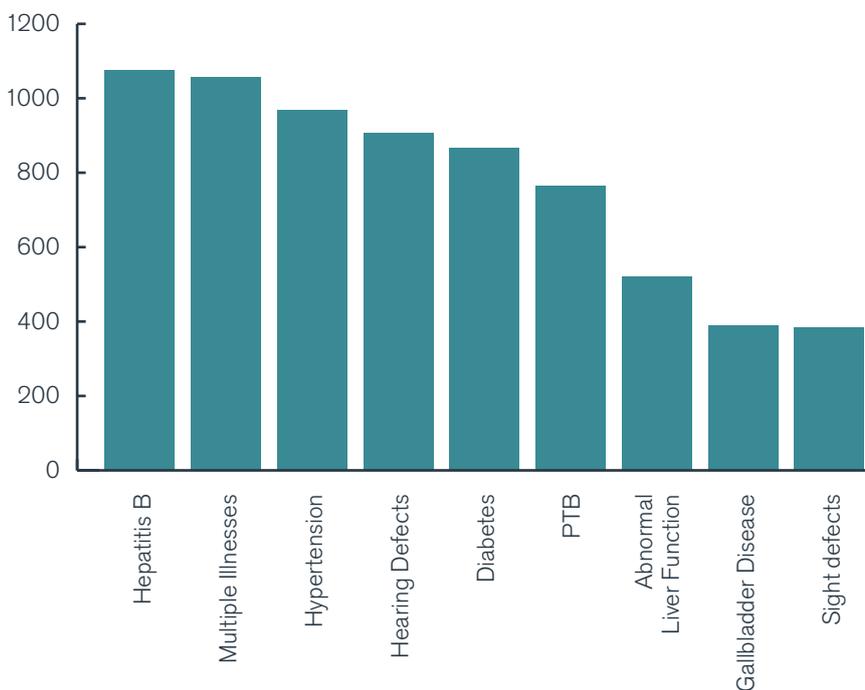


Limiting noise induced hearing loss in crew

UK Club PEME worldwide unfitness statistics



The UK P&I Club PEME Programme provides an enhanced medical screening service for all crew. As part of the PEME examination, crew are screened on all the major body organs and functions. Data collected from the medical examinations is regularly analysed and the results used for identifying trends in crew health.

Hearing defects have consistently featured as a cause of PEME failures, and currently account for 11% of the Club's PEME unfitness statistics. The Club has noted the largest group of seafarers who are affected by abnormal audiometry results work in engine rooms.

Typically, crew with poor audiometry results also display signs of mild to moderate high frequency hearing loss. Seafarers working in engine rooms have a higher tendency to experience hearing disabilities. This is especially true for crew who do not use precautionary measures.

High levels of ambient noise, typically above 85 dBA cause noise-induced hearing loss (NIHL). The negative effects of such levels of noise and higher, depend upon individual physiology and the duration of exposure.

Identification and limitation of hearing damage

Audiometric testing is included as part of the UK Club PEME examination. It is the only diagnostic evaluation relevant to indicate noise-induced hearing loss (NIHL). The screening is performed by an audiometric testing machine within a sound proof booth, which provides an accurate measure of any damage. The following features are essential for a robust hearing conservation program:

1. A baseline audiometry test to be performed within six months of exposure for all seafarers. The test

should ideally be performed when the seafarer has not been exposed to hazardous noise for at least 14 hours.

2. Seafarers exposed to higher noise levels may be required to attend training on the effects of loud noises on hearing, the purpose of audiometric testing and protective devices available to mitigate the effects of noise damage.
3. As exposure to loud noises, such as in engine rooms, is unavoidable on ship, hearing protection within these areas is mandatory. Devices for hearing protection including earplugs or earmuffs can be easily sourced and used onboard. The most effective ear protection is the ear protector.
4. Allow breaks for seafarers between each episode of exposure to loud noise (more than 85 dB) especially when sound levels are higher and prolonged.

A Physician's perspective:

Dr. M.K.E. Memon (MBBS, MCPS, MRSH), Consulting Physician at Kaifak Medicare, one of the Club's approved PEME clinics in Mumbai, India comments as follows.

"As a medical professional working in maritime health, I am very concerned about the prevalence of noise-induced hearing loss among seafarers. It has been noted that the ability to understand spoken words depends on the 'signal to noise' ratio, which is often compromised by exposure to loud noise. It has been estimated that even under the best conditions (noise-free), only 30% to 40% of speech sounds can be lip-read. Hence, it is crucial to take preventative measures to limit noise exposure and improve auditory reception.

