured me that my assumptions were completely wrong and their diagnosis was entirely accurate. They also confirmed that I had a massive amount of stones in the gall bladder, which needed to be removed once I was fully stabilised, but suggested that I might like to get nearer home before having the operation. They confirmed that the long period of increasing pain was caused by a several gall stones getting trapped in the common bile duct, one after the other.

What they told me next stunned me somewhat.

The reason for the gall bladder problem was people with Crohn's disease are more likely to develop gall bladder disease than people without it. The gall bladder is a small

organ responsible for releasing bile into the small intestine. Crohn's disease can cause inflammation in the small intestine. This inflammation affects the small intestine's ability to absorb bile salts. The bile salts may start to build up at the beginning of the small intestine, backing up to the gall bladder.

As a result, people with Crohn's disease are more likely to experience gall bladder problems. Another concern is that some medications used to treat Crohn's disease can affect the liver and the gall bladder!

Examples included azathioprine (which my consultant insisted I began taking, despite my repeated protestations). He told me quite categorically that taking it would be far safer for me in the long run than having periodic courses of corticosteroids (in my case Prednisolone).

However, what he didn't tell me was, when I was put on the drug, my bloods had to be checked regularly to make sure that none of the lethal adverse effects were developing (see later in this chapter) - oh, and he also never mentioned that I would also be prescribed -

Prednisolone - which had to be taken alongside the azathioprine! Unbelievable!

The bottom line is that if you have Crohn's disease and are taking azathioprine, talk to your doctor about these side effects and ask to come off it if you are in any doubt at all about your safety. I did and I never looked back!

So, now I was faced with yet another medical problem that was as a direct result of medications causing problems with my gall bladder when they were supposed to be helping me with Crohn's.

The questions I asked myself following these revelations were based on what I could do to prevent the problem, although by this time it was obvious the horse had bolted.

The suggestions I received were to drink alcohol and coffee only in moderation (I had long eschewed the former and never drank the latter anyway); eat healthy foods such as nuts (which always caused an attack every time I ate some), limiting sugar intake (which did make a positive difference).

I was also told to try and maintain a healthy weight - this seemed very oblique advice because my weight varied by up to 14lbs one way or the other without any effort on my part, rather just as a result of the varying levels of pain and discomfort caused by Crohn's or gall bladder issues.

I was released by the hospital after four days (the norm) and travelled back in a fragile but relieved state - I finally knew that the Crohn's wasn't morphing into something more sinister and knew that surgical intervention would eventually sort things out. However, when we were around 90 minutes into our journey home, we got a call from the hospital, telling us that we had omitted to pick up the antibiotic co-amoxiclav and also my discharge notes!

We couldn't go back but they kindly said they would fax them through to us and my surgery. Then there was a chilling request they wanted me to be aware of. They explained that I needed to be booked in for an urgent gastroscopy, as the scans had also shown an irregular thickening of the stomach wall, more pronounced in one area which needed investigating.

When I asked what they thought it was they told me it could be a GIST. I didn't ask what that meant at the time but as soon as we arrived home I looked it up and discovered it meant a 'gastrointestinal stromal tumour'[12] - in other words, a cancer in the stomach. To say the wait before the examination some 12 days later was traumatic would be a dramatic understatement.

Thankfully, the procedure was carried out and I was told immediately afterward that everything in the stomach was in fact normal for someone with Crohn's. The relief was staggering.

Although some of my pain could be ameliorated slightly (and for very short periods) by taking paracetamol with codeine phosphate (for which I needed a prescription), much of the pain is due to inflammation - and the only thing that helps me (and this continues to be the case) with that experience are corticosteroids (such as Prednisolone).

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[12] A rare type of soft-tissue sarcoma found in the digestive system, most often in the wall of the stomach.

I have developed other medical problems such as Atrial Fibrillation, Type-2 Diabetes, Cataracts, Gall Bladder and Pancreas problems - and other less debilitating ailments.
But how?

What I didn't know at the time was that most of these problems have actually been caused by the drugs I have been prescribed!

At various times during my journey I have been prescribed large amounts of drugs - on several occasions up to 38 (thirty-eight) pills a day!

When you think about it in the cold light of day, if anyone took 38 pills without medical guidance it would be called drug-abuse at worst and a 'tragic' overdose at best.

With the benefit of hindsight, this lethal cocktail has caused me more problems than I care to imagine, and certainly more that the original illness I contracted.

I happen to know that many of the medications prescribed over the years were given to offset the effects

of drugs I was already taken. It is all a vicious circle of pain, adverse effects, contraindications and more adverse effects sadly.

As many others, in fact probably the vast majority of us would do, I meekly accepted whatever drugs were prescribed and took them diligently, in the hope that they would bring the relief I craved. I was disappointed so many times it started to affect me mentally - I harboured thoughts of wondering whether I was a hypochondriac and worse still, there have been times when my head has been filled with very dark thoughts indeed.

But still I continued to allow myself to be fed these lethal chemicals with the naivety of someone desperate to get relief.

It almost becomes understandable that drug addicts will do anything for their fix when you are at such a low point.

I did however, eventually draw the line when my gastrointestinal consultant implored me to take

DMARDs[13] and Anti-TNF[14] drugs, such as Humira and Azathioprine. The devastating adverse effects of these lethal drugs can be summed up by one of the warnings hidden in information leaflets that I once saw that has since been removed: '*in case of sudden death, contact your physician immediately*'.

Another thing about these drugs is that clinicians will tell you that you need to be on them instead of steroids as they are much safer - but when you are started on a course, they co-prescribe - wait for it - steroids!

The major thing they omit to tell you is that when you are put on these drugs, the effect is much the same as that suffered by people subjected to the horrors of chemotherapy drugs - your immune system is almost totally suppressed, which makes you even more prone to life-threatening infections.

Think about it for a moment.

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[13] Disease-modifying antirheumatic drugs

[14] Anti-tumor necrosis factor drugs

If you suffer from an auto-immune system problem such as Crohn's Disease, Ulcerative Colitis and the like, your immune system actually attacks your body, preventing it from functioning properly, so why on earth would you want to completely destroy any chance you have of your body's own defences working by taking these poison cocktails?

To be put onto a long term course of either DMARDs or Anti-TNF drugs is literally putting your life on the line. I urge anyone prescribed with either family of these drugs to thoroughly investigate the potentially disastrous adverse effects and contraindications with any of your existing drug regime before agreeing to take them!

The dynamics of the traditional pain management market have been altered greatly over the past few years.

The serious and commonly fatal problems surrounding the multi-billion dollar Cox-II inhibitor[15] class of drugs and the withdrawal of Co-proxamol non-steroidal anti-inflammatory drugs in January 2007 has created a huge

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15 a type of non-steroidal anti-inflammatory drug (NSAID) that directly targets cyclooxygenase-2, COX-2, an enzyme responsible for inflammation and pain

gap in the marketplace for Big Pharma, but they've managed to replace these drugs with very similar ones that are every bit as hazardous.

The facts will eventually come out, but it will be already too late for many thousands of sufferers who will have been prescribed them around the world, who will have suffered strokes, heart attacks and even death.

Recent research has also highlighted the risks of addiction and side effects associated with POM (Prescription Only Medicine) and OTC (over-the-counter) painkillers.

Million of pounds are spent on medications to treat pain and inflammation. Sufferers spend over £300 million on prescription drugs to treat pain each year. Paracetamol is the most commonly used painkiller, followed by non-steroidal anti-inflammatory (NSAIDs) such as Ibuprofen or Voltarol and finally Aspirin. More pain medications are

purchased for the control of arthritis[16] symptoms than for any other disorder.

Despite the popularity of the various pain medications, their safety is not guaranteed. Unintentional overdoses of paracetamol are very common. Patients who are in severe pain may be tempted to take too many tablets. The dosage recommendations must be followed carefully. When taken in higher than recommended doses, paracetamol causes liver damage, particularly when it is combined with alcohol. Paracetamol overdose is the leading cause of acute liver failure and causes ten percent of all cases of kidney failure.

Long-term use of NSAIDs causes 3,000 deaths in the UK annually. In addition, over 12,000 users are hospitalised each year due to NSAIDs. Side effects include gastrointestinal complaints (bleeding, nausea and vomiting), liver damage, stomach ulcers, allergic reactions, immune system depression, mental confusion

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[16] Arthritis ("arth" meaning joint; "itis" meaning inflammation) consists of up to 200 different conditions, from gout to rheumatoid arthritis.

and kidney failure. Adverse drug interactions are common and central nervous system toxicity can occur with some NSAIDS. Patients receiving corticosteroids and NSAIDs together have a 15 times greater risk for peptic ulcer disease than those who are receiving no medication. *The New England Journal of Medicine* reported that NSAIDs are the cause of 15 percent of all drug- induced cases of kidney failure.

There is also strong evidence that NSAIDs are counterproductive when it comes to our joints. A study published in *The Lancet* found that NSAIDs contribute to cartilage destruction. Yes, you read that correctly! NSAIDs can cause joint destruction.

Lorna Vanderhaeghe reported years ago on a study that examined 294 hip X-rays, finding that the hip joints of patients taking NSAIDs had greater joint destruction than the hip joints of patients not taking NSAIDs.

The *Archives of Internal Medicine* reported that the use of NSAIDs including ibuprofen and naproxen, along with paracetamol, are significantly associated with an increased risk of high blood pressure in women.

Over 80,000 women between the ages of 31 and 50 who had no history of high blood pressure were monitored for two years. Those taking NSAIDs at least 22 days per month were:

- 86 times more likely to develop high blood pressure as those not taking NSAIDs and those taking paracetamol were twice as likely to develop hypertension.
- Even infrequent use of painkillers increased the risk of high blood pressure.
- Women taking ibuprofen one to four days a month were 14 percent more likely to develop high blood pressure.
- Women taking paracetamol had a 19 percent higher risk increase.

But, enough of statistics for now! I have set out below the adverse effects that drugs prescribed for me have caused. In almost all cases, I was not told of the real dangers in taking drugs. I know that Big Pharma would say '*read the leaflets included in the packaging*' but let's be honest, there are so many things listed, it is not easy to

absorb when you are in pain or suffering in other ways, as you are just desperate for some relief.

Interestingly, when you delve into the warnings about non-steroidal anti-inflammatory drugs (NSAIDs) it staggers you to realise that your GP was fully aware that if you suffered from any of the following, you should never, ever have been prescribed these drugs.

Here are just some of the warnings that should be rigidly adhered to in regard to NSAIDs, but are never heeded, because the simple fact is, you should not take them if you have any of the following:

- Asthma or any other allergic disorder.
- If you have ever had a stomach or duodenal ulcer
- If you have an inflammatory bowel disorder such as Crohn's disease or ulcerative colitis.
- If you are pregnant, trying for a baby, or breast-feeding.
- If you are over 65 years of age.
- If you have liver or kidney problems.

- If you have a heart condition, or a problem with your blood vessels or circulation.
- If you have high blood pressure.
- If you have ever had blood clotting problems.
- If you have a connective tissue disorder, such as *systemic lupus erythematosus* (an inflammatory condition also called lupus, or SLE).
- If you are taking any other medicines. This includes any medicines you are taking which are available to buy without a prescription, such as herbal and complementary medicines.
- If you have ever had an allergic reaction to any other NSAIDs (such as aspirin, diclofenac, and ibuprofen), or to any other medicine.

In fact, it is simply amazing how many drugs are not supposed to be taken by anyone suffering from inflammatory diseases or conditions.

Ironically, the people who need pain relief more than anyone else fall into that category!

As recently as March 2016, I urged the NHS (as it turned out, totally in vain) to take a look at alternatives to prescription pain drugs, particularly NSAIDs such as Naproxen, Diclofenac and Ibuprofen. Put simply, they are lethal.

The news that they can cause heart failure for instance, comes as no surprise to me. There is irrefutable evidence that Naproxen causes Atrial Fibrillation and there can be no doubt that the same applies to Diclofenac and to a lesser degree, Ibuprofen.

The problem is for sufferers of autoimmune diseases (such as Crohn's and other gastrointestinal conditions) is that they will sometimes also suffer reactive arthritis, which is incredibly painful and exacerbates the gut element on most occasions.

Articles in newspapers suggest that Paracetamol should be the first choice for pain relief. But in 2016, in the world's largest placebo-controlled trial, scientists demonstrated that taking paracetamol does not speed recovery or reduce pain compared with placebo! Big

Pharma needs to make their mind up about their claims, which never get challenged.

Results from 74 separate randomised trials of 58,556 patients with osteoarthritis between 1980 and 2015, reveal that treatment with Paracetamol is almost worthless.

The choice facing these sufferers is stark: they have the choice of agreeing to be prescribed either immuno-suppressants or anti-TNF drugs in a lethal cocktail which carry the risk of very serious adverse effects ranging from skin cancer to sudden death!

Here are some of my personal experiences with prescription medications:

Constipation

OK, I know this is NOT a medication and might appear a weird place to begin! But, I thought I would start here because constipation, no matter how embarrassing or distasteful to talk about, is something that affects everyone who takes many medications, some worse than others, which also gets worse as people get older!

Here are just a few of the prescription medications I have been given (mostly concurrently) that have caused me serious constipation problems:

Medication	**Prescribed for**
Verapamil	*Atrial Fibrilation*
Furosemide	*Fluid around lungs*
Codeine Phosphate	*Pain*
Morphine	*Pain*
Tramadol	*Pain*
Oxycodone	*Pain*
Pethidine	*Pain*
Ferrous fumerate	*Anaemia*
Cholestyramine	*Crohn's, Cholesterol*
Amitriptyline	*Relaxant*

Here are other general medication groups that I have never had but do cause the same problems for thousands upon thousands of patients!

Drugs used to treat depression or anxiety disorders

Amitriptyline

Doxepin HCI

Drugs used to treat mood disorders

Imipramine (Tofranil)

Amitriptyline (Elavil)

Trimipramine (Surmontil)

Doxepin (Sinequan)

Desipramine (Norpramin)

Nortriptyline (Pamelor)

Protriptyline (Vivactil)

Drugs used for the treatment of psychosis

Haloperidol

Pianozide

Risperidone

Thiothixene

Olanzapine

Clozapine

Chlorpromazine

Thioridazine

Drugs used for hypertension/antihypertensive therapy

Calcium-channel blockers

Clonidine (Catapres)

Clonidine/Chlorthalidone

Drugs used as antiarrhythmic drugs

Disopyramide

Verapamil

Drugs used for Parkinson's disease

Bromocriptine

Trihexyphenidyl (Artane)

Benztropine mesylate (Cogentin)

Biperiden (Akineton)

Procyclidine (Kemadrin)

Drugs used in the treatment of hypercholesterolemia

Cholestyramine

Drugs used for peptic ulcer disease

Sucralfate

Supplements for iron-deficient patients

Ferrous gluconate

Ferrous sulfate

Drugs used for cough that contain opioids

Hydrocodone bitartrate

Chlorpheniramine polistirex

Hydrocodone tartrate

Homatropine methylbromide

Drugs used against inflammation & anti-rheumatic drugs

Sulindac (Clinoril)

Ketoprofen (Orudis)

Drugs used for gastrointestinal disorders

Loperamide hydrochloride (Imodium)

Drugs used for pain relief

Paracetamol

Codeine

Fentanyl

Hydrocodone

Hydromorphone

Meperidine

Methadone

Morphine/ Morphine sulfate

Oxycodone

Oxymorphone

Propoxyphene

Tramadol

Herbal medicine

St. John's wort

So, now let's move on to the prescription medications it was deemed necessary for me to take over the years. I have added a brief description of the problems they caused me.

Diclofenac

I was prescribed this NSAID many years ago for joint pain and when I started suffering bad abdominal pain and passing bloody diarrhoea after two or three weeks, it was discovered that I had a reaction to the drug, which had caused abdominal bleeding; I was taken off it immediately.

I also suffered bad indigestion and ringing in the ears with this medication.

Having 'dodged a bullet' by coming off this drug, I looked up the most commonly reported side effects of diclofenac. They are dyspepsia, nausea, abdominal pain, constipation, headache, dizziness, rash, and drowsiness. More serious reactions include stroke, high blood pressure, GI (gastrointestinal) bleed, and heart attack.

I suffered several of these but not the last one thank goodness. Phew!

Naproxen

Yet another from the family of non-steroidal anti-inflammatory drugs, which have probably been

responsible for more of my health problems over the years than they are worth! I took this drug for nigh on 22 years and during the latter stages, my gastrointestinal consultant suddenly announced that I must come off the drug immediately.

The truth is that I was not too concerned by this, as although it was supposed to be an anti-inflammatory for pain management the only thing I ever noticed when taking it was that my ears rang all the time and I got quiet a lot of dyspepsia (indigestion). It didn't really help with the pain at all as far as I could recall.

I mentioned these concerns a few times, but they were predictably brushed aside.

Then, during a routine blood test and ECG two years ago, I was told I had Atrial Fibrillation which was a huge shock to me.

So now, I thought, as well as Crohn's Disease, I now have a bad heart. How could this be? I had a good, balanced diet; I had never smoked apart from the passive smoking that thousands of us have endured during our lifetimes before it was banned in public places. I had played sports all my life: rugby until the age of 28, cycle racing until I was 37, golf from the age of 27 to the present day. I racked my brain for reasons as to why this condition would develop.

Then I found out that research evidence from various studies in the USA and UK suggest that Atrial Fibrillation is an additional cardiovascular risk associated with NSAIDs, '*with the strongest association evident for new users and individuals who take NSAIDs for longer periods of time*'. In plain English, this means everyone!

These findings have clinically significant implications due to the high rate of administration of NSAIDs to treat pain and inflammation associated with a wide variety of musculoskeletal and other conditions.

This is particularly significant for older people, who are at increased risk of developing Atrial Fibrillation by virtue of their advanced age - and here I mean anyone over 60 - which is supposed to be the new 40!

Of greatest concern, of course, are those older patients at risk, who have been diagnosed with hypertension or heart failure and are already at increased risk for the adverse effects of NSAIDs because of these conditions.

Source: Carole Alison Chrvala, PhD, University of Colorado, Boulder

As soon as I was diagnosed, I was put on Warfarin immediately and booked in for a cardiac ablation, one of the most uncomfortable procedures I have ever experienced. In the interim, my heart started to behave bizarrely and my heart beat ranged from between 22 and

189 beats per minute, resulting in my having to be given three cardioversions[17] to regularise it.

Sadly, the cardiac ablation didn't work and I was booked in for a second ablation, with all the attendant risks: serious internal bleeding, strokes or even death. All because of being prescribe NSAIDs!

But even more sinister was the fact that during the last 18 years or so that I was taking Naproxen, I had intermittent periods of erectile dysfunction, which increased in duration over the years too, that I put down to overwork, over-indulgence, too much alcohol and so on - it wasn't until some time after I stopped taking the medication that I discovered this debilitating and immensely embarrassing side-effect was down to the drug I'd been prescribed for all those years to combat inflammation.

I believe that something like this can have a devastating effect on a man's self-respect and general wellbeing and should be highlighted when a person is prescribed the drug - as should any serious side effects or contraindications.

It is just not right at any level to send people to specialists who start talking to you about emotional or

[17] Paddles attached to the chest to shock the heart back into sinus (normal) rhythm

stress issues that might cause it when all along they are completely aware of what the culprit is!

