Saddle stool in dentistry
Veli-Jussi Jalkanen, specialist in sitting ergonomics discusses a healthy and comfortable way to sit

While some dental professionals have insufficient knowledge to be able to recognise or manage sitting disorders, others realise that back pain and shoulder tension have a lot to do with sitting. Poor circulation in the lower extremities; shortage of oxygen; hip, knee and shoulder joint problems; sitting fatigue, and genital health problems are some examples of the ailments that belong to the large group of SDs (Sitting Disorders). All people working in dentistry are affected by these disorders whether they are aware of them or not. Many of those who are aware of SDs would usually like to improve the situation and look for a more healthy, productive and comfortable way to work.

Healthy posture for long term sitting:
1. Good, relaxed posture, balanced and without harmful supports
2. Thighs 90° apart and pointing down enough to keep the upper body in balance
3. Close to 155° angles in hips and knees
4. Weight on the sitting bones, not the muscles
5. No pressure on the genitals and under the hip (especially for men)

This ideal position can be obtained with a saddle stool.

Sitting on a saddle stool is based...
...on the sitting bones that are located under the hip. They keep the buttocks and thighs from being pressed against the seat if they have a firm support. Thighs point down at a 45° angle, tilting the pelvis to a near neutral position, as when standing. This allows the lower back and upper body to find a relaxed, natural posture without the need for a backrest. Feet rest on the floor on both sides of the body as if you were riding a horse. This way it is easy to operate pedals with your feet - they must be placed on the side.

General benefits from a saddle stool in dentistry:
- Good, natural and relaxed posture which also keeps improving for years
- Less shoulder area tension by allowing lower positioning of the patient
- Relieving or eliminating lower back pain (oftentimes it disappears in a week)
- Preventing fatigue and improving productivity through deeper breathing
- Preventing shoulder, hip and knee joint problems, angles are more natural
- Easier movements and good working positions
- Improved circulation in lower extremities prevents varicose veins + cellulite built up
- Easy visibility into the mouth by leaning forward with a straight back
- Working at a close distance (also the assistant) with legs under the hoisted chair
- Easy rolling and turning makes picking materials fast and effortless

A divided seat is helpful...
... because the free space allows proper pelvis/hip position without pressure or discomfort in the soft tissues of the pubic bone. For men (who have the pubic bone much further back than women) a divided seat is a safer solution in the long run. Pressure on the pudendal nerve and tissues on the pubic bone can lead to erectile dysfunctions. Loose, light and stretching trousers are highly recommended for men when sitting on any seats. With women, an additional advantage is the decreased growth of bacteria as a result of better ventilation, lower humidity and temperature in the genital area. This has a positive effect on the infection rate.

Difficult positions...
...such as working on posterior teeth, looking at X-rays, surgery, large-chested patients, patients who cannot tolerate supine position, etc. become easier because of the more natural, relaxed and free sitting.

In surgery and other long lasting operations...
...benefits of good sitting become more obvious. Foot-operated height control (necessary) keeps the gloves clean and is very helpful in maintaining the welfare of your body and accuracy of your work while you change positions and sitting height in the middle of a long procedure.

Shoulder joint problems...
...often come from elevated shoulder positions, which stress the joints. A riding-like sitting position allows lower positioning of the patient, which allows you to relax your shoulders.

Sitting down & standing up...
...is easy because on a saddle stool you are half way up already. Sitting down could not be any more fluent since the backrest is never in the way. You just lift your leg over the seat from the back and this kind of mounting puts you instantly into the right kind of relaxed sitting position with good posture.

Data entering...
...is more fluent and time-saving when you can roll back and forth fast and easily with your saddle chair. The movements you do while using the chair keep your muscles active and improve your metabolism.

The Scandinavian working concept...
...is shown in the pictures. Often times, both the dentist and the assistant utilise a saddle stool. Good posture, easy visibility into the patient’s mouth, efficient and free movement can all become reality. The saddle stool allows close proximity to the patient, leaving more room for the legs under the patient. This method of working dramatically decreases problems for both the dentist and the assistant, and is becoming the most common way to sit and work for dentist in Scandinavia.

Adapting to a saddle chair takes some effort...
...because almost everything changes. The body needs time to adjust. Learning to use the saddle chair takes a few days and the “saddle soreness” in the buttocks and inner thighs as well as fatigue of the back muscles last two-14 days.

It is worth it, but...
...nothing comes for free. Financially, the change is cheap. But most importantly, you need to learn about sitting physiology to be motivated to make the change, alter your working movements and positions and tolerate temporary discomfort. As a return you may achieve a healthier body, better posture, higher productivity (more patients with the same energy), improved quality of work and more satisfying years at work.