How to avoid back pains in dental work

By Veli-Jussi Jalkanen, Finland

The pains caused by the common back degeneration, which is the result from traditional ergonomics, are the constant nuisance in dental work. Avoiding this threat is relatively easy with the new better posture that can be achieved by sitting on a divided swaying saddle chair, using looser clothes, and positioning oneself closer to the patient.

Fig. 1: Poor posture opens the facets and the disc starts to degenerate and prolapses may appear.

Fig. 2: Rounded back holds many potential health risks and speeds up degeneration.

Fig. 3: The natural and balanced sitting, with no need to lean back.

Fig. 4: Balanced sitting in the natural posture without pains or health problems.

So why are lower back degeneration and pains so common?

Normal 90/90 sitting (90 degree angles in hips and knees) is actually C/90 sitting with the rounded back. Thus the facets are open and not carrying their part, and the pressure on the discs is 30% bigger. The increased one-sided disc pressure is the main reason for disc prolapse (Fig. 1).

The roundness of the back also stretches the back muscles and makes them tense, slowing down the blood and lymph circulation. The weakened oxygen and nutrient intake and waste removal degenerate all tissues in the (lower) back, causing numerous impacts and pains. The missing vertebral arteries around the L5 halves the flow of nutrients and oxygen for the L4 and L5, and that is why they are the first to degenerate (Fig. 2).

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Dental work is challenging due to our anatomy

We humans still have the Stone Age hunter-gatherer anatomy and physiology. Slouched and immobile sitting is very unnatural and a great health risk. The musculoskeletal system is well and healthy when the back is in a good posture and mobile.

The spine and vertebrae are not only holding the body upright, the vertebrae are systematically also connected to the health of many organs. Poor spine care and problems in it trigger also other health issues.

Solution: How to keep the posture good and the back healthy

The divided swaying saddle chair restores the posture and keeps the back undegenerated, healthy, and without pains. The keys for the new ergonomics is to raise the patient chair higher, to sit closer to the patient, and to wear looser and more comfortable clothes (Fig. 3).

This new ergonomics is very friendly and healthy also for the genital and internal pelvic health (prostate, erectile functions, female infections), and knee and hip health as well. The 135 degree angle is so much better for the knees and hips than 90 degrees. If you can treat every 4th patient standing it would improve health and productivity even more (Fig. 4).

Mr. Veli-Jussi Jalkanen

He is the Chairman of the Board of Salli Finland and CEO of Salli China. Being a specialist in work environment and preventive health, and having a riding background, he developed the Salli Saddle Chair and Salli sitting health concept. He has found strong connection between traditional / poor sitting and many common degenerative illnesses. The unique swinging and divided Salli seat is exported to over 60 countries.

Editorial note:

The article was originally published in Dental Asia Magazine, January/February 2018.
Philips to launch ProtectiveClean range at BDIA Dental Showcase

By DTI

LONDON, UK: The BDIA Dental Showcase, held from 4 to 6 October at ExCeL London, provided the backdrop for the latest product launch by Philips Oral Healthcare. The ProtectiveClean toothbrush range features Sonicare’s sonic cleaning technology at its core, producing 32,000 brush sweeps a minute and creating the dynamic fluid activity necessary for a penetrative clean, according to the company.

The ProtectiveClean range also features a 2-minute timer and a pressure sensor. The latter of these provides real-time feedback to ensure that users are not brushing too hard, thereby minimising their risk of gingival damage and recession. Owing to its Optimal Plaque Control brush head, ProtectiveClean has been clinically proven to remove seven times more plaque than a manual toothbrush, according to Philips. The brush head also features new BrushSync radio-frequency identification device technology. This is intended to monitor usage and alert the patient when it is time to replace the brush head.

The ProtectiveClean range addresses multiple price points, making good oral hygiene more accessible to a far wider cohort of patients. The ProtectiveClean 4300 includes one inbuilt cleaning mode, with two intensity settings to provide users with a tailored clean. The handle comes with two Optimal White brush heads, a travel case and charger.

Philips exhibited at Stand J22 at the BDIA Dental Showcase. There, visitors were able to find a number of key opinion leaders conducting a series of workshops and carrying out light-activated tooth whitening demonstrations, while introducing the latest clinical evidence for Zoom chairside.

More information can be found at www.philips.co.uk/sonicare.
Please explain briefly why you choose a career in dentistry?
For me, dentistry is a science combined with art and this is what I like. The passion of changing a person’s life by creating a beautiful, healthy smile is one of the most intangible rewards of being a dentist.

What does “Class II” mean to your practice?
Class II restorations are part of my daily work. On average, I am filling around 5-6 cavities per day which represents around 30% of the total restorations I am doing - getting this procedure right the first time is essential.

In your opinion, what is the most challenging part of a Class II composite restoration?
I think the most challenging part of a Class II restoration is the creation of a proper contact. The main difficulty is to make a proper contouring of the contact area in a short time and with great precision to avoid food accumulation and subsequent periodontal problems later on.