What was perhaps even more amazing about being taken off Naproxen suddenly after all those years was this - I have to this day never been offered anything in its place!

That was obviously why I then had to agree to regular courses of Prednisolone I guess as nothing else will touch the pain once inflammation takes hold.

Humira

I was exhorted by specialist medical professionals to agree to take Humira or other Anti-TNF drugs. Humira (Adalimumab) costs around £16,000 per annum per patient.

But is that a reason to take it? I was told I was lucky to 'qualify' due to the cost and also told that in over 20 years the NHS had never had a bad result with it.

When I quite rightly asked what the adverse effects and contraindications were, the 'specialist nurse' either didn't know or refused to elucidate.

Bascially, they assume that anyone who has suffered Crohn's Disease for 28 years will be up for anything, but this isn't just another drug to replace steroid treatment (which itself is known to be not good for long-term prospects of users).

So when I was told I had been selected as a 'qualifying patient' I thought it best to investigate a little. Here's the topline overview of what I found.

Serious infections have happened in people taking Humira!

These serious infections include tuberculosis (TB) and infections caused by viruses, fungi, or bacteria that have spread throughout the body. Some people have died from these infections.

Humira may increase the chance of getting lymphoma, including a rare kind, or other cancers.

Humira can cause serious side effects including hepatitis B infection in carriers of the virus, allergic reactions, nervous system problems, blood problems, heart failure, certain immune reactions including a lupus-like syndrome, liver problems, and new or worsening psoriasis.

Because there is nothing to help you decide whether or not you are prone to infection I used the following as my guide.

In other words, did I ever have any of the following symptoms occasionally:

- Fever, sweats, or chills (when I get a flare-up)

- Muscle aches (Ditto)

- Diarrhoea or stomach pain (Hello? I have Crohn's Disease!)

- Feeling very tired (Ditto)

The answers to all the above were in the affirmative!

Guidelines on the drug also suggest that there are several things to be taken into consideration. Although none of the medical team responsible for my care told me any of this, I did glean the following (selected as it might be relevant to me) information from the manufacturer's website:

For instance, before starting a course of Humira, I should tell my doctor about all of my health conditions, including if I:

- Have Type 2 diabetes (I am told I am borderline although my most recent blood count was 42 and the 'normal range is 40-60)

- I confirm later that I have subsequently been told by a specialist that I have steroid-induced diabetes!

- Have TB or have been in close contact with someone with TB, or were born in, lived in, or traveled where there is more risk for getting TB (How would I know this?)

- Live or have lived in an area where there is an increased risk for getting certain kinds of fungal infections, such as histoplasmosis, coccidioidomycosis, or blastomycosis (How would I know this?)

- Have or had heart failure (I have Atrial Fibrilation, which is clearly a form of heart failure, caused by taking Naproxen for over 22 years which I cover shortly)

- Have recently received or are scheduled to receive a vaccine.

- Humira patients may receive vaccines, except for live vaccines (I recently had a flu jab. How am I supposed to know if it is 'live' or not?)

- Are allergic to rubber, latex, or any Humira ingredients. As no one has told me what the ingredients are, or shown any concern as to whether I would be allergic, I have found out what the ingredients are:

Active ingredient: adalimumab

Inactive ingredients: sodium chloride, monobasic sodium phosphate dihydrate, dibasic sodium phosphate dihydrate, sodium citrate, citric acid monohydrate, mannitol, polysorbate 80, and Water for Injection. Sodium hydroxide is added as necessary to adjust pH.

Bearing in mind that Humira suppresses (renders your immune system almost impotent), here are a few facts, which ironically are from Humira's own website.

Serious Infections: Patients treated with HUMIRA are at increased risk for developing serious infections that may lead to hospitalisation or death. Very comforting!

These infections include active tuberculosis (TB), reactivation of latent TB, invasive fungal infections, and bacterial, viral, and other infections due to opportunistic pathogens.

Most patients who developed these infections were taking concomitant immunosuppressants such as methotrexate or corticosteroids (I have had regular courses of corticosteroids over the years!).

Malignancies: Lymphoma, including a rare type of T-cell lymphoma, and other malignancies, some fatal, have been reported in patients treated with TNF blockers, including HUMIRA.

Other Serious Adverse Reactions: Patients treated with HUMIRA also may be at risk for other serious adverse reactions, including anaphylaxis, hepatitis B virus reactivation, demyelinating disease, cytopenias, pancytopenia, heart failure and a lupus-like syndrome.

Source: Humira.com

The bottom line is, would anyone in their right mind, who is already on a cocktail of drugs they would have to continue taking, in addition to steroids and methotrexate along with Humira, even begin to contemplate it? Not in our house!!

Azathioprine

Azathioprine is used with other medications to prevent transplant rejection (attack of the transplanted organ by the immune system) in people who received kidney transplants.

It is also used to treat Crohn's Disease, severe rheumatoid arthritis (a condition in which the body attacks its own joints, causing pain, swelling, and loss of function) when other medications and treatments have not helped.

Azathioprine is in a class of medications called immunosuppressants. It works by decreasing the activity of the body's immune system so it will not attack the transplanted organ or the joints.

Source: MedlinePlus.gov

This azathioprine experience was a complete disaster and I asked my GP to take myself off the drug within six weeks of starting the course. It was poison of the most lethal order for my body.

Within a week I was suffering from severe nausea and vomiting. I got even greater muscle pain, I had fevers and I also felt very dizzy. God knows what would have happened had I been prepared to go along with the consultant's assurances that it would be good for me 'eventually'! Oh, and I was co-prescribed steroids to take simultaneously!

The reality is that azathioprine is an experimental drug that can be used during treatment of cancers such as leukaemia and lymphomas.

In the body, azathioprine is converted to mercaptopurine (6-MP) and thus has the same effects as that chemotherapy drug. But what they don't tell you is that it can also cause cancer (of the skin) as well as lymphoma (cancer that begins in the cells that fight infection - not ideal for someone suffering an auto-immune disease!!)

It can also cause life-threatening infections, so why would anyone in their right mind agree to being poisoned with this drug?

If it is ever suggested to you that you should take this drug, I implore you to read this:

Azathioprine may increase your risk of developing certain types of cancer, especially skin cancer and lymphoma (cancer that begins in the cells that fight infection).

To decrease the risk that you will develop skin cancer, avoid prolonged or unnecessary exposure to sunlight and wear protective clothing, sunglasses, and sunscreen. Tell your doctor immediately if you notice any changes in your skin or any lumps or masses anywhere in your body.

Some teenage and young adult males who took azathioprine alone or with another medication called a tumour necrosis factor (TNF) blocker to treat Crohn's Disease (a condition in which the body attacks the lining of the digestive tract causing pain, diarrhoea, weight loss, and fever) or ulcerative colitis (a condition which causes swelling and sores in the lining of the colon [large intestine] and rectum) developed hepatosplenic T-cell lymphoma (HSTCL). HSTCL is a very serious type of cancer that often causes death within a short period of time.

Azathioprine has not been approved by the Food and Drug Administration (FDA) for the treatment of Crohn's disease or ulcerative colitis, but clinicians may sometimes prescribe azathioprine to treat these conditions.

If you develop any of these symptoms during your treatment, call your doctor immediately: stomach pain; fever; unexplained weight loss; night sweats or easy bruising or bleeding.

Azathioprine can cause a decrease in the number of blood cells in your bone marrow, which may cause serious or life-threatening infections. The risk that the number of blood cells that you have will decrease is highest if you have a genetic (inherited) risk factor.

Your doctor may order a test to see if you have this risk factor before or during your treatment.

Taking certain medications may also increase the risk that your blood cells will decrease, so tell your doctor if you are taking any of the following: angiotensin converting enzyme (ACE) inhibitors such as benazepril (Lotensin), captopril, enalapril (Vasotec), fosinopril, lisinopril (Prinivil, Zestril), moexipril (Univasc), perindopril (Aceon), quinapril (Accupril), Ramipril (Altace), or trandolapril (Mavik); trimethoprim and sulfamethoxazole (Bactrim, Septra); and ribavirin (Copegus, Rebetol, Virazole).

If you experience any of the following symptoms, call your doctor immediately: unusual bleeding or bruising; excessive tiredness; pale skin; headache; confusion; dizziness; fast heartbeat; difficulty sleeping; weakness; shortness of breath; and sore throat, fever, chills, and other signs of infection.

Your doctor will order tests before, during, and after your treatment to see if your blood cells are affected by this medication.

Source: MedlinePlus.gov

When I eventually got to see my Crohn's consultant at the hospital for my regular cursory chat about my progress, I told him I had been taken off the drug.

His reaction surprised me to say the least. Not one word. Not one question as to why. No surprised reaction.

Because, let's face it, he already knew what the dangers were at the same time he was exhorting me to take it! Honestly, why would you do that?

Warfarin was prescribed for me because of the Atrial Fibrillation, which in turn was caused by taking Naproxen for over 22 years, as I've said earlier.

In order to undergo the Cardiac Ablation procedure, the INR (the stickiness of blood) has to be between 2.5 and 3.5 (I understand that a normal INR is 1.2).

But ironically, the drug caused me several problems which I was told would decrease as my body got used to the medication: join pain, muscle pain, cold intolerance, sluggishness, itching. It can also cause 'brain bleeding' which is effectively a stroke!

None of these subsided, but until the second ablation was done, I had no choice but to continue with the course, which I was finally taken off recently and put onto Apixaban instead.

The following is from the nhs.uk website:

Bleeding is the main side effect associated with warfarin, as it slows down the blood's normal clotting ability.

You're at greatest risk of bleeding in the first few weeks of starting treatment with warfarin and when you're unwell.

You should therefore seek medical attention if you:

- *pass blood in your urine or faeces*
- *pass black faeces*
- *have severe bruising*
- *have long nosebleeds – lasting more than 10 minutes*
- *have bleeding gums*
- *cough up blood or have blood in your vomit*
- *experience unusual headaches*
- *have heavy or increased bleeding during your period, or any other bleeding from your vagina*

Take extra care to avoid cutting yourself while taking anticoagulant medication because of the risk of excessive bleeding.

For example, you should:

- *take care when shaving and brushing your teeth*
- *wear protective clothing when gardening, sewing or playing contact sports*

• use insect repellent to avoid insect bites or stings

Seek urgent medical attention if you're taking warfarin and you:

• have a fall or accident

• experience a significant blow to your head

• are unable to stop any bleeding

• have signs of bleeding, such as bruising

Skin rashes and hair loss are also common side effects of warfarin.

What the NHS site does not mention is that trying to get cooperation between GPs, Hospitals and Warfarin Clinics is notoriously difficult. A number of times, I have sat in the Warfarin Clinic, having told them what has happened during one of my hospital residencies where their reaction has been one of horror, mainly because no one has had the courtesy to tell them what changes have been made to medication doses and so on.

On one occasion, it was necessary for me to be given a Vitamin K injection but the Warfarin Clinic insisted this should be done by the hospital who were in charge of my care before discharging me.

The hospital said it wasn't their responsibility so I turned to my GP practice in desperation. They, very reluctantly, administered the injection, telling me that it was the responsibility of the hospital. Had it not been for my dogged refusal to be fobbed off, I would not have been given the injection which could have had serious consequences for me.

Fluoxetine

This was prescribed to combat my increasing level of despondency in dealing with the continuous battle against pain over many years and when I complained of suffering various debilitating adverse effects such as sleep problems (insomnia), headache, dizziness, feeling anxious or nervous; yawning continuously with an overwhelming tired feeling. My stomach problems also worsened, I suffered loss of appetite, nausea, vomiting and increased diarrhoea (the latter being a regular manifestation with Crohn's), the doctor told me that some of these effects were common when people took Prozac™. Whilst I had never heard of fluoxetine, I had certainly heard of Prozac!

I was not told I was being being prescribed an antidepressant. I was livid and stopped taking the drug immediately.

Asacol/Octasa

This (also known as Mesalazine) is an anti-inflammatory drug used to treat inflammatory bowel disease, such as ulcerative colitis and Crohn's disease.

I have a triple dose. I read recently that it can increase bruising, which until then I had blamed on my intake of Warfarin.

It also causes me back pain and joint pain generally, muscle pain and stiffness, occasional stomach upsets, sneezing and quite regular headaches, all of which can be a nuisance, but are better than some of the less common side-effects of the drug which so far, I have escaped.

Other than that, to the best of my knowledge, this is the only prescription medication that has been of any long term benefit to me. So far.

Omeprazole

Ironically, as these are designed to prevent stomach inflammation it is surprising to note that one of the main side effects can be stomach pain and inflammation!

I recently had my dose doubled and since then experienced stomach pain almost every day and localised skin irritation and itching.

I made an executive decision to halve the dose and within a day the stomach pain subsided and within three days the itching had disappeared.

The drug also affected me by acting as an unplanned diuretic, as well as causing dryness of the mouth and even loss of my voice on many occasions.

Pregabalin and Gabapentin

Bearing in mind that my pain problem is due to inflammation and Reactive Arthritis, you will be as surprised as I was when prescribed these particular

drugs, which are anti-epileptics, also called anti-convulsants.

They are also occasionally prescribed for neuropathic pain - again inappropriate for my condition, unless I have suffered neuropathic pain without my knowledge.

I checked this out and it was confirmed that I have not suffered from neuropathic pain, so the question remains: why on earth would I be prescribed such dangerous and ineffectual medications?

They work by slowing down impulses in the brain that cause seizures. What that has to do with chronic pain baffles me somewhat!

I refused to take any more when the time came to repeat the prescriptions (which I was given at separate times, not concurrently), because they had absolutely no positive effect on my pain experience.

However, when combined with depressants, which I have been prescribed, they can also cause drowsiness, sedation, respiratory failure and even death.

The first time I took them it nearly resulted in death; not just mine but others too! I was driving up the A1 when I suddenly became overwhelmingly tired and actually struggled to keep my eyes open. I pulled over immediately and promptly fell asleep. When I woke, I still felt very tired but my pain was as bad as ever.

Now it transpires that both these drugs are likely to become controlled drugs (Class C), as there are a growing number of deaths attributed to them - in 2014, pregabalin caused 38 deaths and gabapentin 26. This is likely to rise further as prescriptions for pregabalin and gabapentin have risen by 350% and 150% in the past five years alone.

Amitriptyline

This is a tricyclic antidepressant. Amitriptyline affects chemicals in the brain that may be unbalanced in people with depression. It should never be used by people who have had a heart attack - so I assume if someone suffers from a heart condition (like Atrial Fibrillation) that could

cause both heart attack and stroke, they should never be prescribed this drug.

I have never been depressed! Until perhaps I read what this drug was for. Why on earth would someone in pain be prescribed an anti-depressant?

Prednisolone

I have been prescribed with this drug on many occasions to deal with severe pain caused by inflammation in joints and it has provided pain relief within hours, of that there is no doubt.

It's used to treat many different conditions such as allergic disorders, skin conditions, ulcerative colitis, arthritis, lupus, psoriasis, or breathing disorders.

It also prevents the release of substances in the body that cause inflammation. It additionally suppresses the immune system, which is not good news for someone with an autoimmune disease! And cataracts form quicker for people on this drug. I have already had two operations!

It also has cosmetic side effects: your face can take on a moon-shape which is embarrassing. As a man, what is even more embarrassing is that it increases the size of your breasts, which do not reduce in size after you have stopped taking the drug.

It can also cause osteoporosis (brittle bone disease) which can be very serious indeed for older people.

Illnesses such as measles or chicken pox (shingles in older people) can actually be fatal if you are on a course of steroids regularly.

But the real biggie for me was being told I was diabetic by a specialist practice nurse a couple of years ago. I was quite shocked to get yet another disease on my roster and was very cross into the bargain when I found out why.

People on steroids for longer periods or repeat periods are very susceptible to developing steroid induced diabetes! And as an added bonus, people prescribed with steroids on a regular basis also develop cataracts (which I had to have sorted to restore full sight).

To this day, no one, including my GP, practice nurses or hospital staff has ever told me of these dangers or alternatively have admitted this is the case, even when prompted.

The only slight admission by hospital staff which gave me small comfort is that they told me that my glucose readings would be high due to being on steroids.

So, with this particular drug working its magic, I was now suffering with a quadruple whammy - Crohn's Disease (the original problem), Atrial Fibrillation (caused by ingesting Naproxen over 22 years) and now borderline Type-2 Diabetes (induced by regular steroidal use).

The reality is that high blood glucose levels whilst taking steroids may subside after you stop taking steroids, however, some people may develop type 2 diabetes which will need to be managed for life.

Type 2 diabetes is more likely to develop following longer term usage of steroids, such as usage of oral corticosteroids for longer than 3 months.

Thanks for telling me before I was prescribed it!

I am still waiting to see if I am to be blighted for the rest of my life with Type-2 Diabetes or not!

Tramadol

This is a particularly nasty drug that I took for less than a month as it had no effect on my pain levels but side effects were dramatic: constipation, drowsiness, stomach pain and sweating.

When they prescribe this, clinicians never elucidate on the real dangers taking it can present. Whether the medical profession like it or not, it's not uncommon for people prescribed with this drug to take an extra tablet to try and help reduce pain quicker. This in itself can be fatal.

One poor woman that I read about recently, who had been prescribed this drug for over a year to help with back pain and leg ulcer pain, was very unlucky.

Her daily dose was 8 x 50mg tablets. One day, as she was sorting out her weekly drugs in her dispenser, she got

interrupted by an unexpected visitor and accidentally took just two extra tablets in a 24-hour period. Within 20 minutes of the extra dose, she was dead.

Tragically, her death is by no means an isolated case and highlights the dangers associated with a drug still regarded as the "safer" option... when it is anything but!

More recently, a leading pathologist warned that Tramadol is killing more people than heroin and cocaine... and instead of being classed as a Class C drug — deemed among the least harmful — it should be reclassified as a Class A drug.

Professor Jack Crane, state pathologist for Northern Ireland, said: *"I don't think that people realise how potentially risky taking Tramadol is. I think it's because it's a prescription drug – people assume it is safe".*

Butrans patches

Butrans skin patches contain buprenorphine, an opioid pain medication. An opioid is sometimes called a narcotic.

The Butrans skin patch is for around-the-clock treatment of moderate to severe chronic pain that is not controlled by other medicines.

But the effect on me was marginal as far as pain control was concerned, due to some extent by the fact that a lot of my pain is inflammation related rather than just pain for the sake of it.

The negative effect that Butrans had on me was to make me very sleepy indeed - to the extent that I kept falling asleep at my desk. And once, I feel asleep whilst driving, when I couldn't fathom out why - then I realised it had to be down to the Butrans.

It is now an offence to drive whilst being prescribed this and many other drugs, as well as many other painkillers. Again, clinicians or pharmacists never mention this when prescribing.

This medication also caused me seriously dry mouth problems, constipation, hot flushes and shortness of breath as well as a modicum of confusion and insomnia. Not worth the scant benefits it provided!

Furosemide

This is a diuretic, which I was prescribed twice a day. It almost renders it impossible to control your bladder.

It also caused me to have a very hoarse throat and voice, clay-coloured stools but probably the worst direct-effect for me was the no-warning need for the loo!

The worst side-effect was the joint pain which got worse the longer I was on them - which meant more painkillers were needed and well, you know the rest!