One effective way to limit noise-induced hearing loss is by using ear muffs or plugs. Clinical research has shown that

CREW HEALTH ADVICE

ear muffs can reduce noise exposure up to a certain extent and minimize the risk of damage. Seafarers should use ear muffs or plugs all the time in noisy areas, but they should not be ill-fitted. However, in extreme hot and humid climates, there are chances of skin irritation or skin infection around the external ears.

It is important to note that ear muffs reduce both the level of noise and any communications by the same amount. Therefore, it may be difficult to hear conversations, alarms, and abnormal sounds with or without ear muffs. To address this issue, ear muffs can be incorporated with 'telecoms receivers' within, so that it can enhance emergency sound reception, thus encouraging the use of ear defenders.

Pure tone audiometry provides a valid and reliable way of determining hearing loss in each ear across a range of frequency from low to medium to high. The noise-induced hearing loss can very well be evaluated by pure tone Audiometry. It is essential to emphasize audio-metric testing to detect hearing loss early and take preventive measures. During the course of PEME, the whisper tests are subjective in its characteristic way. Hence, this test should not be encouraged by a physician.

Communication difficulties between crew members should also be taken into consideration as an important evidence of hearing impairment. Lip-reading/face-to-face speech is better than for 'telecommunication' as there are non-hearing clues about content. However, technically improved gadgets such as wider-band with noise cancelling/exclusive headsets or



earpieces can improve reception of auditory information.

Lastly, during REM sleep, people can hear and respond to simple questions. Most sensory stimuli do not reach conscious perception during sleep except the sense of hearing. Vibrating alarms or bright flashing lights can be used as an audible warning to wake a seafarer having mild to moderate hearing defects from sleep, during emergencies, while on board.

In conclusion, limiting noise-induced hearing loss should be a priority for seafarers' safety and health. We need to encourage the use of ear muffs or plugs, incorporate 'telecoms receivers' within ear muffs to enhance emergency sound reception, and emphasize audio-metric testing to detect hearing loss early. Let us

work together to ensure the safety and well-being of seafarers."

In Conclusion

The UK P&I Club PEME Programme believes if the above recommendations are implemented they will help protect seafarers from hearing loss and thus safeguard shipowners/operators from facing claims resulting from hearing damage incurred whilst onboard.

If you require more information, please contact the UK Club's PEME team.

Thanks to: Dr. M. K. E.Memon MBBS, MCPS, MRSH – Kaifak Medicare Pvt. Ltd.
Kaifak Medicare website:
<https://www.kaifakmedicare.com/>

CREW HEALTH ADVICE

The Club was the first to launch a crew health scheme in 1996 due to increasing crew illness claims and a lack of accountability of clinics. Since 1996, the Crew Health programme has become one of the Club's leading loss prevention initiatives. The aim of the programme is to reduce the volume and value of crew illness claims which are caused by a pre-existing illnesses or disease. These underlying conditions often impact on the crew member's fitness for service and can endanger not only the health of the seafarer but also the onboard safety of other crew.

Sophia Bullard

Crew Health Programme Director

Direct: +44 20 7204 2417

Email: sophia.bullard@thomasmiller.com



Sophia joined Thomas Miller in 1992 and from 1994 worked as a claims handler dealing mainly with French and Spanish Members. In 2004, Sophia became the Crew Health Programme Director. Sophia has undertaken a large number of clinic audits, implemented the standard medical

form and clinic guidelines. She has also lead the scheme through the largest period of growth and development with a doubling of approved clinic facilities and a four fold member increase. Sophia is a Director of Thomas Miller & Co. Ltd.

Saidul Alom

Crew Health Fees Administrator

Direct: +44 20 7204 2968

Email: saidul.alom@thomasmiller.com



Saidul Alom joined Crew Health from the European Region Service Team in 2004. Saidul provides administrative support to the Crew Health programme and is responsible for liaison with the approved clinics on financial billing matters and ensuring prompt payment of all clinic fees.

Stuart Last

Crew Health Member Administrator

Direct: +44 20 7204 2413

Email: stuart.last@thomasmiller.com



Stuart joined Thomas Miller in 1998 as a claims trainee for UK P&I Club's Greek Members. In April 2005 Stuart joined Crew Health as the Team Administrator. Stuart is responsible for co-ordination of Member entries and administration for the clinic approval process.