

# The Importance of Gravity to our Health and Wellbeing, and its Relation to Rest & Sleep. © Feb1998

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The most powerful force known to man is gravity. A force, that cements all planets to an invisible grid. A force which, here on earth, raised mountains, carved out valleys, hurls molten rock into the air and drives the world's weather and ocean currents. In fact, the very force that shapes everything we are or will ever see. From the time we stand up to take our first steps as children, we sense our correct posture and align ourselves for optimum performance. By standing on our own two feet, we are not struggling to overcome gravity as is currently accepted.

In fact we stood up as a species in order to harness and bathe in the earth's gravitational force.

Once this simple and hitherto overlooked concept is accepted, it becomes enlightening to understand how we, the most intelligent of all the species here on earth stand warm blooded and vertical, as opposed to cold blooded reptiles which do not! Yet, in our wisdom we have chosen to ignore the very force that powers all our vital functions when we sleep.

In the last two hundred years or so we have made many advances in science and medicine, We have poured countless £ billions into research and yet answers to debilitating medical conditions which cause untold suffering and premature deaths continue to remain life's unsolved mysteries. Children continue to slip quietly away before they have managed to take a single step. The average life expectancy has remained relatively the same: Three score years and ten or seventy years. Why has this figure failed to change significantly along with the advances in science and medicine? What common denominator does each and every one of us share as we sleep safely tucked up in bed? Ever since the human race began, people have striven to make life more comfortable and nowhere is this more apparent than in the sleeping quarters of people around the world. Yet, in our endeavours for comfort we have never questioned the angle at which we lay down to sleep? Until now! The rhythms of nature, like the ocean tides, are irrefutably linked to the influences of the Sun, Moon and Earth's gravitational force. It is no coincidence that animals and plants' synchronise the birth of their offspring. Yet, each of us chooses to ignore the power of gravity every night as we lay in our flat bed. How safe is sleep in this position? How can it affect our health and wellbeing? Baboons and other primate's sleep in anything but a horizontal position in the branches of trees in order to avoid predators. Cattle and sheep, when given a choice all sleep facing uphill. Birds sleep standing in an upright position, Emperor penguins, for instance, are able to withstand the harsh conditions of Antarctica's winter as they huddle together in an upright posture for several months without food, while awaiting the return of their spouse's. The eggs, which they incubate, are maintained at a temperature near to that of our own body temperature. Clearly then the metabolic rate that maintains our own and every other creatures body temperature is linked, in some way, to the force of gravity, but how?

### How my work began

In 1991 I picked up a GCSE Biology book from a Boot-sale. At this time I had no idea where this simple act of interest was going to lead me. I acquired the book to try to find an answer to a question, which was bugging me. That question was simply to understand how trees made use of mineral salts from the soil.

The reason for arriving at this question is very complicated. Brief explanation; I was involved in a plan to irrigate deserts with wastewater or sewage. "OASIS IRRIGATION PROJECT". In desert climates, high evaporation of irrigation water causes a build up of salts at the soil surface. Except where trees are present. Obviously trees are utilising the salts and storing them within the main structure of the tree. This was an intriguing little puzzle, because not only are trees able to lift water to the leaves, they are able to lift minerals from the soil water. But search as I may in my GCSE biology book to find a reasonable answer I found only an incredibly inadequate explanation of fluid transport, which made about as much sense as war and famine. I still find it hard to believe that medicine and science exists on such shaky foundations as Osmosis? Capillary action? Root Pressure?

## The Birth of A New Theory.

Within twenty minutes I had discovered what is undoubtedly the most far-reaching single scientific breakthrough of all time. My first reaction to this discovery was "surely It could not possibly be this simple". However following a considerable amount of study I began to realise the significance of what I had discovered and could not find any reference to this phenomenon in any science or medical book.

Einstein, when asked, shortly before he died, if there was anything he had left undone? Replied "All my life I have strove to gain but a glimpse of the order of Nature".

**A tree** loses over ninety five per cent of the water that it draws from the soil into the atmosphere via its leaves. In doing so the water is processed by evaporation at the leaf where dissolved salts from the soil and sugars produced at the leaf are retained and concentrated, while pure water escapes as vapour. This retained liquid, once exposed to the

atmosphere during transpiration, absorbs dissolved oxygen, which the tree needs in order to produce further growth. (A similar process is evident in the lungs of mammals.) Any concentration of minerals suspended in water results in the production of heavier water. Heavy liquids produced in the uppermost parts of the tree must fall towards the roots because of the affect of gravity. But, for every action there must also be a reaction, and the reaction is that any downward flowing pulses of heavy mineral laden sap, will cause a far greater volume of a lighter, dilute solution, in adjoining tubes, to be lifted. Visualise the downward flowing sap as a liquid plunger. (Similar processes are evident in mammals)

Furthermore, the internal pressures in the tree are altered by the downward flowing sap, which generates the positive pressure in front of the concentrated flow (phloem). While the negative pressure follows the flow in the return tubes or the (xylem), Which explains how water is sucked into the tree under a negative pressure and how roots are driven into the ground under positive pressures. Consider the roots and trunk as a continually extending sump and disposal site for the heavy downward flowing solutions. Some of which are used in the continuous cycle of growth, while any remaining heavy liquids which reach the roots are re-diluted by incoming water and flow back to the leaves having become lighter, drawn up by downward flowing concentrated solutions in a continual cycle. (Positive and negative pressures are also evident in mammals.)

**The Brixham Cliff Experiments.** In order to demonstrate and to prove this theory. I caused water to flow vertically, up to 24 meters, or, seventy-eight feet, in an experiment at the cliffs of Brixham's Overgang car park, near the Zeneca Laboratory, before Forestry Commission Scientists and the local press. According to the established laws of physics, water while inside a tube is unable to be drawn by suction, higher than 10 metres or 33 feet. I achieved this using a single length of stiff nylon tube with both ends open and submerged in two glass demijohns, which remained at ground level. The whole apparatus was filled with degassed water. 25ml of concentrated coloured salt water was added to the centre of the tube, before the centre of the tube was raised up the cliff and formed a giant loop. Which resulted in the salt water in one side of the loop of tubing flowing down, under the influence of gravity into one demijohn, which overflowed, causing the salt free water to be drawn up from the other demijohn in which the water level went down.

**All animals, including humans,** as do the trees and plants, release water into the surrounding environment. We, for instance, breath out moisture with every breath and shed water vapour in a continual, invisible stream from our skin. However, unlike the trees, we have to eject the salts and minerals when they have completed the circuit, the heavy liquids collect in the bladder via the kidneys, where they are excreted in the urine. Several experiments were performed with urine to see if sufficient weight was present to activate three working models; the tests all proved positive.

Further tests on the specific gravity of urine in relation to posture also back up this research. For example, while resting on a five-degree head down tilt to the horizontal, the specific gravity of urine decreased to a zero reading overnight, while a five degree head up tilt stabilised the specific gravity overnight. Which, at the very least, shows that salts and minerals do arrive in the bladder, via the kidney, due to the affect of gravity on concentrated solutions. During these experiments I monitored the heart and respiration rate of my wife, our two teenage sons, and our three bull terriers, randomly, over several weeks. Measurements were taken while they slept both horizontally and in the inclined position. Over several weeks, it was constantly observed that in all cases the heart rate decreased by around ten beats per minute during inclined sleep, and the respiration rate decreased by four to five breaths per minute when compared to horizontal sleep. These measurements were later repeated and electronically confirmed by a nurse working in the Operation Recovery Room of Derriford Hospital, Plymouth. Yet the circulation and metabolism in all cases was higher in the "inclined" sleep than the horizontal or traditional sleep.

. Having very carefully examined the established views on human physiology, my theory has consistently fitted with direction of flow in all of our bodily fluids. It gives us a clear understanding of Starlings Law of the Heart.

(Increased venous return, or more blood flowing back under increased force).

**Humidity**, was found to be a very important factor in determining the speed at which the inclined sleep therapy works, as any increase in humidity impairs our ability to shed water as vapour. Those people living in a low lying coastal or river valley area, found a dehumidifier very helpful, needing to use it for only two or three hours in the bedroom prior to retiring. **A simple solution** In order to prove that this simple flow system is in fact a vital part of us. Several volunteers took part in a primary trial and slept with their heads higher than their feet by raising the head end of their beds six inches or fifteen centimetres. With a six foot long bed this produced an angle of five degrees to the horizontal. © **Feb1998**

All who took part, experienced benefits, some being almost beyond belief. Several people have shown that it is possible to reverse damage to the central and peripheral nervous system, including complete spinal cord injuries and nerve damage caused in chronic progressive multiple sclerosis, including damage to the optic nerve. Varicose veins, leg ulcers, oedema, arthritic conditions, lethargy, muscle wastage (atrophy) and osteoporosis have all responded well to this therapy. However time scales in each case are different. Some respond in four weeks while others may take four months or more. An improved resistance to infection has been observed and I am hoping that this will enable

people suffering from immune deficiency disorders to achieve a stronger resistance to seasonal viruses and bacteriological infectious organisms.

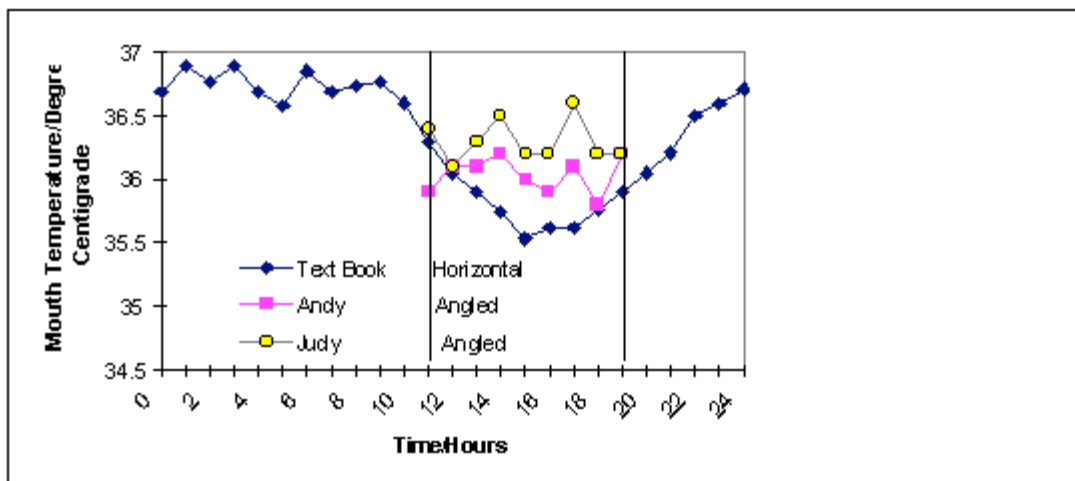
Results from Experience: Since the primary trial, many positive benefits have been achieved using this simple modification to the way that we sleep and sit. It is interesting to note that, during the first few weeks, the body has to adapt to the new sleeping position.

We found that the first week or so feels a little strange and some people experience a slight ache in the spine, that appears to move upwards into the neck, causing a slight stiffening; however, this soon disappears and seems to be a threshold that needs to be passed before the full benefits of this therapy are experienced.

Several participants, including myself, have reported a slight increase in height, suggesting the spine is adopting a more upright posture and is probably due to a gentle easing or stretching in the spine. Muscular aches have been reported and are attributed to an apparent increase in muscular growth and firmness.

Some of the people on the trial, who had previously experienced restlessness during the night, found, during the first few weeks of sleeping on a 5 degree incline, they had a tendency to move down the bed. To give support they put the foot end of the bed against the wall. Many mattresses were found to cause problems due to slippery nylon materials used in their construction and where nylon sheets were placed on the mattress. Another way support was achieved was by placing a duvet under the bottom sheet, until a more relaxed sleep pattern was experienced.

## Why do I feel so cold in bed?



## Metabolism and Circulation

Many who have taken part in this study so far have noticed that they feel warmer in bed. People who have had cold feet in bed no longer complain of this problem, and many find that they produce less urine during the night, resulting with less frequent visits to the bathroom. This suggests that both metabolism and circulation has increased and, along with it, evaporation from the skin and breath. In order to test this, my wife and I measured our mouth temperature every hour throughout the night.