Ranitidine

I was given this to protect the stomach and intestinal linings from ulceration (due to Crohn's Disease) but it seemed to make matters worse, until my GP took me off it because I was suffering dizziness, insomnia, swollen breasts, nausea and stomach pain!

I believe it also caused constipation for which I was given yet another drug.

Propanalol, Atenolol, Digoxin, Flecainide and Verapamil

These drugs, which in varying degrees are prescribed to try and address the problems I suffered due to atrial fibrillation *all* caused a few other significant problems, including erectile dysfunction, which of course was a most worrying and embarrassing scenario for a man to be forced to ask for help on.

The other adverse effects that I suffered were apparently quite common: agitation, breathing problems, sweating. I do remember the hospital being particularly anxious to get me off Digoxin but I never did find out why.

In fact, to illustrate the level of adverse side-effects of these drugs, this is what the notes says about "Less serious side effects of Flecainide may include":

- dizziness;
- tremor or shaking;
- headache;
- anxiety or depression;

- vision problems;
- nausea, vomiting, stomach pain;
- diarrhoea, constipation; or.
- numbness or tingling.

Mysteriously, none of the medical professionals I spoke with over the months about erectile dysfunction (one who was consulted with privately for big bucks) even suggested that my problem could be linked to a prescription medication. That in my view is a dereliction of duty and a failure of their duty of care to me as a patient.

Cholestyramine

I was told this drug (an oral suspension) was used to help control cholesterol levels, but that it would help with my Crohn's condition, as it would provide a film of lining to protect my stomach walls. It caused me several adverse-effects such as constipation, stomach pain (almost on a daily basis at times), itchy skin, sore tongue,

muscle and joint pain (which negated the effects of other drugs) and ringing in my ears!

Apparently Cholestyramine powder is also used to treat itching caused by a blockage in the bile ducts of the gallbladder, the problem I have only recently discovered.

You should not take this medication if you are allergic to cholestyramine, or if you have a blockage in your stomach or intestine.

As I have had acute problems with the common bile duct being blocked and have also had a thickening of the duodenum and small intestine, I should never have been put on this medication.

In my case, as I have been on a high does of Warfarin for a long time, whilst awaiting a second cardiac ablation, Cholestyramine puts me in more danger: When these two medicines are taken together, cholesterol medicine may cause the body to not absorb the anticoagulant.

The effects of the blood-thinner may decrease so I could be at risk of developing blood clots. How reassuring!

Methotrexate

This is a DMARD medication which is part of the Disease Modifying Anti-Rheumatic Drug family. It can be administered either orally or via subcutaneous injection.

I had resisted taking this or any other DMARD or Anti-TNF medication for several years due to the horrendous side-effects and contraindications I had read about all over the place. But, it had got to the stage where my rheumatic pain (mainly Reactive Arthritis) was unbearable, causing my lifestyle to be hampered dramatically, unless I continued taking corticosteroids, which by now were causing me all sorts of problems going forward.

A friend of mine who is a retired GP was prescribed the oral version which is taken once per week and every time he took it, he spent most of the day feeling very nauseous and generally unwell, such is the potency.

Armed with this knowledge alongside knowing how fragile my gut ecosystem was, I requested to be given the

drug subcutaneously, in order to avoid the problems my friend suffered as this method would enable me to have the drug by-passing the stomach and hopefully avoiding the trauma he had suffered.

I started the weekly course of injections by visiting the rheumatology department where they taught me how to administer the drug myself, injecting it into my thigh on alternative legs each week. So, I thought it would be bearable apart from the weekly blood test that is necessary (I thought I had got rid of the weekly jab that was part of the Warfarin routine - but no!)

It seemed to be going fine for a few weeks, then I started to notice things - but sadly, pain relief wasn't one of those things!

I like the occasional glass of wine with lunch on a Sunday but that is no longer possible. In fact, even cooking that has wine or any other alcohol in it are big no-no's! The slightest drop of alcohol renders me very poorly indeed and when I spoke with my Crohn's consultant to ask what could be causing the problem, without hesitation, he said Methotrexate. Therefore, as long as I am on the

drug, I am teetotal. Not a perfect situation socially, but far better than the alternative.

As for side-effects, I have been relatively lucky apparently, but I regularly get mouth ulcers and gum infections which require antibiotics to resolve - yet more pills! And to boot, I have also been put on Folic Acid tablets 3 times per week (they started on once a week but changed the dose due to it not being sufficient to stave off certain side-effects). In total then, I am now taking two extra lots of prescription medication to counter the effects of the main one I am given!

The desired benefit of methotrexate is pain relief but after nine weeks of injections, I have not yet enjoyed any reduction in discomfort and have also been put back on steroids to help bolster the effect. Not at all encouraging.

I have also become much more prone to bruising and occasional bouts of shortness of breath, all par for the course apparently. Finally, I keep being reminded to avoid people with infections - but I always ask: How do I know they have one?

My thoughts on over-medication and under-treatment

Here in the UK we have an existential crisis in the NHS as it is severely under-funded, managed by people who don't have a clue and perhaps more significantly do not possess the clinical background necessary to question the piratical methodologies used by pharmaceutical companies.

Yet we still send more in overseas aid to developed countries than anyone else other than the USA.

I am just one amongst millions who are over-medicated and under-treated and it is not only very worrying that lives can be blighted so casually, but even more concerning that the very platform on which we rely, the fiscal security of the NHS of the future, is gradually being eroded by the sharp practices of pharmaceutical companies of all shapes and sizes.

For instance, the NHS spend on just one steroidal medication increased from just over £500,000 in 2014 to over £70,000,000 in 2015.

In fact, between 2008 and 2015, one such drug, hydrocortisone, increased in price to the NHS by over 12,500%.

That's an increase from 70p per packet to £88 per packet, with absolutely no justification whatsoever, no development costs and no increased overheads.

They were able to get away with it due to a combination of circumnavigating profit capping rules by simply dropping the existing brand name!

But even more sinister, they were able to get away with it because the very people who are supposed to be the guardians of the public's interest, the Department of Health quango, laughingly named the NHS Business Service Authority, blandly accept these outrageous increases with little or no resistance at all.

They may occasionally ask if prices are correct but never ask for justification or explanation.

This makes me wonder if these people are patently incapable of doing the job they are paid for, or alternatively there is some financial incentive to encourage them, alongside other prescribing members of

the NHS community, to promote medications that generate enormous amounts of cash for distribution to who knows where.

This is not an isolated incidence either. It happens all the time and yet nothing is done to stem the flow of price hikes that affect us all eventually, because of NHS staff shortages and facility shortfalls.

How many new nurses could be engaged with £70,000,000 - and remember, this amount is the extra paid for just one single drug!

There are over 1,500 drugs regularly prescribed in the UK each year from a tariff of over 24,000 products.

When you consider that over half of all adults take prescription drugs in the UK (*Source: NHS.UK Health News*) it begins to crystallise thinking on how the NHS financial crisis could be resolved.

Even more troubling is that all this information is freely available with no attempt to cover the scandal up in any way.

Official figures quoted in the PCA (Prescription Cost Analysis) show that in 2015 alone, in England, over £9.27 billion of costs were incurred in writing up prescription drugs, which was a 4.68% increase over the 2014 figure - but, these percentages will be blown out of

the water when the full extent of the profiteering of drug companies is evaluated and included in future statistics.

Think about this for a moment. If drug companies are allowed to take the same profiteering approach across the board on the top 20 prescription drugs alone, the overall cost of the NHS purchasing and subsequently prescribing these could increase from £9.27 billion to in excess of £1.1 trillion.

Can anyone in government possibly justify the lack of business acumen employed in the NHS Business Service Authority? I think not.

The top 20 prescription drugs in 2015 were:

- Simvastatin
- Omeprazole
- Levothyroxine Sodium
- Aspirin
- Atorvastatin
- Ramipril
- Amlodipine
- Lansoprazole
- Paracetamol

- Salbutamol
- Colecalciferol
- Metformin Hydrochloride
- Bisoprolol Fumarate
- Co-Codamol (Codeine Phos/Paracetamol)
- Citalopram Hydrobromide
- Bendroflumethiazide
- Furosemide
- Amitriptyline Hydrochloride
- Amoxicillin
- Warfarin Sodium

The impact of these prescription cost increases cannot be realistically estimated by someone like me, but surely it needs looking at urgently, because it not only prevents the NHS from employing more specialist clinical staff (as opposed to the lame ducks they laughingly call 'NHS Managers') right through the chain of command from the NHS Business Service Authority down to the lowly Ward Managers in every NHS hospital, but it also forces bodies like NICE (National Institute for Clinical

Evidence) to make ludicrous decisions where HIV drugs are freely available to people who choose a particularly hazardous sexual lifestyle (which of course is not their fault, as they cannot be blamed for their sexuality), when conversely, people suffering from cancer are denied life-saving and life-extending drug treatments because the NHS cannot afford them.

When are the powers-that-be going to get a grip and take on the pharmaceutical rip-off merchants?

Chronic Pain in the UK: what I've found out over the years

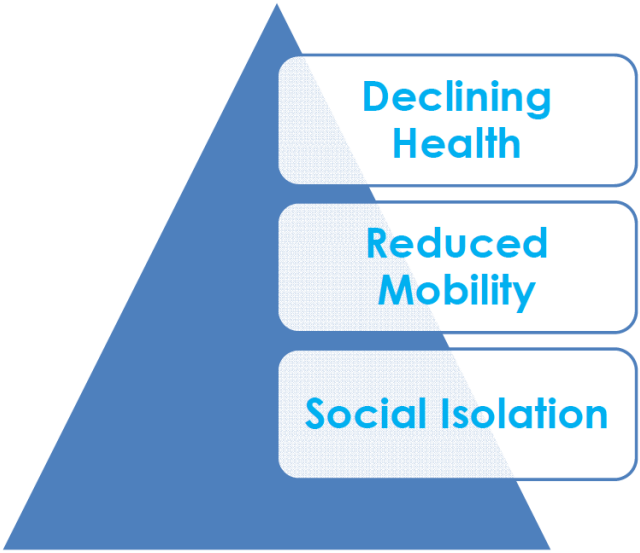
I've looked around quite a lot over the past few years to find out what statistics are available regarding the incidence of chronic pain in the UK.

In fact, it is quite easy for anyone to do so. I think it is our consumer right to know the facts so that we can draw our own conclusions about an area that affects so many of us.

Here's what I found:

The change in demographics to an ageing population, the move to care in the community, government emphasis on self-help and the increasing control on health care spending are all driving the need for an effective consumer pain management solution.

- One-third of UK households are affected by chronic pain.
- 15 working days per capita lost each year
- No effective NHS treatment network is in place
- 64% of sufferers feel over-medicated and under-treated
- 29% of prescription drug users seek alternatives
- 25% complain they never hear of alternatives
- Women (49%) and men (51%) are equally liable to suffer from chronic pain.
- Average age of chronic pain sufferers is 49.
- On average, sufferers have lived with chronic pain for 5.9 years.
- A fifth of all sufferers have lived with pain for more than 20 years.
- Two thirds of sufferers report experiencing chronic pain all the time (70%).



- For the elderly, poor pain control leads to the triple jeopardy of declining health and mobility, and increased social isolation.
- The most frequent cause of chronic pain is arthritis/ osteoarthritis (40%). The most common location is the lower back.

Source: Pain in Europe Survey, Mundipharma

Chronic Pain

Pain relief has now been recognised as a fundamental human right, yet the results of many studies reveal that

patients across the world still experience unacceptable levels of chronic pain, despite a wide range of treatments with the potential to relieve them.

Chronic pain disables more people than cancer or heart disease and brings with it the burden of depression, anxiety, frustration, fatigue, isolation and lowered self-esteem.

Pain makes it hard to work, hard to play, hard to get support from others and hard to live a happy life. Chronic pain shatters productive lives.

Source: NCPOA (National Chronic Pain Outreach Association)

Chronic Pain is Insidious. Over 50% of chronic pain sufferers:

- Feel tired all the time
- Feel helpless
- Feel older than they really are
- Do not remember what it feels like not to be in pain

- Confirm that their lives are destroyed by being a sufferer

- One in five say the pain is sometimes so bad they want to die

Chronic pain has an undoubted impact on the daily lives of sufferers, impacting on daily activities such as lifting, exercising, sleeping and working outside.

Over one third (35%) feel that their pain impacts employment. 15 working days a year are lost to pain (estimate on 6 month data).

One in four sufferers reports losing a job (25%) or have been diagnosed with depression as a result of their pain (24%).

Source: Pain in Europe survey, Mundipharma

Patients see different clinicians about their problems, but rarely pain specialists. Consultations occurred most frequently with GPs, Orthopaedic surgeons and to a lesser degree Rheumatologists and Neurologists are also seen. Only 2% report seeing an actual pain specialist.

Some patients worry about their doctor's willingness and commitment to treating their pain. A sizeable proportion (39%) of chronic pain sufferers believe that their physicians are more focused on their illness than their pain.

In making a diagnosis or deciding on treatment, few clinicians use pain rating scales. Most discussions are patient initiated.

Two thirds of sufferers are always willing to try new treatments, but almost as many are worried about potential side effects of pain medication.

Pain sufferers are proactive with 80% of chronic pain sufferers treating their pain in some way, mainly via prescription medications.

Weak opioids (50%) are most used class of pain medication. Other commonly prescribed drugs are paracetamol (38%), and NSAIDs (23%). Mean number of pills taken everyday is 5.7. I have been prescribed up to 38 pills a day during my battle with Crohn's for instance.

The majority (68%) of pain sufferers feel their treatment is inadequate at times and chronic pain sufferers report that there is considerable room for improvement in the effectiveness of pain treatments.

Nearly a third of all chronic pain sufferers feel they never hear about new methods of treating pain. The majority rely on newspapers, TV and magazines and 8% currently surf the internet for new options.

Source: Pain in Europe survey, Mundipharma

Chronic pain serves no purpose in the aggregation of medical conditions. It is a persistent state of pain whereby the cause of the pain cannot be removed or relieved on a long-term basis by standard medical management.

Chronic pain may result from a previous injury long since healed. Or it may have an ongoing cause, such as arthritis, cancer, nerve damage, or chronic infection. With chronic pain, normal lifestyles can be restricted or even impossible.

In older sufferers, as I've mentioned earlier, poor pain control leads to the triple jeopardy of declining health, reduced mobility and increasing social isolation. Sufferers of chronic pain actively seek alternatives to long-term drug dependency and the side effects these drugs cause.

Many millions of pounds are spent by the public each year on many different items such as copper bracelets, wrist straps with embedded static magnets and even magnetic jewellery as well as other placebo products that purport to have some clinical efficacy that are marketed in a more sophisticated fashion but deliver the same benefits – none.

Estimates of people experiencing chronic pain in the UK range from 12.5% of the population (8.5m) to 38% of adults (17.5m). Chronic pain strikes 19% (117m) of adults across Europe and 44m in the USA.

Sources: *Pain in Europe, Mundipharma; YouGov/Health Direct; USA Today; ABC News; Stanford University Medical Centre*

The most frequent cause of pain is arthritis/ osteoarthritis.

On average, Europeans victims have been suffering for an average of 7 years, some for over 20 years (21%).

Despite three-quarters of major hospitals operating a chronic pain-management service there are disparities in the quality of provision and only 2% of chronic pain sufferers seeing a pain specialist.

However, two thirds of sufferers are always willing to try new treatments but almost as many feel they do not adequately find out about them.

Repetitive Strain Injury (RSI) linked Chronic pain costs the European and US economies over £300 billion per year.

• It is estimated that 4.7 million working days (full-day equivalent) were lost in 2003/04 through musculoskeletal disorders mainly affecting the upper limbs or neck that were caused or made worse by work

• On average, each person suffering took an estimated 18.3 days off in that 12 month period

• Musculoskeletal disorders (MSDs) are the most common occupational illness in Great Britain

• RSI affects 1.0 million people a year in the UK

• Problems include low back pain, joint injuries and repetitive strain injuries of various sorts

• The most up to date figures I could glean from 1995/96 show that MSDs cost society £5.7 billion - even before the dramatic rise of computer use in the home, school and office

Repetitive strain injury, upper limb disorders and musculoskeletal disorders cost the corporate market over £145bn per year.

• Ageing population growing dramatically and wanting to remain active;

• Government emphasis on self-help;

• Non-drug treatments becoming mainstream with NHS, GP and media support;

• Health scares with oral medicines;

• Increasing control on healthcare spending.

Wound Management is a complex and varied area covering trauma wounds, post-operative wounds, ulcers, diabetic lesions and ulcers and other conditions such as carbuncles and boils or infected bites. This area also includes burns and scalds, radiotherapy treatment reactions, pressure sores and various allergic reactions.

Diabetes mellitus affects an estimated 900,000 individuals or 1-1.5% of the population of the United Kingdom and the disease can lead to pathological changes resulting in ulceration or necrosis of the lower limb which, in severe cases, result in amputation.

The socio-economic importance of foot disease is significant, for it is estimated that about 3% of all diabetics (about 27,000) have open ulcers directly associated with their condition.

In 1987, statistics showed that 4% of all hospital beds in the UK were occupied by patients with diabetes, up to 28% of who were hospitalised specifically for foot

complications. Statistics show a tremendous need for wound care treatment.

Each year, approximately five million Americans will suffer from chronic wounds caused by diabetes, circulatory problems and many other conditions.

Compelling Statistics include:

• 1.5 million people who will suffer from chronic wounds have diabetic ulcers

• 2.5 million people have pressure ulcers

• 1 million people have venous stasis (circulatory) ulcers

• 15 percent of all diabetics will develop chronic wounds

• Patients with diabetes have a 15-fold increase in the risk of amputation and approximately 60,000 diabetics will undergo amputation each year

The Pain Triangle

Pain affects us in three different areas and the simplest way I can find of explaining it as I see it, is to split the phenomenon into the following categories.

Physical Issues:

Pain that is caused by any conditions involving Nerve, Muscle, Bone, Joint, and Tissue conditions are generally treated with a cocktail of drugs, all of which give the body more challenges by way of debilitating side effects and in many cases, unpleasant contraindications.

Biochemical Issues:

The body's general chemical consistency changes when any part of the physical system is affected by inflammation and pain. This does not mean just trauma or injury – the onset of chronic pain can result through

metabolic issues including being overweight (which accelerates conditions such as osteoarthritis), and even unsatisfactory diet which can rapidly lead to malnutrition.

It is a general misconception that malnutrition refers to people starving but in reality a large proportion of sufferers are actually overweight! Nutrition is the basis of good care....

Psychological Issues:

Poor Chronic pain control leads to altered states of mind which affects the rational thinking vital to chronic pain management.

This loss of mental acuity can result in deep-rooted depression, anxiety and stress, which alone can have very debilitating and long term affects on lifestyle and increased social isolation.

