

# DENTAL ERGONOMICS GUIDE



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CURATED  
HINTS & TIPS

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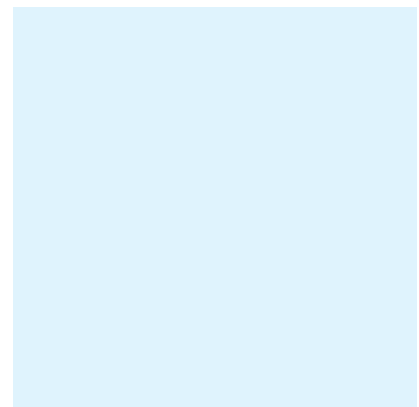
Welcome to join a journey  
towards comfortable  
days at dentistry.

# SMART CHOICES & SIMPLE CHANGES

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For 30 years Salli has proudly contributed to dental professionals' health and career. In this guide we have used the experiences we have gained during our journey from hundreds of clinics and taken an approach that combines both science and functional anatomy of the human body. We have summarized the collected data and formulated simple guidelines that can be taken into practice in every clinic.

**Why?** Dental workers often suffer from musculoskeletal disorders (MSD), and 90% of the early retirements caused by MSDs are work-related. Awkward postures, which are typically static and long lasting, are the main reasons of painful conditions. Taking ergonomics to a better level requires renewing working habits, and switching from reactive to proactive performance.



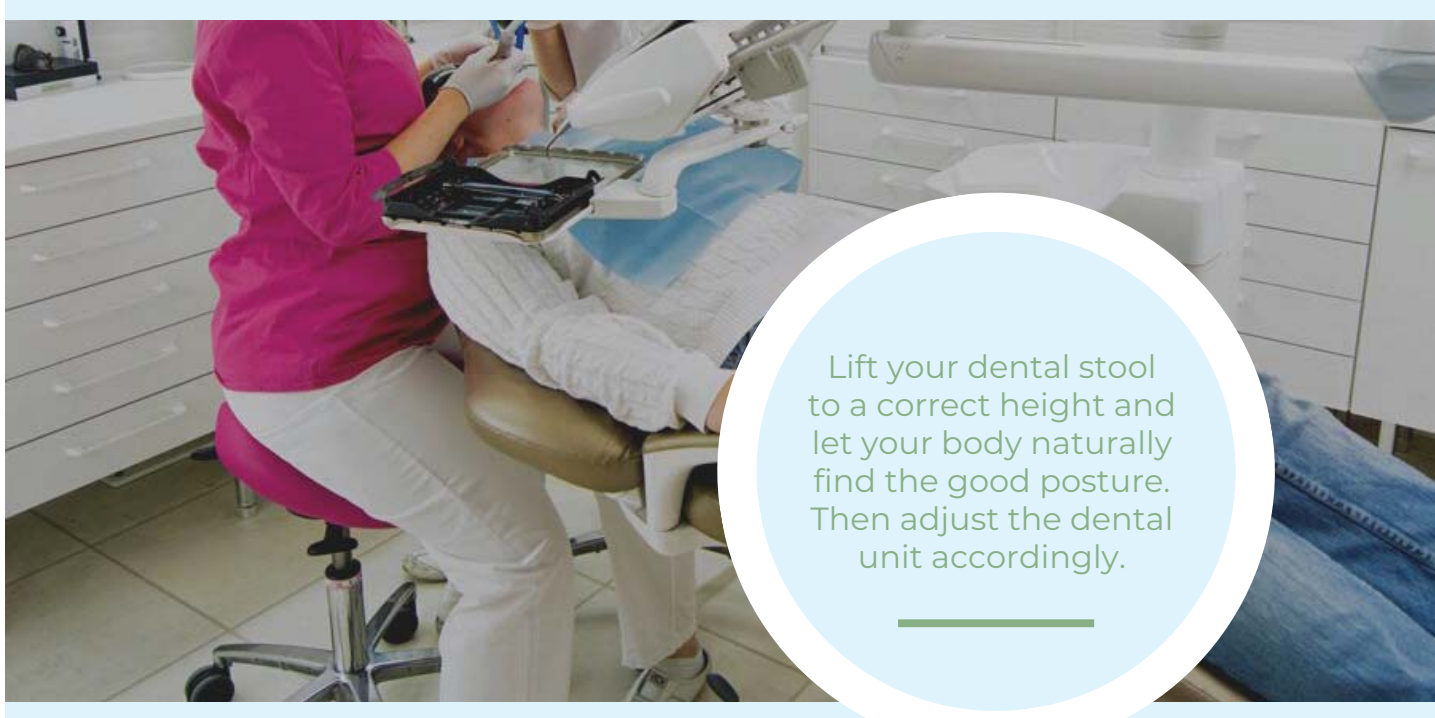
## STEP 1. BE YOUR FOCAL POINT

Too often the primary attention is paid to the feelings of a patient, and the dental professionals position themselves secondly. Despite the importance of ensuring the best experience to the customer, the customer is still only a visitor. This step is the most important; first make sure you feel yourself comfortable, then adjust the work environment accordingly.