### Spinal Cord Injury

Terrific! So glad you found the backing you were looking for!

Congratulations!

Thank you very much for the update on this interesting technique.

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**MEDICAL BREAKTHROUGH:** Andrew Fletcher's bed treatment will now be fully investigated. Picture: Steve Porter

HEALTH ministers have pledged to look into the benefits of a simple bed treatment, pioneered by a West Country man, which is having a dramatic effect on spinal injury and multiple sclerosis sufferers, writes ANTHONY ABBOTT.

It marks a real breakthrough in Andrew Fletcher's five-year battle to gain official recognition for the Naturesway Sleep System that appears to be succeeding where conventional medicine has failed.

Thanks to the backing of Torbay MP Adrian Sanders, Andrew, who lives in Torquay, has received a letter from the Parliamentary Under Secretary of State at the Department of Health, Lord Philip Hunt, saying officials will examine the benefits of the gravity bed.

The Minister said that the Government was always interested in developments that might lead to improved care for patients.

Andrew said: 'This is long overdue. It is absolutely incredible to me to think that there is something here that doesn't cost anything and I can't understand for the life of me why everyone isn't doing it.'

First revealed in the Sunday Independent three years ago, the Naturesway Sleep System involves raising the bed a few inches with blocks of wood or ordinary house bricks.

The discovery followed several experiments by Andrew who found there was a circuit which made water carrying salt and nutrients flow upwards. He wondered how gravity and the flow of water would affect the human body. Andrew set up a controlled study on the Internet and scores of sufferers around the world found their condition improved with the treatment.

The web-site features scores of testimonies praising the gravity bed method and Andrew has now been asked to organise a convention in Torbay next year.

Of the many people who have enjoyed improvements in their health using the gravity bed, none was more dramatic than the case of 69-year-old John Cann.

The former commercial diver had no feeling in his legs for eight years after an operation went wrong and left him paralysed.

He was told that, however much movement he had after two years, there would be no further improvement, but then he tried raising his bed and the results were spectacular.

When John, from Gunnislake, was first featured in the Indy last April he had got the feeling back in his legs and was able to stand. But now, just five months on, a delighted John is walking further with the help of parallel bars and is determined to get on to crutches as soon as possible.

He is getting some specially made boots to support his ankles and says he has never felt better.

He said: 'I am getting stronger and stronger every day and the only thing that's holding me back now is my ankles and my knees.'

John, who lives alone, is noticing more and more feeling in his legs as the nerves recover and his long-term aim is to walk unaided

On Saturday April 15<sup>th</sup> 2000, John obtained the timber for parallel bars to be erected at his home in Cornwall, On Sunday I went to John's home and completed the job, for tomorrow was to be a momentous occasion indeed.

John was left paralysed, in 1990, when surgery to his spine went wrong. He was told that after two years any chance of further recovery would be highly unlikely and for the next six years he experienced little if any change in his condition.

Monday morning I am on my way to John's home in Cornwall, to meet with Tim Iredale, who is a news reporter for Carlton Television Southwest. We intended to witness something truly magical. But could not have imagined what was in store for us.

John was about walk in front of a television camera and crew for the first time in close to ten years. John had told me that he had regained the ability to move his legs, but I had grossly underestimated how much function John had regained.

During the interview, John was asked to show how he manages to get out of bed now and he transferred with ease both in and out of bed, leaning back and lifting his legs. He was then asked to raise his legs while lying on the bed and he obliged with ease. When asked if he could feel when touched on his legs, he replied my legs feel like normal legs instead of heavy weights. John then went on to explain how much of the swelling in his legs had gone-and that this flies in the face of the current act of elevating the legs above the heart. Advise from the medical profession, which John duly ignored in favour of sleeping with his legs down.

Fortunately for John this meant that he could now wear ankle braces and special shoes, which would, provided support for his substantially weakened and as yet unresponsive ankles.

John approached the parallel bars in his wheel chair and applied the brakes when he was in position. He grasped the two ends of the parallel bars and using his legs he pushed himself into a vertical position. Towering some six feet four inches, John moved one leg in front of the other, bending the knees as he lifted each leg to walk 12 feet to the end of the bars. I turned and looked at Tim and saw disbelief and astonishment flash across his face, I bet my face was a sight to behold too. John then turned his powerful 19 stone body around and walked, yes walked back to his chair. Struggling and somewhat weakened by the experience, he lowered his body into the chair and his face had the expression of a boxer who had just knocked down his opponent. He said casually: 'Was that alright'? John had indeed delivered a powerful blow to his opponent.

Fortunately heavy rain prevented us from doing a retake and the rest of the interview took place in John's bedroom.

When the story was finished and everyone was ready to leave, I turned and thanked the camera man and Tim Iredale, who turned and said that this is one of those days that you will always remember, one of those days when you know exactly what you were doing.

The cameraman said while shaking my hand that: ' it has been a privilege to work with me and witness the results from such a simple application'.

**I drove home the richest man alive that day and will remember it for the rest of my days.**

On Monday the 17<sup>th</sup> April 2000 I waited for the local news on Carlton TV and saw the opening news which pictured me looking down my Naturesway Sleep System, a simple bed designed to take us into the new millennium. After the interlude the fun really started. John was walking for everyone in the South West of England to see, at least. The news stayed focused on the remarkable effects of two eight-inch blocks tucked under the head end of John's bed. No \$billion research, no waiting for the next ten years to see if it works and no room for any refutation of the results, which were plain for everyone to see on Carlton Television, News, Language Science Park, Plympton, Plymouth, Devon, UK. But John is not the only person with a spinal cord injury, who is benefiting from the effects of gravity, in fact there are two more people in the Torbay Area of Devon who are making steady progress.

**Sunday Independent April 16th,2000 page 4 Burrington Way, Plymouth PL5 3LN UK**

**Heading: RAISING HIS BED TOWARDS THE SKIES, BY ANTHONY ABBOTT.**

WHEELCHAIR-BOUND Julian Boustead is taking to the skies for a parachute jump to raise awareness about a simple bed treatment that's given him a new lease of life.

The 37 year old - who was left paralysed after breaking his neck during a charity assault course run. Struggling to get out of bed in the morning and always felt the cold until he took the simple step of raising the head of his bed on blocks of wood by a matter of inches. Julian, who lives near Torquay, has urged everyone to try the Naturesway Sleep System, Pioneered by West-Country Inventor Andrew Fletcher, and first revealed in the Sunday Independent nearly three years ago.

He said; 'I used to feel dizzy when I got up and I couldn't stay outdoors for long because I always felt the cold. 'After the first night, I got out of bed straight away with the help of the nurses and I did not feel faint, My circulation has also improved. I would never put the bed back again and all my family are sleeping on raised beds.'

Now Julian, a former professional boxer and equestrian expert who still teaches youngsters riding, has premised Andrew Fletcher he will do a parachute jump this summer to show other sufferers the benefit of the bed treatment.

**Julian Colour Picture: Sub heading: Wheelchair-bound Julian Boustead will jump from the skies this summer. Picture Steve Porter**

It was former engineer Andrew who contacted Julian two years ago after learning of his plight and suggested he tried the bed method.

**Gravity**

Andrew was fascinated by the way water moved up trees through roots and wondered how the gravity and the flow of water would effect the human body.

He put some bricks under the head of his own bed and within four weeks, his wife's varicose veins had disappeared. Since then he has discovered his treatment has helped MS sufferers get some feeling back in their legs and arthritis sufferers.

**John's story**

In 1990 I had two slipped discs, and had a laminectomy which ended up with me being unable to walk. It is thought that a delay of 39 hours for surgery to what was found to be a compression of the spinal cord was responsible for my paralysis. I was lucky enough to get a bed at ROOKWOOD Hospital, a place that I cannot thank or speak highly enough of, they gave me back the will to live.

After two years all the slow progress stopped as I had been informed to expect. I had no feeling from the hips down and no movement of the legs at all. Luckily my

arms were o.k so transfers to the wheelchair were more of a throw which usually ended with my coccyx hitting the wheel, but as there was no feeling, so it didn't

bother me too much. After a few months came the most horrendous phantom pains like a knife attached to the mains that struck anywhere in the legs or feet, for

this I was on strong painkillers or if it was too bad injections.

When driving my car around a corner, I had to wedge my head against the roof of the car to stop my body from falling over. This was due to damage to the nerves, which used to control the nerves which held my upper body erect, something I used to take for granted as everyone else does. Getting into bed would involve tremendous effort. I would throw my rear onto the bed and then with my right hand holding the wheel, I would pull my left leg up, with my left hand, holding my trouser leg. Then holding the bedding with my left hand, I would pull my right leg up with my right hand. At one stage I had even asked for my legs to be amputated, as they were useless and hung heavily. In addition my toenails would fall out on a regular basis, predominantly the big toe nails, often coming away when I removed my socks. I often bumped my coccyx while transferring from my wheelchair, though I could not tell if I had injured myself, due to the absence of pain.

About two years ago a cutting from a paper was sent to me, it was about Andrew Fletcher's raised bed. I rang Andrew and he explained his theory and told me how to raise the bed. The bed was raised eight inches that day, when I saw the bed it looked impossible not to end up on the floor at the foot. However that night

was wonderful, the phantom pains stopped and I had a full nights sleep. Slowly things started to improve, improvements such as instead of having to grab my sock or trouser leg to lift my legs onto the bed I could lean back and swing them up, muscles in my thighs started to twitch, turning over in bed became possible without having to grab the side of the bed and pull myself over, not having to pull my legs over by hand.

I have experienced so many improvements that creep up and are not noticed until days later. Pains started again and I thought here we go again, but it soon became obvious to me that it was nerve regeneration pains that I was experiencing. Although they felt like previous pains, these stayed in the same place anything from six to twenty four hours. The next time the pains moved further down the leg, now I am glad to say those pains have gone the last ones were in my toes. The present pains are in the feet again but generated from the nerve that runs under the buttocks, now the feeling has come back to that area it makes sitting in the wheelchair most uncomfortable, but that is the next problem to get over, but I will, in the knowledge that something else will improve when the new pains subside.

Now, what I would like to say to everyone who reads this is; if you have any medical problem try it, and more importantly "stick with it"!

Most of all have faith in the healing power of gravity, it has worked for me, AND WHEN I WALK AGAIN! I will first thank Andrew, and secondly I will let everyone that reads this web page know about it.

John Cann

Case1:

On the 7<sup>th</sup> of June 1997, I met John at his home, we discussed his improvements and he assessed them at 60 per cent. It is now almost 14 months since we started. John now lives in a flat and has become fully independent.

#### **Pre intervention.**

For two years following his accident John had observed considerable deterioration and had recovered no sensitivity or function. John fell from a two-storey building and sustained a complete spinal cord injury at T9 and T10 resulting in two severely damaged vertebrae's. So severe was John's injury that his daughter was told by his consultant that it was not possible to operate as his spine was smashed to smithereens.

She was also told that he would always be dependent on others.

He also suffered a stroke, which caused him to lose most of the use in his left arm and hand. The stroke also affected the left side of his face (slightly causing him to dribble). His left shoulder causes him some considerable pain, which John says is unbearable. When he tries to raise his left arm a loud clicking noise is heard. He is unable to rotate the left arm or raise it above shoulder height and is unable to push with any degree of force.

The main vein in his arm had collapsed and he was told that blood could not be taken from his arm because of it. Because of the problem he has with his left arm, hand and shoulder it was decided, at the spinal unit he attended, that he could not use a manual wheelchair and should therefore use a motorised chair.

John has lost all sensitivity and voluntary movement below the injury. He is unable to maintain his body temperature, feeling cold continuously. He has no control over bowel or bladder function, and suffers severe oedema in his legs and feet. He also has a large burn on his left leg, caused by a gas fire and his absence of sensitivity to heat.

Legs are firm to touch with the skin taught and not resembling living limbs.

John is unable to maintain an upright posture as abdominal muscles and upper body strength is very weak and lacks control. His posture leans heavily towards his left side. The extent of muscle wastage throughout John's body was obvious to me as I had known John prior to his accident.

