

Industrial Injuries Advisory Council - Information Note Osteoarthritis of the knee in tin miners July 2011

This Information Note records recent Council deliberations on whether there are grounds to recommend adding tin miners to the list of occupations qualifying for Industrial Injuries Disablement Benefit in relation to osteoarthritis of the knee (a topic raised by correspondence from an MP on behalf of a constituent). In the event, the Council has decided that the evidence does not support such a recommendation. The background and the main considerations are summarised here.

Osteoarthritis of the knee is common in the general population, irrespective of employment history. Thus, the link between particular employment and disease occurrence is challenging to establish. However, the legal framework makes clear that compensation through the Industrial Injuries Disablement Benefit (IIDB) scheme should be paid only where such a link can be established or presumed with reasonable certainty in the individual claimant. Usually, as explained in previous reports, the Council requires high quality research evidence that risks of the disease in question are more than doubled by occupational circumstances that can be defined within the Scheme.

In 2009 osteoarthritis of the knee in underground coal miners was added to the list of prescribed diseases (PD) for IIDB as PD A14. For underground coal miners, the Council identified research evidence of a more than doubling of risks of osteoarthritis of the knee relative to non-miners. Good evidence was also found that the kinds of exposures that have been common historically in underground coal mining (specifically, the combination of kneeling or squatting whilst also undertaking heavy manual work (e.g. lifting, digging or shovelling) for a significant part of the working day) are associated with a sufficiently elevated risk of knee osteoarthritis.

In considering whether the occupational coverage for PD A14 ought to be extended to include tin miners, the Council undertook a full search of the peer reviewed scientific literature for evidence on the link between work as a tin miner and osteoarthritis of the knee. **No epidemiological (population-based) evidence was found and nor were any case reports of tin miners affected by knee osteoarthritis. This lack of peer-reviewed research evidence of a greater than doubled risk of osteoarthritis of the knee in tin miners is a significant barrier to prescription.**

Additionally, IIAC took evidence from a mines inspector from the Health and Safety Executive, a trade union official, and an expert in the tin mining industry. These individuals were asked about working conditions in the tin mining industry, the aim being to establish whether the combination of kneeling or squatting whilst also undertaking heavy manual work (e.g. lifting, digging or shovelling) for a significant part of the working day was a major feature of work in the industry, as it had been for underground coal miners. Independently, all three experts indicated that working conditions in tin mining

were dissimilar from those in underground coal mining. In particular, the Council was informed that, historically, the work of tin miners has involved much less kneeling and squatting than the work of underground coal miners. The difference in working conditions reflects differences in geology and the extraction processes for tin and coal.¹

Based primarily on the lack of scientific research evidence to indicate a greater than doubled risk of osteoarthritis of the knee in tin miners, IIAC has concluded that no case exists for recommending that tin miners be added to the list of prescribed occupations for which PD A14 is payable.

¹ The Council wishes to thank the experts consulted and to note that inquiries were restricted to matters of fact – on the nature of working conditions in tin mines – rather than the opinions of individuals on the merits of prescription. The Council formulates recommendations from the facts and scientific evidence of the case; advocacy plays no role in the process