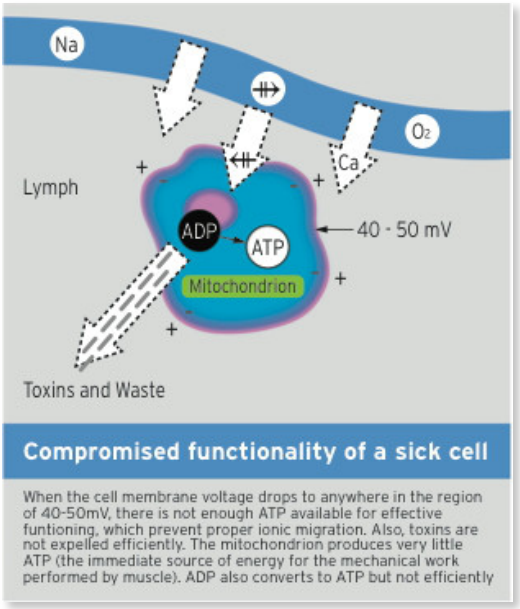
Understanding Pain

Over the years, I've tried to explain to various clinicians what my pain feels like, as I am sure many thousands have before me. The simple reality is that unless you have actually experienced chronic pain, you can never truly understand what it is like. It really isn't as simple as telling someone your pain on a scale of 1 to 10 - it is the mental and social anguish it can cause that can sometimes be as devastating as the pain itself.

My personal research since 1989 has given me the understanding that pain that we experience is the result of a series of interactions that happen in the nervous system. Peripheral nerves (nociceptors) relay pain messages to the spinal cord where they release neurotransmitters that process and send pain signals to the brain.

The human body relies on a healthy cell network to avoid poor circulation, declining performance, premature ageing and degenerative diseases.

This is what the activity of a 'sick cell' looks like:



ATP stands for Adenosine Triphosphate. It is made up of an adenosine molecule and three inorganic phosphates, or a triphosphate. When one of these phosphates is removed, the energy that keeps human beings alive is produced. Therefore it is a crucial reaction in order to sustain life.

When one of the three phosphates are removed the resulting compound is called ADP, Adenosine Diphosphate.

ADP can be converted back into ATP so that it can be used again. Energy is required to do this, but there is an overall gain in energy when the process occurs.

ATP is constantly being used by the body, so it needs to be replaced on a regular basis. This is done with glucose. So, when something is eaten and goes into the digestive system, the glucose creates ATP which can be used by the body.

The other way that ATP is created is through respiration.

What is chronic pain?

Chronic pain is defined as any pain which lasts for more than three months after an injury would be expected to heal.

It's also often part of a continuing medical condition such as a back injury, arthritis, cancer or diseases affecting nerve tissue itself.

If controlled successfully, chronic pain may not interfere with daily life.

But uncontrolled, it can restrict the ability to work, along with everyday activities like shopping and housework.

Dr George Harrison, consultant pain specialist at Selly Oak Hospital, Birmingham, once said: '*Severe uncontrolled pain doesn't kill you, but it can destroy you totally - your marriage, your job, your family, the whole fabric of your life.*'

I would suggest that without the support of understanding family and friends this is a very real possibility.

In a recent survey, a fifth of people surveyed in the UK with chronic pain said they've wanted to die rather than carry on enduring pain. And the Pain in Europe[18] survey, found that 45 per cent of people in the UK with chronic pain said they couldn't engage in sexual activity.

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[18] NFO WorldGroup carried out the survey which was sponsored by Mundipharma International Ltd.

Not all pain can be traced to an injury, disease or damage within the nervous system.

This idiopathic[19] pain is complex and more difficult to resolve, particularly in the case of back pain where there are no physical signs of injury. And it can leave people who claim sickness benefit vulnerable to false accusations of malingering, or of being psychologically flawed.

What is chronic back pain?

Chronic back pain is defined as pain in the back region that lasts from more than three months.

It is also the most common ailment among inhabitants of the UK, as some 60-80 percent of residents say that they experience significant chronic back pain[20].

As chronic back pain can be indicative of extremely serious medical conditions – including cancer, it is best to investigate the cause right away.

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[19] Medically unexplained

[20] National Pain Audit, UK

Acute or chronic back pain?

Chronic back pain is often attributed to degenerative disorders or traumatic conditions of the spine. Additionally, it is also associated with various ailments, including fibrositis, inflammatory spondyloarthropathy, and metabolic bone conditions.

It can also strike anyone at any age, race or social station; however, the affliction appears to most often strike people between the ages of 45-59. There are three levels of back pain, namely chronic, sub acute and acute back pain. Acute back pain is when the pain only last for about six weeks, sub acute back pain lasts for about 6-12 weeks and chronic back pain lasts for 12 weeks and beyond.

What causes chronic back pain?

While there is no one underlying cause for chronic back pain, research indicates that there are various risk factors for the development of chronic back pain.

Some of these risk factors include cigarette smoking, twisting in awkward positions due to a repetitive job or

sport, forwards bending, constant, strenuous physical activity, morbid obesity and exposure to intense vibrations causes by motorised vehicles or industrial machines.

Another cause is chronic nerve root back pain, which occurs in less than 5% of all cases. This type of chronic back pain is generally caused by a slipped disc, which compressed the nerve as it leaves the spinal cord.

More serious chronic back pain

In an even smaller amount of cases, chronic back pain can be caused by severe, in some cases, potentially deadly conditions, like tuberculosis or cancer. An abnormality of the spine or an infection can also be a serious underlying cause of chronic back pain.

How I reclaimed my life in spite of chronic pain

It is all very well expecting the medical profession to come up with the solutions to help you, but it is even more important that the individual does whatever they can to help themselves. I know this is what the Government has tried to encourage for several years now, but their lack of overall empathy with pain sufferers falls well short of what is required.

For most of the 1980s I had lived a very stressful and draining lifestyle. My job entailed an awful lot of air travel and when I was in the UK, I spent endless hours on trains or motorways. I also spent an enormous amount of time in restaurants and pubs, which I knew would have a negative effect on me sooner rather than later.

When I started suffering symptoms that I couldn't logically explain, instead of going to the GP, I assumed it was because of stress or excess. I had no idea how seriously this blasé approach would damage me.

For several months, I suffered from what I thought was post-rectal bleeding every time I evacuated my bowels. The bowl was full of blood, but because it wasn't black, which would have been an indicator of cancer or something equally sinister, I chose to believe it was caused by stress and excess too. How wrong I was.

It wasn't until I was playing in a golf tournament one day and my friend Mark Perkins observed that the back of my trousers were soaked in blood, from the waistband almost down as low as the backs of my knees, that I panicked (at last) and rang the surgery from the golf course.

What followed was almost 18 months of tests, followed by more tests. During this period, the problem persisted but was now accompanied by crippling abdominal pain, sweats and fevers, which were almost always accompanied by an overwhelming 'fluey' feeling, all of

which completely poleaxed me on a regular basis. I was convinced that I had contracted cancer at this stage.

As part of the investigations I was unexpectedly booked in for a haemorrhoidectomy as although they were not entirely sure that was the problem, it did appear to be the most likely culprit.

Whilst in the hospital, I clearly remember being interviewed by a couple of junior doctors as I lied in bed after the operation, when they asked me questions like "Had I spent any prolonged periods in African or other third world countries?", "Did I have any sexual proclivities that might have exposed me to problems?"

It took me a few minutes to realise that what they were actually asking me was whether I had engaged in sexual activity in third world countries, or alternatively was I homosexual - neither of which was appropriate or true. My reaction to the two young clinicians was not pleasant.

Once I had recovered from the operation I was almost immediately booked in for further tests including both a sigmoidoscopy and a colonoscopy. The difference

between colonoscopy and sigmoidoscopy is related to which parts of the colon each can examine. Sigmoidoscopy allows doctors to view only the lower part of the colon, while colonoscopy allows doctors to view both the upper and lower sections.

It was during the second colonoscopy I was subjected to during the previous year, that Dr Andy Thompson discovered that I had Crohn's Disease, the worst affected part being in the terminal ileum (where the small intestine meets the large intestine). Within a week of this diagnosis I was back in for a major operation - a right-hemicolectomy, where a section of my bowel was removed in the hope that it would rid me of Crohn's. Sadly it returned within 6 weeks with a vengeance.

At various times since 1989, I've really struggled to carry on a normal lifestyle, due to the unrelenting pain either in the abdomen or the joint system. In both cases, the attacks can happen totally unexpectedly. But it is always worth taking a step back to explore what the cause of the pain is - it might not necessarily be because of your 'disease', but could just as likely be due to a lifestyle

factor or even emotionally draining episode, such as an event causing stress.

That is why I try to avoid stress at all costs. There is a lot of evidence to suggest that pain can be caused by emotional trauma, through stimulation of molecules called microglia in the central nervous system.

These microglia cells are located throughout the brain and spinal cord and release inflammatory chemicals during stress, as the first and main form of immune defence, which in turn sends a message to the hypothalamus in the brain, which then after a complex but speedy process produces cortisol, the stress hormone. This hormone protects your body to a certain degree, but only if there is not a surfeit of it.

In the case of someone suffering an autoimmune disease or being placed in repeated stress situations, the presence of too much cortisol can cause: severe fatigue, muscle weakness, depression, anxiety and irritability, loss of emotional control, cognitive difficulties, new or worsened high blood pressure, headaches and even bone loss, leading to fractures over time.

So, whenever possible, avoid any sort of stress!

In almost all instances of abdominal or musculoskeletal pain attacks, I have tried to 'battle on' regardless in the forlorn hope that if I ignored the pain it would eventually 'give up' and subside.

In almost every instance of abdominal pain, that approach proved totally fruitless, much to my chagrin and regret. There are simply some things that will not respond to the 'mind over matter' concept.

It is a slightly different scenario with the musculoskeletal part of the problem though. In times past, anyone with a bad back was told to lie motionless on a plank of wood or similar until the pain abated.

That of course was complete rubbish and I tried it a few times many years ago before deciding to try and attack the pain rather than have it cripple me.

I have found that moving around as best as one can will definitely prevent the pain from becoming totally overwhelming if the issue is simple joint pain or muscle spasm.

If on the other hand either abdominal or musculoskeletal pain is due to inflammation or infection, then it is a different matter entirely and will require the intervention of antibiotics to fight the infection and paracetamol to reduce the temperature.

This is really the only example where I would reluctantly suggest prescription medications!

In the incidence of stomach and intestinal problems, caused by Crohn's Disease and other related conditions, the pain can definitely be triggered by a food intolerance, so over the years I have gradually built up a list of no-go foods, with some very surprising suspects.

It is worth taking a detailed look at your diet so that you can identify your pain triggers.

Let me start by asking if you've got a 'sweet tooth'? Most people do and researchers say that a sweet taste is the most satisfying to most people. That of course means they are consuming vast amounts of sugar. But what people do not realise is that the sugar in all those lovely treats causes pain. That's right, sugar causes pain.

In 1999, researchers found a solid link between sugar consumption and inflammation. Spikes in blood sugar levels promote inflammation and inflammation leads to chronic pain!

When you eat a bar of chocolate, the sugar is rapidly absorbed and causes a spike in your blood sugar level. Frequent spikes in blood sugar levels leads to wide-spread damage because sugar attacks tissues, cells, and compounds necessary for life itself. For those with diabetes (a disease that causes an extreme form of elevated blood sugar levels), the wide-spread damage that sugar leaves in its wake is critical. For example, diabetic peripheral neuropathy is just one kind of painful condition caused by elevated blood sugar levels. However, diabetes sufferers are not the only ones who should worry about sugar!

Even if you do not have diabetes, you should still be very concerned by the devastating effects that sugar has on your body. Spikes in blood sugar levels promote inflammation and inflammation leads to chronic pain. This pro-inflammatory state causes many people to rely

on anti-inflammatory medications like naproxen, ibuprofen, diclofenac and more to control pain.

These medications would not be necessary if the body was naturally able to regulate inflammation. A normal, healthy body can naturally control inflammation; but, this in-built regulatory system does not work well when being attacked by the effects of sugar.

So, with extreme reluctance, because I love whippy ice cream, whole nut chocolate bars, popcorn and toffees, I've had to admit that every time I succumb and enjoy a guilty feast, the suffering afterwards is most definitely not worth the pleasure rush. Avoid sugar whenever you can!

To give you an example of what other dietary policing I have undertaken to improve my life, due to the food intolerance Crohn's Disease causes (which applies to many other conditions too I am convinced), here is a short list of foods (in random order as I remembered them!) that have caused me serious problems which disappeared almost totally once I had stopped ingesting them:

- Garden peas
- Cabbage (small amounts are OK)
- Leeks
- Spinach (small amounts are OK)
- Chinese food (due to the presence of MSG - monosodium glutamates)
- Garlic (if taken for more than one day on the trot)
- Cherry tomatoes
- Snowballs (soft marshmallow covered in thin dark chocolate and desiccated coconut)
- White bread
- Nuts and Raisins
- Wholegrain bread
- Hot Dogs
- Flavoured potato crisps (the only ones that do not affect me are plain Kettle Crisps)

- Full fat milk (full of lactose)
- Refined sugars (which causes Reactive Arthritis to flare up spasmodically)
- Golden Syrup
- Full milk chocolate (such as Galaxy™ or white chocolate)
- Fresh cream (substitute this with Marscapone cheese if you fancy a treat)
- Avoid high-fibre food intake more than twice a week (this includes things such as pulses, oats, baked beans and so on)
- Carbonated drinks such as Coca Cola®
- Cakes such as sponges of all sorts
- McDonalds® fast-food
- Fish & Chips (from traditional fish and chip shops)
- Any sort of Pukka® Pie (again from fish and chip shops in the main)

- Mushy peas
- Hummous
- Chickpeas
- Chinese restaurant and takeaway soups

As Crohn's causes problems with the gall bladder which comes into play every time you eat fatty or fried food in particular, it is wise not to treat yourself to a full-English breakfast more than once a week; neither should you indulge a love of cheese or lashings of butter to avoid serious pain afterwards. This same advice should also apply to any Irritable Bowel Disease sufferers in my view.

I only drink lactose-free milk (and then in only small amounts in tea or on cereal - never on its own) and the best brand of all that I have tried is Arla LactoFree™, which can be purchased in all major UK supermarkets these days with the exception of Lidl® and Aldi® at present - I cannot stress the benefits of using this product strongly enough. Within 3 days of first using it, my stomach problems began to improve dramatically.

Having said all this, it isn't just Crohn's sufferers who can benefit from dietary management!

For starters, supplement your diet with an omega-3 krill oil (Antarctic Krill Oil is one of the best, which you can find at http://tinyurl.com/zvp069m).

Omega-3 fats are inflammation mediators (which are called prostaglandins). The EPA and DHA omega-3 fats in Antarctic Krill Oil have been shown in clinical studies to have anti-inflammatory properties, which are obviously useful in supporting pain relief.

You could also do yourself many favours by reducing your intake of sugar and grains in your food. Also try to find out more about the dangers of fructose as many people think that glucose and fructose are ingredients of sugar that are one and the same. They are not!

Glucose is in sugar of course, but is also present in starchy food like potatoes; in fact, our bodies produce it naturally as it is effectively vital to life. Fructose, on the other hand, is not. Our bodies do not produce fructose.

Therefore, glucose and fructose are dealt with by the body in totally different ways.

Whilst all body cells can employ glucose, the liver is the *only* organ that can metabolise fructose. So, people with a diet high in calories and fructose, overload their liver, which because it is overloaded, starts turning fructose into fat, which is very hard to reverse.

It's a commonly held belief in clinical circles that fructose may be a key precursor of the most serious diseases of today. These include obesity, Type-2 Diabetes, heart disease and even many forms of cancer.

There are substances in grains that can cause or increase intestinal permeability, known in some circles as 'leaky gut syndrome'. This condition facilitates things like undigested foods, bad bacteria and other toxins to 'leak' into your bloodstream.

This manifests as abdominal cramping, a feeling of being bloated all the time and very bad wind in the lower part of the intestinal tract.

All these things combine to a greater or lesser extent to result in inflammation or chronic pain.

These simple changes in my diet improved my overall feeling of wellbeing noticeably and I will never go back to my former diet, that's for sure!

In spite of assurances from some clinicians, it is *not* always OK to have an alcoholic drink of any kind, no matter how much you generally enjoy them. Sometimes the mere smell of alcohol can induce intense nausea and on many occasions actual vomiting in Crohn's sufferers. I believe the same process happens using the liver for metabolising alcohol intake in addition to the damage this excess can do to your body, not to mention the extra fat excess alcohol generates. And in my case of course, since being prescribed Methotrexate, alcohol is completely off my menu period.

Total relief on a long term basis from chronic pain may not be possible — but a fuller life most certainly is. Don't restrict yourself to relying on your GP to get relief from chronic pain. Their starting point in trying to treat chronic pain is always prescription medications that

cover a wide spectrum - without knowing what the underlying cause is.

Elsewhere in this book I mention the problems caused by Repetitive Strain Syndrome and although not directly related to it, I found that allowing oneself to adopt a bad posture over time (caused by sitting in front of a computer all day for instance), can increase chronic pain levels, so I determined to re-train myself so that I held my body in a correct posture. It has worked wonders overall.

The starting point in controlling chronic pain, is to set goals to help you take back your life.

If you have a condition such as a broken bone, you recognise discomfort as a symptom and trust that treatment will help.

After surgery, pain medication provides relief while your body heals, which may also cause adverse effects, such as constipation, inflamed stomach lining, headaches, nausea and even anal bleeding.

Chronic pain is very different. Sometimes chronic pain follows an illness or an injury that appears to have healed. In other cases, chronic pain develops for no apparent reason. Whatever the cause, the emotional fallout of chronic pain can make you feel even worse. Anxiety or depression can magnify unpleasant sensations and disrupted sleep may leave you feeling fatigued and helpless.

But chronic pain doesn't have to rule your life. Here's how to take control.

Start with your sleep pattern. Until very recently, I survived on approximately three hours sleep a night, very often going to bed around midnight and getting up again at three in the morning, when I would sit at my desk in the study, regularly churning out as much work before 6am than I could get done during a normal working day.

The problem was though, without my realising, I was compromising my body's circadian rhythm, which in turn confused the biological activity at cellular level. Over the years, my pain levels increased and medication

became less effective. The reality is that to operate properly, the body needs regular, deep sleep for tissue growth and repair to be efficiently managed, which in turn helps manage pain levels.

When I gradually got myself into a pattern of going to bed at 10.30pm, setting my alarm for 6am, I soon noticed the beneficial difference it made. For a start I didn't need the 6am alarm call as I was awake from around 4am. It took me almost 2 months to get it right, but once I had the feeling of wellbeing was quite noticeable and I've never looked back. And nowadays, I am sometimes woken by the alarm!

Another very simple and effective thing to do is to eschew all soft drinks and carbonated, flavoured water. At one stage, I was consuming around 24 small bottles of Lucozade® Sport™ a week - but I was engaged in nothing more strenuous than golf! I drank the stuff instead of alcohol, as a way to cut down my slightly more than moderate use of the stuff - but this method did me no favours as it presented dangers similar to that of alcohol as it happened.

Whilst chatting with my Son on the golf course one day, he expressed horror that I drank the stuff at all - he had thought it was a nasty habit I had developed on the golf course exclusively, but when he realised it was more of a lifestyle thing, he urged me to ditch it and drink plain mineral water instead.

The compromise I made instantly was to buy carbonated, flavoured water with our next supermarket shop. Of course, even though it was slightly more healthy for me than Lucozade® Sport™, it was still very unhealthy as the products (from any supermarket), were full of unsavoury ingredients and so on.

I then tried plain mineral water and after drinking a couple of bottles straight from the shelf, considering the taste bland and unpalatable, I then popped a couple of bottles in the fridge and to my amazement it was very pleasant and refreshing when chilled. This is one of the most important decisions I have ever made.