#### **Additional problems**

Muscle spasms during rest, aches and pains, poor circulation, lethargy, feeling cold in bed, irritability, fidgety limbs in bed, loss of sensation and loss of mobility due to the accident. Night sweats are a constant problem, eyesight poor, continuous urine infection, which flares up around once a week and does not appear to respond well to antibiotics. John feels the urine infection makes him shiver all of the time, causing him to become lethargic, followed by a high temperature and loss of appetite.

He wears a thick overcoat all of the time, even in the summer. John suffers from fits, which causes his head to shake violently from side to side and his left arm spasms outward. Intervention: To avoid horizontal bed-rest and poor sitting posture by sleeping on an inclined bed in excess of five degrees. The idea is allow gravity to continue acting upon the fluids within the nervous system in one direction, that being downward from head to toe.

#### **Pilot Study Notes:**

25-4-1996 Week 1 Muscles started to soften, leg tissue softer and upper thigh feels different, "Like they are there now". Back aching (moving up and down the spine), Felt lethargic and had lighter sleep.

2-5 Toe and fingernails improving muscle and skin on legs, more supple, urine, clear but smelly or stronger. Felt warmer in bed. Night sweats stopped.

9-5 Burning up. Urine still improving. Sensation of inner warmth at the top of legs. Muscle spasms improved. Thighs feel strange. Replaced catheter had no infection

16-5 Reported progress to physiotherapist at Torbay hospital. More even body temperature. Strength improving. Felt tightness in pelvic area. Had more muscle spasms, which lasted 4 days. Sensation of warmth moved to calves. Floating pain in spine. Felt stronger and better in myself. Finger and toenails still improving. Noticed sensation when pinched, in left side abdominal area is now three inches lower than the right side. Hair seems to be improving. 29/5 Easier to transfer etc. Using left arm and hand more, (more control). Developed half moons on nails. Warmth in calf muscles. Noticed increased sensitivity 3 inches lower than right side on abdomen. Funny feeling in thighs now gone. Muscles in arms aching. Stiff neck, warmth in feet and swelling on left leg has gone down. Feel pressure of pillow between legs at 4pm and at 5pm feeling a lot stronger from knee to ankle. increased warmth in lower legs. Now have warm sensation in tummy.

21-6 Noticed indication of nerve connection in toes? Now able to hold and maintain an upright posture. Oedema in legs very much improved.

26-6 When lowering legs from the bed to the floor, Penny and I noticed that there was some evidence of self support as my legs did not drop to the floor as they had done previously

1-7 Lime-scale in urine increased.

16-7 Following pins and needles sensation in his legs, John is now able to feel a pillow placed between his calf muscles. 3-8 Toes responded to movement after massage and left leg had normal reflexes when tapped on the knee. Right leg still has no reflex. No spasms when standing in the frame.

12-8 John has now moved from the guest house to a flat. This is a big step for John and means that he is no longer dependent. He could not have made this move when we first met.

6-8 Legs feel as if they want to itch? When in the standing frame, no more spasms. Note: Some days John's link to his toes is less obvious and shows little signs of control. Adapted to new environment OK.

13-9-96 John visited Odstock, Salisbury's spinal unit for an examination. During his visit he was accused of weight training, because of his now huge muscle bulk. He has now sustained a broken knee on his right leg, caused by levering his leg against the joint while trying to move from his chair. Xrays revealed bone formation 2 inches below the damaged area of the knee.

17-9-96 Visited John who reported that now, when he sits down he actually feels like he is sitting down. He is now able to feel the pressure from his catheter strap. He can also feel a pillow when it is placed between his feet, while resting. Left hand has improved vastly. When I pressed his toe firmly, he could feel the pressure. His right toes have been responding by moving when trying to move them. The left toes are also responding but not as much. No urine infections. John is unable to use the standing frame because of his knee injury.

25-10 John told me that his catheter leaked, but this time he could feel that his foot was wet. I tested this in front of Mrs Penny Meredith, by placing an ice cube in his sock. After a minute he could feel both the cold and wetness. Also dramatic changes in muscle spasms, now only evident in toes.

2-11 John confirmed that he had had an erection, he also confirmed that his bowels are functioning properly and can now push his stools out by muscular control. Penny Meredith (Nurse), was first to point this out and said that his stools now had shape and looked normal, which indicated that muscular control had returned to his bowels.

8-11-96 Sensation on left side now moved down to pubic area. "And it's pretty strong". Burn mark on leg appears to be getting smaller.

28-3-97 Met John, who is now convinced that his legs will be moving within 4 months, so strong is the feeling in his legs that on occasions he has kicked out while trying to do so. It is not like a spasm, which he used to get, this was completely different. He also feels he may be able to hold his urine back and he is intending to try a normal catheter. His eyesight has improved to the point where he is now able to view the television properly.

15-5-97 John told me today that when he uses a bladder-wash (consists of a small clear bag of fluid, which he attaches to his catheter. He is now able to physically push urine and the liquid used in the wash bag from his bladder, up the tube and into the bag, whilst holding it above his abdomen. He is achieving this by consciously using his muscles, which indicates bladder control may also be returning.

7-6-97 Met John at his flat. His bowels are functioning OK now. He still feels like his legs want to itch, but they don't. Over the last two months he has had pains in his kidney area, which caused a severe ache. John feels that because of his right knee injury, (which has not yet been operated on?), he is unable to use the standing frame any more.

He has developed very large muscles in his upper body. Still able to push bladder wash back into the bag, by controlling his bladder. Increased vitamin C to 1000 mg per day and urine is still clear. Furthermore, he has not had a urine infection since he began sleeping on an incline. The development of inner warmth in both legs and is more intense and now feels like he has used a deep heat type of treatment. This sensation is always in his thighs and calves and on occasions runs right through to his toes. Over the last two weeks John has begun to feel pressure on his bottom when lying on the bed. Before he could feel pressure only when sitting in his motorised chair. Hips very tight and getting a lot of headaches recently.

When asked how far he thought he had improved since we began this therapy, he answered sixty per cent. I then asked John if he still had problems with his left shoulder. He is now able to fully rotate the arm and can push with it. The strength has increased by up to seventy per cent and he has no pain from it at all. I then asked John if he thought he would be able to use a manual wheelchair and he replied "Yes". This is a significant turning point for John, as he

would obviously benefit from additional exercise. When asked about his fits, John told me that he no longer has any problems, other than an occasional slight spasm in his left arm, which he is now able to suppress.

\*\*\*\*\*

#### **Case2:**

#### **Julian: Complete Spinal cord injury at C6 and C7.**

#### **Pre intervention**

He has no feeling in his legs and suffers from a constant urine infection, which appears to flare up once a week and does not respond well to antibiotics. This urinary problem causes influenza-like symptoms and makes him feel very cold. He has had pneumonia 3 times since his accident. He is unable to use or feel his hands, which are locked up in very tight fists.

He has no normal reflex action in his legs. Curiously, his leg appeared to go back when his knee was struck. When I tried to cross his legs over to test his reflexes, they were extremely tight. So tight that I was worried about breaking his leg and decided to support his legs under the knee joint. His legs are devoid of sensation and voluntary movement. Each time he uses his standing frame he blacks out. At one point Julian was told that he should have an operation on the tendons in his wrists in order to release them. Julian refused to have the operation at Salisbury, (Odstock), Spinal Unit. He also refused to have his bladder sphincter surgically cut. He is devoid of sensation below the armpit level and has little control over his upper or lower body.

While in bed Julian suffers from feeling very cold. He lacks the ability to control or maintain his body temperature during the day or night. "I also suffer with headaches regularly. Throughout the night, Julian requires turning several times, in order to avoid pressure sores. He is unable to fight his children off when they play fight with him, while he rests in bed.

Two years prior to his spinal cord injury he broke and dislocated his right shoulder. This caused him considerable pain and he was told that he would always have problems with it. One year later he broke and dislocated his left shoulder and the prognosis for ongoing problems was the same as the previous one. Following Julian's Spinal Cord Injury he still has problems (as predicted) from the damage he sustained to his shoulders. Two years from the time of his spinal cord injury and four years since his first shoulder injury, Julian has made little progress in this area. He still suffers from the pain.

#### **Pilot Study Notes:**

21-8-96 Body temperature has gone up, feet are warm now, muscle spasms have improved, legs feel less tight, hands feel warm, hands feel as if they want to move. Abdominal muscles more supple and bowels working better.  
25-8 Upper body strength has noticeably increased. When using calliper, I noticed my legs were swollen as they normally would have been, however after one night's rest they returned to normal. No lethargy. Aches and pains feel different now. Am able to do more physiotherapy.

31-8 Had my first tummy ache since the accident. Urine is clear now. Standing in the standing frame longer. Feet have been moving? Hands softer, urine leaking during the night. Feeling tired.

7-9 Change of sensation in toes. I feel well in myself. Have now developed tingling sensation in my knees, I feel like they want to move. When trying to raise my toes they go down? This is a very interesting observation, because when I tested his reflexes at the start his legs went backwards slightly? Upper body strength still improving.

9-9 Spent two nights lying flat to determine whether it was the bed which was improving my condition. I felt irritable and my muscle spasms increased. I also noticed a sweat odour.

14-9 Noticed twinges in my legs and now able to cross my legs with a little help. Which means that my muscles are more relaxed. Developed pins and needles feeling in my legs and I now have backache.

19-9 All sensation of pressing pressures now responding and I am able to feel pressure on any part of my body. Have not had any urine infections since raising my bed. Not drinking so much. Calf stretching exercises now cause me to ache normally. I spent 2 hours upright in my full body calliper and I was OK the next day. I am OK in the mornings now and I feel like I can get up and walk. I now feel an uncomfortable pinching sensation when I am in bed. I am always as warm as toast now and my hands do feel warm.

5-10-96 80 over 40 blood pressure and my heart rate is 40 beats per minute, which incidentally was the same as my fighting fitness rates. (former boxer). I haven't had bronchitis since I raised my bed, this is impressive because I have suffered pneumonia 3 times in the past since I had my accident. Had a urine infection.

20-10-96 Received advice from Tromans at Odstock Spinal Unit, though did not have any use for it. Headaches now gone. Shins burning up and very sensitive to touch, sensitivity in my legs has now fully returned. Toes are now working correctly and like the rest of my body are more sensitive. I feel that I am able to do more sit-ups 3 lots of 40.

5-11-96 Hands now staying open, tingling has improved in hands and lower legs, sensitivity improving all the time. On Sunday I stood for seven hours and didn't go giddy at all. My legs were swollen though. Feet still a little swollen now. Toe nails growing faster, I cut them every five weeks. My catheter is suffering every seven weeks now instead of every five weeks.

6-12-96 so much warmer now, both in and out of bed. Sat outside with just a T shirt on. Sat in my chair today, I am now able to take the weight of the brown board from under the bed.

3-1-1997 Hands more relaxed and warmer. I am able to stay warm despite the freezing weather. I am now able to throw the kids off me when they attack. Had no urine infections since October, I used to get problems once a week.



Bowels working better and I did not get ill this Winter. I would normally become very ill. "Everyone else has been ill though".

19-2-97 Bladder infection, swelling is bad and have been sick for six days. 30-3-97 Everything OK. Had examination at Salisbury, (Odstock) All my internal organs are working fine/ Ankles aching, sensitivity OK all over, I can feel a creased sheet on any part of my body.

9-5-97 While out for the day in a T shirt, I suffered a severe bout of hypothermia and was determined not to end up in hospital, I felt very ill. I finally arrived home and within 3 hours of inclined bed-rest I was completely back to normal.

9-6-97 When asked to assess his improvements on a percentage basis, Julian insisted that he is a 100 % better than before he raised his bed. Julian travelled several miles the other day in his wheelchair and while going down hill he tipped it over. He waited twenty minutes for a passer by to help him back into his chair and then continued on his way.

RECORDED CONVERSATION:

Andrew K Fletcher holds the master tape.

17-8-1997

The Conversation

**Today's date is Sunday August 17<sup>th</sup> 1997 and I am at the home of Julian Boustead, Sitting down, watching Julian writing with a felt tipped pen, on A4 sheets of paper. Julian appears to have control, he appears to have grip in his hands and he can feel the felt tipped pen, which is held in his fingertips. And Julian is forming letters and words in front of my eyes. Julian assures me that he couldn't do this before raising his bed, which has been about 11 months ago.**

I have left the tape on record now in order to monitor what is said during this exercise.

