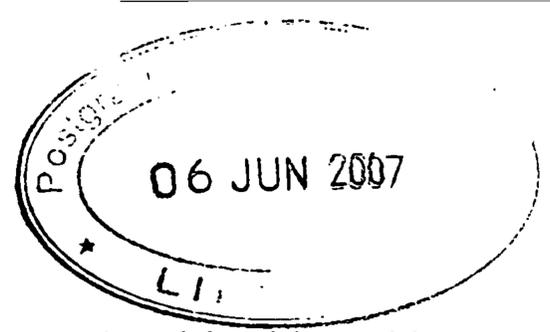


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## SUMMARY

**Objective** - To compare the prevalence of selected occupational health problems among coir industry and coconut estate workers in the Puttalam District and the use of personal safety measures.

**Method** – A descriptive cross sectional study was carried out in the MOH areas of Dankotuwa, Marawila and Chilaw, in the Puttalam district. A sample size of 190 was computed for each group and the required sample was selected using simple random sampling method. Data collection was done during the period starting from 11<sup>th</sup> August to 11<sup>th</sup> September 2006. Interviewer administered questionnaire was used to determine the socio-demographic, characteristics and the prevalence of musculoskeletal, dermatological, occupational injuries, varicose veins, respiratory symptoms / conditions and the use of occupational safety measures.

**Results** – The response rate for the coir workers was 96% (n-182) while for the control group it was 100% (n=190). A majority in both groups were males (52.8% for coir industry and 52.6% for the control group). The mean duration of service was 12.3 years for the coir industry and 13.7 years for the control group.

**Musculoskeletal symptoms** - prevalence of carpal tunnel syndrome was significantly higher among coir workers (n = 20; 11%) than among the control group (n= 8; 4.2%) with an OR of 2.8 (95% CI: 1.2-6.5).

**Dermatological conditions** - Prevalence of finger tip wastage (15.9%), oedema of the terminal phalanges (31.9%) and paronychia (51.1%) were significantly higher among coir industry Workers.

**Occupational injuries** - Prevalence of minor occupational injuries such as abrasions (OR= 0.06, 95% CI: 0.03-0.13), lacerations (OR = 0.09, 95% CI: 0.04-0.18), contusions (OR = 0.07, 95% CI: 0.03-0.15) and cut injuries (OR = 0.13, 95%CI: 0.06-0.27) were significantly higher among the control group.

**Varicose veins** - Coir industry workers reported a significantly higher prevalence (29.7%) of varicose veins with an OR of 1.7 (95% CI: 1.12-3.13).

**Respiratory symptoms / conditions** - Prevalence of chronic bronchitis was higher among coir workers (1.6%). Among symptoms of upper respiratory tract irritation, prevalence of sneezing (44.0%), OR = 1.74 (95% CI: 1.11-2.79) and spells of cold (49.5%), OR = 2.28 (95%CI: 1.46-3.57) were significantly higher among coir industry workers.

**Safety measures** - In coir industry (29.7%), wear masks where as in the control group, it was (15.3%).

**Conclusions and Recommendations** – Coir workers had a significantly higher prevalence of carpal tunnel syndrome, while the coconut estate workers had a significantly higher prevalence of knee joint pain. Coir workers had a higher prevalence of fingertip wastage, oedema of terminal phalanges, and paronychia, while coconut estate workers showed a higher prevalence of dermatitis and callosities. Coir workers had a lower prevalence of occupational injuries such as abrasions, lacerations contusions, cut injuries, crush injuries to hands and fingers and head injuries. Prevalence of varicose veins was significantly higher among coir workers. Prevalence of chronic bronchitis, sneezing and spells of cold were higher among coir workers while coconut estate workers showed a significantly higher prevalence of asthma, nasal obstruction and breathlessness. Proportion of coir workers using masks, were higher where as, the proportion of coconut estate workers using boots, rain coats and gloves were higher.

Rotation of workers across jobs and providing more frequent rest breaks, creating an awareness among the workers of occupation related health problems, implementation of ergonomics and proper working postures can be recommended. Workers should be provided with personal protective gear such as masks, gloves, raincoats and boots. Training should be given to the workers on the proper use of instruments. Regular inspection of coir mills by the enforcement authorities to ensure that the standards are maintained. Further research should be carried out to assess the occupation related health problems among coir industry workers and coconut estate workers.