Pelvic Floor Function and Training State of the Art

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The Pelvic Floor is a complex multilayered myofascial structure. It lies within the minor pelvis and acts in coordination with the core muscles as well as the deep hip muscles. Its function is to support the pelvic organs, to tighten the levator hiatus, and to shift the bladder neck, cervix, anorectal junction in a cranio-ventral orientation. Thus it contributes to increase of urethral and anal closure pressure and to the prevention of the leakage of urine and feces (DeLancey 1992). The pelvic floor also works in coordination with the core muscle and is recruited in advance to increase of intra-abdominal pressure as well as to loading of the trunk and movement of the upper and lower extremities. Therefore it is an important part of our motor control system in daily live motor functions, as well in breathing and coughing activities (Dumoulin et al 2014, Hodges et al.2007). During micturition, defecation and delivery, the pelvic floor has to react with selective and timed relaxation. This is also important in sexual functions.

The Pelvic Floor is usually regarded and treated as a muscular entity. Research from biological sciences has shown that the active human body system acts and reacts as a neuro-myo-fascial complex (Schleip 2003). It is no more seen as seperated into single bodily parts, but has to be analysed and treated as a complex and interdependent system. This makes it obvious, that our approach to pelvic floor rehabilitation have to be reconsidered.

To date concepts of pelvic floor rehabilitation focus on muscle training, motor control exercises, motor learning principles (ADL specific training) and behavioural training (Bø et al 2015). Research has shown good effects of Pelvic Floor Muscle Training (PFMT) in all forms of urinary incontinence as well as in situations of descensus, pelvic organ prolapse and perinatal (Boyle et al 2012. These results are not confirmed for the treatment of male incontinence with PFMT after prostatectomy (Anderson et al.2015).The European Association of Urology (EAU) recommend that supervised PFMT should be offered as first line conservative therapy to women with stress, urge, or mixed urinary incontinence (Grad A Recommendation)(Abrams et al. 2012; Dumoulin et al 2014).

There is considerable obscurity as to what should be the best approach to PFMT. Studies show multiple approaches to PFMT, with no clear description of the intervention (Hay-Smith et al. 2011). There is an over all agreement, that before PFMT is started, clients should be able to do a correct conscious and selective Pelvic Floor recruitment (Asai et al. 2016, Bø 2007, Bø et al 2015))

There is a new approach to Pelvic Treatment upcoming where rehabilitation of the Pelvic Floor is regarded as a combination of physical therapies and behavioral therapies. Therapists therefore should become familiar with principles and concepts of behavioral therapy (Frawley et al. 2017)

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