**Recorded**

So, just trying to get my head around what's happening. When we started, before we raised your bed, your hands were locked up solid? Julian: "Yes". You had no sensitivity in your fingers? "No, none at all, just numbness on the left, well both sides really, exactly the same really and just cold on the arms.

How would you push yourself along in your wheelchair before? "With the palm of my hands". And the hands were in the shape of a fist? "Basically yes". They were forming a fist because they were too tight? "Yes, mainly spasm". So they were locked up! How are your hands different now? "Nice and soft, lovely and warm and more relaxed and better sensitivity and feeling in both hands".

So you can feel the pen that is in your hand now? "I can now, yes, well the only ones I can't feel is my little fingers, that's all really, you can tell" Julian points to skin damage to little finger.

I told Julian that this was similar to the way people with leprosy damage their fingers and toes, due to loss of sensitivity.

Could you just write your name and address and telephone number for me, I know that we have done it once before, but I'd like to see it once again? So Julian has started to write his name and address and the hand writing is readable. Julian has written his name. He is writing with his right hand. Interestingly his second attempt at writing appears to have improved by around 40%. Could you write the date down? "17<sup>th</sup>"? Yes, and its Sunday. "I know that". August 97. Could you sign your name? Excellent!

Taking a new sheet of paper could we try again now using the left hand? Julian added, "I have never been able to write with my left hand".

Julian is now holding the pen as he did with the right hand previously. Can you feel the pen in that hand? "Yes I can feel the same feeling in both hands really". How are you gripping the pen? "I thought it was balance. I don't know, I am holding it between my thumb and forefinger, it feels like." You say it feels like, you can feel yourself gripping? "I can feel it but". There's no strength? "No strength, well I suppose there must be a little bit to hold the pen". I see that from time to time the thumb is moving up and down. "Well to be honest with you, I suppose subconsciously your trying so therefore its trying, its sort of spasmodic movement through. Well it does move up and down slightly don't it"? It does move up and down! Now, move the thumb up and down. The thumb is moving up and down, would you agree with that? "I would really". Well we are not imagining what we are seeing here are we? "No, I suppose it is on the ends, definitely some improvement then, I'll just carry on writing, I'll never be able to write my name else. Its doing the letters back to front you see". I can read Newton Abbot and Julian is writing his telephone number and I am able to read it. That's amazing and Julian has just signed his name. "It looks like John".

Amazing, Pretty damn excellent. "Well that's the first writing I've done since I've been home!" Why couldn't you have written before? "I couldn't put enough pressure on the pen to make enough mark".

Could I just shake your hand? "Ain't making no deals." No leverage and no trickery, how does that feel? "It feels normal." Does it feel like you would expect it to feel if someone was shaking your hand?

Can you try to move the other thumb and again don't try to lever. I can see the thumb moving can you keep the hand still. "The thumb is moving." It is, It is, it appears to be trying to work doesn't it, though there is only a small amount of movement, just a twitching of the thumb. "Yes but that's controlled spasms, it's just trying to get there." So if I shake you're other hand, again no trickery. How does that feel? "It feels normal again., apart from the little finger, that's all." Now the thumb is definitely moving on this hand. There is a lot of effort going into that and I can actually see the thumb moving, its lifting up, are you trying to lift the thumb up? "Yes the thumb-I am, and that's the

hardest one to do, the left one is worse." Try to push down on the thumb. The thumb is going down. Now try to lift the thumb. The thumb is going up, can you see that? "Yes, its doing very well." That's amazing! "Just something I just don't take much notice of."

You usually help with drawings now and you couldn't do drawings before? "No a few months ago I couldn't even hold a pen." How long have you been able to hold a pen? "About 2 months. "You know that's about the best I've done, normally the pen slips out of my fingers". That pen's not going to slip out! "No". I saw you earlier grip a piece of paper, could you explain how you are able to achieve this? "Yeah you just put your hands around it –I don't know really I just get my wrist and tend to flick it, and its there, it's –I don't know really." Looking at you holding the paper it looks normal. "No I just take it for granted really.

You mention that your hands would be cold normally prior to raising your bed? "Yes but they are lovely, lovely and warm all of the time now, like normal body temperature." You can determine this without touching your hands?

"Yes, I know if they are warm or cold, they feel lovely!" That's a definite link back to the brain! "Yes they do feel nice, whereas before they did feel cold and they were cold too! A sort of numbness feeling but all that's gone, pins and needles, static, all that. The only thing that feels tight are my little fingers." You said at one time that they felt like a fat lip? "Yes they still feel like that, funny enough, but not all of the finger now actually. All of the hands felt like it before though."

"I have noticed that if I get pins and needles in my hands it usually affects the little finger more. Yes its like you have laid on it and it's gone to sleep." Previously I used to get a feeling that my hands and forearms were dead. It's not half as bad now and only evident on my little fingers.

How is the sensitivity around the rest of your body? "The only bad sensitivity I have got is from the shins down." When you say bad, do you mean that you can't feel sensitivity below the shins? "I can feel all over, but it's a bad tickling feeling and pins and needles from the shins down, whereas before it was from the armpits down." "The rest feels quite normal internally and externally, apart from sharpened things and hot and cold objects really. But internally I feel lovely and warm, I feel normal, which is frustrating isn't it."

What about your upper body strength, are there any changes in that area? I know we have discussed this before. "I'm definitely stronger because we are talking about going on to heavier weights. "Upper body strength, well, I had a wrestle the other week, funny enough the week before last with the children, I was right as rain with them, so it's a lot better for me because, before I could do nothing!"

I have seen you in your standing frame, you let your body go back and then pull yourself up. How do you achieve this, what are the mechanisms you are using? "If I can spasm the muscle, basically I can spasm it, -of I don't know really, but I can feel it tensing, so I can make it work." You can feel the muscles contract, is that what you mean?

"Yes, I can make myself free stand, obviously from the waste up for about thirty seconds, by controlling the spasm as such, which normally is done subconsciously, whereas I am more aware of it. Sitting on the bed is so much better as well, I can feel the tightness in my back, whereas before it was so loose. So it's nice in that area, which is improving vastly and goes from strength to strength. But I do feel my body gets tired though, that's the trouble." Would you attribute that to doing more? "Just doing more exercise, yes and for longer periods, although it is only ten or fifteen seconds longer on each exercise, my body just seems to find it a little more taxing really."

What kind of exercises do you do in your workout? "Just stretch ones using the body in itself. Then free sitting on the side. Whereas it was usually for about ten seconds, My father-in-law Vince helps me to do it for about thirty seconds now and that's four different exercises and over that period it's a much longer time." What about sit-ups, you mentioned them, is that unaided? No Vince sits in front of me sort of aiding me, but I still have to pull up for myself. So I still try to spasm the stomach to help ease up as well, because if the muscles are tight there is additional friction.

What about your abdominal muscles, are they more supple or more tense? "Supple I'd say."

When we first met your legs were really tight. "They're very tight now actually, I can feel that they are tight now." When I first met you they were like rigor-mortise had set in. "Yes, but they are quite natural now." I was worried about breaking your lags, when I tried to test your reflexes. "They go tight at the moment but they need a good stretch to make them go alright again.

Do you think they are affected by sitting in your chair? "I think they are actually, it depends on the chair I'm in. It acts up behind the knee, its that sit down posture, I think." "They just tend to tighten up during the daytime."

I advised Julian to raise the bottom of his chair. Julian said that he would put an extra cushion under his seat. He commented that his wheelchair was like a bucket, but added that this posture was useful outdoors.

"This does make me feel worse than sitting in the other one, in this position, which says something's not right with it. "No it feels its not right too."

How does this alter when you get on your inclined bed? "Just a few strong spasms really, until I stretch out again and then I'm alright and quite happy, but this is uncomfortable all day long."

What about waking in the mornings, is that improving? "Waking, No just normal! I get up normal every day. Don't get that horrible giddiness either. So you used to feel giddy in the mornings? "Terrible, funny enough I felt giddy on the way back from when I met you, (down by the horses and in his motorised chair.) "My tube was blocked because of the way I'm sitting you see. I had to go for a pit stop and have an alteration because the tube was kinked and it was not flowing the way it should be." But again it's this bloody position!"

**PAUSE**

Would you like to repeat that? "I think the feelings in my feet have recently changed, they feel like a burning sensation whereas before it was like pins and needles." If you touch your feet are they hot? "I don't know really, Vince could tell you that, he never complains that they are cold now, because before they used to be freezing." But now when the nurses come in the mornings they say my feet are like pieces of toast." "But that's the way they feel, they feel they are on fire, they really do they feel red-hot."

Do you get spasms in your legs now? "I do get spasms in the legs. Funny, I had a bad night last night, well I say bad, it was just that I was really close to the edge of the bed. My leg spasm'd and just dropped down the side of the bed, whereas normally I would be able to control it and keep my legs straight. But normally with regard to spasms, I wouldn't really have any problems at all. In fact I get my legs into position and they stay there all night and don't move at all and I have a comfy night." How were they before we put the bed up? "They were quite tight before and if I moved they would spasm more. And they would be jumping around all night, whereas they don't do that any more." "They do spasm at times but very rarely."

First time I called my Wife down stairs in may weeks, whereas before she was down all of the time, you know, repositioning me. But last night was the first time in weeks, so its minimum really, wouldn't say I don't get any because I would be telling a lie."

"But then again on no pills so its even better again isn't it." You say you have reduced your medication? "Yes, I've dropped it down again now, especially the muscle relaxants, I just don't feel no need for it, You know its doing the job on its own and that's another bonus."

Your sitting I a chair now, do you actually feel like you are sitting down? "I feel like I'm sitting down and its as uncomfortable as hell, like I want to get up and move." Again relating this back to how you were? No then I was just glad to sit and didn't mind what position I was in." Could you determine what position you were in then? Very vaguely and only visually because you knew you wasn't square."

"But now you feel uncomfortable. If my hips are under too far, I know because its pinching, my internal muscles feel like they are pinching as well. You feel like you are sat on them. You just move the hip out and then you feel more comfortable. So there is obviously some sensory improvement there"

What about bladder control? "Well no my bladder control is really iffy. I think just paralysed as it is but no infection so again that's another bonus. "The last infection was months ago, whereas normally it was once a week or once a fortnight on a good period."

One year before Julian's accident, He broke and dislocated his left shoulder and was left in considerable pain. Julian has just realised that the pain has now gone and this is despite the fact that he was told that he would always suffer from this injury. Furthermore the year before that he broke his right shoulder and was given the same prognosis from his consultant.

Julian no longer experiences any pain from the two shoulder injuries, despite the fact that he still suffered from these injuries, up to the point we met and two years after his spinal cord injury.

I met Julian on the 13-3-1999 and found that although he has not made much more progress he has not deteriorated.

An interesting observation occurred around six weeks previously when he developed a pressure sore. This developed during one night's stay in hospital while sleeping on a flat bed and not being rotated.

He was told that it would be around six months before he could expect to see some improvement. Despite this the sore had greatly improved in a couple of weeks, following his return to inclined bed-rest.

In order for Julian to progress further, he needs to alter his sitting posture, and to stand for longer periods. He also need to exercise more and informs me that he has become lazy over the winter months. He has also gained about 20 lbs. and needs to alter his diet accordingly.

### Case 3

FULL NAME: Michael (sir name removed)

Start of therapy: Date April 16 1999

HEIGHT: 6' 1" WEIGHT: 150 lbs DATE OF BIRTH: /59 AGE: 39

MY MEDICAL CONDITIONS ARE LISTED AS FOLLOWS:--

am paralyzed from the waist down, after long periods in the wheelchair my feet become swollen,

MY CURRENT PROBLEMS ARE LISTED AS FOLLOWS:-- the main problem is having to wear a plastic body cast when i am out of bed

and slight pain in my lower back where the injury is

MY PARTICULAR CIRCUMSTANCES ARE AS FOLLOWS:--

I broke my back at t-10 to t-12 and was operated on january 28th, 1999. harrington rods were

inserted in my back-the spinal cord was completely

severed On April 18th I had the bed elevated 6 degrees from the horizontal. Below are the First diary entries.

1st week notes diary entry dates: April 19 to April 25

the temperature in my legs is higher now and i sweat a lot while sleeping. the spasms in my legs have also increased by about 30%. i have no discomfort and did not have any problem adapting to the new sleep angle. i actually believe I am sleeping more soundly.

