chronic disabling back pain contributes substantially to workload and healthcare costs in primary care. It is the most common musculoskeletal problem in UK primary care and the second leading symptomatic cause for visits to the doctor in the United States (BMC Musculoskelet Disord 2010;11:144). In Denmark a family doctor sees on average at least one patient with back pain each working day.

Evidence from clinical trials indicates that treatment in primary care can achieve modest but definite improvement. Encouraging people to stay active and at work, helping patients adjust their beliefs and expectations to realistic but achievable goals, and offering simple analgesia and a range of physical therapies—such as exercise, manual therapy, and acupuncture—and support for rehabilitation to the workplace should result in less suffering, disability, and work loss. However, prevalence of chronic disabling back pain has increased in many countries, sickness absence rates remain high, and many patients seek care from healthcare professionals other than their family doctor.

The first person seen by the patient with back pain is most often the general practitioner. Traditionally, however, GPs receive little training in common musculoskeletal problems in undergraduate medical school, medical internships, and postgraduate education. Surveys and interviews indicate a lack of confidence in examining and treating patients with back pain, and many GPs feel ill equipped, either relying on pharmacological management or subsequently referring patients to doctors with special qualifications or to physiotherapists, chiropractors, or osteopaths (J Occup Environ Med 1998;40:958-63; Eur J Pain 2007;11:21-9).

Understandably, many patients are concerned that their back pain may signify a serious or progressive disease that, if treated early, can be cured. Research suggests this is rarely the case. The frequency of such diagnoses is very low in patients presenting with back pain in primary care, and the reliability of “red flag” symptoms and signs in identifying them is limited. Evidence suggests that concentration on differential diagnosis and red flags may even divert the GP from evidence based practice and contribute to unnecessary investigations, overmedicalization, and increased disability and costs (Arch Intern Med 2010;170:271-7).

One solution, first supported in a study in the BMJ 20 years ago, is for professionals other than the GP to act as first port of call for musculoskeletal problems (BMJ 1997;294:24-6). Such “primary care musculoskeletal specialists” could provide extended and consistent evidence based management, optimising the opportunity for improvement and prevention of chronic back pain. The minority of patients who need more extensive investigation and patients with complex health problems would be referred to the GP, improving the efficiency of general practice by allowing the GP to focus on patients with multimorbidity, questions of diagnosis, or failure to improve as expected.

This has been well accepted in secondary care. Many back pain services in UK hospitals and interface musculoskeletal clinical assessment and treatment services employ health professionals such as physiotherapists to carry out triage and place the patient in the most appropriate pathway of care. In Sweden many orthopaedic departments now use physiotherapists as front line diagnosticians to triage patients with osteoarthritis. In both countries this has resulted in substantial falls in waiting lists for patients waiting to see surgeons, and many patients are effectively handled without a surgical consultation.

Patient choice suggests this could be achieved in primary care. A third of patients with back pain in Denmark now choose to see a chiropractor as their entry into the healthcare system, and in the US more than half of people who have had back or neck pain during the past year had consulted an alternative health care practitioner, most commonly a chiropractor or massage therapist, compared with only one third who had seen a conventional provider (Spine 2003;28:292-7).

Do we continue to organise primary care for musculoskeletal problems around GPs or do we develop the education, practice patterns, licensure, and evidence base of healthcare professionals such as physiotherapists, chiropractors, and osteopaths to be the gatekeepers for this condition? The main interests of such professional groups are in musculoskeletal health and back pain, and they drive much research and professional development in these disciplines. Non-medical professionals are well accepted as primary care providers of oral and dental health, visual health, and many aspects of mental health, and clinicians such as nurses and pharmacists have been shown to improve quality and cost effectiveness in the management of many conditions.

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bmj.com/video

Watch a video about Alexander technique
**Dirty secrets**

Changes in our relationship with dirt are inextricably linked to advances in our health. Sophie Cook enjoyed this fascinating yet filthy exhibition.

**Dirt: The Filthy Reality of Everyday Life**

An exhibition at the Wellcome Collection, London
Until 31 August 2011
www.wellcomecollection.org
Rating: ★★★★★

It’s hard to imagine a whole exhibition devoted to dirt. But when you think a bit harder, dirt in the physical rather than the metaphorical sense is all around us, and humans are responsible for most of its generation. We are dirty.

The current exhibition at the Wellcome Collection takes an in-depth look at the relationships that humans have with dirt, defined for the purpose of the exhibition as dust, excrement, rubbish, bacteria, and soil. Some people don’t mind it; others are obsessively repulsed by it, but we are all exposed to dirt, and it is closely intertwined with science, hygiene, health, and status. In the past dirt was responsible for high rates of communicable diseases in overcrowded cities, and sadly this remains the case in some parts of the world. Our increased generation of rubbish and pollutants threatens to harm us and our environment in the future.

