

MARKETPLACE

Pelvic health in dental care

Mikko Pohjola describes some of the hazards associated with sitting at work and how a Salli Saddle chair can help



The pelvic region is under pressure in all work that is undertaken while primarily sitting. This is the case also for dental care, where the work is mostly done seated often in awkward and static postures (Wunderlich et al, 2010). The associated musculoskeletal problems, particularly in neck, shoulders and lower back, have been well recognised (eg, Kerosuo, Kerosuo and Kanerva, 2000; Ayers et al, 2009; Abdul Samat et al, 2011), and improved sitting position as well as increased physical activity during and off work have been proposed as solutions to the problems (Wunderlich et al, 2010; De Bruyne et al, 2014; Marttinen, 2014). However, the connections between occupational sitting and the health issues in the pelvic region have thus far received much less attention.

Health problems connected to sitting

A broad variety of health problems have been connected to sitting during and off work (Tremblay et al, 2010; van Uffelen et al, 2010), and many of them actually relate to the pelvic region, for example:

- Pelvic region cancers: lack of physical exercise, and/or prolonged sitting during or off work, have been found as risk factors for prostate cancer (Hsing et al, 1994; Wigle et al, 2008; Orsini et al, 2009) as well as colorectal cancer (Boyle et al, 2011) for men, and colorectal, endometrial and ovarian cancer for women (Tremblay et al, 2010). When considering that almost half of all cancers among men and nearly every fourth cancer among women in the developed countries are located in the pelvic region, these risks are remarkable
- Genital/sexual health: the perineal compression resulting from sitting on bicycle saddles is known to be detrimental to genital or sexual health among both men (eg, Leibovitch and Mor 2005; Goldstein, 2008; NIOSH, 2009) and women (eg, Guess et al, 2006). Corresponding studies on other types of sitting are still scarce, but sitting on conventional office chairs has also been found to generate remarkable pressures (Corlett, 2008; Koskelo, 2008) and affect the health of the genital area (Magnusdóttir et al, 2005; Koskelo, 2005; Sapsford,

Richardson and Stanton, 2006)

- Circulation: the human-seat interface pressure and other pressures, for example in the groin, caused by the sitting position, influence the circulation in the compressed soft tissues of the pelvic region (Munarriz et al, 2005; Reenalda et al, 2009). In addition, the compromised circulation also has more far-reaching contributions like swelling of the lower limbs and lymphedema (Stranden, 2000), varicose veins (Alexander, 1972), and cellulite build up (Rossi and Vergnanini, 2000)
- Arthritis: lack of exercise and immobility are becoming more frequently publicly recognised as risk factors for developing osteoarthritis, especially in the lower back, hip, and lower limbs (Divan, 2013; MacVean, 2014). A likely reason for this is that during prolonged sitting the metabolism in the joints is slow, leading to degeneration of cartilage tissues.

These sitting-related pelvic region health problems are also relevant to people working in dental care. Although the above list seems worrying, there are relatively simple ways to prevent, reduce and even reverse already developed, sitting-related health problems. The primary thing is to recognise and adopt sitting habits that minimise the disturbance to circulation. Without proper circulation metabolism is compromised, promoting degeneration in all tissues.

First of all, the working seat should be chosen so that it:

1. Concentrates the human-seat interface pressure under the ischial tuberosities instead of buttocks and thighs (Corlett, 2006) as well as genitals and perineal area (Koskelo, 2008; Breda et al, 2005)
2. Helps adopting and keeping an upright sitting posture and neutral position of the spine as much as possible while avoiding pressure in the groin (cf. VIITE), and thereby reducing awkward seated working postures.

Actions to help with circulation

Such properties are provided by design in the Salli Saddle chair with a divided seat, adjustable swinging mechanism and durable castors for moving the chair. In addition to choosing the right kind of seat, there are further actions to help keep up the circulation.

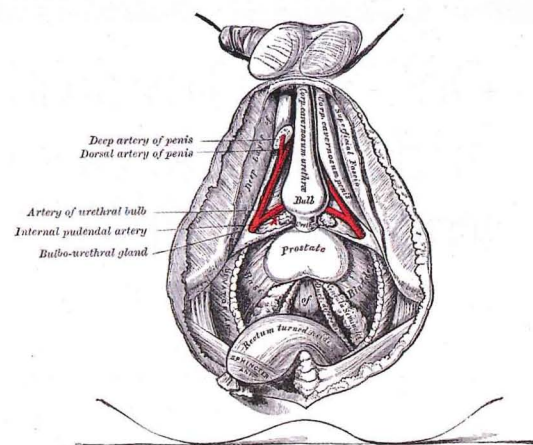
1. Wear clothes that are not pressing anywhere, underwear included. Men should also pull the trouser legs up before sitting in order to avoid pressure on the genitals
2. Between patients and during other breaks, get up and walk, at least a little bit, to revive the circulation in the pelvic region and the whole body
3. Pay attention to your sitting habits outside the workplace following the same principles of good sitting. When watching TV, reading, etc, laying on a comfortable carpet with the head supported is a better alternative than sitting on the couch
4. Regular physical exercise according to the common guidelines (eg, WHO, 2010) is recommended to keep the cardiovascular and neuromuscular systems in good condition.

Sitting during and off work is a major contributor to health, and many of the health effects relate to the pelvic region. There are, however, many things that everyone can do in order to



avoid these health effects and improve working health, well-being and quality of life. The important thing is to recognise the risks, decide upon the right actions, and put them into practice. **□**

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