Regular intake of this pure, chilled water has delivered many benefits: improved mental alertness, less tiredness, less problems with the stomach (regular clean

water intake can deal with a number of digestion problems), plus regularised toilet habits.

Another unwanted side effect of drinking these sugary drinks is an increase in your blood sugar levels and another embarrassing problem - the need to urinate many times through the night as well as the day.

Changing your tipple to plain mineral water very quickly resolves this socially awkward scenario.

Significantly, if you are on a large medication regime, drinking plenty of plain water can also reduce the impact and side effects of prescription medications! I didn't realise this for many years and no one ever told me about it in the medical profession either! So simple and effective, but never promoted by the people who should know better.

Chronic pain can undoubtedly dominate your thoughts, so you need to consciously do something to redress this issue.

If you have to take prescription medications until you feel confident enough to ditch them without unpleasant

consequences, there are certain things you really must try to do.

Don’t take extra doses of pain killers at night if you've forgotten to take a scheduled dose during the day.

Avoid *not* taking your medication as prescribed by your doctor.

If you feel you need pain medication to help you sleep at nights, make sure you take it at least an hour before you go to bed. Never take a dose that will take your intake over the safe levels indicated in the medication information leaflets as this could be very dangerous and indeed fatal.

If, by practising some of my experiences, you feel better, don’t just stop medications suddenly. Speak with your doctor and explain to him why you want to reduce your reliance on drugs. Whatever he suggests, try to stick with the reducing dosage regimen as far as you can.

Never increase any doses without first referring back to your GP.

If you end up being as determined as I was, aim to reduce your intake by dramatic reduction over a three month period, so you avoid withdrawal symptoms - believe me you will suffer withdrawal symptoms if you do things too suddenly!

Simultaneously with your drug reduction, endeavour to increase your exercise levels, no matter how uncomfortable it may be in the early days. It will be worth it in the final analysis.

Although the internet contains a wealth of information on chronic pain where you can find more facts and figures about your particular branch of chronic pain, try not to focus on the negatives.

Try to focus on finding ways to reduce your pain, such as looking for natural remedies, of which there are many.

Assiduously avoid commonly acknowledged known unhealthy habits that prevent rehabilitation including:

- Smoking
- Drinking excess alcohol

- Using 'recreational' drugs to ease pain (I happen to agree with cannabinoid oil being of help as it is a natural product, but of course, in their wisdom, the powers that be have dragged their feet badly on this issue. I for one would love to try it!)

As I said above, look for natural alternatives to pain medication and over-the-counter medicines because these chemical products can generally cause more harm than good. Don't mix any type of pain medications at any cost!

Investigate such remedies as natural anti-inflammatories such as curcumin, ginger, bromeliad, capsaicin cream and many more. One particularly effective product is Curminol™ which you can read more about here: https://tinyurl.com/y9let989

Take a good look at researched therapies as Pulsed Electromagnetic Field Therapy (PEMF) that can give relief without adverse effects and contraindications which you can read about here (http://tinyurl.com/z3vjs6u) and here https://tinyurl.com/yb2oubc9

This therapy is also safer than TENS or Ultrasound as it can be used if you have prosthetics in your body. Try using supportive natural topical applications such as esterified fatty acids formulae rather than the old favourites such as Chondroitin and Cod Liver Oil or multivitamins. (http://tinyurl.com/ztett88)

Another natural vitamin, sometimes called the 'sunshine vitamin' is Vitamin D, which is a fat-soluble vitamin that includes vitamins D-1, D-2, and D-3 and it can affect as many as 2,000 genes in the body. Vitamin D has several important supportive functions.

Perhaps the most significant are that it helps regulate the absorption of calcium and phosphorus, facilitating normal immune system function. Getting a sufficient amount of vitamin D is important for normal growth and development of bones and teeth, as well as improved resistance against certain diseases. For instance, if your body doesn't get enough vitamin D, you're at risk of developing bone abnormalities such as soft bones (osteomalacia) or brittle bones (osteoporosis).

In addition to its primary benefits, research suggests that vitamin D may also play a role in reducing your risk of developing multiple sclerosis, decreasing your chance of developing heart disease, helping to reduce your likelihood of developing the flu.

Consider adding vitamin D supplements to your diet if you're trying to lose weight or prevent heart disease. In one study I read, people who took a daily vitamin D supplement did not lose a significant amount of weight, but were able to improve their heart disease risk markers.

In another study, people taking a daily calcium and vitamin D supplement were able to lose more weight than subjects taking a placebo supplement. The scientists said the extra calcium and vitamin D had an appetite suppressing effect.

Your body produces vitamin D naturally when it is directly exposed to sunlight. A little can go a long way. All you need is 10 minutes a day of midday, pre-sunscreen sun exposure, especially if you have fair skin.

But of course that can cause over-exposure problems with the Sun if you are not careful! And if you are unfortunate enough to have been prescribed Methotrexate or any other DMARD or AntiTNF drug, then you need to be uber careful in terms of exposure to the Sun!

Besides getting vitamin D through sunlight, you can also get it through certain foods and supplements to ensure adequate levels of the vitamin in your blood.

Lifestyle and environmental factors can affect your ability to get sufficient amounts of vitamin D through the sun alone. That's why it's important to get some of your vitamin D from sources besides sunlight.

The symptoms of a vitamin D deficiency in adults include all sorts of seemingly unrelated areas such as repeated tiredness, aches and pains and a general sense of feeling low that may even cause difficulty climbing stairs or getting up from the floor, or a low chair for people who suffer regular chronic pain.

Few foods contain vitamin D naturally.

Some of these include:

- salmon
- sardines
- egg yolk
- Shrimps/Prawns
- Orange juice

It can be hard to get enough vitamin D each day through sun exposure and food alone, so taking vitamin D supplements can definitely help.

Another important supplement requirement is Magnesium as it can help maintain normal nerve and muscle function, support a healthy immune system, keep the heart beat steady and help bones remain strong. It also helps regulate blood glucose levels and aid in the production of energy and protein. This is particularly important for people who are told they are borderline diabetic (Type-2 Diabetes).

Conversely, consuming too much magnesium could causes diarrhoea as the body attempts to excrete the

excess. High magnesium foods include dark leafy greens, nuts, seeds, fish, beans, whole grains, avocados, yogurt, bananas, dried fruit, dark chocolate, and more. So, if you suffer from an autoimmune disease or something less challenging but no less uncomfortable and inconvenient, like IBS for instance, then it is best to use trial and error to establish the correct dosage for your own needs.

Later on in this book, I share with you some of the products I have helped develop over the years, several of which have successfully been in use since 2004.

It is your right to take back your life so that you enjoy your existence rather than being in constant pain and suffering regular bouts of depression.

If you are determined enough you can put chronic pain in its place. Probably not entirely, but I promise you will be amazed by what you can achieve.

Should chronic pain be considered a disease?

I have had many discussions on this subject with my dear friend Heidi Bilas, RN in Vancouver, BC, Canada over the years.

The conventional assumption is that pain is a symptom of underlying disease: treat the disease and the pain should resolve. Yet the experience of patients often challenges this assumption, as chronic pain outlives its precipitants, frequently worsens for no understood reason, and alarmingly often takes on a course of its own[1].

Should chronic pain now be thought of as a disease in its own right? We felt so strongly about this issue that we researched and produced an article which I reproduce here.

Acute pain appears to be a function of a healthy nervous system, a physiological response to tissue that is damaged or to body processes gone awry. But chronic pain is increasingly associated with characteristics that resemble a disease. For example, *Thernstrom (2001)*, in the New York Times, described pathology of the nervous system reflected in abnormal changes in the brain and spinal cord[1].

While the current understanding—that, because pain is a symptom of underlying disease, it should resolve once the disease is treated—certainly describes the course of events with acute pain, the experience of patients and some healthcare providers often challenges the validity of this understanding.

Chronic pain is resistant to medical treatments. *Clipper (2006)* observed that it is exacerbated by environmental and psychological factors[2].

It may come to dominate the patient's life. *Swierzewski (2007)* reported that, without relief, or the hope of relief, patients may lose the ability to eat, sleep, work, and function normally[3].

Chronic pain is known as the silent epidemic because of the frequent absence of objective physical findings, which make it invisible in that, as *Finch (2008)* commented, its debilitating effects often go unnoticed[4]. *The Chronic Pain Policy Coalition (2006)*[5] found that it may remain undiagnosed and therefore untreated in the absence of a definitive diagnosis of a disease strongly associated with pain[4].

Chronic pain reportedly affects over 8.5 million people in the UK[6] (1 in 7 people[5]).

Pain

The International Association for the Study of Pain defines pain as an unpleasant sensory and emotional experience associated with actual or potential tissue damage or described in terms of such damage[2]. Chronic pain is differentiated from acute pain by time, persistence and clinical characteristics.

Acute and chronic pain differ greatly. Chronic pain[2,7] persists or recurs for more than three months, or persists for more than one month after healing has occurred from

injuries, or results from chronic disorders, or exhibits no apparent cause (that is, primary pain disorder)

Chronic pain is classified by pathophysiology (the functional changes associated with or resulting from injury or injury) as nociceptive (due to ongoing tissue injury) or neuropathic (resulting from damage to the brain, the spinal cord or peripheral nerves), with mixed or undetermined causes as well.

New terminology is proposed by the American Academy of Pain Medicine, which uses eudynia for nociceptive pain and maldynia for neuropathic pain[8]. On this terminology, unresolved, long-lasting disorders that produce ongoing nociceptive stimuli may account for chronic pain. Also on the terminology, even mild injury may lead to long-lasting sensitisation of the nervous system that can produce pain in the absence of nociceptive stimuli. With sensitisation, discomfort that might otherwise be perceived as mild is instead perceived as significant pain.

Psychological factors commonly play a role in sustaining chronic pain or amplifying persistent pain. In these

circumstances, chronic pain appears out of proportion to identifiable findings. In some instances, the original precipitant of pain is obvious; in others, such as chronic headache, the precipitant is so remote as to be mysterious[7].

Patients who must continually prove that they are ill to obtain medical care, insurance coverage, or work relief may unconsciously reinforce their pain perceptions, especially when litigation is involved. The unconscious reinforcement differs from malingering, which is conscious exaggeration of symptoms for gain, such as time off, or disability payments. Factors in the patient's environment, such as family dynamics, may reinforce behaviours that perpetuate chronic pain[7].

Because of the absence of objective evidence or physical findings to explain the pain, patients with chronic pain may perceive themselves treated as if their history is exaggerated or even imaginary. They may be told that there is no reason for the chronic pain, which therefore "cannot be that bad". For such reasons, many chronic pain sufferers go from one doctor to the next searching

for explanations, which can lead to unnecessary investigations and unsuccessful treatments[9].

Woolf (2001) compares chronic pain to a broken alarm: a wire was cut and the entire system malfunctions. He holds that this is true pathology in that the repair fails to occur because the system itself is damaged. The cut wire represents neuropathic pain, pathology of the nervous system. He argues that, because the body's pain system is plastic, it can be moulded by pain to cause even more pain. He explains that pain nerves recruit others in what he terms chronic-pain windup by which the central nervous system undergoes central sensitisation[1].

Disease status and problematic diagnosis

Emerging explanations do not automatically induce rapid professional acceptance. While support groups and associations exist for chronic pain, the term chronic pain syndrome as used by many healthcare professionals implies either that they attribute the pain to psychological causes or that they have failed to establish a physical cause. Chronic pain syndrome is thus a problematic diagnosis.

Two of the most influential systems for classifying disease are The Diagnostic and Statistical Manual of Mental Disorders (DSM)[10] of the American Psychiatric Association and WHO's International Classification of Diseases (ICD)[11]. ICD classifies disease by causal agent, systems of the body affected, pattern and type of symptom, and whether or not the disease is related to a medical procedure.

Because chronic pain is by definition pain that has persisted beyond the time of healing, classification based on causal agency is problematic, though it does recognise persistent pain disorder characterised by physical symptoms that mimic disease or injury for which there is no identifiable physical cause.

DSM contains the classifications pain disorder and psychogenic pain disorder. The latter is a diagnosis of exclusion in that there are no specific defining diagnostic signs or symptoms.

Instead, the diagnostic criteria for include severe and prolonged pain in excess of what would be expected from physical findings, and the pain's enabling the individual

to obtain some adjustment to his or her physical or social environment or to avoid some activity which is noxious to the individual.

DSM requires that a diagnosis of psychogenic pain disorder is differentiated from other causes of pain, such as histrionic personality traits, other psychiatric conditions such as somatisation disorder, and malingering.

Nordin et al (2006)[12] examined the DSM-IV and ICD-10 classification systems and found no support in either for a *"pure"* pain syndrome. Instead, they observed a picture of a mixed psychosomatic condition. Their conclusion suggests a classification reflective of a broad disorder[21], with subgroups based on personality characteristics, with account taken of a stress-coping model and of interpersonal attachment behaviour.

Why is the diagnosis controversial?

Chronic pain is a leading cause of disability. Functional disability is disproportionate to what is expected on the

[21] Some form of mental disorder

basis of the objective physical findings/ impairment and limitations. Patients often have Waddell signs (i.e. indicating a non-organic component to pain)[13], reflective of somatoform disorder.

Social and workplace demands become difficult challenges, and unemployment is often an issue. It is the second most common cause of lost work time, accounting for 206 million lost workdays in the UK 1999-2000[14]. According to *Foster's report (2003)* chronic pain warrants recognition as an entity in its own right[14].

Chronic pain is so much of a personal experience that it cannot readily be measured and validated. There is no specific medical test to measure it. Inevitably, challenging clinical and disability management questions arise when the occupational roles of patients are threatened or lost[15].

Is the claimant's inability to work based on a legitimate medical problem?

Can disability be defined solely by subjective complaints?

Is chronic pain syndrome a legitimate diagnosis and a compensable disability?

Should return to work be the primary and valid measure of success in the treatment of chronic pain syndrome?

The challenge of evaluating a claimant's disability is typically exacerbated by the failure of documentation or assessor reports to establish whether the chronic pain is a medical or a psychiatric condition. Without medical evidence of objective worsening of a claimant's physical condition over time, there exist only subjective complaints. Without impairments and limitations, disabilities cannot be validated.

For occupational injury claims a claimant's medical testimony must prove on a more-probable-than-not basis that the augmentation of pain is causally related to the workplace injury.

To further complicate matters is the controversy on what constitutes under-treatment and over-treatment of chronic pain. Iatrogenic (relating to medical treatment

or medication) factors include causing or perpetuating opioid or other drug dependency.

Research findings and opportunities for practice and policy

If pain has reached the point at which it is no longer the signalling of a healthy nervous system that there exists disease or underlying injury, then the very chronicity of the pain becomes the dominant problem which needs to be treated as the primary pathology[9]. Research increasingly suggests important physical changes that cause and perpetuate chronic pain, changes which cannot be detected by normal clinical investigations.

Chivalo's study (2008) which indicates that chronic pain has widespread impact on overall brain function, may offer an explanation for common cognitive and behavioural co-morbidities. Using functional magnetic resonance imaging, the investigators found that individuals with chronic back pain had alterations in the functional connectivity of their cortical regions, areas of the brain unrelated to pain. Chivalo observed that this finding provides the first clue that conditions such as

depression, anxiety, sleep disturbances, and decision-making difficulties, which affect the quality of life of chronic pain patients as much as the pain itself, may be directly related to altered brain function as a result of chronic pain[16].

Research into the genetics of pain and brain imaging is producing evidence that points to severe persistent pain as a disease entity[17]. According to *Woolf (2001)*, chronic pain is not just a sensory or affective or cognitive state, but is also a disease afflicting millions of people[1]. Pain is a disease when the organ involved with perpetuating the pain sensation becomes damaged and fails to shut down, leaving the patient with chronic pain.

Technology exists to identify which genes become active when neurons respond to pain. Of the over 1,500 have been identified to date but not the key gene, the master switch that drives the others.

The nervous system may undergo considerable reorganisation following injury. The spinal cord is "rewired" following trauma as nerve cell axons make new contacts, a process called sprouting. This process

disrupts the cells' supply of trophic factors (helper protein molecules that allow and nourish a neuron to develop and maintain connections).

Researchers can now explore the changes that occur during the processing of pain. With the technique polymerase chain reaction (PCR), they can examine genes induced after injury and persistent pain.

The proteins synthesised by these genes may be targets for new therapies aimed at preventing the long-term changes in the nervous system.

Genes may also affect a number of neurotransmitters involved in the control of pain. Using imaging technologies, researchers can now visualise what is happening biochemically in the spinal cord[2].

A particular line of research focuses on certain abnormal sodium ion channels expressed only in sensory neurons that have been damaged.

Identifying which among these channels is the most important one may lead to future pharmaceutical agents targeted for these channels[1].

Researchers believe that advances in neuroscience will lead to more effective treatments. Clinical investigators have found that chronic pain patients often have lower-than-normal levels of endorphins in their spinal fluid. Investigations of acupuncture have shown that there are higher levels of endorphins in cerebrospinal fluid following acupuncture[2].

In the UK, 96 per cent of General Practitioners believe there is a need for improvement in treatment methods[18]. *Crichton (2003)*, for example, believes that chronic pain is currently under-treated in primary care and that an important opportunity exists to help those suffering with chronic pain[19].

Cousins (2008) observes that too few pain medicine specialists are being trained and not enough patients with pain have access to effective treatment[17].

But progress is occurring with policy and service developments, such as PACE (Pain: Collaboration and Exchange), a UK national network supporting the development of primary care pain services, and the Chronic Pain Policy Coalition (CPPC).

CPPC members work collaboratively with patients, professionals and parliamentarians to improve the prevention, treatment and management of chronic pain and its associated conditions.

CPPC is actively campaigning to have pain recognised as the fifth vital sign – routinely assessed as blood pressure, temperature, pulse and respiration[4].

The concept of pain relief as a basic human right also has its champions[17].

Conclusion

Chronic pain is often a misunderstood and mismanaged problem. Chronic pain's epidemic and endemic proportions call for re-evaluation of our approach.

The discipline of pain management needs strengthening through clinical practice guidelines, and better and more focused research especially into the adverse effects of existing methods of treatment. To drive the fresh approach, a unifying concept would be that chronic pain is a disease in its own right, most likely affecting the nervous system.

To impel the fresh approach, an ethical concern would be that people continue to suffer needlessly because their pain is too often ignored or too rarely appropriately treated.

To win attention for the fresh approach, the economic concern would be that people in chronic pain too often become unforeseen casualties and therefore unproductive costs to the system.

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The Pain Epidemic: Over-medicated and Under-treated

One area of healthcare with particular reference to pain management is one I first noticed way back in 2003 when my dear late Mother had endured many years of pain and discomfort even though she was pumped full of pain medications. It was this situation that first got my attention focused on Pulsed Electromagnetic Field Therapy, but that is something I cover elsewhere in this book.

The area I identified as a global problem in chronic pain management care is that to this day, sufferers are still over-medicated and under-treated.

Heidi Bilas, a specialist gerontological RN in Toronto and I also collaborated on this subject which we both feel

passionate about and most of this chapter was published in *The Pharmacist*.

Gordon Lishman, Director General of Age Concern England[1] said "Good health and wellbeing are essential for making the most out of later life. People aged 65 and over are the fastest growing age group in Britain and now there are more centenarians than ever before. We are living longer, but for many older people later life is often blighted by illness and disability."