# HOW TO FIND NATURALLY A GOOD POSTURE?

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At this point, we need to base the guidelines on the assumption, that you have a saddle typed dental chair, with a gas spring that can be mounted high enough. Conventional chairs with a flat seat disable ergonomic posture. Despite that a great part of ergonomics is related to the conscious use of a body, the environment needs to naturally support the good posture.



### **The anatomics of good posture**

Musculoskeletal disorders, also majority of the post traumatic ones, are caused by unbalanced posture. While the body is not loaded evenly, it is obvious that muscles, ligaments, tendons and cartilages are affected and work asymmetrically, being loaded. In search of a balance while sitting, the basis is our pelvis and how it is positioned. If the pelvis is out of balance, it affects to our back and neck as well. If you think about the tower; if any of the lower floors collapse, the whole tower is skewed.



### What's the problem with conventional seats?

While sitting on a flat seat, the feet are placed in front of you, which forces you to slouch. If you still try to maintain a good posture, you will shortly notice a sensation in your groin area, and will find yourself relieving the uncomfortable feeling with rounding your back. Usually conventional dental chairs have a backrest to lean on, but that doesn't change the fact that the back is still rounded. In this position, you need to lean forwards in order to perform your task. Therefore, conventional chairs cannot be considered ergonomic.



Conventional chairs don't allow the correct setting of pelvis, which serves as a base for the natural posture. A need to lean on something is a sign of unbalanced posture, which causes musculoskeletal problems.

**Saddle chairs** are designed to help the body to find and maintain its neutral position. Lift the chair as high as you can with your feet still touching the ground. Place your feet beside your chair, because as explained before, having your feet pointing forwards forces your pelvis to rotate backwards, causing the rounded spine. Once your pelvis is placed correctly, there is no more need for a backrest. Balanced position doesn't need external support. Leaning into a backrest at this point would reduce the benefits of saddle chair, because passive support such as a backrest, also passivates inner core meanwhile the back is rounded and therefore, loaded harmfully. Appreciate the support from your inner core, so you will prevent or get rid of your back problems, that more or less are only functional.

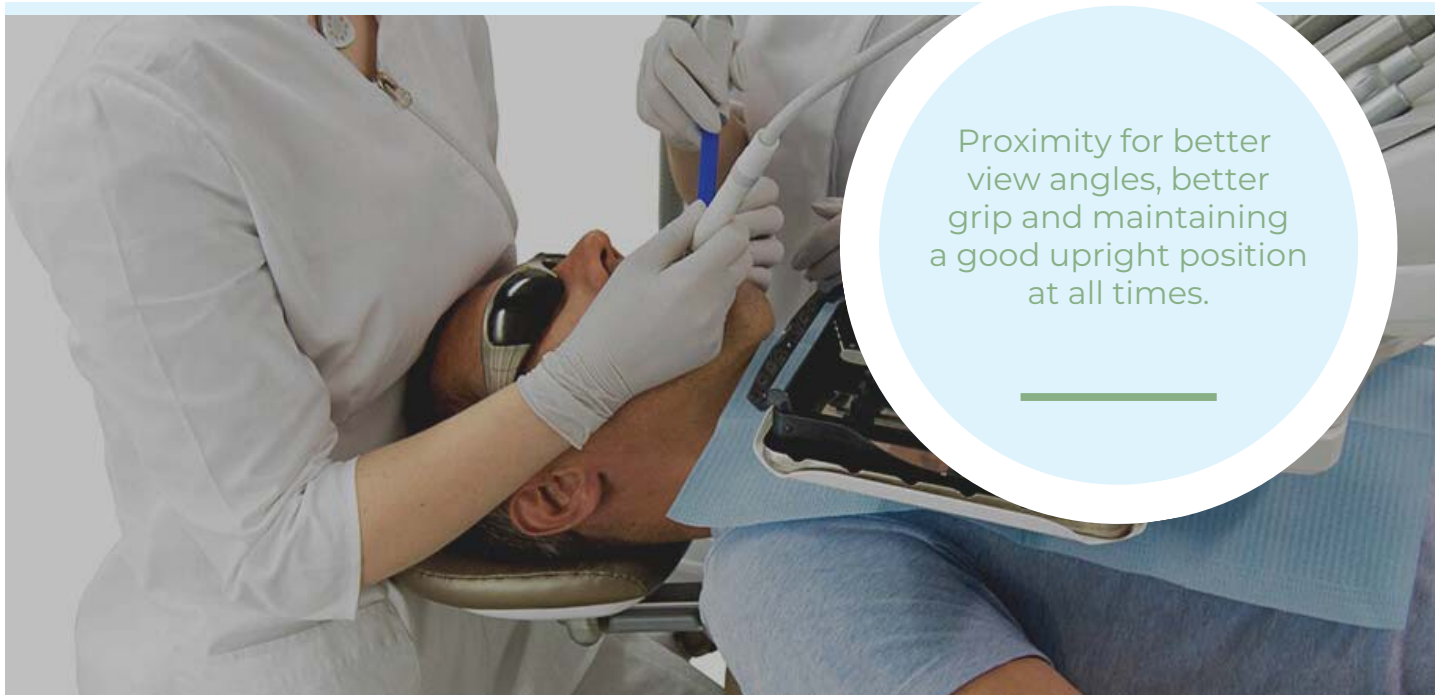
### Tasks where balance is not an option