The exhibition considers properties, dangers, and other ideas relating to dirt in six different locations and times. Not all of the exhibits are pleasing to the mind or eye. The dirty journey starts tamely, with the hygiene aware Dutch in 17th century Delft. Beautifully painted domestic scenes by Pieter de Hooch illustrate the importance of cleaning rituals of this time and how cleanliness, godliness, and virtue were thought to be closely related. Delicate Delft pottery and one of the first microscopes, created by the scientist Antonie van Leeuwenhoek, are on show. Leeuwenhoek used his tiny microscopes to uncover the microbial world, initially by visualising the “little animals” that could be seen in scrapings of “batter” from his teeth.

By contrast, there was an abundance of dirt (in this context mostly sewage) in Victorian London, where communicable disease was rife, and cholera posed a threat to overcrowded communities. A striking engraving of a young Venetian woman before and after contracting cholera highlights the blue tinged skin characteristic of this feared disease, which could kill within hours. You can feast your eyes on a specimen of the “rice water stool” that we’ve all read about in medical textbooks, just in case you’ve ever wondered what this looks like. See how cholera took hold of Soho in John Snow’s “ghost map,” which is peppered with tiny black rectangles, each representing a cholera death. This map allowed Snow to dispel the myth that cholera was contracted through “bad air” or “miasma,” tracing the outbreak back to an infected water pump.

The filth of Victorian London was detested by most, but various scavenging professions benefited or indeed survived off the back of the rubbish and detritus in their urban environment. Pure finders searched for dog faeces for use in the tanning industry; mudlarks trawled the riverbeds, collecting rubbish; and night soil men would empty cesspits to harvest excrement for fertiliser. You might consider scavenging a profession of the past, but the exhibition reveals how in some communities in India, this practice is still very much alive. Sadly, many people still risk their lives cleaning the waste of others for a meagre salary as a result of the caste system that prevents them from doing any other work.

Scavenged material has been used to create Santiago Sierra’s sculpture “Anthropometric Modules Made of Human Faeces by the People of Sulabh International, India.” The modules don’t look or smell like excrement, but I wasn’t about to disobey the “Please don’t touch” sign beside them. Victorian hospitals were dirty, dangerous places before Joseph Lister recognised that antisepsis was the key to reducing the high rates of “ward fever” and gangrene that were often fatal. Artefacts detailing how Lister put antisepsis into practice using carbolic acid at the Glasgow Royal Infirmary can be viewed. In photographs the infirmary at this time, with spartan wards, rows of beds, nurses in starched white uniforms, doctors in white coats, and vases of flowers, looks squeaky clean. Ironically, some of these measures that were thought in the 19th century to prevent infection and disease are now considered menaces for infection control and are vehemently discouraged from modern hospital environments.

A look at the first ever hygiene exhibition in Dresden in 1911 examines the relationship between personal hygiene and health. This travelling exhibition taught visitors about good personal care and basic anatomy, returning to its permanent home in Dresden in 1930. Sadly, it was co-opted by the Nazi party in 1933, leading to a sinister change in its tone and content when it became a vector for promoting Nazi racial ideologies.

The final leg of the dirt journey jumps to the year 2030 and chronicles the plans for a disused landfill site in New York—Fresh Kills, Staten Island. This vast area, which once received in excess of 29000 tonnes of decaying rubbish a day and was visible from space, is now the subject of a huge regeneration project. It is hoped that in time, this will be transformed into an area of natural beauty to attract the hoards of people that used to fill it.

The exhibition leaves you thinking about the many facets of dirt, some of which I’d not considered before. You’ll need a couple of hours and a moderately strong stomach. This exhibition is provocative and draws attention to the human contribution to dirt and pollution, which is too often ignored. You won’t leave feeling physically dirty, but you might be more aware of the fresh London dirt that awaits as you step out on to the Euston Road.

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I mean no disrespect to the current general practitioners of Reading when I say that I doubt that many among them could equal the literary productivity or versatility of Dr Jamieson Boyd Hurry (1857-1930). He was their predecessor as a GP in that town for about 30 years, during and after which he was the author of many works, some of them of European renown.

He was a respected local antiquarian and historian. He wrote several studies of Reading Abbey, and one on the earliest manuscript of English secular music, *Sumer is icumen in*, which was produced in Reading Abbey and is now in the British Library. I think it likely that his *A History of the Reading Pathological Society* (1909) is definitive and unlikely ever to be excelled.

But the work that brought him European fame was *Vicious Circles in Disease* (1911). Dr Hurry seemed to have found in vicious circles the explanation of a great deal, for he went on to write *Vicious Circles in Poverty* and *Vicious Circles in Sociology*, all of them translated into the major European languages.