Chronic pain is an illness which impacts on all aspects of daily life, and is not considered a normal part of ageing though seniors are more likely to suffer from chronic pain than the rest of the population. As age increases, so does the prevalence of chronic pain, the demand for pain medications, and their utilisation by seniors.

Known as the 'silent epidemic' due to the frequent absence of objective physical findings, it is considered invisible and its 'debilitating effects often go unnoticed'[2].

The cause of the pain may never be diagnosed, and it is often untreated, unless it is disease-specific[3].

Chronic pain affects over 8.5 million people in the UK [4] or 1-in-7 people[3]. As many as 1-in-4 people[4], to 1-in-33 are actually affected by chronic pain when family members, friends and caregivers are included. Chronic pain may result in 'feelings of anxiety, despair, helplessness, isolation, loss of self-esteem, no confidence and tiredness'[4].

Remarkably, 96% of General Practitioners (GPs) believe there is a need for improvement in treatment methods[6]. According to Dr. Crichton, "Chronic pain is currently common although under treated in primary care." In short, "a great opportunity exists to help those suffering with chronic pain"[7].

The current provision of chronic pain services is perceived to be inadequate to meet the need. Services frequently fall short of recommended levels of service for access and availability, and there is significant variation in the services available[9].

Additionally, the treatment of chronic pain condition is often a frustrating aspect of primary care, as it tends to

be resistant to conventional therapies, and drug dependency is a concern.

Furthermore, there is ongoing debate, controversy and at times friction among healthcare providers regarding the optimal treatment of these patients. At the present time there are no published national general pain management guidelines for primary care, though work is now underway[8].

New policies, and shifts in practice

The improvement of services for seniors should be a priority for the NHS, according to former Health Secretary Mr. Alan Johnson when he said: "those extra years are quality years where people have and are aware of basic entitlements to help them lead healthy, independent lives. Our aim must be to make quality of life stretch right to the end of life"[1].

Goals of treatment

Appropriate treatment can improve quality of life and functioning, returning seniors to more normal, productive, and enjoyable lives. Restoration of a feeling

of control is critical. Living with pain and disability requires an active strategy to better understand, accept and manage the chronic pain condition.

Emphasis is required on reducing dependency and supported active self-management of pain, and use of multidisciplinary/multimodal approach to treatment rather than simply receiving treatment.

Defining characteristics of modern pain management programmes include a focus on optimising function rather than disease, on management rather than cure, integration of specific therapeutics, multidisciplinary management, and an emphasis on active rather than passive methods [11].

Pharmacologic Pain management and the Elderly

Medications are not without concerns and side effects, and caution is always prudent. Seniors can be at increased risk from medications for various reasons.

Changes in drug metabolism occur with age, as do higher rates of co-morbidities. The ageing body is generally

thought to be more susceptible to medication side effects. And seniors are more likely to be prescribed long-term and multiple prescriptions.

The more medications prescribed, the higher the risk of drug interactions or adverse drug reactions, and problems taking them correctly (i.e. unintentional misuse). Overmedication is medication abuse, and deleterious to health.

Risk management remains the primary concern of regulatory agencies and those who are prescribing these therapies, to limit misuse, abuse or inappropriate prescribing. With chronic pain, dependency on pain-killers is an ongoing risk. Medications can however be effective and safe if used correctly.

Unfortunately, some primary physicians may under treat pain, either because they do not fully appreciate the toll chronic pain may have on lives over time, or they are cautious of scrutiny by licensing boards over opioid or narcotic prescriptions.

Physicians may be unwilling to prescribe too much pain medication because they fear a patient may develop an addiction -- even though most patients rate opiates as the most effective treatment. Clinicians may also harbour misconceptions about the pharmacological treatment of pain and an exaggerated risk perception of opioid-induced respiratory depression.

Regular medication reviews including prescription-only and over-the-counter drugs, vitamins and nutritional supplements (and herbal remedies too) would help the clinician design a hopefully safe and effective pharmacologic treatment.

Practical considerations of risk *vs.* benefit, appropriate indications for prescribing, regular monitoring of response, and medically necessary dosing are vital.

Pharmacologic treatment may be an appropriate option for many seniors. What's important is to encourage seniors to get treatment for pain, whether from narcotics, other types of analgesics, or other non-pharmacologic treatment options.

Pain management is now acknowledged as a basic human right. Dr. Angela Stroe, a pain management specialist eloquently expresses the message of hope for all “There's no need to be in pain and suffering” [12].

But pain management isn’t always the best route to solving someone’s health problems!

Over-medication and under-treatment

As I said earlier in this book, I have had Crohn’s Disease for 30 years and even though, during that time I have enjoyed short periods of remission (it is a disease that, for now, has no cure in sight), the times when pain levels were so bad it was hard to carry on, have been much more prevalent than prolonged periods of relief.

During the last three years in fact, the concept of over-medication and under-treatment affected me directly and the episode I described in detail earlier when I was rescued in Southport was a dramatic illustration of how medications can make things far worse than they need to be.

During the course of that whole 36-month period where I was suffering varying levels of pain and discomfort, which were also suffered in conjunction with stays in hospital, I had medications changed, increased, decreased many times. The different adverse affects, contraindications and worsening medical conditions were largely down to being over-medicated and under-treated, because I guess it seemed the easiest path for clinicians to take, rather than examining the potential issues underlying the attacks.

Put simply, had I not been taken into Southport & Ormskirk General Hospital that fateful day, I might not be here to tell the tale! The infections present (including pancreatitis and cholangitis) could have very quickly morphed into sepsis, but the thoroughness and level of testing in Southport was extraordinary and it was they who discovered that my problems were in fact centred around the gall bladder rather than Crohn's (although it is likely that the condition was exacerbated by Crohn's).

All those tests were done before any consideration about medications, which although I panicked about at the

time, turned out to be the best thing that ever happened to my own care pathway.

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Harnessing Electromagnetic Energy for Healing

Dr Gordon Atherley has been an inspiration and sometime mentor to me over many years and I have collaborated with him on various initiatives that I know have improved people's understanding of many subjects relating to their health that they would never have had the opportunity to discuss without his tireless work.

He holds the MB ChB and MD degrees from the University of Manchester, and the LLD, honoris causa, from Canada's Simon Fraser University. His medical specialties are public health and occupational medicine. He was the first President and CEO of the Canadian Centre for Occupational Health and Safety. He was also Chairperson of the Canada-based organization, e-Health Analysis, Research and Planning. He then went on to

create and host *Family Caregivers Unite!* on Voice America internet radio, hosting over 300 shows covering a massive range of subjects.

In this chapter Dr Atherley and I examine the concept of electromagnetic energy for its risks and benefits to patients, and its implications for pharmacists.

Medical science is constantly on the alert for harm from the things relied on in the care of patients, and always looking for more and better ways of delivering the benefits of these things. One of those things is electromagnetic energy, and one of its benefits is in the healing of wounds and ulcers.

Electromagnetic energy brings so much benefit in the form everyday things that it supports and that healthcare depends on. But it is also an agent of harm.

Through painful experience and meticulous research extending over a century and more, healthcare learned how to avoid the harm so the benefits can be delivered safely and effectively.

Once the things of harm and safety are understood, medical science turns to the best of modern technology to deliver safe and effective electromagnetic energy devices to healthcare. And, thanks to the technology, the devices get smaller and more convenient for use not just by health professionals, but also by patients themselves.

Enabling patients to administer their own treatment is now part of one of healthcare's most important strategies - enabling patients to take charge of their own healthcare. For that strategy to succeed, patients must have very good reason to trust the devices they use.

Which is why healthcare's safety legislation is so important, why sound product information is crucial, and why health professionals like pharmacists have such an important responsibility to advise patients in search of help with their health problems.

In giving advice to patients, terminology is a challenge because, on the one hand, electromagnetic energy is a complex topic in a major field of physics and therefore highly dependent on advanced mathematics and, on the

other, is the subject of the sometimes arcane nomenclature of the clinical world.

Electromagnetic energy is radiation that travels and spreads out as it goes. It includes visible light from a light bulb or the sun, radio waves from a radio station, microwaves from a microwave cooker, infrared rays from hot objects, ultraviolet light from devices and the sun, and X-rays and gamma-rays from complex, powerful machines.

An electromagnetic field is the zone through which electromagnetic radiation is passing. In the zone, the radiation can pass steadily or as a series of pulses.

Scientists describe electromagnetic radiation as a stream of photons, weightless particles each traveling in a wave-like pattern and moving at the speed of light, and each containing a certain amount of energy.

The amount of energy in the photons is what differentiates the various types of electromagnetic radiation. Radio waves have photons with low energies, microwaves have a little more energy than radio waves,

infrared has more, and ultraviolet still more, while X-rays and gamma-rays are the most energetic of all.

The energy determines the effects of electromagnetic radiation on living tissue. Radio waves have almost no effect; microwaves, infrared, visible and ultraviolet radiation cause heating which, in excess, burns the tissues. At the highly energetic end of the spectrum, X-rays and gamma-rays cause damage to living cells because their energies are powerful enough to break chemical bonds in the substances of the cells. The damage interferes with the cells' ability to perform their normal activities and to reproduce themselves.

However, alongside the harm springs the benefit. Take that most natural of things, sunlight. Laden with ultraviolet energy, too much sunlight causes severe skin burns and tanning that turns to an especially malignant cancer, melanoma, a vicious tumour associated with sunlight.

But sunlight produces vitamin D (actually vitamin D3) in the skin. Too little sunlight is associated with vitamin D deficiency. The dynamics of the vitamin's relation with

sunlight demonstrates that, through its beneficial effects on living cells, electromagnetic radiation brings clear and demonstrable benefits to health.

X-rays gave medicine one of its most important diagnostic tools, and some of its most sinister threats. One of these was discovered in the 1960s by Oxford epidemiologist Dr Alice Stewart. Her research showed that a single X-ray during the first three months of pregnancy doubled the rate of childhood leukaemia. Medicine quickly abandoned X-rays during early pregnancy and ultimately at any time during pregnancy.

Initially, researchers attributed the beneficial effects of electromagnetic radiations to heating of the tissues. But, in the late 1930s, researchers discovered that, though pulsing of the radiation allowed the heat to dissipate in the tissue, the beneficial effects persisted.

Over the years, pulsing became the method of choice for applications for wound and ulcer healing. Now the beneficial effects are attributed chiefly to the tiny electrical currents that the electromagnetic radiation induces in the cells. But the possibility remains that

heating locally in the tissues may also stimulate blood flow, with beneficial effects.

One particularly important application of pulsed fields of electromagnetic energy, termed pulsed electromagnetic field therapy (PEMF), is for the healing of wounds and ulcers. Research shows positive results[1] in many careful studies.

Ulcers are effectively wounds that will not heal. Venous ulcers, diabetic foot ulcers and pressure sores (bed sores) fall into this category. Trophic ulcers, which result specifically from the loss of the small nerves of the skin and which occur with diabetes, have also been researched in various studies[2,3] with encouraging results. Chronic furunculous, a staphylococcal skin infection involving hair follicles, also responded well[4].

Pulsed electromagnetic field therapy (PEMF) appears to have beneficial effects on physiological processes as well as specific conditions, including lower limb disease[5] and general venous insufficiency[6] and venous insufficiency of extremeties[7], where malfunction of physiological process

and such diseases may exacerbate the challenge to effective wound management.

Pressure sores are one of the most common problems experienced by caregivers of long-term patients. Extensive research into on pulsed electromagnetic field therapy (PEMF)[8] shows that great relief can be delivered without the need for painful and embarrassing dressing regimes.

Recognition of the benefits became official in the US in 2004 when Medicare, the US government-funded healthcare plan for some citizens, approved electromagnetic therapy for Stage III and Stage IV ulcers. Not yet recognised by the UK National Health Service, it is prescribed by specialist GPs in Britain.

But there's another equally important form of recognition. In the UK and many other countries, safety legislation requires medical devices to be licensed. Those that deliver pulsed electromagnetic field therapy are generally licensed as a Class IIa Medical Device.

Healthcare as a whole and, therefore, patients and healthcare personnel rely on the European Medical Devices Regulation (MDR) - formerly the Medical Devices Directive 93/42/EEC to assure them that the devices depended on for assistance in diagnoses and provision of care can be sold only when these have successfully passed review to assess their safety, efficacy and quality, and that any such products which prove dangerous in use are restricted or withdrawn.

And healthcare and its patients depend on the professionalism of its professionals.

Pharmacists who offer medical devices as well as drugs in their practice bear the particular professional responsibility of helping patients decide between drug-based and drugless therapies.

In advising their patients, pharmacists and, of course, all healthcare professionals should be familiar with the warnings to patients given in the instructions that accompany the device. They should check carefully to be sure that precautions are clearly spelled out and that the patient is able to understand and follow them.

In pharmacists' discussions with patients, cost is often one factor to be explored. In the short run, prescription and over-the-counter medications will likely be less costly to the patient than medical devices. But the question of cost must be examined in the long-run context of the adverse effects of medications, especially the more powerful ones, a safety issue.

In such matters, the duty of the pharmacist as a healthcare professional is clear: the best interest of the patient, which includes safety, reign supreme.

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The role of technology in self-care of chronic pain

Heidi Bilas and I held a long-established view that chronic pain in all its forms wielded a devastating effect on healthcare in general and in treating senior citizens in particular. So we took a deeper look into what technology was freely available to sufferers, although in some cases help was harder to access than in others.

We had already established that chronic pain is recognised as a *"major medical and social problem and a massive drain on national resources"*[1].

Estimates of the prevalence of chronic pain in the general population range from 7 per cent[2] to 55 per cent[3]. UK estimates of the number of people suffering with musculoskeletal pain vary between 7–16 million[4].

The McEwen Report[1] notes that chronic pain affects between one-in-five and one-in-six Scottish adults. Of these adults, two-thirds suffer moderate pain, one-third suffers severe pain, and approximately 6 percent (250,000) suffer acute pain. In addition, one-third of those patients suffer chronic pain all the time. One in five pain sufferers have the pain for more than 20 years.

Between one in five and one in six patients seen in primary care have chronic pain and service utilisation is up to fives times more frequent than the rest of the population, yet a national chronic pain strategy is absent[1].

Chronic pain also becomes a family problem as pain behaviours may cause harm to personal relationships as well as to self-esteem[5]. Family members often feel a loss of control over their daily lives and normal routines, and frustration and anger at the situation facing them as well as from the economic impact.

According to the Dr Foster report[6], chronic pain warrants recognition *"as an entity in its own right"*. Functional disability commonly exceeds what is expected on the

basis of physical findings and limitations. Social and workplace demands become difficult challenges, and unemployment is an issue. It is the second most common cause of days off work, accounting for 206 million lost workdays in 1999–2000.

Clinical picture and its evolution

Chronic pain is a complex pathophysiological state[7]. Rather than the generally accepted pain duration of 3–6 months as the time that is usually accepted for definition of chronic pain, *Cochran (2004)*[8] suggests that chronic pain begins when pain becomes a mind-dominant or cerebral experience rather than a somatic one. It is pain that continues beyond what is normally expected for either an illness or injury, and occurs on and off over a period of months or years. Chronic pain is not necessarily associated with objective clinical findings corresponding to fluctuations or progression of specific disease.

Our understanding of the underlying mechanisms of persistent pain is still evolving, as is our ability to prevent the onset, evolution and associated morbidities

that are associated with chronic pain. Psychological and social factors play a major role in influencing pain perception and in the development of chronic disability.

The behavioural effects are *"a product of a mind in disarray, and they are the cardinal symptoms and identifiers of chronic pain"*[8].

What treatment is appropriate?

Chronic pain cannot be cured, but is managed best by an integrated multidisciplinary approach so that patients' needs are assessed and then passed to the most appropriate treatment pathway according to the need.

Most services are lacking in some aspect of that multidisciplinary care[1]. Treatment of a chronic pain condition, however, is often a frustrating aspect of primary care as it tends to be resistant to conventional therapies, and drug dependency is a concern.

Furthermore, there is ongoing debate, controversy and at times friction among healthcare providers regarding the optimal treatment of these patients.

For example, pain and ageing, and best practices for elder care is not well researched. Over 4,000 studies related to pain are published annually while only 1 per cent of those look at pain and ageing.

Hence there is a clear need for more investigators to further the efforts of current researchers[9].

The current provision of chronic pain services is perceived to be inadequate to meet the need.

Services frequently fall short of recommended levels for service for access and availability, and there is significant variation in the services available[1].

The Dr Foster report[6] also examined the availability of specialist chronic pain clinics in the UK. For a first appointment with a pain team consultant, the national average waiting time for patients referred by their GP was 20 weeks, and ranged 4–110 weeks.

The need for earlier intervention to try and prevent chronic pain is clear. Better solutions and accountability are needed.

Goals of treatment

Appropriate treatment can improve quality of life and functioning, returning patients to more normal, productive and enjoyable lives. Restoration of a feeling of control is critical.

An important aspect is enlisting the patient as a central figure in the healing process. Self-administration of pain-relieving therapies is undoubtedly a paradigm worth pursuing. Patients can take responsibility for their own pain management by managing physical, complementary and relaxation therapies.

Self-care

Numerous factors play a role in initiating, maintaining and exacerbating chronic pain[10]. According to Nash[11], chronic pain management requires both knowledge and the development of self-care skills to reduce suffering. Dr Gordon Atherley of Greyhead Associates in Oakville, Toronto says, "*Pain is inevitable; suffering is optional*". Living with pain and disability requires an active strategy to better understand, accept and manage the chronic

pain condition. Therefore, more emphasis is required on supported active self-management of pain and use of a multidisciplinary/multimodal approach to treatment, rather than simply receiving treatment. Defining characteristics of modern pain management programmes include a focus on function rather than disease, on management rather than cure, integration of specific therapeutics, multidisciplinary management and an emphasis on active rather than passive methods[12].

What treatment isn't desirable?

With chronic pain, dependency on painkillers is an ongoing risk. While these are chiefly prescription drugs, prolonged use of some OTC products such as ibuprofen and paracetamol produce adverse effects. The effects of continuous use of herbal medications are still insufficiently explored.

Drugs are not without concerns and adverse effects, and caution is needed. Patients may be sensitive to the sedating or cognitive adverse effects, and toxicity is a limiting factor. Risk management remains the primary concern of regulatory agencies and those who are

prescribing these therapies, to limit misuse, abuse or inappropriate prescribing.

Role of technology

Demand for complementary and alternative treatment (e.g. chiropractic, massage or acupuncture) is increasing, as is their acceptance in pain management. Whether the medicine of the future will be an integrated hybrid of complementary, alternative and Western medicine is unknown[13]. Effective modalities that are safer and healthier alternatives than therapies that risk dependency benefit both consumers and providers.

Pulsed electromagnetic field therapy (PEMF)

Bioelectromagnetism[14] and pulsed magnetic field therapy (PEMF)[15] are established, accepted and universally used as clinical modalities. Experiments in these therapies have proven that they can reduce pain sensations[16]. Pulsed electromagnetic field therapy has been proven to be effective for pain reduction and the management of chronic pain[17].