2nd week notes diary entry dates: April 25 to May 2

the temperature in my legs has remained the same and the spasm levels in my legs is also the same. Now I am experiencing spasms in my lower torso that cause me to almost double over. The pain level has not increased. I still sleep very soundly.

fortnightly reviews (2 WEEKS) diary entry dates: May 3 to May 17

My legs stay warm all the time now. I also have more feeling internally, I can feel the movement in my hip joints when I move my legs. I also have a tingling feeling in my legs that wasn't there before. I am able to urinate more often without using a catheter. I am also able to contract my lower back muscles.

fortnightly reviews diary entry dates: May 18 to June 1

I am beginning to have some feeling on my buttocks and my legs sweat a lot when I am sleeping. I also am experiencing some tingling in my feet when I go to bed. My bowel movements have become much easier and more regular. I also have a lot more pain in my lower back than I used to.

fortnightly reviews diary entry dates: June 2 to June 16

i'm sleeping much better than ever and the spasms in my legs have become stronger and more intense but shorter in length. the pain in my lower back has leveled off. the area of sensation is about an inch lower than it was a month ago.

fortnightly reviews diary entry dates: June 17 to July 1

i have much more feeling internally as far as my bladder and hip joints. the pain in my lower back has decreased somewhat and i'm not taking as many pain killers as in the past. i have much more of an appetite now.

fortnightly reviews diary entry dates: July 2 to July 16

I have fewer spasms in my legs now but they're more intense than ever with my legs straightening out all the way and my toes spreading. the pain in my back is still decreasing. the area of sensation is now at my belly button. at the time of the accident it was about 2 inches above it.

fortnightly reviews diary entry dates: July 17 to July 31

the pain in my lower back is hardly there at all and i only use pain killers at night to help me sleep. i can now feel my bladder when it's full and have much more consistent levels of urine when i use the bathroom. bowel movements have become much easier and i am getting more sensation internally. the area of sensation has moved to about 1/2 inch below my belly button.

#### Case 5

Hi Andrew

I am very sorry that I haven't replied to you sooner. My computer blew up on me and I was without one for almost one month also I haven't been feeling well I've had an ongoing battle with bladder infections etc. However I'm going to see a specialist on May 13th regarding bladder and kidneys hopefully something might be done about these infection

As I explained in my first email to you I am a male sixty year old C-4 quadriplegic 17 years post injury. I also have Sleep Apnea which requires me to be on a Bi-Pap machine at night to assist with my inhalation and exhalation. I'm on a maintenance dose of antibiotics for my ongoing bladder infections. Septa tablets times 2 daily. I have had continual problems with my bowels ever since my accident and bowel routines take up to four hours every third day. I take a daily dose of stool softeners 2 tablespoons of Lactulose 2 Colace capsules daily and two teaspoons of Prodiem. I have high blood pressure and I'm on Cozaar 50mg daily. I have tried many natural remedies over the years trying to find some relief from these symptoms some have seemed to help some didn't. I take vitamins and colloidal minerals daily which seem to help some. I also take garlic capsules and cayenne capsules which also seem to help.

I have Care Givers on a 24/7 basis and I no longer use suppositories for my bowel routines instead I use a water flushing system I started sleeping in the inclined position on March 1st 1999. My bed has a trend and reverse trend mode on it and I just have my Care Giver set it at six degrees which is approximately six in off the floor. To date I have noticed very little difference.

The first week I had sore shoulders and neck but after that they quit bothering me. I have noticed that I seem to have a little more sensation in my lower extremities Also I definitely have a little more feeling on the inside of my arms from the arm pits down to the inside of my elbows.

In the second month I thought my blood pressure had gone down but if it did it was only temporary as it is now back up to where it was when I started.

I do believe that I have noticed a slow but progressively better and faster result in my bowel routines and I do think that my body thermostat seems to be closer to normal than it has ever been since my accident I apologize for not contacting you sooner and not using the form you sent me for reporting (I lost it when my computer crashed) so if you send me a new one I will use it from now on and also I will try to report on a more regular basis health permitting I fully intend to keep on sleeping with my bed in the inclined position even if I think it isn't helping as I'm finding it a more comfortable way to sleep. Yours truly Gale.

### **Oedema and Parkinson's**

Some 6 weeks ago I was asked to go to the home of an elderly couple in Torquay. On arrival, I was introduced to a man who has advanced Parkinson's Disease. He was unable to hold a conversation, suffered from Bowel and Bladder incontinence, and had severe swelling of the abdomen and lower limbs, caused by fluid retention. His face covered in red blotches and carrying a mask of pain. He was housebound and unable to walk without assistance and support, using a stair lift to reach the upper floor.

Life for this couple is a continual 24/7 struggle.

Some 5 years previous they had read about my work and were approached by a friend whom I was helping with the inclined bed and advised to give it a try at least. The lady said to me that she did not think it applied to everyone and thought that it was too simple an idea to even consider. 5 years later she kneeled down and prayed for a sign. On a Sunday Morning she read the article in the Sunday Independent Newspaper relating to John Caan's continued recovery from a spinal cord injury while using the inclined bed.

Strangely enough she said that she had read all of the news items, and there are many, but still thought at the time that it still did not apply to them-selves?

The very next day I received an amazing call to say that following the best nights sleep she could remember she turned to face her husband and saw that his face had completely altered, there was no pain and the mask of Parkinson's had left. When her husband awakened they had a conversation for the first time in almost a year.

4 weeks later another equally amazing call revealed that her husband had begun to walk in the home and that he had lost two and a half stones of fluid from his body. He now had toes on his feet, which were previously covered by swollen skin, which had flowed out over his feet.

5 weeks yet another amazing call. This time she was talking to her neighbour outside of her home when her husband walked by and continued up the hill with a near normal walking action instead of the Parkinson's Shuffling movement normally observed.

6 weeks I went without appointment to their home to see the changes for myself. I rang the doorbell and was greeted by a man whom six weeks ago could not talk. I asked him "How are you"? and he replied; "much better now thank you, would you like to talk to my wife, I'll just give her a call". I then stood with disbelief as I watched him walk up the stairs with ease, ironically by the side of his stair lift and call his wife's name, he then turned around and walked down the stairs in an uninterrupted normal pace. His approaching figure transformed from the swollen motionless figure of 6 weeks previous.

His medication has now been reduced to half, because we believe that some side effects of totally out of character actions could have been caused by an overdose of drugs. This had the desired effect and worked within a few days, bringing control back with it. He now wanders off from time to time to see his grandson playing football at the local school, he visits friends and family much to the amazement of everyone who knows him.

No matter how many times I hear or witness these unfolding stories they never cease to amaze and inspire me to continue with this important discovery. And I sincerely hope that this letter to you all will help in some way to lift the shroud of gloom and evil that surrounds the world today.

### **Leslie**

I first met Leslie in March 2,000. Lesley informed me of her medical conditions, which were obviously severe, due to the discomfort in her face as she struggles to sit comfortably. Her complexion appears pale and her hair looks dry and dull, lacking lustre with evidence of greying. Lesley added that her hair becomes oily and requires frequent washing. Her nails show no signs of half moons and are lined. Perspiration at night and in the daytime is a regular problem, resulting in often waking with the bedding soaked. Her eyes are often watery. Blood pressure is High.

Lesley has been diagnosed with: Osteoporosis, Osteoarthritis, Lumberspondulosis. Lesley smokes twenty cigarettes a day and coughs intermittently since she developed asthma 5 years ago. Long sight is good, but poor short range sight. Excessive Perspiration, which increases during coughing. Complete - blackouts sometimes resulting in a fall.

Lesley, who, aged 53 years suffers from very intense pain, 24 hours a day seven days a week and only manages two hours of sleep at night, due to severe discomfort and night-time-urination urgency, 3 to four times per night.

In the months that followed, Lesley's condition was observed to deteriorate rapidly and often became the topic of conversation at the table of our friends in Brixham.

Her spine is becoming more distorted, leaving her arched forward and unable to straighten up, due to intense pain. Turning over in bed presents real problems and involves raising her knees and levering herself over in three stages.

Leslie's Brother has to help her out of bed every morning due to her further deterioration at night and a problem with her balance on rising from bed.

Dressing has become increasingly more difficult due to Lesley being unable to raise her arms above shoulder height and unable to flex her shoulders back.

Her lower spine and left side are where she experiences most discomfort and pain. From her right hip, down the outside of her leg to her toes is affected constantly by a sharp pain also, though less severe than the left side

#### Walking

This presents a considerable challenge when even a fifty yard walk uphill, aided by a walking stick for support and to assist with balance, requires a rest for two to three minutes due to intensified pain in spine and legs. Her asthma is also aggravated and her breathing becomes laboured. Watching Lesley navigate a small kitchen reveals the severity of her mobility problem. She mostly sits and complains about her pain and discomfort.

Lesley informed me that she no longer has a bath and uses a shower, because she cannot get in and out of the bath anymore.

Carrying shopping further aggravates her discomfort. Her R/ hand has always been weak with pins and needle type sensation. Opening screw caps with her right hand is not possible. R/hand thumb sometimes devoid of sensation.

#### Weather

When the weather is warm and humid, it causes problems with her asthma. When the weather is cold and wet, in the Winter, she is in more severe pain than normal.

Medication: Morphine, Tylex, Salbutamol, Beclatide, Hormone replacement therapy- H.R.T.

Lesley eventually raised her bed by six inches at the head end on the 27th June 2,000.

#### Week 1

Found I am able to get out of bed on my own.

#### Week 2

Slept better but spent a night at friends and slept flat. I experienced severe pain resulting with my brother having to help me out of bed in the morning. The pain lasted the whole day and the medication did not work.

#### Week 3

No pain in legs at night and daytime pain improved, but during the day it becomes progressively worse, but not quite so bad as before.

I am walking more, but with additional aches due to increased activity. Perspiration unchanged.

#### Week 4

##### Meeting with Lesley.

Lesley's appearance appears to have changed, her complexion looks healthy with more colour, her hair looked shiny and more body. She also noticed that her hair is becoming less oily.

She appears to be more upright in her posture and expresses less pain in her face when she moves around. She is standing longer and is obviously more active than before. Her medication remains unchanged, yet she mentions that she is in far less pain than before she raised her bed. Heather, her friend, commented that she had been forgetting to use her walking stick. Judy, my wife also noticed her carrying her stick.

Overdone the walking, while her family was visiting, walked about a mile involving a steep hill from Brixham to her home. Leslie could not have done this before she raised her bed.

20th July "I saw my doctor today and took your information to him. He replied; 'This is the famous bed I have heard about'.

#### Week 5

"I do not have much pain now and have reduced my medication by half. I can now walk up the hill without stopping".

"I sometimes forget to take my walking stick with me. One day, I had walked to the top of the hill and then sent my Brother back for my stick, which I had left at my friend's house".

"My sleeping has improved to between 3 and 4 hours".

"I have no pain in my legs whatsoever when retiring to bed and I can turn easier, not so much of a struggle".

"My Brother still helps me out of bed on the odd morning. This is a vast improvement for me, though my balance is still poor in the mornings".

"I can now lift my arms above my head and flex my shoulders back". Which she demonstrated with ease, saying; "I have not been able to do this for fifteen years"!

My wife and I, and Lesley's friends have noticed that she is not complaining about pain and is now more agile, navigating the garden and home with comparative ease. She also is sitting more upright than before.

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## NEW MULTIPLE SCLEROSIS THEORY

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The purpose of this report, together with the referenced histories, is to inform you of my research and its relationship with multiple sclerosis. But first let me try to explain what I believe multiple sclerosis is, and then perhaps you may begin to understand why I have achieved positive results in treating people with chronic progressive MS.

### **MULTIPLE SCLEROSIS MAY BE A PROBLEM WITH THE CIRCULATION OF FLUIDS IN OUR BODY.**

#### **Brief description of nerve structure:**

We call the nerve fibre, which carries the impulses from the nerve body to control the muscles or other functions, the central axon. This fibre is surrounded with a multi-layered sheath with from about five to more than thirty layers. It resembles a large tobacco leaf, coiled around a central trunk, and is produced by a special cell - the oligodendrocyte. The entire group of cells is called the oligodendroglia.