Obesity, for instance, exhibited many vicious circles. For example, it led to a deposition of adipose tissue in the mesentery, which slowed the passage of the “ingesta,” which increased absorption of the same, leading to further obesity. Likewise with flat feet: obesity gave rise to them, which then discouraged physical activity and led to further obesity. It was to the breaking of vicious circles that patient and doctor should apply their efforts. Dr Hurry published his ideas in the pages of the *Lancet* and the *BMJ*.

He was also a botanist and amateur Egyptologist. His last work, published posthumously in the year of his death, was on woad, the blue dye of the Picts—or was it the Scots? His book, now rare and expensive, is regarded as a classic, and again the definitive work on the subject. Blue dyeing of the skin seems to have become fashionable once more in these islands: which goes to show that, if you wait long enough, fashions always come round again.

Hurry, who knew hieroglyphics, was such an admirer of Imhotep that he dedicated his book to his memory

In 1926 Dr Hurry published a study of Imhotep, the ancient Egyptian architect and doctor, who was also the chief minister of the pharaoh, Zoser. Imhotep was later deified, and in the Hellenic period his cult was amalgamated with that of Aesculapius. Dr Hurry, who knew hieroglyphics and was acquainted with the most famous British Egyptologist of his day, Sir Wallis Budge, was such an admirer of Imhotep that he dedicated his book to his memory.

From the purely medical point of view, it is not easy to see upon what Dr Hurry based his admiration for Imhotep. He was known to have been the architect of the first pyramid, and Dr Hurry writes that Imhotep was “a fine type of scholar-physician,” who “rendered service both to the bodies and spirits of the sick and afflicted to whom it was his privilege to minister.” On the other hand he admits, “Unhappily, nothing is known of his work as a physician.” I am reminded of what a Peruvian peasant said when asked why he had voted for Alberto Fujimori: “Because I know nothing about him.”

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*bmj.com/archive* Articles by Jamieson B Hurry

- Vicious circles (*BMJ* 1907;1:1104)
- The breaking of the vicious circle (*BMJ* 1913;1:274)
- Concurrent vicious circles (*BMJ* 1924;1:660)

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**MEDICAL CLASSICS**

The Personal Diary of Major Edward “Mick” Mannock

First published 1966

The recent belated pardoning of servicemen executed for “cowardice” during the first world war makes this expertly researched diary of an undisputed hero of that bloodiest of conflicts—with its reproduced handwritten account of his personal experience of the condition now known as post-traumatic stress disorder and now recognised as the blameless cause of such breakdowns—of particular interest in the current era of wars in Iraq and Afghanistan.

After service as a sergeant in the Royal Army Medical Corps, Mannock, although blind in one eye, requested transfer to the Royal Flying Corps (later the Royal Air Force) in 1916, aged 29. Knowing that if detected his defective vision would preclude his allocation to flying duties, he avoided its discovery by memorising the medical officer’s test chart and was duly enlisted. Remarkably, in view of his disability, Mannock passed flying training with distinction and was posted to active service as a fighter pilot in France in 1917.

Although his bravery in combat was indisputable—as his medals and the drowning of 73 enemy aircraft show—Mannock’s diary often describes the nervous stress he endured, which led to two breakdowns that needed periods of rehabilitation in England. Such stresses were not confined to fears for his personal safety. After colleagues’ deaths in action he would sit in his quarters and cry out the names of the dead men.

A particular cause of such stress, which is reminiscent of that caused by the shortage of helicopters and adequately armoured vehicles currently experienced by British troops in Afghanistan, was the regulation that airmen should not carry parachutes lest they bail out rather than face the enemy. Unsurprisingly, fear of being unable to abandon an aircraft shot down in flames, a sight he had often witnessed, was a recurrent theme in Mannock’s diary, which records that he always carried a revolver, intending to end his life in such circumstances.

His apprehension was tragically justified in his final sortie, before which he told a less experienced pilot, “I don’t feel I will last much longer; you watch yourself, don’t go following Huns too low or you’ll join sizzle brigade with me.” In an ensuing dog fight, inexplicably ignoring his own advice by following down a stricken German aircraft, Mannock suffered the fate he dreaded. Neither his plane nor his body was found, and it is not known whether he used his revolver. Mannock may well have survived it equipped with a parachute, and such incidents eventually led to the decision to end their ban. (An apology from the air force to the descendents of those who lost their lives in similar circumstances is still awaited.)

Other conclusions arising from Mannock’s tragic story are that the bravest of men may develop battle related post-traumatic stress disorder and that deception involving visual acuity testing is not confined to those wishing to avoid dangerous or unpopular postings.

