

The Influence of Work Organization in the Correct Postures Maintenance in Civil Construction Tasks

Civil construction presents a variety of occupations, which are necessary to the execution of a significant diversity of tasks. To the execution of those tasks by the workers, it is necessary in most cases the maintenance of aggressive postures, as well as the handling and the transport of high loads. The intense physical efforts cause important physiologic reactions in the workers' musculoskeletal system. Even if the improvement of the work conditions is desired, with the decrease of the physical efforts, in fact it is verified that in most cases there is not a way to modify the execution of the tasks. The human intervention in heavy materials handling and moving implies in physical suffering, and it can result in physical disorders. The workers ignore basic rules for weights rising in a correct way. The same way, they are not guided to maintain a correct posture.

A case study was accomplished in five building sites in Ponta Grossa City, Paraná State, south of Brazil, where the usual type of construction is executed in reinforced concrete structure and masonry walls. Some occupations were analyzed, and it was verified a repetition of incorrect postures, which in most cases are unchangeable, because of the own characteristic of the tasks. The occurrence of repetitive movements was verified, as well as the handling and transport of heavy materials, works in a standing position, curved or twisted back, inclined head, and works with the arms above the head. But the main concern of the study was the verification of some fortuitous services. In the execution of small finishing services in higher places than the worker can reach with the extended arms, most of the workers do their jobs over improvised supports, which were obtained in the own site, as for example benches, small wood boxes, or any other object that is enough to supply a momentary need. These supports are uncomfortable and cause an unbalance feeling. The correct adaptation of the support is not observed, originating a potential risk of accidents. The scaffolds in most of the cases were not also sufficiently stable nor rigid, nor they presented the appropriate height or the necessary dimensions. This way, the worker needed to maintain the attention on the work and also on a strange factor: the fragility of the support, which also causes a psychic solicitation. The support movement can still cause an additional muscular stretching. Looking for the work safety, it is necessary to seek a stable support, which will provide the best body position, related to the work that will be done. The scaffolds should also have the appropriate height and the correct dimensions in order to cover the working area.

As a conclusion of this case study, it was verified that the work organization is essential and it is an initial step to the maintenance of correct postures, because it will provide the necessary equipment to the work and it will avoid the verified improvisation.