The individual layer of the laminated leaf, which makes up the myelin sheath, is structurally identical with the membrane of a cell. That means it has the capability of holding an electric charge of opposite polarity, thereby fulfilling the function of an electric condenser. We have only understood the function of the myelin sheath in the insulation of the central fibre for about a year. An article that first appeared in the magazine SCIENCE brought it out. Indeed, one can measure the insulating ability of the myelin. When this was done, however, it discovered that the many-layered condenser system, which was constructed in the myelin, acted as an electrical shunt to the central axon. In plain language, this means that we have here a classic Tesla technique, which in all probability converts gravity field energy into the electrical energy necessary for function of the central axon.

Dr. Hans A. Nieper: The Treatment of Multiple Sclerosis Sept 1985

#### **A closer look at nerves:**

We have all heard about the fatty insulation around the spinal cord and brain, in which lesions form and cause short circuits, but how many of us have heard that this coating or sheath that protects the nervous system is actually liquid crystal? In fact, it behaves very similar to the substance found in LCD (liquid crystal display) on calculators and wristwatches. Historians now know that some scientists actually saw naturally occurring liquid crystals under their microscopes in the 1850s. These early sightings were made during experiments on the white fatty material known as myelin.

A number of scientists noted that myelin turned liquid when left in water. These liquids seemed to have two different melting points. Not until the 1980s did the answer become apparent. Instead of changing straight into a liquid when heated, these solid materials transform into a kind of intermediate state that emerges at the first melting point, and disappears at the second. Between these two temperatures, the material flows like liquid yet keeps some of its optical properties of a solid crystal. In short it has become a "liquid crystal". In a normal liquid molecules are randomly arranged, but the molecules of a warmed liquid crystal retain some of their original orderliness - just enough order for the liquid crystal to retain the optical properties of a solid. Without their liquid crystal structures, living cells could not exist. Although the precise cause of the breakdown of the myelin sheath is still mysterious, it is thought to be tied to the liquid crystal properties of myelin. (Focus November 1994 pages 70-74 by Robert Mathews).

#### **Explanation**

The reason that warming liquid assists its ability to dissolve or liquefy soluble minerals is due to the fact that the molecular structure of the liquid, which in this case is water based, is altered by additional heat. The highest alteration before water is vaporised is at boiling point. Boiling water at sea level requires more heat and energy than boiling water at altitude. This is because the atmospheric pressure at high altitude is considerably less than at sea level. In fact when pressure is removed completely within a vacuum chamber, water boils without heat. The Hon. Robert Boyle (1627-91) was first to discover this phenomenon.

An interesting article I read some years ago related to the fact that some people were prone to food poisoning from cooked food when it was prepared at high altitude. Illness occurred because the water, although boiling, was not sufficiently hot enough to kill the bacteria within the food. We of course know that the nervous system does not boil, yet the state of the liquid crystal in the myelin could be encouraged to respond (or re-liquefy) at a slightly lower

temperature when exposed to high altitude atmospheric pressure. Oxygen levels at altitude are also greatly reduced in the upper regions of the atmosphere. For instance, the air at Mount Blanc's summit contains only half the oxygen of air at sea level. It is worth considering these two facts while reading the following observations made by two independent accounts. It is also worth considering the fact that a compass needle is attracted to a mountain rather than the pole, due to the mountains mass. Furthermore while standing on top of a mountain the gravitational pull under foot would also be marginally higher and this again, according to my theory, has the most profound implications for circulation throughout the whole of the human anatomy.

#### **Altitude and MS**

**CASE 1:** On two occasions when I have been abroad, sightseeing up mountains, (by cable car and bus I might add!) at the top, anything from 6,000-9,000 ft I have felt fantastic and have been able to walk almost normally. At home I walk with the aid of a stick. This year I was visiting my son in South Africa and where he lives is 3,000 ft. above sea level. Again I had this lovely lightweight feeling instead of my usual heavy and slow moving gait. The old legs were raring to go and I had a spring in my step. The family was amazed and delighted at the difference.

When we went to Durban, which is at sea level, I was back to normal, but it was hotter and humid there. Sad to say, that back home the good affect has gone, but it did seem extraordinary. ? Irene Davies, Glasgow., Sep-Oct 1989 edition, Arms Link, Pub by Arms Central UK.

**CASE 2:** I have also felt that being at altitude has made me feel very fit and well and improved my walking. I have MS but am mobile and walk without a stick. During 1984/85 my husband worked in Bolivia and I went with him. We lived in La Paz, which is at 11,000 ft and spent time in various places ranging in height from 3,000 to 14,000 ft. The higher we were the better I felt, walking long distances and getting less giddy, which is one of the effects I have with MS.

We were in London from Jan 83 to Mar 84 and I had some difficulty with walking then.

In Bolivia I was able to walk quite far, though down in the low, hot valleys I was not able to go so far as I could up in the high mountains. In Potosi, which is at 14,000 ft, I felt terrific and it was there that I began to think that perhaps altitude made some difference to my health. Once before I had the same feeling of euphoria. This was when I visited the Island Of The Sun in Lake Titicaca which is at 13,000ft. I felt I could stride out for miles and miles though afterwards I was very tired. This was 1974 before I was diagnosed as having MS.

We are now home in Edinburgh, almost at sea level, and most of the time I am able to walk the dogs on the hills and go shopping, though I get giddy at times and especially find the strip lighting in shops troublesome. I get tired more than I used to and I have trouble with my sense of balance. The latter has bothered me for years; again without realising it was part of my MS.

Rosemary Wilson, Edinburgh. Mar/Apr 90 edition, Arms Link, Pub by Arms, Central UK.

**Crystals**, either in liquid state or solid, are based on minerals. In order to remain in a liquid form the liquid requires to be constantly moving. Should the liquid stagnate for any length of time, solid crystals will inevitably form. This is vividly shown when crystals grow on a length of thread suspended in a beaker of highly concentrated salt or sugar solution. In a beaker this creates no problems. However, when it occurs in the nervous system the formation of crystals causes considerable problems. For instance, a complete blockage of the circulation could occur causing the whole of the circulation within the nervous system in the affected part to stagnate. This would produce considerable damage to the myelin and would probably lead to the entire degeneration of the affected part of the nervous system. Re-dissolving the crystal in the beaker simply requires a stir with a spoon and a little heat to accelerate the process.

#### **The Central and Peripheral Nervous System**

If only we could put a whisk into the nervous system and stir gently for a year or more, perhaps the salts and mineral deposits would become liquid again and repair the damaged nerves in multiple sclerosis and other neurological conditions, which affect our nervous system. Or if we could apply a little extra heat to the liquid nervous system it might stimulate the liquid crystal myelin into behaving as it should under normal circumstances.

In essence this is exactly what I believe has been happening to people on the Gravity Study. Everyone at some point noticed an increase in circulation and metabolism, which of course means additional warmth. In fact, many people, whom I have already helped, noticed that they are producing less urine during the night, indicated by fewer bathroom visits. This is due to the fact that the skin surface temperature has remained stable during the night rather than falling, as would be expected during horizontal bed rest.

With the additional warmth more water is lost from the lungs and skin, and a higher specific gravity occurs in the remaining liquids. This in turn increases circulation and metabolism, producing additional warmth, which as I have stated has implications for the liquefaction of the damaged myelin. This did not come as a surprise to me. My discovery, which led to this exciting new understanding of the influence of gravity in the bulk circulation of fluids and of every single cell in the human body.

Three people on my pilot study who suffered from thrombo-embolism's, found that the hard lumps which were evident in their legs disappeared. One lady was concerned enough to ask her GP if it could have moved to another part of her body.

Thrombosis improved because circulation was restored to the affected area and the blockage was gently dissolved away. Although this is not MS related I feel it is relevant to the re-liquefaction of damaged myelin.

Gravity has indeed been shown to be a very important factor in driving fluids throughout the nervous system. However if gravity is allowed to run in the wrong direction through the body for prolonged periods, then these same



forces, which maintain our vital functions, wreak havoc by flowing through vital soluble tissue in the brain and nervous systems.

When the body is resting flat on a conventional horizontal bed, evaporation from skin and lungs etc concentrates the liquids, which remain in the body. These concentrated solutions find the most direct route down to the ground and this usually means flowing through brain tissue and or the nerve tissue and any other vital soluble organs or vessels.

When this occurs in the brain it would cause lateral lesions in the form of micro tubular scar tissue. The reason that lesions are found in this form is that sedimentary deposits form an outer membrane around the circulation and this is exactly how I believe all the tubes in the body of every living organism from a giant tree to an ant are formed. When applying this simple logic to the human body it becomes obvious why almost all of the bodies tissue and structure runs in tubular form from head to toe! Gravity must have played an important part in the formation of this tissue. When one considers that everything we are, developed from a tiny drop of fluid, it becomes enlightening to conclude that circulation obviously must have taken place before the surrounding cell tissue developed in the first place.

Gravity is stronger nearer the North and South Poles. This is because the Earth rotates and therefore the Equator, which spins with greater force, counteracts the pull of gravity, producing a significantly reduced level of gravity, due to the centrifugal force, caused by the rotation of the Earth. For example a wet spinning ball will throw water from the centre of the ball and not the top because the surface at the centre of the ball is spinning with greater force.

Around the Equatorial regions, the gravitational pull on concentrated fluids is significantly reduced by the above mentioned influences. This again relates particularly to horizontal bed rest, because here the damaging affects of fluids travelling in the wrong direction through vital soluble tissue as discussed previously would be influenced less by gravity at the Equator than at the poles. However, in arid areas evaporation would increase and therefore the production of heavy solutions would also increase respectively and possibly producing a different set of symptomatic problems.

For instance it is known that leprosy is found around tropical Equatorial regions and Leprosy is known to affect the nervous system. A detailed study of climate in the following study areas is required to establish a possible humidity or damp connection with increased levels of MS and other conditions.

Recent studies in the USA back up research findings in the UK and in countries in the Southern Hemisphere, showing that people living nearer to the Equator are at lower risk of developing MS. Viruses, Genetics and Race are thought to be partly to blame. Studies on migration have shown that people who move from an area of statistically high prevalence of MS to an area of low prevalence of MS reduce the chance of them developing MS, but only if they move before adolescence.

It is also thought that soldiers may have carried an infectious agent that may have been responsible for triggering MS in Soldiers during the Second World War, who inhabited both Iceland and the Faeroe Islands. Following that, there was claimed to be an increase in the incidence of MS. MS sometimes appears in 'clusters.' This means that MS cases are found in sufficient numbers and concentrations for it to be unlikely to have happened by chance. Most MS clusters turn out to be the results of accidents of time and geography, though a few have still not been adequately explained.

MS and Location. MS Matters Insight Supplement, issue 16, Nov/Dec 1997, Published by the MS Society.

The largest single difference between equatorial regions and the rest of the world is of course the climate. A warm, dry atmosphere above sea level, according to my theory is the perfect place to reside if you have MS, and would therefore bring about the opposite effects of those found in the river valley areas of the equatorial regions. Here it would be very hot and humid, and I suspect that a close statistical analysis of these areas would reveal clusters of people with MS or related problems.

On the other hand, if we keep gravity running through the body in the correct direction twenty-four hours a day for as long as it takes, regeneration of a damaged nervous system is possible irrespective of the severity of the condition. In fact, even complete spinal cord injuries have responded, and those involved in my trial continue to regain functions of the body, which a couple of years ago were thought to be beyond repair.

Restoration of the damaged optic nerve in multiple sclerosis has responded well to this treatment. So well in fact that several people have regained their sight, and in one case a lady who had lost the sight in one eye, through supposedly irreversible optic nerve damage, has been told that she may now legally drive a car without spectacles! Reference to eyesight improvements in MS and non-MS conditions are documented in the report from the MSRC, titled "Raised Bed Survey".

### **Humidity**

Another consideration, which has been shown to have an affect on multiple sclerosis, is humidity. River valley areas in France (Rhône Valley Study) have been found to contain high levels of MS cases compared to the more elevated areas. A wrap around hair dryer, standing over a steaming cooker, a hot shower or bath have all been shown to increase the severity of MS symptoms, and sometimes trigger MS attacks. Higher air water content of course inhibits our ability to shed water from the skin and lungs which we discussed earlier. Moisture loss reduction from our lungs and skin slows down the circulation of fluids caused by the lack of development in retained concentrated fluids. In fact the clammy wet skin found under such environmental conditions should be self-evident and furthermore when fluids are present on the skin surface, so are salts. Sweat is produced when the body is placed under extreme conditions and the presence of vital minerals is an indication of just that.

