

YourHealth



Liam Heavin with a client using a cervical 3D rotation which allows weight free movement of neck to restore normal neck function. Photograph: Brenda Fitzsimons

See the back of pain

Document-based care treatment has been hailed as uniquely effective in treating all types of back pain.

Carl O'Malley reports

Few can claim they have never encountered some sort of back pain and equally few can boast that they have fully eradicated it through the treatment they have pursued.

This is mainly due to the sheer variety of causes and symptoms. The reasons for, and the manifestations of back pain are so plentiful that treatments vary considerably and are often hit and miss in their effectiveness.

For these reasons many back complaints require specific treatment unique to their symptoms and causes. A method for doing this was sought some 15 years ago by medical professionals in Finland and the treatment that evolved has been hailed as uniquely effective.

Documentation-based care (DBC) is a treatment that uses "evidence-based medicine" to identify the source of the problem and devise an appropriate treatment. It uses purpose-built devices to assist in the rehabilitation process by reminding specific areas of the back what to do and when.

In Dublin's DBC clinic, chartered physiotherapist Liam Heavin offers a treatment which could mean patients avoid back surgery or excessive treatment which is, at times, a step too far.

With more than 100 clinics worldwide, DBC has amassed a database of information from 20,000 patients. The data has been formulated into effective treatments for specific complaints and evolves as more people are treated.

"The primary difference between DBC and normal chartered physiotherapy is firstly the exercise equipment that we use," says Heavin.

"The scientists at DBC came together to design specific, tech-

nologically advanced devices to isolate movement so that certain areas can be accessed very accurately, and allow treatment to be targeted exactly to the area that is injured.

"The second difference is the fact that we mostly treat individuals with chronic or long-term conditions or patients for whom all other types of treatment have failed."

The typical DBC patient has suffered for about eight years, and has possibly undergone surgery or a series of injections. "Many of our patients are out of work or unable to participate in normal day-to-day activities such as sport, due to this. It is our job to try to return them to normal function. That's what rehabilitation is all about, and that's what DBC does."

His emphasis on rehabilitation is echoed by the Football Association of Ireland's (FAI) chief medical officer and general practitioner, Dr Alan Byrne. "I've been working in the Eircom League since 1992 and an area I felt there was a gap was in the rehabilitation area," says Byrne.

"Where I felt we were lacking - physiotherapists who were dealing with the problem were fine - but I didn't feel there was enough attention being given to the rehabilitation of the muscle."

"When I went to the DBC clinic I saw something I could use for my practice and particularly for the soccer players of the Eircom League and others as well."

"There is no 'cure all' in medicine," adds Byrne, "but DBC has been a great addition to my practice, both in general practice from the point of view of musculoskeletal, and also from the point of view of sports medicine and rehabilitation."

Derry City centre back Clive

Delaney was referred by Byrne. Having visited DBC to rectify ankle and groin problems, he was impressed with the sessions that sent him into this season feeling stronger than ever.

"You feel stronger when you get back out on to the training pitch. The machines that he has down there really get into the right areas," says Delaney.

"They are not standard type of machines that you have in a gym, so that's why I go back every six weeks, because as much as I do my own weights in the gym, DBC has developed machines that pinpoint where you want to work."

Treatment is broken into two categories - baseline assessment and active rehabilitation. The first consists of a questionnaire to examine patient history and levels of impairment. A test on the patient's range of movement (ROM) is then conducted and compared to that of the average mortal. This is to discover where, and how much, the back is being restricted.

Electromyography (EMG) is conducted to illustrate the electrical activity in the lumbar spine and indicate whether there is "protective muscle spasm" present, which would suggest a deeper problem.

The baseline assessment is completed by an EMG fatigueability test, consisting of a 90-second assessment where the patient works against resistance in a controlled ROM. Once a clear picture of the problem has been uncovered, a treatment plan is worked out for the next stage - active rehabilitation.

Programmes are a minimum of two visits a week over six weeks.

Lumbar spine rehab begins with re-educating the muscles in their movement pattern. Movement of the spine is isolated which prevents the patient from compensating with shoulder rotation or leg movement. ROM and resistance are increased as the patient progresses.

For neck injuries, the cervical muscles are freed of the weight of the head and consequently relaxed in the early stages.

As with the lumbar treatment, ROM and resistance are increased to strengthen when the

time is right. This has proved particularly effective for people suffering from whiplash or rugby front rowers who have locked horns too often.

Heavin sees the active participation of the patient as a real positive that reveals interesting results.

"No matter if you are 17 or 70 years old, your body needs exercise to provide the impetus towards getting stronger and repairing itself. Often the patients we have the most difficulty getting through to are the younger, typically fitter ones."

"Instead of seeing a doctor or a physiotherapist as someone who fixes them, people need to realise that the whole point behind rehabilitation is that they fix themselves. It's the job of the medical practitioner... to guide the process."

A daily routine of stretching and "core stability" exercises is also given to the patient to carry out at home.

"All of the research nowadays highlights core-stability training as one of the most important factors in dealing with chronic pain; particularly lower back problems," says Heavin.

For rehabilitation, DBC physicians claim the treatment is second to none. There are undoubtedly cases where there is no other option but surgery, but Heavin maintains that rehabilitative treatments have played an important role in shortening waiting lists.

"Nowadays, the emphasis tends to be to use surgery only when all else fails. What controlled and specific rehabilitation has been shown to accomplish... is a reduction in the number of people needing elective surgery."

Of course, for Heavin, the shortening of surgery waiting lists means, to an extent, the lengthening of his, and the opening of a new clinic in Naas is testimony to that. However, for him, it is the patient's realisation of the simplicity of the treatment that has seen business grow.

