

Back care in Dentistry





HELLO!

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AIMS AND OBJECTIVES

- To reduce the impact of back pain and MSK issues in dentistry.
- To review the clinical anatomy of back care
- To demonstrate a range of exercises which can help prevent and manage back pain.
- To identify and manage how back pain affects those working in dentistry.
- To be able to take ownership of own back care in the working environment.
- To recognise and identify ergonomics and how they impact on back care.

Back pain can affect wellbeing and cause stress and work absences. This course is aimed at delegates being able to take management of their own back care in the dental working environment. The course will enable delegates to recognise the cause and effect of poor posture and sustained positioning, and how they impact on back care.



Dental practitioners commonly experience musculoskeletal pain during the course of their career. Pain occurs in the lower back, and also neck and shoulders. These symptoms do not happen overnight – they creep in after hours of repetitive movement and bad posture. These symptoms may or may not affect you yet, but prevention is always better than cure and the earlier you recognise the causative factors, the sooner you can begin to follow a prevention regime therefore avoiding the possibility of long-term problems.

Prevalence

- **Between 70% and 90% of Dentists and associated members will suffer with back pain at some point in their career.**
- **30% will retire because of back pain.**
- **The incidence of back pain is proven to increase greatly throughout your working life.**
- **Over 70% of dental professionals reported chronic pain.**



Anatomy of the Spine

The spine is made up of 24 vertebrae –

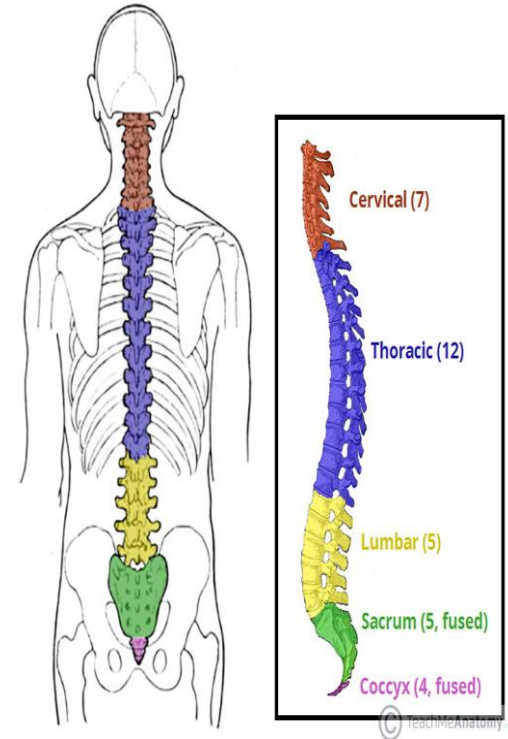
7 - Cervical

12 - Thoracic

5 – Lumbar

There are 3 natural curves in the spine.

It connects different parts of your musculoskeletal system. Your spine helps you sit, stand, walk, twist and bend.



The Spine

The 3 curves are important for balance and they help us to stand upright. If any one of the curves becomes too large or small, it becomes difficult to stand up straight and our posture appears abnormal.

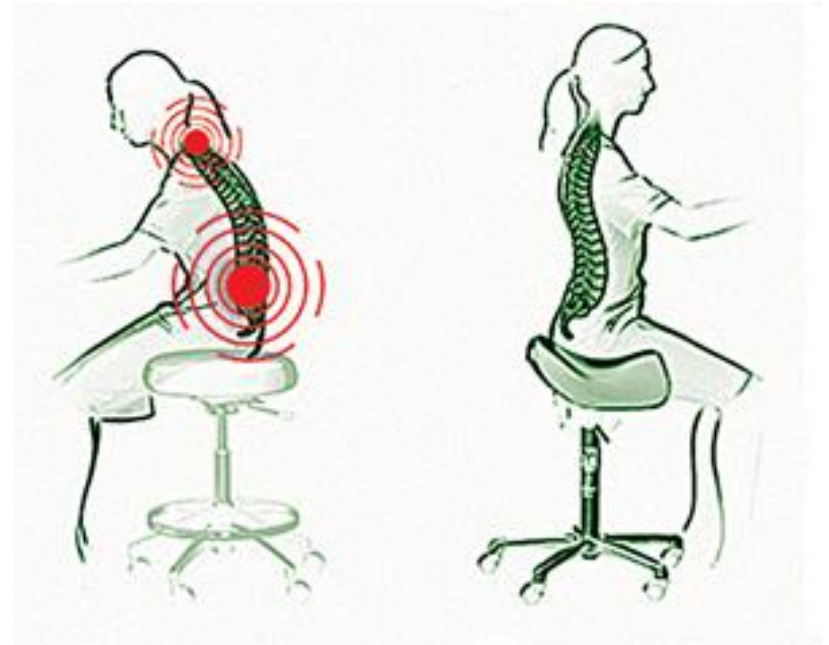
Intervertebral disks sit in between the vertebrae. They are flat and round, and about a half inch thick.

The spine contains over 120 muscles, around 220 individual ligaments and 100 joints.