There are numerous tasks, during which the balanced posture is impossible to get, for example treating sitting patient. For these cases, it is recommended to have external support to lean on, so you can find as relaxed position as possible. However, once you have started to appreciate the balanced posture, your core has activated and you haven't negatively stressed your musculoskeletal system, you won't suffer from awkward postures required every now and then. The spine has been protected by your own system.



## STEP 2. GET CLOSE

To prevent musculoskeletal disorders and general discomfort in dental work, two key issues need to be controlled: avoid bending and rotating your body. Asymmetric load is the main reason for all the musculoskeletal problems. Yet, as explained before, the total load counts more than single repetitions. Ensuring the balance always when possible is crucial.



Proximity for better view angles, better grip and maintaining a good upright position at all times.

If you are positioned too far away from the patient, you are forced to lean forwards. Therefore, it's important to get close to the unit. To position yourself alike, you need to place your feet beside you, as described earlier. At this point you need to lift the chair, so your feet will find a natural stance beside the stool. This is related also to the correct placement of the pelvis, that further leads automatically to a good posture. A saddle type shape of the seat allows this position, whereas other chair designs don't. If you are still sitting on a conventional chair, you need to lean forwards because with most units, your feet don't have enough space underneath.



## FIND OUT MORE ABOUT SALLI'S HEALTH BENEFITS

## STEP 3. VARY POSITIONING

Learn to work from a position, in which the task is possible to accomplish with minimal stress to your body. It might first feel awkward, but your neural system learns quickly how to perform in new positions.

Many dental professionals are used to work beside the patient, which from time to time forces the body to rotate. Therefore, working at the 12 o'clock position, the patient being right in front of you, is recommended when possible. If rotation of the body is unavoidable, it is recommended to use an external support to lean on to with the elbows



Combine work positions with patient's different head positioning for optimal view & fluid movements.

Often dental professionals are willing to minimize the physical contact, or other actions that might disturb the patient. In most cases, the patient doesn't pay attention to less stressful things, as they are nervous about the oral treatment. If the view is not optimal to the mouth, feel free to rotate the head of the patient. Also, when reasonable, don't hesitate to lay your arms on top of the chest or forehead of the patient to relax your shoulders.

Working from a standing position has become popular in many fields, but in dental work the range of motion of the unit might limit the goal to achieve a good standing posture. If it is possible during certain tasks, it is recommended to stand with body weight evenly distributed on both feet. This maintains the balanced posture, but also activates core muscles.

### Did you know?

While standing, leaning on other side more than the other, passivates pelvic floor muscles. Instead, standing with the load evenly on both feet, activates them. You can try it and sense the deep muscle activation. Active pelvic floor prevents incontinence in female, and prostate problems in male.

## PROACTIVE PERFORMANCE

There is no such solution, that would automatically solve health and well-being related paradigms. Focus your mindset to proactive performing instead of reacting to the occurring pain or problem. If something at work causes you discomfort, it's obviously not going to change on its own, but more likely to get worse. If you have a long career ahead of you, make sure it's not disturbed by the avoidable early retirement. Work related physical discomfort doesn't stop at the point of retirement, but may follow you even for years to come.

Improving the wellbeing at work might require learning how to manage the body in various positions. However, the environment needs to allow the improvement by supporting the aim for optimally comfortable work.



THE  
CHOICE IS ALWAYS  
YOURS

## DENTAL SEATING PREPARATION

### Quick reset to refresh your body

We don't recognize our muscle tension, before we focus on the relaxation. Reset your posture by first contracting the shoulder muscles during the inhale by lifting the shoulders close to your ears, and let the shoulders relax while you blow the tension away with a good exhale.





# HEALTH BENEFITS OF A GOOD POSTURE AND CORRECT SITTING

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No tension in the  
neck muscles

Spine health

No pressure on  
the pelvic floor

No numbness or  
legs swelling

Better oxygen intake and  
breathing

Joint metabolism





# HEALTH+ POSTURE

NO COMPROMISE

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## CONTACT US

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