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* Education and Debate: The invention of post-traumatic stress disorder and the social usefulness of a psychiatric category (*BMJ* 2001;322:95)

Medical stereotypes

We have different national stereotypes of doctors. French doctors drink cognac and smoke cigarettes with patients. Germans doctors wear orthopaedic footwear and do have a sense of humour—it’s just different from everyone else’s. Italian doctors, even when operating, wear sunglasses and sling a pink jumper over their shoulders. American doctors mainline investigations, demanding scans on every patient. Canadians doctors would like to do the same, but thankfully their socialised system means that they can’t. Indian doctors have multi­armed gods, so seem intent on writing multiple prescriptions. African doctors look at medicine in the rest of the world and shake their heads. Stereotypes are fun, if not very helpful. So when I met a group of Swedish general practitioners I didn’t know what to expect­tall, blonde, slightly melancholy perhaps? To my relief they were fully clothed, looked remarkably like me, and of course spoke better English than me.

We discussed our different health systems. I gulped at their appointment times of up to 30 minutes. I felt slightly ashamed of our 10 minute medicine, and they gushed when I explained we once worked to five minute appointments. But it wasn’t the differences that struck me as much as the similarities. They were concerned about loss of generalism, the demise of full time working, erosion of continuity of care, litigation, consumerism, and shopping list consultations. We all shared a sense of powerlessness against the invasion of wellbeing by the broadening of definitions, medicalisation, and the march of polypharmacy.

It is clear from other correspondence that irrespective of specialty and geography the medical condition is the same the world over. Always the greatest anxiety is that sense of powerlessness, loss of clinical control, and the rise of the omnipresent, omniscient medical autocrat. Much of the direction of medicine is now increasingly concentrated in the hands of a select few specialist oligarchs, who write guidelines and tour the conference circuit, their oily hands dripping with Pharma cash. The world’s medical system is a one party “evidence state,” all enforced, monitored, and controlled, done in the name of the greater good of the people. And medical dissent is dangerous: you risk the gulag of ridicule, losing reputation and livelihood. So we all go along with the system even if we think it wrong. But bad things happen, not because of the action of a bad few, but the inaction of the many. So we need grassroots doctors to organise and protest against what is happening. Revolution and insurrection are not part of the perception of doctors, but the best part of stereotypes is their contradiction.

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THE BIGGER PICTURE

Mary E Black

Four burials and a funeral

I cringe when I see relatives of the dying or dead ignored in hospitals, or when we expend huge efforts and technology on resuscitation only to treat the dead body as just something irrelevant and without meaning, and perhaps a sign of our failure to cheat death. Bereaved family members are as raw and sensitive as peeled eggs. Burials and funerals are healing rituals.

We were a bit stuck as to how to approach my Irish father’s death, with his four children and 10 grandchildren scattered across four different countries. In Ireland it is perfectly fine to mourn with joy at a funeral. In Serbia, funerals are unrelievedly tragic and gloomy. They are thought unsuitable for young children and pregnant women, and there is much visiting and decorating of graves after the event. England has its own practices around memorials. Australia is both multicultural and matter of fact. Traditions grounded deeply in culture may not help complex, multicultural, multifaith, or “no faith” families. They must invent and compromise.

Our solution resembled the Rolling Stones’ last tour—a series of “final” events. We started with a funeral. A Catholic funeral mass in Kent, England, with the carrying of the coffin and the singing of the hymns was followed by a cortège across Kent to the crematorium, where tributes were read, fond jokes made, and my father’s coffin moved slowly behind the curtains to the tune of Benny Goodman. Family and friends then celebrated his life over lunch.

Over the next year we had four burials. My father’s ashes were spread over my father­in­law’s grave in Belgrade: they never met in life, and I fondly imagine that they are discussing the naval history of the second world war in some afterlife. In Australia, my scuba diving brother interred another tranch in a coral cave near Melbourne. In Ireland, another brother scattered ashes off Dun Laoghaire harbour; that day the wind unfortunately blew the wrong way. A final portion was buried by my sister’s family in England in the lovely gardens at Sissinghurst Castle under a donated rose bed; we visit the book of remembrance there, and it does exactly that—heals us remember.

The default “standard” burial may not be what your family, your loved one, or your patients would really want. Funeral planning may help because some people want to settle their financial and practical funeral arrangements in advance (see www. which.co.uk/money/insurance/reviews­ns/funeral­plans/the­costs­of­funeral­plans). Elderly and terminally ill people often find this satisfying.

The Natural Death Centre supports funerals that are organised by the family and environmentally friendly (www.naturaldeath.org.uk). My retired doctor­mother thought their handbook “a thoughtful and practical gift.” As a seamstress, I appreciated the instructions on sewing a shroud, but found the section on building a coffin more challenging.

Bury your dead and yourself as they, and you, would want.

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