

**The crux of pubic bone inflammation – typically caused by
insidious occult fatigue fracture
Incorrect diagnosis may result in incorrect therapeutical approaches**

Pubic bone inflammation (ostitis pubis) or pubalgia, commonly is associated with circumscribed bone marrow edema in the adjacent pubic rami (Synostosis ischiopubica). In the case of professional sportsmen, most markedly soccer player, ostitis pubis is triggered by micro traumata originating from dynamical traction and shearing forces occurring during pronounced hip flexion and knee extension. The remarkable alteration in bone integrity can, from a radiological and orthopedic perspective, not solely be attributed to inflammation, edema or bone bruise, but instead as insidious occult fatigue fracture within the pubic branch affected. Thus, treatment has to be adjusted accordingly. Importantly, regular MRI follow-ups are pivotal to monitor the process of healing. In severe cases of unknown healing time additional thin-computed tomography scans (CT) allow for detection of cortico-spongio fracture lines, tissue remodeling and callus formation. In diagnostics of young athletes, cortico-spongio fracture lines are commonly not detectable on native X-ray images, only with progression of the disease native radiologic signs, including faveolate and cloudy tissue remodeling, as well as callus formation, become apparent. In the favorable case of correct early diagnosis by means of radiocontrast agent-facilitated pelvic MRI, an immediate compulsory break of at least six weeks is indicated. In addition, confinement to bed for two to three weeks has to be considered in case of bilateral diagnosis. Importantly, this has to be obeyed strictly, due to the risk of premature physical stress concomitant with misjudgment of reconvalescence by the patient. Moreover, physiotherapy and reduced physical stress, as well as any medication, are not indicated during this period. As exception, vitamin D3 is to be administered in case of shortage. Other attempts of therapy regularly result in remarkably pronounced patients' downtime, concomitant with frustrating courses, unnecessary surgeries in the inguinal region, up to premature termination of athletes' active careers. In case of diagnosis at progressed stage, unknown healing times have to be considered, lasting up to months or even years. Treatment attempts administering bisphosphonates, calcium and vitamin D3 are – from an empirical point of view – partially justified. Surgeries, however, are mostly not necessary, but should rather be avoided. Tenotomy of muscoli gracilis et adductor longus, in combination with opening up of bone edema, may facilitate reconvalescence. Surgical osteosynthesis at the symphyseal region results in a risk for the anticipated unrestricted resilience during physical stress such as sports.