For how long have you been using the Dentsply Sirona Class II Solution?
I have been using the Palodent V3 sectional matrix system with great success for 2 years. 8 months ago, my Dentsply Sirona sales representative visited my clinic and conducted a demo on the new Prime&Bond universal. He also gave me a sample of SDR and ceram.x SphereTEC which enabled me to try and see if the products stacked up against the current systems I was using. Since then, I have been using the complete Dentsply Sirona Class II Solution daily and I am totally satisfied with the results I achieve.

There is a variety of Class II materials on the market. Why do you choose to use the Dentsply Sirona Class II Solution?
I chose the Dentsply Sirona Class II Solution because of the precision and the simplicity it offers. Dentsply Sirona provides you with the complete solution and takes in consideration the fine details of each step of the Class II restoration to make the overall restoration a success.

Which product from the Dentsply Sirona Class II Solution do you prefer most and why?
Palodent V3, because it completely solved the main challenge of a Class II restoration which is creating a proper contact. Palodent V3 is not just a ring but a full solution including the matrices, wedges and the wedge guards, which when used together saves a lot of time.

Success factors for a dental practice are profitability, image and safety. How has using the Dentsply Sirona Class II Solution enabled you to reach these 3 keys success factors for your practice?
Dentsply Sirona’s Class II Solution has dramatically decreased after using the proper equipment to restore contacts and allows for the proper isolation protocol to be followed. My patients receive a better treatment in a shorter timeframe and excellent results. The satisfaction of my patients has a positive impact on the overall health of my practice. Most of my patients are now referred through word of mouth.

Class II is a critical player in practice’s success. What advice would you give to colleagues to perform these restorations with confidence?
It is really important to have proper cavity isolation and use suitable instruments and materials. Some clinicians are using a mix of products and materials from different companies. While this approach can play out successfully, it can also lead to unpredictable outcomes. Using the full Dentsply Sirona Class II Solution makes the procedure more efficient and the outcome more predictable. I have already recommended the Class II Solution to many colleagues.

Dentsply Sirona is the world’s largest manufacturer of professional dental products and technologies – Besides from the Class II Solution do you recommend any other products?
Yes I do. I would recommend CEREC as I have already been using it in my clinic since 2007. CAD/CAM technology has conquered its position in the world of dentistry, and now we can see the difference in term of quality and time consumption when we use digital dentistry in place of the traditional methods. For me, the advantages of CEREC are:
- User friendly software.
- Innovative and new updates that we receive directly from Dentsply Sirona.
- The quality of the scanners which give us accurate optical impressions.
- From the patient point of view, they can get their crown in the same day with no need for unpleasant impressions in their mouth. This is a real comfort for them.
King’s College London celebrates research awards at July’s IADR in London

By King's College London

King’s researchers were presented with two prestigious awards during the Opening Ceremonies of the 96th General Session of the IADR, held in conjunction with the IADR Pan European Regional Congress (PER), at the ExCel London Convention Centre.

Professor Gordon B. Proctor received the 2018 IADR Distinguished Scientist Award in Salivary Research, one of the 17 IADR Distinguished Scientist Awards, representing one of the highest honours bestowed by the IADR. The IADR Salivary Research Award is designed to stimulate and recognize outstanding and innovative achievements that have contributed to the basic understanding of the salivary gland structure, secretion, and function, or salivary composition and function.

Proctor is a leading salivary researcher with specific expertise in salivary secretion, the interaction of saliva with oral surfaces and the significance of salivary biomarkers.

“It is a pleasure to work with talented colleagues, students and collaborators to answer research questions that impact on health and disease. Receiving this award from the IADR is marvellous and a great recognition of our endeavours,” said Professor Proctor.

Professor Paul Sharpe and co-authors Liu Yang, Ana Angelova Volponti and Yvonne Pang received the William J Gies Award, for the best paper published in the IADR/AADR Journal of Dental Research in the Biomaterials and Bioengineering Research category. Their article “Mesenchymal Cell Community Effect in Whole Tooth Bioengineering” (J Dent Res 96: 186-191) was identified as work which has very significantly advanced knowledge in dental research.

Ana Angelova Volponti says: “Our research focuses on the underlying mechanisms of repair and regeneration. King’s College London is at the forefront of this field and this award, for the second time, is another recognition for our Centre of Excellence.”

5th place in Shanghai rankings for Dentistry & Oral Sciences

By King’s College London

Dentistry & Oral Sciences research at King’s has been ranked 5th in the world in the 2018 Shanghai Global Rankings, up from 7th place last year. King’s College London is the only institution outside the United States to have made the top five in the academic ranking of world universities.

Executive Dean Professor Mike Curtis says: “It’s a tremendous accolade for the Faculty at King’s to be ranked as one of the world’s top five institutions for research in dentistry and side four of our competitors in the United States. This achievement reflects the commitment, enthusiasm and excellence of a large number of academic and professional services staff in the Faculty and I wish to both congratulate and thank all of them for their achievements.”

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