Presse Med 1987 Apr 11;16(13):622-623 South-Eastern France, a high risk area for multiple sclerosis? [Article in French] Confavreux C, Darchy P, Alperovitch A, Aimard G, Devic M

A questionnaire-based prevalence study was conducted in the Chalon-sur-Saone and Avignon areas, in the Rhone-Saone valley, France, to determine the frequency of multiple sclerosis. These areas are 300 km apart and lie on the 47 degrees and 44 degrees North parallels respectively. Age-adjusted prevalence rates on March 20, 1984 were 58.5 and 48.6 per 100,000 inhabitants respectively. There was no significant difference between the two areas. These preliminary data suggest that southeastern France, as represented by Avignon, may fall within the high-risk area for multiple sclerosis.

#### **SEASONAL VARIATIONS IN MS**

##### **People with MS and other neurological problems are able to forecast rain!**

This is not however related directly to their MS. Cattle for instance are observed to lie down prior to a down pour. It has been suggested that they do so to reserve a dry area of land. Somehow I doubt that this is the case.

Cattle and other animals lie down because the increase in humidity prior to rainfall slows down their circulation and metabolism, making them lethargic, so they lie down. If a hillside is in close proximity cattle and sheep will all be laying down on the hillside and facing uphill!

**MD's ONLINE from AOL** - This material is quoted and provided as general medical information.

##### **Question**

Do you think that seasonal allergies could play a role in explaining these variations in the pattern of relapses? Have studies been done on the correlation between pollen levels, sensitivity to allergens and relapses? One logic for a connection might be that allergic attacks might affect the permeability of the blood-brain-barrier.

##### **Answer**

The reason for seasonal variations in the pattern of relapses in multiple sclerosis is unknown. Attempts have been made to correlate it with the incidence of viral and other infections, but there is no clear-cut pattern there. I don't know of any evidence to suggest that it be related to seasonal allergies. Perhaps there is a cyclic alteration in the reactivity of the immune system at various times of the year, but this is only conjecture on my part, and I don't know of any studies that would confirm or strongly support it.

##### **Question**

Why is it that many MS attacks come in the Spring or Fall when the weather changes? I've heard that more viruses are common during these times causing attacks, and that allergies cause the attacks. Can it also simply be a metabolic reaction by our immune system adjusting to the new season?

##### **Answer**

You are correct that there is evidence that relapses in multiple sclerosis have seasonal variations. Not all the studies performed are consistent but there does appear to be varying patterns depending on the locality where the studies are done. In a very carefully performed study in North Dakota, for example, September was a very high month for relapses but not the spring months. On the other hand, the summer months did appear to have increased incident of relapses as well. In other studies, exacerbation's have increased in the spring as well as in the fall, as you suggest. The implication here is, as you suggest, that something important in the environment is playing a role. It is known that certain types of viral infections can predispose to relapses and its possible that this could be the environmental relationship. On the other hand, when it is carefully looked for such as in the North Dakota study, it did not correlate with the incidents of various types of infections. There are of course, other variables that could play a role including temperature as well as light conditions.

Your question has also prompted me to review the more recent as well as past literature on the topic. While it does appear that an answer to this phenomenon could be important, I was struck by the fact that the number of published papers on the subject have greatly decreased in the last years. I do believe it's likely that once the full story of MS is unravelled, that the seasonal variations will be explainable. In some instances, I have seen patients who have the exacerbation's, yearly around the same time, for more than three years. While these are very isolated events, and conclusions cannot be drawn from them, it would suggest however, that there may be individuals who are more prone to seasonal changes than others perhaps.

International MS Support Foundation, P.O. Box 90154, Tucson, Arizona 85752-0154

Pauline, from Devon, mentioned in the Snooze Report, found that initially, when she introduced a dehumidifier during the night in conjunction with the new sleeping position, which she had been using for many months, her dropped foot problem would disappear. However when she discontinued the use of the dehumidifier her dropped foot problem would re-emerge. She repeated this procedure several times in order to make sure that it was the dehumidifier, which restored the function in her foot. This alone should be evidence that evaporation and gravity are two very important considerations in relation to the circulation of fluids within the nervous system.

**Dr Nieper:** Towards the end of 1984, I had an MS patient from the vicinity of Eureka in Northern California. Her husband reported that they lived in a region of continual earthquake activity and not far from a place where a man must stand at an angle and not perpendicular to the earth, to keep from falling down. In that region, the frequency of MS is over 4,000 per million. This would be more than ten times higher than in an average cross section of the country.

This interesting observation indicates that where the Earth's gravitational field is compromised in what is now known as a Geopathogenic Zone the percentage incidence of multiple sclerosis rises way above a national average.

Dr. Hans A. Nieper: The Treatment Of Multiple Sclerosis Sept. 1985

### **SPACE TRAVEL**

In space travel, where gravity is also compromised, astronauts who are normally selected for their physical fitness suffer considerable damage to their nervous system. The severity of damage depends on the length of time they spend in micro gravity conditions. Once exposed to normal gravity conditions on return they encounter considerable difficulties in walking, amongst other normal bodily functions.

In order to induce the harmful effects of micro gravity, both NASA and Russian scientists have found a significantly cheaper method. They use prolonged bed rest to induce many of the harmful side effects to perfectly healthy would-be astronauts. I remember seeing a documentary about these experiments on TV some time ago. During this program cosmonauts suffered many damaging side effects and some to the point where they are no longer able to walk.

### **DEEP SLEEP**

Take a group of people without any neurological problems, other than depression and confine them to bed for several months, without allowing them to get out even for bathroom visits. Medicate them so that they don't feel too uncomfortable.

**Result:** People die, lose their ability to walk, renal function packs up, they get osteoporosis, Some of them develop severe mental disorders, leg ulcers, gangrene, skin conditions, paralysis, atherosclerosis heart conditions, arthritis and many of the survivors eventually commit suicide. All of this actually happened in Australia during the now infamous "Deep Sleep" therapy programme. "Probably on the net somewhere".

**So if it is possible to induce all of these horrific medical conditions by depriving people of exercise and vertical posture, a conclusion surely is that incorrect posture could also induce MS related symptoms.**

### **Keyboard Syndrome**

Sitting at the computer keyboard for hours on end brings with it for some of us a few circulatory problems, tingling in hands and fingers, numbness, finger cramp, paralysis and icy cold fingers. The problem appears to remain for a few days. In my own experience, to eliminate this problem I have found that if I raise my seat up so that my hands and arms slope down to the keyboard rather than up or horizontal to the keyboard, the problems of numbness and tingling for me at least do not occur .

The reason that these irritating problems happen is due to incorrect posture, in which gravity is unable to influence the circulation of fluids within the circulatory and nervous systems. If this postural problem is not corrected it could well lead to progressive neurological degeneration.

### **Diet**

Water leaves the body as discussed, but can only do so safely if the balance of supply matches demand. Providing the stomach contents are less concentrated than the downward flowing liquids caused by evaporation, circulation is able to continue. Therefore a dietary change from a lightweight (low in mineral) diet to a heavy diet could cause the circulation to be compromised. An early indication of a stomach imbalance is diarrhoea. Fluids in the stomach become too heavy to be lifted and pass through the bowels instead of the blood. In fact many laxatives are salt based. Dehydration follows and has been shown to respond to the addition of a small amount of salt and sugar dissolved in water and drank.

Dairy products as we know contain high levels of calcium and a huge array of minerals and fats producing a very high specific gravity within the stomach of the consumer. To demonstrate fill a tall glass to the brim with water. Carefully lower a small amount of milk contained in a teaspoon so that it rests with its edges at the surface of the water. Introduce it gradually to the surface of the water by tilting the spoon. Result: the milk rapidly falls to the bottom of the glass, indicating that it is a heavy mineral laden liquid. Therefore dairy products like cheese and butter, which are concentrated further, would alter the specific gravity of the stomach.

Furthermore the addition of sugar and cocoa in chocolate sweets and cakes would serve to add further weight to the liquids contained in the stomach. On the North side of the Rio Grande, in Texas, it is found that the frequency of MS is at least 10 times higher than on the other side in Mexico. In Texas, the usual diet is Anglo-American, with a heavy emphasis on dairy products. In Mexico, the usual fare is of the Spanish-Mediterranean Milk poor diet. (Olive oil instead of butter).

In South Africa, MS is concentrated in the province of Natal, even though they have plenty of sunlight there. Here again, this is the dairy region. In Australia there seems to be a decided difference in the frequency of MS in different provinces. Here again the pattern fits; it is one of milk production and dairy product consumption.

**My work with people with MS indicates undeniably that it responds to the omission of horizontal bed rest and poor sitting posture!**

This surely then leads to the conclusion that MS in all probability is caused by progressively longer periods of horizontal bed rest or prolonged bed rest, possibly resulting from an accident or an illness, or as well as poor prolonged sitting posture, in an otherwise susceptible person. High humidity levels also influence the activity of a person and therefore must contribute to the general condition of people living in such conditions.

A questionnaire asking people if they had moved to a low lying coastal or river valley area or even residing in a damp home prior to contracting their illness would reveal some startling data. Another question relating to prolonged bed rest due to an accident or illness prior to first symptoms of MS would, I am sure, produce even more enlightening data. Further more if questioned about their improvements when they occur while in the relapsing remitting stages, I am sure it would be found that a high percentage of people would relate to a dryer time of the year or a holiday abroad, etc. (See MS and Weather)

## MSRC REPORT

### RAISED BED SURVEY



#### Therapeutic approach by Andrew Fletcher

(Raised the head of the bed by six inches/ 15 cm)

Interviews conducted face to face 20<sup>th</sup>-22<sup>nd</sup> June 1997

9 with people who have MS, 4 with people who have: -

*Severe spinal injury =2, psoriatic arthritis =1,*

*Ex-terminal alcoholic =1.*

(in some instances the experiences of the partners were noted)

plus 1 telephone interview with a person who has MS

1 discounted face to face interview where bed was not used over 7 months

Interviewers Mr John Simkins & Mrs Jean Simkins

(Andrew Fletcher attended some interviews as observer)

#### Method & Approach

Evaluation in every case and on each aspect considered is based on the answers given by the interviewees and therefore each report amounts to a subjective review. IN a few cases there is some more objective evidence, e.g. reports of optical examinations and access to records of physical recovery of the spinal injuries, psoriatic arthritis and alcoholism. Medical reports haven not been sought but two opticians reports were supplied.

The values given to answers obtained from specific questions are based on perceived degrees of change on using the raised bed, from the 'norms' described for the preceding months or years. Pertinent to this approach is the comment by one responder to a 1997 MSRC survey:- "When my MS started my condition was considered **abnormal**, now MS is well established my condition is considered **normal!**"

Thus changes from what had been considered 'normal' were verbally examined for extent, depth, permanence and influence on lifestyle.

The Multiple Sclerosis Resource Centre Limited- Company No. 284203-Registered Charity No. 1033731.

Registered Office- 4a Chapel Hill, Stansted, Essex CM24 8AG. Fax No. 01279 647179

#### Basis of assessment

This report is submitted in the knowledge that no scientific validity can be claimed nor indeed was there ever any intention to do so. The objective was to identify why and how people believe they have benefited, or not, and to quantify and where possible evaluate the quality of their information about use of the raised bed.

We have done that with 14 people, most of who have MS. What we found at worst is generally encouraging and, in the case of certain signs and symptoms, suggests that substantial benefits may be obtained.

**We believe there is good reason to conduct further investigation into the therapeutic value of sleeping on a bed raised by six inches / 15cm at the head. What is at work here is not specific to multiple sclerosis but the disease offers an excellent test-bed for investigation of affect on wide range of symptoms. The basis of physical and sensory sign and symptom improvement via this therapy is rooted in encouraging a body process that is normal and essential to human life and is an integral function in every human body.**

It is our view that further work could best be done by a series of relatively short term studies on group of people who would be subject to detailed analyses of medical and health condition before and after the study period, and be monitored regularly throughout.