"People who have never seen this type of treatment before are often surprised by the approach and the size and scale of the clinic. Overall, I feel that the gen-

eral perception of patients is that what we do makes sense. It really isn't rocket science.

"People seem to just 'get' the simplicity of what we do."

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Forecasting a better health service



MEDICAL MATTERS

Muiris Houston

Whoever wishes to investigate medicine properly, should proceed thus: in the first place consider the season of the year and what effects each of them produces, for they are not all alike," Hippocrates.

Whether it is an increase in the number of bone fractures after a period of freezing weather or a mini-epidemic of sunburn during a hot spell, the weather obviously affects our health.

Last year, researchers who looked at hospital admissions among women aged under 50 in 17 countries found a link between lower temperatures and a higher risk of cardiovascular diseases. A five degree drop in temperature was linked with a 7 per cent rise in admissions for stroke and a 12 per cent rise in admissions for heart attack, the British researchers concluded, speculating that changes in clotting mechanisms and blood pressure could be the reason.

At the other extreme of temperature, Taiwanese researchers reported in 2003 that high levels of air pollution, coupled with warm weather, increased the number of strokes by 50 per cent. They studied men and women living in the heavily industrialised city of Kaohsiung. On days when the temperature was greater than 20 degrees centigrade and pollution levels were high, the number of stroke admissions rose.

Nitrogen dioxide and particulate matter were the most significant pollutants associated with the increase, with the authors speculating that increased plasma viscosity and increased heart rate were to blame.

This link might explain some of the high mortality observed among older people in Paris in the summer of 2003 during a prolonged and intense heatwave. Increases in deaths have occurred in other cities, notably where summer climates are highly variable, so that residents have never been able to adapt to extreme heat.

Probably the most dangerous weather conditions occur when a mild winter spell is followed by a sharp drop in temperature. Research has shown that about two days after the onset of cold weather there is a sudden increase in the number of heart attacks. Some five days later, the number of people admitted to hospital with a stroke rises, while about 10-12 days after the temperature drops the number of patients with respiratory illnesses goes up.

With such well established patterns, it is perhaps not surprising that the Met office in Britain has developed a programme, *Forecasting the Nation's Health*, to see if it can predict surges in demand for healthcare and ultimately help the national health service with manpower planning.

According to Dr William Bird, a medical adviser to the Met office, "throughout England and Wales there is a 2 per cent increase in mortality for every degree the temperature drops below 18 degrees centigrade and snowfall doubles the number of heart attacks seen in hospital A&E departments".

Working with the Department of Health in London, Dr Bird and his colleagues combine information on respiratory infections, hospital admissions, GP workload and weather data to predict future demands on the health service, such as the likely number of emergency admissions by age group and the admission rates for different conditions in different regions.

"Forecasts of health admissions are issued twice weekly and enable bed managers to drive discharges, change staffing levels or cancel elective admissions with advance notice," according to the Met office.

Does it work? The Met office says that in the first years of operation the health forecast had an accuracy of 65 per cent overall, but that all the significant rises in workload in southern and northern areas of the UK were predicted.

While there are no plans to introduce a similar system here, it is probably something the HSE and Met Eireann should consider. Health forecasting will not solve our A&E crisis, but it may help even out some of the more severe clashes between elective and emergency demand.

But a system like this will never be 100 per cent accurate. As Brendan McWilliams, our *Weather Eye*, said last week, "there remains several reasons why weather forecasting can never be an exact science". He was responding to claims made by a Donegal businessman that an inaccurate forecast of bad weather had adversely affected hotel bookings.

I would much rather a system that erred on the side of caution. Whether for health service planning reasons or straightforward weather forecasting, it is better to accept a low level of false alarms rather than put people's lives at risk.

◆ Dr Muiris Houston is pleased to hear from readers at mhouston@irish-times.ie but regrets he cannot answer individual queries.

QUENCH THE FIRE

GUESS WHAT'S BACK?

SEE NEXT WEEK'S IRISH MEDICAL TIMES FOR DETAILS

GERARD LABORATORIES

My Kind of Exercise

Singer Tony Christie tells Patricia Weston that he gets relief from his arthritis while living in Spain

Do you exercise?
I live in Spain and when I'm not touring I like to walk, especially around the golf course.

Are you fit?
I'm 62 years old and I reckon I'm fit for my age.

Any food vices?
I'm a big tea drinker. I drink gallons and gallons of strong builder's tea with no sugar and skimmed milk! I don't smoke and I enjoy the odd pint and glass of wine.

Have you suffered any serious injuries or illnesses?
Living in the sun means I don't suffer from the arthritis. I've been very fortunate with my health over the years; I've only ever dislocated my thumb when I was younger.

Do you suffer from stress?
I usually get worked up leading up to a tour, but in general I'm pretty laid back.
How do you wind down after a concert?
When I'm touring I insist on

travelling on the bus with the rest of the band. After the stage we watch TV, have a glass of wine in the bus and just unwind before we get to the hotel.

Would you consider cosmetic surgery?
It wouldn't be a no no for me. If I thought I needed it, I'd do it.

Patricia Weston recommends:
Try these Pilates mobility exercises to help ease the pain of arthritis:

◆ To mobilise the spine, sit on the floor with your knees bent, your back straight and your arms across your chest. Take a deep breath in and turn your torso to the right as you breathe out, then return to the starting position and

repeat on the left side. Repeat slowly on both sides six to eight times.

◆ Mobilise your hip joints by lying on your back on the floor with your knees bent. Raise one bent leg and keep your shin parallel to the ceiling. Rotate the hip joint slowly and gently outwards. Repeat on the opposite side four times.

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Tony Christie: If he thought he needed cosmetic surgery, he would consider it.

