Dying for a seat – part 1

Chris Langham starts a new six-part series that looks at the history, evolution and physical dangers inherent in one of our most common items of furniture, the chair

ARE you sitting comfortably? Are you sure? What are you sitting in? After a while do you begin to feel uncomfortable; does your back become stiff or your shoulders ache?

People declare that this discomfort is caused because they sit awkwardly, lean forward while working or sit for too long without stretching, but what if the problem is more fundamental than that? What if the problem is inherent in the thing you are sitting in, the chair itself?

Western civilisation has embraced the conventional right-angled chair, with or without arms, with such enthusiasm that it has become ubiquitous, so ubiquitous that we don't even think about them, we just sit in them.

How long do we spend sitting down every day? Think about it. We get out of bed and sit for breakfast or our morning coffee. Then, when we leave for work, we sit in our cars or on trains or in buses for the duration of the commute.

Once in the practice or lab the dental professional team will usually take a seat to get on with their jobs. The dentists and dental nurses sit chairside while they work on the patients, as do hygienists, therapists and clinical dental technicians.

Dental technicians sit at their work benches, practice managers and receptionists sit at their desks or counters, and that's pretty much where they'll stay for the duration of the working day.

Every minute that a dental professional spends without a hand tool in their hand loses money but, thanks to the way you are sitting, how much damage are you doing to your physical health in the process?

We sit for our commute home, sit to eat our meals, and then we'll sit to watch TV or read a book, listen to music or just generally relax at the end of our working day.

This culture of sitting has reached the point that there is now a medical imperative to get us up on our feet more often for the sake of our health.

Guidelines recommend regular walking, five minutes of moving around every hour if you are in a sedentary job; get out in the air more, park the car further from the office, get off the bus a stop earlier, walk further when you get off the train – get moving.

A passive problem

At a time when incidences of obesity and type two diabetes are reaching epidemic proportions we have to accept that the amount of time we spend passively seated is a large part of the problem, and over the next six months I will be discussing the damaging physical effects we all suffer as a result of our love affair with the right-angled chair.

If it is such a bad idea, where did the right-angled chair come from? The human body was never designed to suffer the stress of trying to sit upright on such a chair or stool or bench; in fact for most of our history we didn't have the time or inclination for sitting still.

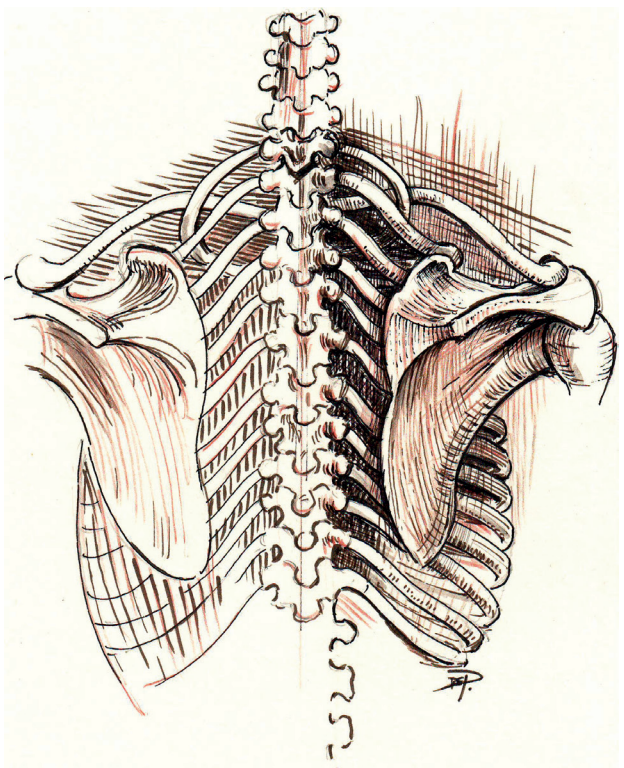
Since the first truly bipedal footprints known to modern science were left preserved in volcanic ash by a pair of *Australopithecus Afarensis* apes 3.6 million years ago, their descendants have remained actively on their feet.

About 200,000 years ago modern man appeared on the scene and we were constantly on the move, out scavenging, hunting and avoiding predators.

Before we learned to domesticate large animals such as the horse, and the invention of the wheel, mankind had already explored most of the globe, and did it on foot.

As civilisation evolved towards a more urban environment, one that we would recognise, it went through an agricultural phase and that has been demonstrated as requiring even harder work than the previous hunter-gatherer stage.

Caring for and protecting livestock and crops from a variety of threats including predation, as well as maintaining fences and households against wear and tear, would see farmers working for at least 40 back-breaking hours a week. However, this tough work would eventually create a surplus of food, meaning larger settlements could be established and tribal leaders could gain more authority, supported by warriors (or local bullies) who could live off that surplus without doing any of the work.



What damage will a conventional chair do to your spine? (Drawing after da Vinci)

Throne into civilisation

It was during the following phase of civilisation, the building of cities and towns, in which the chair became established in iconography, and we see depictions of kings, emperors and gods sitting stiffly on thrones that helped put them above the common crowd.

Looking at ancient Egyptian pictograms we can see the dominance theme that underpins the concept of taking a seat in early civilisation. The seated figure assumes an authoritative, almost inhuman posture with its straight back, stiff, dignified head and neck, and knees, hips and elbows held at a precise 90 degrees.

This is not a posture that can be maintained all day every day; it requires an almost heroic level of self control, so it would only be endured during state or religious occasions.

Over time the throne itself takes on an almost sacred mantle, echoes of which we feel in the reluctance still experienced today when taking another's seat. In the workplace or at home a chair is very much a prized possession onto which we are loath to trespass without an invitation.

A modern right-angled chair is little different from those ancient thrones, even though thrones were designed for display rather than comfort, and it has been proven that long hours spent sitting in them will stress the spine and result in musculo-skeletal pathology.

In the next issue I will explore why the conventional chair became so commonplace and then start looking at the genuine harm it can do to our bodies.

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