PEMF can also be a very effective form of physical therapy, providing physical (or better, biophysical) modality used for accelerated therapeutic purposes. Some devices available utilise bioelectromagnetism principles to deliver gentle pre-programmed PEMF oscillating wave currents in extremely low-frequency fields through magnetic energy resonance induction therapy.

These extremely low-frequency pulsed electromagnetic fields (ELF) have been proven to be beneficial in non-union bone fracture healing, circulation improvement and alleviation of pain[18].

Pain should not become the focus of attention in patients' lives because it has such a negative effect on everything they do.

While support and understanding are important in treatment, so too and increasingly is self-care. Assistive therapeutic technology empowers patients to take charge of their own care through self-administration of a safe and healthy modality.

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Glossary of Pain

I've built this reference (doubtless incomplete, as all I can do is list what I have been able to find out through research. It is almost certain that there are many other more esoteric descriptions for pain that I have not been able to discover. The important thing is though that the following gives ordinary people like me an insight into different classifications and definitions of pain.

Allodynia is pain which occurs at a site area other than the area stimulated. Sometimes known as 'Referred Pain.'

Anaesthesia Dolorosa is a complication of surgery involving nerves (neurosurgery) which is thought to be incurable. This type of condition can also occur naturally through some external trauma and a common example is trigeminal neuralgia, a devastatingly acute and recurring pain in the facial nervous system.

Breakthrough pain is thought by some specialists to be the result of medication becoming ineffective, which in turn causes pre-existing pain to worsen. This type of pain can last for many hours unless treated by changing drugs or by trying new pain management methods.

Causalgia is a burning type of pain associated with a partially damaged peripheral nerve. The pain extends beyond the distribution of the nerve and results due to abnormal connections which develop during healing between various nerves. The skin of the person affected is classically cold, moist and swollen, becoming atrophic later.

Hyperalgesia is a condition of altered perception such that stimuli which would normally induce a trivial discomfort cause significant pain. Hyperalgesia is often a component of a neuropathic pain syndrome.

Hyperpathia is a condition of altered perception arising from the repetitive and prolonged stimulation of neurons by a stimuli which would normally be innocuous in short isolated bursts but when repeated or prolonged results in severe explosive or persistent pain. Hyperpathia is often a component of a neuropathic pain syndrome

Idiopathic pain is a diagnosis of pain which is suffered by a patient for longer than 6 months, for which there is no physical cause and no specific mental disorder.

Malignant pain is that which is associated with diseases like cancer caused by the tumour affecting the surrounding tissues, most commonly bone tumours.

The pain can be either due to the disease itself or due to the treatment given for cancer like surgery, radiotherapy and chemotherapy.

The pain needs to be carefully assessed and appropriately treated

Paresthesia is a sensation of tingling, pricking, or numbness of a person's skin with no apparent long-term physical effect, more generally known as the feeling of pins and needles or of a limb being 'asleep'.

Transient paresthesia is a temporary tingling, pricking, or numbness of the skin -- "pins and needles" usually due to inadvertent pressure placed on a superficial nerve. It is normally experienced in the extremities (hands, arms, legs, or feet), but can also occur in other parts of the body. The sensation gradually goes away once the pressure on the nerve is relieved.

Chronic paresthesia indicates a problem with the functioning of nerve cells, or neurons or may arise due to direct damage to the nerves themselves, or neuropathy.

Phantom limb pain refers to the severe pain and tingling sensation which continue to be experienced from the perceived existence of the limb which has had to be amputated.

It commonly arises in cases where the amputation is delayed after the initial injury. The perceived limb may be felt to be lying in an abnormal and uncomfortable position.

Damage to nerve endings play an important part in this condition with the resulting erroneous regrowth of nerve tissue triggering abnormal and painful discharge of neurones in the stump, and there is often a change in the way that nerves from the amputated limb connect to neurones within the spinal cord.

Psychogenic pain is entirely (or mostly) related to a psychologic disorder where a person has persistent pain with evidence of psychologic disturbances and but no evidence of a disorder that could cause the pain.

It should be noted that it is very rare for pain to be purely psychogenic and more commonly the pain has a physical cause but the degree of pain is out of proportion with what most people with a similar disorder experience.

Reflex Sympathetic Dystrophy is a chronic pain condition that is believed to be the result of dysfunction in the central or

peripheral nervous systems. Typically there are dramatic changes in the colour and temperature of the skin over the affected limb or body part together with intense burning pain, skin sensitivity, sweating, and swelling.

Often triggered by tissue injury, the term Complex Regional Pain Syndrome refers situations where the patient has these symptoms with no identifiable underlying nerve injury.

The pain does not correspond to the distribution of a single nerve and it is worsened by movement.

Repetitive Strain Injury is a general term used to describe the pain felt in muscles, nerves and tendons caused by repetitive movement and overuse.

It's also known as work-related upper limb disorder, or non-specific upper limb pain.

The condition mostly affects parts of the upper body, such as the:

- forearms and elbows

- wrists and hands

- neck and shoulders

The symptoms of RSI can range from mild to severe and usually develop gradually. They often include:

- pain, aching or tenderness

- stiffness

- throbbing

- tingling or numbness

- weakness

- cramp

How I've tried to make a difference

I'm sure that all of us have complained vociferously amongst ourselves about the shortfalls in treatment options in the NHS as well as complaining to a greater or lesser extent about the effects of prescription medications.

For several years now, there has been a slow-burning resistance to taking drugs that we have not had explained properly; as the public becomes more adept at using the Internet for their own research into subjects that affects their personal wellbeing, this resistance will grow.

It is all very well medics telling us that it is dangerous to look up information on the conditions and diseases we might be blighted with, but as the alternative is being treated like a mushroom kept in the dark consistently,

we owe it to ourselves to shed some sunlight on matters that could lengthen or shorten our time here on Planet Earth!

Talking through the various issues with friends with clinical specialities, chemical knowledge and general experience empowered me to do something positive, rather than wallow in my pain.

I therefore decided that whether I succeeded or failed, at least I would have the satisfaction of knowing that I had tried to make at least some relatively tiny difference to the general wellbeing of people who could either be suffering from a single affliction or alternatively those unfortunate enough to have a perfect storm of competing problems going on inside their bodies.

I do not however claim to have invented, conceptualised or otherwise come up with all the innovations that follow.

I have had the most amazing support whenever requested; I've learned an awful lot from people who know better than I; I have been supported on so many

subjects that I couldn't quite grasp from time to time. But the results have been very encouraging and life-changing by the end of the various journeys I've been on. I achieved what I set out to do to a large extent with help from friends and colleagues. Whoever invented the phrase "Teamwork makes it happen" was not wrong!

To reiterate, I have suffered from Crohn's Disease for 30 years; I contracted Atrial Fibrillation through taking the NSAID Naproxen for over 22 years; I am borderline diabetic (Type-2) which has most probably been exacerbated by long-term regular use of corticosteroids; I battle against the constant dichotomy of diarrhoea and constipation; I suffer from serious Gall Bladder problems which I was told is as a direct result of Crohn's Disease; I suffer the consequences of Reactive Arthritis, which again is a branch of Crohn's.

With the exception of Crohn's Disease, the other conditions have been caused by prescription medications helped in part by them being a corollary of the main disease, accelerated or created through the adverse effects of the drugs.

My journey really started with my Mother's experiences. She suffered chronic pain for many years and it broke my heart to see her in such distress. Taking all the above into consideration, I was compelled to try and make a difference, whatever the outcome may have been.

Looking back over the past 23 years or so, when I have been engaged in some form of research or trial and error in the hope that people who have a choice between the allopathic and alternative routes, I have been encouraged and bolstered with the knowledge that there are also many members of the traditional medical profession who harbour many concerns about the validity of pumping us full of chemicals. I hope what follows will be informative and interesting accounts on how I have been lucky enough to collaborate on the development of totally natural solutions for helping manage (and to some extent control) various health conditions, such as chronic pain, dry skin conditions (caused by various prescription medications, as well as dermatitis, eczema and psoriasis), soft tissue injuries, such as muscle strains, joint strains and muscle spasms.

I make no apologies that much of the work was basically subjective, in order to try and allow me to enjoy a healthier lifestyle that wasn't totally dependent upon prescription drugs. The fact that many thousands now benefit from these collaborations is reward enough.

Celadrin® Accelerator Balm™ and **Celadrin® Accelerator Capsules™**

It was known to me that Celadrin® works in a similar but more dramatic way to the essential fatty acids EPA and DHA that is found in fish oils - but Celadrin® is safe for sufferers of Shellfish Allergy to use!

It helps reduce cartilage breakdown in the joints and its beneficial effects have been proven to be superior to Glucosamine, Chondroitin, MSM, SAMe and other arthritis medications.

The Celadrin® base formula is a patented blend of special fatty acids that halts pain and inflammation without side effects. Celadrin® has extensive clinical research with two studies published in the prestigious Journal of Rheumatology (2002).

Both humans and animals have shown remarkable improvements in terms of reduced pain and swelling, increased range of movement and reduction of inflammatory factors when using Celadrin®.

Back in 2003 I started collaborating on formulating a totally natural version of the previously ubiquitous product, which we christened Celadrin® Accelerator Balm™.

Celadrin® Accelerator Balm™ is now probably the UK's largest selling Celadrin® product and has exactly the same amount of the patented formula as present in the formulation that was used in all published clinical studies.

The whole journey of development was shared with my friends Bernd Linke and Kaare Axelsen. As I said earlier, the base ingredient of Celadrin® is a patented mix of cetylated and esterified fatty acids, a key ingredient being bovine tallow.

But for us, it had to be totally natural rather than having any animal by-product present, which meant a daunting

and considerable amount of research, testing and formulating to create a 100% natural product that could safely be used by vegetarians, diabetics and those who suffer shellfish allergies.

After several years of trying to replicate the benefits of the bovine version of the product, we finally achieved a totally natural version, with ingredients being sourced from plants - save for Carbomer™ (a thickening agent), which has been verified as safe by The Cosmetics Ingredients Review Expert Panel (CIR) who have evaluated all scientific data and have concluded that Carbomer™ polymers were safe as ingredients in cosmetics and personal care products.

But why was I excited about the base product formula? Here's why!

Results of a double-blind, multi-centre, placebo-controlled trial (the most scientifically validated type) published in the prestigious *Journal of Rheumatology* back in 2002 found that Celadrin®, when taken orally, improved joint and mobility problems. Sixty-four

participants between the ages of 37 and 77 were given Celadrin® capsules.

They were evaluated at the beginning, at 30 days and at the end of the 68-day study. Compared to those given a placebo, participants taking Celadrin® had more flexibility, fewer aches, less pain and were able to walk longer distances than the placebo group.

Research on the effectiveness of Celadrin® cream performed at the University of Connecticut involved 42 patients with osteoarthritis of the knee. Participants received either Celadrin® applied topically or a placebo cream. They were evaluated before application of the cream, 30 minutes after, and then again following a 30-day treatment period during which the cream was applied twice a day, morning and evening.

The researchers evaluated physical function, postural sway, pain and range of motion. Test of physical function included a timed assessment of how long it took to get up and go from a chair, stair climbing, muscle strength and endurance, and mobility of the knee.

The group receiving Celadrin® had outstanding results with reduced pain and stiffness, improved balance and strength and better mobility. What was most exciting was that within 30 minutes of applying Celadrin® cream, patients experienced a dramatic improvement in all aspects tested.

Results of this study were published in *The Journal of Rheumatology*, August 2002. Another study using Celadrin® cream, performed as an extension of the previous study, confirmed earlier research showing improvement in elbow, wrist and knee mobility and significant reduction in pain.

Those using the oral form of Celadrin® and the cream together experienced a much faster improvement in pain, swelling and mobility than those using the cream alone.

Once we had got our totally natural Celadrin® Accelerator Balm™ product completed, we added our own ingredient, menthol, to enhance the feeling of wellbeing even more.

Both Celadrin® Accelerator Balm™ and Celadrin® Accelerator Capsules™ work pretty fast!

Celadrin® induces positive changes in cell membranes to certain inflammatory factors. Celadrin® decreases cartilage breakdown and reduces the inflammatory activities of the Cox-2 enzyme without the side effects associated with drug therapy. Not a single side effect was noted in the clinical trials.

The esterified (meaning they are stable and do not react with oxygen) fatty acids present in Celadrin® have pronounced anti-inflammatory effects, such as the inhibition of inflammation in the thin cells that line the inside of some body cavities. The special fatty acids found in Celadrin® have also been shown to reduce the production of negative immune factors that are responsible for inflammation.

This alone could explain some effects of Celadrin®, such as reduction of pain in joints affected by osteoarthritis. These anti-inflammatory functions are very important in preventing further tissue and joint damage while promoting healing. Additionally, the molecules found in

Celadrin help lubricate damaged joints. This action, combined with anti-inflammatory effects, explains some of the significant improvements in mobility and function. You can read more here: https://tinyurl.com/ybndql6v and here: https://tinyurl.com/ybeaym9w

DermaBalm®

One of the common and debilitating adverse effects of many pain medications is the occurrence of dry skin conditions. Many people have a tendency to suffer these anyway but the added negative effect of medications can be quite dramatic.

This is why we developed a revolutionary, specialist dry skin condition product called DermaBalm® which has also been christened 'Magic Milk' by several users and is widely employed around the world by thousands of grateful users.

All without them having to worry about the consequences of applying steroidal-based balms or the hazards of using mainstream cosmetic products that are infested with parabens, sodium laurel sulphate or

methylisothiazolinone - carcinogenic and causes of serious skin conditions themselves!

Dry Skin conditions can be caused by a number of things, such as prescription drug-induced diabetes, as with steroidal induced diabetes for instance.

To explain how DermaBalm® came to be, my wife suddenly developed what we thought was an allergy. We believed the 'allergy' was most probably caused by a mixture of having a couple of pet cats, combined with the searing heat in June, July and August particularly in Spain, all combining to make her life unbearable at times. We engaged in a constant battle to control things as best we could, by using literally any creams or balms recommended by friends, clinicians or pharmacists (many of the clinicians and pharmacists were actually English ex-pats who practised in the Costa Blanca), but all without success at any level.

In fact, in many cases the application of creams and balms was rapidly followed by a worsening of the problem! What made it more frustrating was that my wife had been raised in South Africa, Rhodesia (now

Zimbabwe) and Saudi Arabia for the first fifteen years of her life, before the family moved to Spain for the next 19 years or so, when I met her!

We also noticed that the problem got worse after we had made a couple of trips to the UK for prolonged periods of three months at a time (before moving back permanently), when she subsequently suffered what we believed to be bad heat rashes every time we went back to visit her folks in Calpe.

Of course, that was a constant source of concern for me as there is nothing worse than a skin irritation that just won't go away, particularly for ladies! Add to that the reality that she had spent more or less the first 35 years of her life in heat that most of us in the UK never experience for more than two weeks a year if then, it perplexed me greatly.

It seemed that whatever we got from pharmacies over there wouldn't do the trick and as I also suffered badly with after-sun burning as I always forgot to apply sun screen (some would say that less golf might have helped), I then used my wife's various sun creams and

balms in an attempt to calm things down, but sadly, to no meaningful effect whatsoever and if anything the stinging got worse for me!

Little did I know at the time, but her problems were slowly but surely getting worse by the month and to my surprise, didn't get any better even when we moved to the more temperate climate of the United Kingdom. What made things slightly embarrassing during this period, was that because she owns a natural health and medical device manufacturing company meant that she was regularly offered all sorts of freebies which were tried out with great enthusiasm, but sadly didn't deliver the results she was looking for.

So, the obvious route was to develop a product of our own that we knew wouldn't have any nasties in it!

Around the middle of 2004 I began the task of formulating our own product that would hopefully solve all our problems and got involved in masses of research and discussions with various industry sources. Little did I know before I set out on that journey of discovery what a minefield product formulation was!

I have to confess that without the invaluable help of a long-time and very dear friend who had progressed through the ranks of Bayer Chemicals in Germany, who obviously had intrinsic knowledge of all things chemical, I might have given up and certainly wouldn't have known about the dangers of the most innocuous looking products sold regularly by high street pharmacies.

We worked tirelessly to come up with a solution and eventually launched our first version of an 'instant' moisturising spray in 2005 - and whilst it was far superior to what we had used previously, we were still troubled by the fact that it contained preservatives and other seemingly necessary ingredients that were definitely not naturally-sourced. But at least it was non-greasy and non-staining so didn't damage clothing or bedding – a good start in my book!

But, the more I learned about ingredients, the more I became concerned about the amount of chemicals my wife and everyone else with dry skin conditions (including those with either eczema or psoriasis) were constantly rubbing into their skin, not getting any long-

term beneficial effects but instead in many cases achieving exactly the opposite!

As I said earlier, I was like most other people before formulating our own product, not having a clue about the dangers lurking in the ingredients of commonly sold products (that are sold freely and commonly today as it happens in all the leading beauty stores, high street pharmacies and supermarkets), in spite of regular slots on the BBC Watchdog programme where such varied and hazardous ingredients such as carcinogenic parabens and methylisothiazolinone are highlighted but seemingly never acted upon.

Discovering all the above, we resolved to formulate, test, re-formulate, re-test and so on, until we thought we had solved the problem. Then we did it some more and eventually got to the stage where we thought we'd cracked it. Then, after having enjoyed relief for over two years with our own skin problems, I submitted the new product (DermBalm®) for review to the UK's top natural health and beauty guru Janey Lee Grace (of BBC Radio 2

fame in addition to being one of the UK's leading authors and presenters of all things natural).

We heard nothing for several weeks which I guess is what we had expected if I'm honest, but then, out of the blue, I received a call from the lady herself, who told me that she had used it herself and had also used it on her Mother, who to her horror, had been prescribed steroidal creams to sort out a skin problem.

She instead gave her Mum some DermaBalm® and hey presto! The problem disappeared within a few days and in Janey's words, her Mum has never looked back!

Our quest to create a totally naturally-sourced skin care product had been vindicated and we did it without resorting to using any harmful parabens, SLS (sodium lauryl sulphate) or MI (methylisothiazolinone), or any sort of hormones to make life easier for our formulators – we chose the tough route but came out on top eventually.

In fact, in 2015, MI (methylisothiazolinone) was yet again the subject of an in-depth investigation by the

BBC's Watchdog programme, who discovered that scores of major retailers persist in selling products contained this lethal ingredient.

All-natural DermaBalm® (already known to many as 'magic milk') soothes skin problems – including for those with eczema and psoriasis – almost instantly!

The product delivers instant skin moisturising and can also help relieve the symptoms of heat rash and dry skin conditions, including for those who suffer with psoriasis and eczema. It's also safe for Diabetics (high blood sugar results in the body losing fluid through excess urination which can cause skin to become dehydrated).

People who have diabetes often develop skin problems that are attributed to their disease. Insulin acts like a growth hormone, causing skin tags to grow, rubeosis (red face), rosacea, and yellow skin. However, other subtle skin changes can be seen in nearly all people with diabetes. Skin of diabetes sufferers can also get dry especially in the legs and feet (because of diabetic neuropathy).

DermaBalm® is also safe for those with shellfish allergies. It's safe too for people who have to take Warfarin anti-coagulant.

It is simply quite amazing in its ability to instantly re-hydrate and revitalise even the driest skin. I use it all the time to combat the effects of prescription medications that cause dry skin problems. And on top of all that, it sorts out my after-sun burn discomfort into the bargain – so I can golf and garden to my heart's content, knowing I won't spend the next couple of days suffering (I still have to wear a golf cap to cover the bald patch sadly).

