Cold Storage Safety Stats and Facts

FACTS

A cold storage environment may be a significant health risk factor.

1. Many types of chronic health problems, such as cardiovascular diseases, respiratory symptoms, musculoskeletal diseases, peripheral circulation problems, and skin diseases, are associated with cold exposure.
2. Varying amounts of exposure to cold environments may cause cooling injuries, such as local frostbites, and induce hypothermia.
3. The risk of cardiovascular diseases has been found to be higher in populations exposed to cold particularly during wintertime.
4. Cold-protective clothing can increase the physical work due to bulkiness.
5. The weight of the cold-protective clothing ensemble of the studied workers was high probably increasing the workers' muscle strain.
6. Clothing is usually effective against many of the ill effects of cold, but it may not protect the respiratory system. The only unprotected part of the body of the workers was a small area of facial skin, which is thus considered a possible trigger site (including nasal mucosa) for cold air-provoked respiratory symptoms. From an epidemiological viewpoint, an association has been established between cold exposure and musculoskeletal symptoms and complaints, especially for the neck and upper arms.

STATS

- The highest prevalence of health problems related to cold exposure in the studied population was for the episodic white and red/purple finger symptoms reported by 21% and 17% of workers, respectively. Increased excretion of mucus from the lungs was reported by 17% of the workers.
- The workers in the company studied are exposed to extreme cold conditions during 50% of the working time and wear inadequate cold-protective clothing.
- The use of cold-protective clothing has been involved with some adverse effects on workers' work performance and health. For example, each additional kg in clothing weight increase energy costs approximately by 3%.
- In a working population (workers in the fish industry) exposed to a temperature of +10 ºC, a high prevalence of periodical circulatory disturbances in hands and/or feet (52%) was explained by inadequate protection of hands.
- Respiratory symptoms were frequent among the workers in the freeze-drying coffee company. Increased excretion of mucus from the lungs and persistent cough or bouts of cough were present (17% and 4% respectively). Respiratory symptoms provoked by cold air are common in countries with a cold climate; however, a cold ambient temperature is more likely to function as a trigger for symptoms rather than an actual causal factor initiating lung diseases.