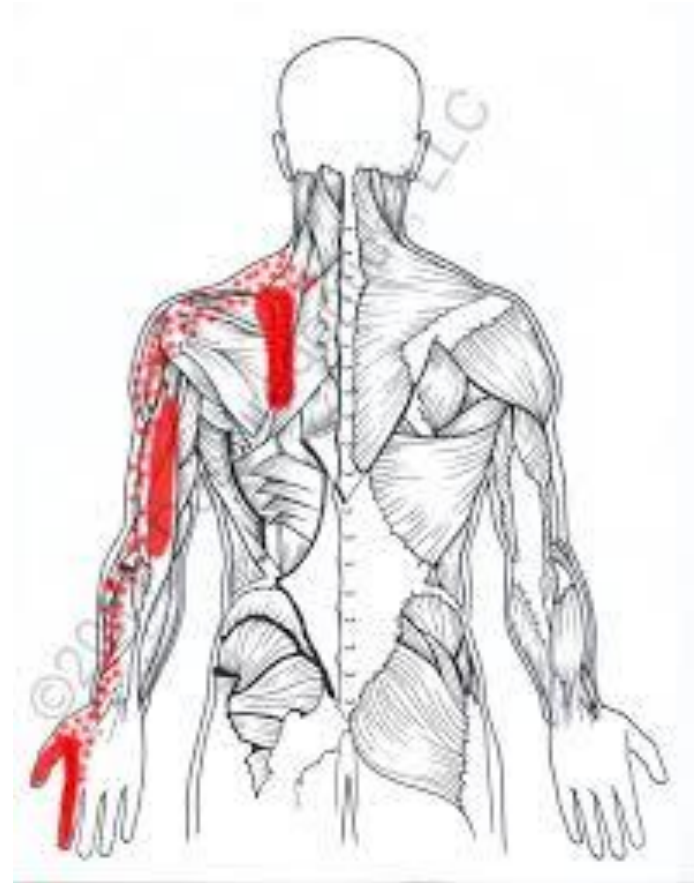
- Spinal anatomy is an amazing combination of strong bones, flexible ligaments and tendons, large muscles and highly sensitive nerves. It is designed to be incredibly strong, protecting the nerve roots, yet highly flexible.
- When the structures are put under strain the large nerve roots that go to the legs and arms may become irritated or pinched. The smaller nerves that innervate the spine may be irritated due to inflammation or degeneration.
- The muscles around the spine may become strained due to overuse.

‘The position in which someone holds their body when standing or sitting’



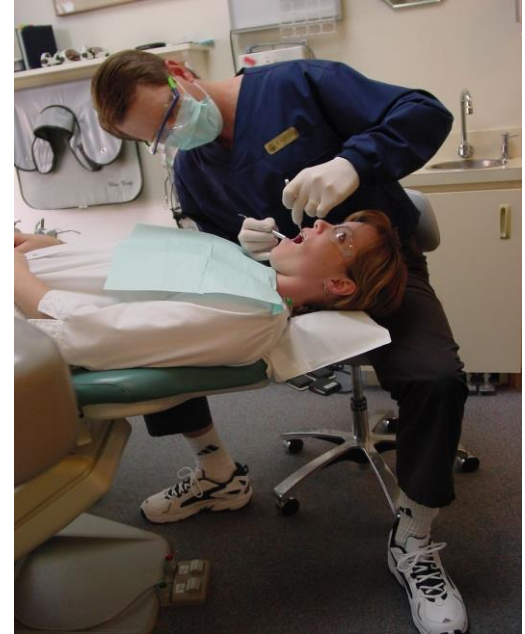
So what happens with poor posture?

- **Dental professionals have to perform precise hand movements, use vibrating instruments, adopt static postures, use psychomotor skills, and perform repetitive monotonous tasks over long periods of time.**
- **Musculoskeletal pain is influenced by various factors, including physical, occupational, and socio-psychological characteristics.**



Posture

- **As a dental professional – posture is maintained in a flexed and often rotated position.**
- **Therefore, all the muscles at the front of the body become tight, and all the ones at the back are permanently on stretch. Causing static muscular tension.**
- **Poor posture alters breathing patterns– sending into ‘fight or flight’ mechanism.**



Ergonomics and wearable technologies – the future.

- **Ergonomic education, micro-breaks and posture friendly workflows are essential.**
- **Wearable posture monitors.**
- **Smart chair.**
- **Real time tracking tools.**
- **Loupes.**

ERGONOMIC RECOMMENDATIONS.

- **Get to know your habitual work posture.**
 - **Change posture as often as possible.**
 - **Try and source a good chair with support, and have it at the correct height.**
 - **Saddle seats are a positive thing, but can cause more discomfort initially.**
 - **Try and keep normal arm posture and alignment.**
 - **Be aware of time management. Try and mix and match appointments.**
 - **BREATHE!**
 - **And remember pain does not equal damage.**
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SO WHY EXERCISE?

- **Helps keep the back healthy by allowing discs to exchange fluids which is how the disc receives its nutrition.**
- **Exercising the back reduces stiffness by keeping the connective fibres of ligaments and tendons flexible.**
- **Exercise stretches, strengthens, and repairs muscles that help to support the back. The back and abdominal muscles act as an internal corset supporting the vertebrae discs, facet joints, and ligaments. When back and abdominal muscles are weak they cannot support the back properly.**

BODIES ARE MADE TO BE MOVED!!

SO WHAT CAN I DO??

DURING WORK....

- **Think about your posture.**
- **Move around and change position as often as possible.**
- **Stretching chair based exercises.**

OUT OF WORK.....

- **Keep active. A mixture of strengthening, stretching and cardio will keep you in peak health.**
- **More gentle activities such as swimming, yoga and Tai Chi will help prevent injury.**

USEFUL LINKS

- Any questions or queries – sara.emery1@nhs.net
- NICE Guidelines for back pain – <https://www.nice.org.uk/guidance/ng193>
- Versus arthritis – www.versusarthritis.org



BYE!

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