Which reminds me, I also use it after showering and hand-washing (gardening plays havoc with hands by making them very rough and dry). So, I get instantly smooth hands within a couple of minutes into the bargain! I'm not sure if this puts me into the category of the modern-man who indulges in skin care and beauty regimes, all I know is that it does make my hands and skin feel good! You can read more about it here http://tinyurl.com/z6orwfd

PainSolv® MkV PEMF[22] device

A chance meeting in a Northamptonshire restaurant in the Spring of 2003 gave me hope that I could finally help my Mother in her battle against constant chronic pain that she had suffered since I was a teenager.

She had worked for a department store and visited customers who lived in very rural locations on a weekly basis. She was a personable, vital person who loved life and loved what she did. Her customers loved her too.

But one day, whilst traversing the countryside in her company-issued Mini van, her life changed when the driver of an Alumasc™ lorry carrying large aluminium beer casks lost control on a snow-covered country lane and ploughed into her.

Her resulting injuries put her in hospital for several months and when she eventually emerged, she had severe osteoarthritis of the spine, which had a dramatic psychological effect on her lifestyle as well as physical.

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[22] Pulsed Electromagnetic Field Therapy

Every day that I visited her at home, it was obvious that she was in constant, varying levels of chronic pain and it was equally clear that her medications were not doing the job they were designed to do. But what could be done?

I was having lunch with a business colleague at an old coaching inn in the heart of Northamptonshire, when I was introduced to another diner who was a friend of my colleague and during the course of the afternoon I found out that he was an acupuncturist. This fascinated me somewhat as I wondered whether this could be a solution, at least part-way, for my Mum. What happened was far more significant than that as things turned out.

The guy had a very crude device that looked like a Maglite™ Torch, but at the end you would expect the bulb to be, there was nothing; just a blank ended tube effectively. He waxed lyrical about the device, explaining that it could be used for all sorts of pain, wounds and many other medical issues - effectively a panacea for all ills - which I later realised was pie-in-the-sky excitement from someone who had clearly spent an awful lot of time

and money trying to develop something that could be used in conjunction with his acupuncture practice.

For years, I had suffered from a knee injury sustained during a cycle race where I had come off the bike when my front wheel went down a storm drain cover, which effectively tore all the cartilage supporting my knee. I was in constant pain and nothing had ever touched it.

When I tried the device, by holding it lightly on one of the pain points for a couple of hours, I could swear I felt something happening - even though the owner insisted that I didn't need to actually have the thing in contact with my clothing or skin. This was a technological point I couldn't get my head around, but it was clear he was definitely on to something.

Shortly after that, the guys's company went bust and the product disappeared, but not before I had made copious notes on what potential lay within.

I researched and researched until finally I discovered that the device emitted around 7-8 Gauss[23]

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[23] Gauss is a unit of magnetic induction

Let me make it clear right here and now. PEMF (Pulsed Electromagnetic Field Therapy) is an energy medicine that has been around for many decades. It was discovered, not invented. The plethora of products available around the world are developments of that discovery and of many, many thousands of clinical studies carried out over even more years! Anyone who suggests that they 'invented' PEMF is self-delusional; and anyone suggesting (as many do) that PEMF is a panacea[24] for all ills is a Walter Mitty character!

There are many devices out there ranging from rings, mats, wiring frames, applicators and so on, that are all vastly different, but do attempt to deliver the same modality.

In the main, they share one serious shortfall though, which is that they concentrate only on the frequencies at which pulsed electromagnetic wave fields are delivered and pay no attention to the amount of Gauss that must be generated at the point of induction to make it effective at any level.

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[24] A solution or remedy for all ills or diseases

I was determined to develop an alternative to this device that had captured my imagination but one that was much better and much more effective than the prototype my new acquaintance had enthused about.

As I was primarily a marketing man I was employed in a new company that had got a prototype made which I tried out on my Mum over a period of weeks and also got a carer to apply it to her shoulders twice daily for an hour.

Within around seven or eight weeks, she was able to straighten up her shoulders, brush her own hair and generally feel less pain and feel much more comfortable in herself. This was something you couldn't have planned or imagined! I saw my Mum transform from a crippled old woman into the vivacious, live-enhancing person she had been years before. Amazing. It gave me fresh impetus to move forward. But how would I do that?

The company eventually developed a device with the help of an electronics expert, that was still crude, but nevertheless a great leap forward as it emitted 27 Gauss

from the inductor head, as opposed to the 7-8 Gauss of the original model.

During the course of the next couple of years, there were many setbacks, as I was hamstrung by not owning the product or any shares in the company, but my passion was not diminished and I made plans that I fervently believed would eventually come to fruition.

I had discovered during the many sessions where I was researching stuff on the Internet, that the acupuncturist I met four years prior, had joined up with a product design company in a nearby city, who I eventually managed to meet up with on Valentine's Day 2007.

I told the guy I knew the acupuncturist, but to my surprise, this didn't go down well initially.

He told me that the acupuncturist was long gone and had tried to do a deal with an American company which would have cut my new acquaintance out of any proceeds. Nevertheless, the meeting was serendipitous for both of us and the progress we made was nothing short of stunning. I joined the company that same day.

We managed to make giant leaps forward in terms of technology and also product design within six months of starting work together. By the time September arrived we had launched what was then known as PainSolv MkIII (the first two iterations didn't even get to see the light of day as far as consumers were concerned).

The major leap forward we made was that we got two inductor heads in the delivery cavity that between them delivered 70 Gauss - a truly amazing feat at the time, because I knew the key to enhancing frequency output levels was the Gauss output at the inductor head.

We needed to do a lot of work to support the technical progress before placing the product on the market and it was then that I became aware of the regulatory burden that we faced, because although we thought in our innocence that the product could be self-regulated as a Class I Medical Device, it was in fact a Class IIa Medical Device, because it transferred energy from the device into body tissue. I rapidly had to research and learn all the various requirements that had to be satisfied, without which we could not offer the product for sale. I

had to become an expert in Quality Systems, EC rules and Standards and the construction of robust Technical Files as well as Risk Assessment and much more!

That whole process took several more months but I managed to get everything into place and we passed all the audits we were subjected to by one of the UK's foremost Notified Bodies - who in turn are audited by the Government body MHRA[25]. These licenses would enable us to sell throughout Europe. At very significant financial cost. The whole process of European Directives is quite staggering in its thoroughness which in itself is fine.

But it is also a license for the Notified Bodies to print money and boy, do they know how to charge.

In parallel with all this activity the research carried out on the PEMF[26] modality was immense and all-consuming.

We ended up with a library exceeding three thousand pages of clinical study references on the technology and

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[25] Medicines and Healthcare Products Regulatory Agency

[26] Pulsed Electromagnetic Field Therapy

the more I learned, the more I realised we still had lots of work to do.

We commissioned a literature review and full independent product examination and review through The Academy of Sport, Physical Activity and Wellbeing at London Southbank University which confirmed that our product output fell within the 'intensity windows' found to be of benefit for treatment of pain and wounds. The same conclusion was drawn regarding the field gradients and pulse rate which fitted within the lower frequency window of devices shown to produce beneficial treatment effects.

All this progress was very exciting for us but from a financial perspective the burden was crippling. We were employed by the company and didn't have shares, so had to accept whatever the owner would pay us - he effectively got both my wife and I for the price of one employee! We were in too far to pull out now though. And the company had borrowed a great deal of money to support development. It seemed devastating at the time, when the company went into liquidation in 2010, as they

owed us a lot of money for salaries and expenses, which caused personal hardship, but it turned out to be the best thing that had happened, as we were able to buy the product and intellectual property rights too in 2011. At last, we owned what we so fervently believed in!

However, I was still greatly concerned about how we could progress the concept and now that we owned it, we decided to take a step back and do more research and development before going to market.

The main reason for my disquiet was that I had discovered through my research that although the company we had worked for we undoubtedly had the best portable PEMF product on the market, there was still a lot of work to be done because some of the data I had uncovered lead me to believe that we somehow had to dramatically increase the Gauss output at the head even further.

This was primarily based on the premise of *Coloumb's Inverse Square Law* which means that the strength of signal reduces by the square of the distance it reaches. So if you start off with Gauss output of 27 Gauss or less, the

device will be totally ineffectual. I also found that most clinical studies showed that in order to obtain clinically relevant results, the minimum pulsing field strength at the head must be at least 3-5 milliTesla (30-50 Gauss). In terms of generating piezoelectricity inside bone cells the field strength would need to exceed 100 Gauss.

But sadly, the people we were relying on had even less knowledge about the requirements to increase Gauss output than either of us.

But for us to progress the development of the product we now had, I felt we had to start over again if we were to make genuine progress to create a truly revolutionary product. To explain this properly, I need to go back to the beginning.

The potential for using or manipulating (to be more precise) electromagnetic fields for health purposes was first recognised by a Serbian-American inventor named Nikolai Tesla in the early 1900s. As he was eastern European I looked up hundreds of references and found that PEMF had been employed for various health issues since around 1968 in that region; and that very extensive

studies and trials had been carried out. Therefore, it made sense to us to investigate possibilities further East!

After further extensive research over the next few months, I finally found a specialist physics professor in Sofia University of Technology Physics Faculty, who had truly vast knowledge about all aspects of PEMF development right since the early days. I fervently hoped that he would be the key to our quest, as it was blatantly obvious that he was indeed a paradigm in the field. But it was impossible to contact him, due to language and process issues.

Simultaneously though, we also needed to find an electronics company who had equal experience (if that was remotely possible) as the various companies we had previously used as electronics suppliers had little or none of the requisite knowledge we required whatsoever. By pure chance, we happened upon a company in the same Bulgarian city that looked as though it *might* fit the bill. We arranged, literally overnight, to go and visit them to discuss our plans. Whilst we were there the most serendipitous thing happened!

When we explained the overall concept we were trying to improve upon, the MD of the company told us he was not confident that they could help us in isolation, which was a potential hammer blow. Then he amazed us by telling us he knew the exact person he felt could help us in our quest: a Professor, who was head of the Physics Faculty at the local Technology University! This was the beginning of the true progress we craved and within months we were flying. Armed with everything we needed, we knew that with the help of specialist electronics experts we would quickly be moving forward.

Within four months of that first meeting we had produced the first iteration of what was to eventually become PainSolv MkIV, which now emitted the amazing level of 135 Gauss - a massive leap forward from the very first device I had seen which produced just 8 Gauss maximum! There were still teething problems to contend with obviously, including the vagaries of using internal rechargeable batteries of nickel metal hydride, which if not charged properly could reduce the number of applications between charges quite dramatically.

Working hard together for a further year we were over the moon to be able to launch PainSolv MkV in March 2012 which was so far advance over the MkIV model we could hardly believe it ourselves.

We developed a unique single inductor head that we had manufactured exclusively, rather than buying in standard components.

The Gauss output was now up to in excess of 855 Gauss, which was 5.9 times stronger that our MkIV model; we got the pulse width, including delays, up to 7.6 times longer and by using new lithium-ion internal rechargeable batteries we reduced the charging time by 60%, simultaneously allowing customers to recharge just like they would with a mobile phone.

We now had the world's most powerful, handheld portable nerve and muscle stimulating massager and unlike TENS, Ultrasound or EMS it was safe to use with orthopaedic implants, cardiac pacemakers (subject to certain conditions if they had incorporated defibrillators included); it could be used on acupuncture points and it

was also usable through medical dressings, even plaster casts.

All the above proved that sometimes, big bucks don't always deliver the best results. Dedication and belief do. The largest financial commitment we now have apart from the obvious production costs are the regulatory fees which are absolutely phenomenal, but on the positive side they do prevent less professional companies coming into the market with products that are not regulated. Read more here: https://tinyurl.com/ydb99taz here: https://tinyurl.com/ybeaym9w and here: https://tinyurl.com/ycs5ynff

PainSolv® Activity Formula™

With all the work we had collaborated on with regard to chronic pain management, there was one area that had been noticeably ignored - not because there was a lack of interest but instead because the subject of acute pain caused by muscle strains, sprains and spasms was something I didn't know much about.

In fact, the only time I ever thought about it was when I suffered the debilitating effect of the dreaded back spasm. You know the sort of thing I mean: you feel great when you get up in the morning, you skip into the bathroom to prepare yourself for another busy day, pick up your tube of toothpaste - and bosh! You are transformed from an enthusiastic mover and shaker into a crippled wreck, because you simply cannot move without being in excruciating agony. You've suffered a muscle spasm!

It was of course critical to my wife Soo that whatever we created had to be totally natural as this was the basic premise on which she had built her business.

That is what PainSolv Activity Formula is - a mixture of essential oils without any chemical stabilisers or alcohol. The product was developed with the objective of delivering fast, temporary relief of muscle and joint pain resulting from arthritis, rheumatic conditions, spasms, inflammation and everyday physical stress and strains.

It combines seven of the world's finest pain-reducing ingredients: Camphor oil (white) (Japan), Eucalyptus oil

(Australia), Aloe vera oil (Mexico), Peppermint oil (India), Rosemary oil (Spain), Lemon oil (USA) and Orange oil (USA). The product contains no preservatives, synthetics, additives or fillers!

There are precautions to be taken naturally, but these are few: it should not be used by pregnant women, children under the age of 2, or persons suffering from epilepsy. It is not for use on wounds, or damaged or irritated skin. Contact with the eyes and mucous membranes should be avoided. Apart from that, it gives almost instant pain relief for up to six hours following application. In my view a vital ingredient of anyone's first aid kit! Read more here: https://tinyurl.com/ydbw9h6b

Mastercare Swedish Back Care System

This patented physical therapy system for the prevention and rehabilitation of back, neck, shoulder and knee problems is truly impressive and allows self-traction of the body to relieve pressure that causes so much pain.

This Swedish gravity traction table, with its patented sliding backrest and self-controlled locking system, uses

the natural healing powers of gravity along with a system of simple exercises to relieve and rehabilitate, as well as helping in the prevention of chronic neck, shoulder, back and knee related problems.

Some benefits of the system include:

- Natural spinal decompression
- Stretching
- Traction,
- Strengthening
- Relaxation
- Mobilisation
- Toning

I believe the system will deliver excellent benefits not only for physical therapy within a home environment but also in physiotherapy, alternative therapies and in sports clubs from professional level to elite amateur levels.

You can read more about this product range here: http://tinyurl.com/y8wbkega

Products and where to find them

Products mentioned in this book can be purchased from these premier authorised resellers in the UK as well as many others:

https://www.naturesnaturals.co.uk

https://www.goodlifeshop.co.uk

https://www.newmedltd.co.uk

https://www.cosyfeet.com

https://www.sad-lighthire.co.uk

Thanks

Heidi Bilas RN BScN MSc(A) is a registered nurse with the College of Nurses of Ontario. Heidi has clinical specialties in gerontological nursing and occupational health and safety; she also has extensive experience in consumer healthcare.

She has spent much of her practical clinical experience researching non-drug pain management advances.

Heidi's help in researching and her collaboration on a couple of the chapters in this book are immeasurable.

She has imparted so much knowledge to me over the years and is a true inspiration.

Dr. Gordon Atherley holds the UK equivalents of the North American PhD and MD degrees, and LLD, Honoris Causa, from Canada's Simon Fraser University.

Prior to retiring from medical practice, his medical specialties were occupational medicine and public health.

He's chaired a university department and been an author, elected politician, and air force pilot.

He created and hosted Family Caregivers Unite! On Voice America which attracted almost a million listeners and hosted over 400 hundred shows on myriad subjects.

Dr Atherley has long been a hero of mine and I am continually inspired by his doggedness and commitment to ensuring that members of the public

both here and in Canada have the best chance of getting relevant information related to their health, as well as protecting their personal data.

He has given invaluable help on reviewing this book as well as his editorial contribution to one of the chapters in this book.

My wonderful wife and best friend **Soo Archer** has literally saved my life on several occasions through her love, diligence and dedication to being a family caregiver.

She has battled alongside me since we first met in 2001 and continues to be my motivation to stay in control of my on-going battle with Crohn's disease and the additional medical issues I have to contend with due to the adverse effects of prescription medication and their consequences.

She is a strong advocate of natural health solutions, owning and managing companies and websites for both humans at www.naturesnaturals.co.uk and also a specialist dog site at www.naturaldogcare.co.uk and has kindly sponsored production of this book.

My dear friend **Bernd Linke**, whom I worked with for over 32 years, started his career with Bayer Chemical in Germany and then was seconded to the UK division, after which he then joined Booker Health Foods (part of the Booker Group).

He was then approached by Healtheries of New Zealand to open and manage their European office, following which he was asked to join McFarlane Laboratories as Marketing Director for Europe.

Subsequently, he formed Dietary Specialities Ltd with two colleagues, which they later sold to Guinness. Bernd was asked by Guinness to continue running the business.

His knowledge has proved invaluable in the development of natural products with me, that in most cases, in my opinion and those of people who have used them, are more effective and most certainly less hazardous than prescription medications.

We very tragically lost Bernd in February 2017 but his memory will never fade and neither will the myriad of wonderful stories I treasure so much about our friendship.

Karin Jansson, Vice President and USA Operations Manager of Mastercare®, who manufacture the unique range of gravity traction tables for spinal decompression sold by Natures Naturals in the UK. Karin has been incredibly helpful in proof-reading this book and I am hugely grateful for her diligent input.

My closest friend **Colin Jenner**, who lost his life following a tragic accident in Cornwall earlier this year, gave my wife and I so much joy and laughter in the years we were lucky enough to know him and his wife Catherine (also my wife's closest friend from their days at Beresford House boarding school in Eastbourne).

He was the most incredible raconteur and consistently entertaining person I have ever met. An award-winning renovation specialist builder, his knowledge transcended many areas. Never one to be easily impressed, his wry sense of humour and irony has 'kept me going' on many occasions.

About the Author

T W Archer has worked in health informatics since 1994, having been instrumental in a number of public health information initiatives over many years.

He worked in close collaboration with the small British team that developed the first software-based triage assessment system for the NHS in the 1990's which was the precursor of the systems used in A&E Departments around the UK and beyond today.

He is also a passionate advocate of stem cell cord blood collection and cryogenic storage, which to his continuing regret is only practised by a small number of specialist companies even now.

He was the creator and driving force and creator of one of the first online health libraries in Europe, which he created in collaboration with Professor Prakesh Shetty and Dr Michael Wilkinson at the London School of Hygiene and Tropical Medicine, St John's Medical School in Bangalore, India and The College of Health in London.

This library was later adopted as the platform for a public health information portal in the Netherlands through the collaboration of that country's two largest health insurers: CZ Groep and VGZ Groep, in partnership with the Universities of Maastricht and Utrecht.

He also created the first commercially-linked health information libraries in the UK for retail for a giant Anglo-American company and a German-owned high street pharmacy.

He was also Chairman of the Heart Telematics Publications Committee of the G8 group in Canada and was simultaneously Chairman of the Marketing Committee of the G7/G8 Health Informatics Group from 1998-2001.

He was Guest Lecturer in Health Informatics at the London School of Hygiene and Tropical Medicine between 1999-2002.

He has conceptualised and developed several natural health products, including medical devices, topical applications and specialist food supplements, since early 2003.

Prescription Drugs: The road to even more suffering?

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