We believe that nothing in this report is overstated. A study protocol would benefit from taking on board much of what was learned and is reported from this survey. The additional use of other parameters including biological data related to blood and fluid circulation in the human body and a whole-body approach to analysing the results, would be likely to provide a viable objective view of this approach.

**MS ONLY INTERVIEWEES**

**Breakdown- age, time from diagnosis, time using bed**

**Ages**

**30-39 years = 2: 40-49 =2: 50-59 =5: 60-75 =1**

**TIME FROM DIAGNOSIS**

**Range- 3 months to 26 years: Average = 11 years**

**TIME USING RAISED BED**

**3-6 months =3: 7-12 months=2: 13-18 months=5**

**EVALUATIONS**

Key to scores and values shown below are as used throughout.

**Value**

**(1)** Change noticed at minimum level; may be spasmodic; may not continue; may not be obvious to others.

**Table 1, Second highest number of changes at this level**

**(2)** Definite change; mostly continuous; obvious to others; sufficient to relieve a sign/symptom to a moderate level.

**Table 1, Highest numbers of changes were described at this level.**

**(3)** Definite change with good sign/symptom relief; commented on by others; benefit is functional ability, virtually continuous; any fall back is short term and benefit recurs at a similar level

**Table 1, Fourth highest number of changes.**

**(4)** High level of change; very good benefit in functional ability; very obvious to others; only occasional short-term regressions in level of benefit.

**Table 1, third highest number of changes.**

**(5)** Exceptional change particularly with tremor and Oedema; very obvious to others

**Table 1, Only two people at this level**

**Table 1 All;**

Overall, the analysis shows various levels of improvement over 18 different signs/symptoms. **All figures show that for every sign/symptom at least three people (30%) have indicated a benefit at one of the five values.** Value 2 shows the largest number of indications of benefit (which may include the same people in more than one sign/symptom).

**There are three signs and symptoms with the highest number of people (7) claiming benefits,** (at various values). They are Mobility: Balance: Bladder: Hair condition.

**The second highest number (6) includes** Co-ordination: Optical: Oedema/Veins: Sleep: Wakeup: Finger/toe nails: Temperature.

**The third highest number (5) includes** Tremor: Spasm: Healing/Skin Quality: Sensory Perception; Energy level: Pain.

**The least number (3) includes** mood swings: Endurance

Changes	1	%	2	%	3	%	4	%	5	%	All	%
											1	
Mobility/Balance	4	40			1	10	2	20			7	70
Tremor	1	10	2	20	1	10			1	10	5	50
Spasm	1	10	2	20	1	10	1	10			5	50
Co-ordination	2	20	2	20	1	10	1	10			6	60
Skin Qual/Healing	1	10			1	10	3	30			5	50
Optical	2	20	2	20	2	20					6	60
Oedema & Veins					4	40	1	10	1	10	6	60
Bladder	2	20	3	30	1	10	1	10			7	70
Sensory	2	20	2	20			1	10			5	50
Mood Swings	2	20	1	10							3	30
Strength/Endurance	2	20					1	10			3	30

Energy Level	3	30			1	10	1	10			5	50
Sleep Patterns	2	20	2	20	1	10	1	10			6	60
Wake Up	1	10	3	30	1	10	1	10			6	60
Condition Nails			5	50			1	10			6	60
Condition Hair			4	40	1	10	2	20			7	70
Temperature	1	10	3	30	1	10	1	10			6	60
Pain			3	30			2	20			5	50
<b>Totals</b>		<b>26</b>		<b>34</b>		<b>17</b>		<b>20</b>		<b>2</b>		<b>99</b>

**Table 1**

The list of signs and symptoms includes only those with 3 people or more reporting improvements whatever the strength of those improvements. Improvements in signs and symptoms reported by less than 3 people over all values are listed in table 1a.

Table 1 illustrates the range of values for each of the 18 signs/symptoms, reported by the 10 people with MS we interviewed. Each person was permitted only one beneficial change, (horizontal axis) against any one sign/symptom.

The interviewers allocated the value.

**Table 1a** Improvements in signs/symptoms reported by less than three people.

**General weakness = 1 person: Bowel = 2: weight change = 2: Memory = 2: Concentration=2: Fatigue = 2: Speech = 1:**

**Asthma = 1: Other respiratory = 2: Circulation = 1:**

We find this an interesting list, as there was very little benefit reported in the respiratory function and related conditions. It seemed natural to assume that these would respond very well to this particular type of therapy.

However it appeared that **only three people had these conditions at a reportable level.**

Fatigue also offers food for thought, as it can be one of the root causes of problems with memory, concentration and speech. Considered as a composite area of benefit then the total becomes a hefty 7, and maybe the relationship of these and the therapy could be grounds for a study that we did not have time to do.

**Notes related to table 2**

There were 38 reports of no change over the full range of 18 signs/symptoms.

People reporting no change may have reported on more than one sign/symptom.

**The highest number of no change reports**

**16** including spasm; oedema/veins; sensory; mood swings; strength/endurance; energy level; condition of nails; temperature

**9** including mobility/balance; tremor; bladder;

**8** including numbness; optical.

**5** including co-ordination; skin quality/healing; sleep patterns; wake up; pain.

Perceptions of no change were a disappointment to people trying this therapy method, a response to be expected with any failed therapy. It is our belief that

table 2 indicates a high degree of integrity on the part of the interviewees.

**Continued deterioration**

**We were surprised to receive only 4 reports of MS deterioration. It was not possible in the time available to establish much in the way of detail but as shown in table 2 the signs/symptoms involved were :- numbness: mood swings: Strength/endurance.**

TABLE 2	NO CHANGE AND DETERIORATION			
Changes	No Change	%		Continued Deterioration
Mobility/Balance	3	30		1
Numbness	4	40		
Tremor	3	30		
Spasm	2	20		
Co-ordination	1	10		
Skin Quality/Healing	1	10		
Optical	4	40		
Oedema & Veins	2	20		
Bladder	3	30		
Sensory	2	20		

<b>Mood swings</b>	<b>2</b>	<b>20</b>		<b>1</b>
<b>Strength/Endurance</b>	<b>2</b>	<b>20</b>		<b>2</b>
<b>Energy Level</b>	<b>2</b>	<b>20</b>		
<b>Sleep Pattern</b>	<b>1</b>	<b>10</b>		
<b>Wake up</b>	<b>1</b>	<b>10</b>		
<b>Condition Nails</b>	<b>2</b>	<b>20</b>		
<b>Temperature</b>	<b>2</b>	<b>20</b>		
<b>Pain</b>	<b>1</b>	<b>10</b>		

### INTERVIEWS WITH 4 PEOPLE NOT HAVING MS

Although these interviewees do not have multiple sclerosis we considered it relevant to talk with them in view of the way the therapy is thought to influence the overall functioning of the body. It seemed reasonable to investigate changes they experienced using the raised bed, particularly those producing similar reports to those of the people with MS.

We saw two men who have severe spinal injuries, a lady who has psoriatic arthritis, a male alcoholic of fifteen years addiction, whose medical specialist had given a prognosis of death within 3 months.

Improvements were reported in twenty different signs/symptoms, each with a value of between 1 and 5. Not every person reported on the same signs/symptoms and some reported no change. Overall, the best responding sign/symptom with this small group was **Strength/Endurance with all 4 reporting beneficial change. (See table 3).**

#### The second most common benefits included

Optical; Bladder; Sensory; Energy level; Sleep pattern; Wake up; Condition of nails; Temperature.

#### The least responses were seen in,

Mobility/Balance, Spasm, Co-ordination, Skin Quality/Healing, Oedema, Bowel, Weight change, Fatigue, Respiratory conditions, Pain.

#### No benefits were reported for

Tremor, Weakness, Mood swings, Memory, Concentration, Speech, and Circulation.

The highest number of changes were recorded at value 2 (21) closely followed by value 3 (19) and there were 5 changes at value 4 (see chart for details).

There were 3 reports of no-change, including Condition of hair, condition of Nails and Optical

There were no reports of deterioration.

#### TIME USING RAISED BED

##### Non MS Interviewees

Range = 8 months to 15 months

**TABLE 3 NON MS 4--People**

Changes	1	%	2	%	3	%	4	%	5	%	All	%
Mobility/Balance			1	25							1	25
Numbness							1	25			1	25
Spasm			1	25	1	25					3	50
Co-ordination			1	25							1	25
Skin Quality/Healing					2	50					2	50
Optical			1	25	2	50					3	75
Oedema & Veins							2	50			2	50
Bladder	1	25	1	25	1	25					3	75
Sensory			2	50	1	25					3	75
Strength/Endurance			3	75	1	25					4	100
Energy Level			2	50			1	25			3	75
Sleep Patterns					2	50	1	25			3	75
Wake Up			1	25	2	50					3	75
Condition Nails			2	50	1	25					3	75
Condition Hair			1	25	1	25					2	50
Temperature			1	25	2	50					3	75
Respiratory					1	25					1	25
Pain					2	50					2	50

### Combined Results IN 14 People MS & NON MS

We finally combined the results for both the MS only group of ten and the Non-MS group of 4 to give an overall analysis of the full 14 interviewees. (See table 4).

This provides, in our view, some confirmation of the conclusion, based on the MS only results, that there could be an autonomic function at work, which may well be capable of influencing certain signs/symptoms.

<b>TABLE 4 MS &amp; Non MS Improvements 14 People</b>												
Changes	1	%	2	%	3	%	4	%	5	%	All	%
Mobility/Balance	4	28	1	7	1	7	1	14			8	57
Tremor	1	7	2	14	1	7			1	7		
Spasm	1	7	3	21	2	14	1	7			5	35
Co-ordination	2	14	3	21	1	7	1	7			7	50
Skin Quality/Healing	1	7	2	14	1	7	3	21			7	50
Optical	2	14	3	21	4	28					9	54
Oedema & Veins					4	28	3	21	1	7	8	57
Bladder	3	21	4	28	2	14	1	7			10	71
Sensory	2	14	4	28	1	7	1	7			8	57
Strength/Endurance	2	14	3	21	1	7	1	7			7	50
Energy Level	3	21	2	14	1	7	2	14			8	57
Sleep Patterns	2	14	2	14	3	21	2	14			9	64
Wake Up	1	7	4	28	3	21	1	7			9	64
Condition Nails			7	50	1	7	1	7			9	64
Condition Hair			5	35	2	14	2	14			9	64
Temperature	1	7	4	28	3	21	1	7			9	64
Pain			3	21	2	14	2	14			7	50

Table 4 lists 17 signs/symptoms which, with the exception of 'Mood swings', correlate with the 18 listed in Table 1. This table combines the results of the two groups (14 people) and relates only to signs and symptoms recorded for five people or more. (36%), as the cut off point.

### CONCLUSION

In each of the Tables we have presented results in terms of numerical strengths per sign/symptom, the related percentages of the appropriate total of interviewees and also how each of the values benefits (1-5) points to the corporate perception of benefits that the groups report they have obtained.

Overall we received well explained subjective reports in most instances, firmly suggesting that people believe there are benefits, many of them substantial, to be gained from using the raised bed as proposed by Andrew K Fletcher.

The obvious determination of the interviewees to be as accurate as they could with their comments was very helpful, if occasionally adding to the time needed to complete the interview. Unfailingly, we were received with great courtesy and interest in what we were there to do.

We carefully looked for evidence of exaggeration without finding any beyond the normal tendency to sound positive and present a good face. Even so, there were one or two who were clearly fearful of believing in what they considered genuine.

There is a lot of interesting information to be obtained from our survey, which we believe should be used to look more intensely at this therapeutic approach. Not, it is emphasised, simply from an MS standpoint alone, but taking into account of the autonomic function that forms the basis of Andrew Fletcher's proposal.

Should there be a proposal for further study, there must be an adequate protocol that includes provision for educational and training input to patients involved, explanation of the practice of using the bed and the general principle on which the concept is founded; frequent and effective monitoring of each user between starting and follow-up medical examinations.

It is no secret that it is difficult for people in any project to keep to the protocol if they are left to their own devices, without regular encouragement to stay with it.

-----Ongoing unpaid research----- All donations towards my costs graciously accepted, though never expected

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